
ALTITUDES IN IOWA

by

JAMES H. LEES



ALTITUDES IN IOWA

Introductory

For a number of years the Survey has felt the need of a comprehensive list of elevations in the state, both to facilitate its own work and also to supply information to those who wished to know something about the altitudes of different localities. No such list has been available since 1906, when the United States Geological Survey published as its Bulletin 274 the fourth edition of Gannett's Dictionary of Altitudes in the United States. This volume included a large number of elevations in Iowa, most of them determined from railroad profiles, and it has served a most useful purpose. In the nature of the case, however, its use was restricted to a relatively small number of Iowa people, and besides it has been out of print for a number of years. It has been used by the Iowa Survey for giving the elevations of towns which were published in the various county reports.

The list of altitudes given herewith is the outgrowth of an attempt to determine the elevations of a series of localities in western Iowa, including some others than railroad stations. This necessitated the use of railway profiles of the district and the list thus begun has gradually been extended until now it includes all the stations on every large railway system operating in the state and also practically every smaller one, as well as the electric interurban lines.

Sources.—In the work of accumulating the needful railway profiles and determining the altitudes of the different stations and crossings the railway officials have been most helpful. The chief engineers and their corps have not only furnished the profiles for which they were asked but they also have checked the figures of altitudes as measured from those profiles. As a result of this coöperation the Survey has profiles of nearly every railway line in the state and also has corrected lists giving the elevation of practically every railway station in Iowa. Without the help so freely given by the railroad officials this list of altitudes would have been impossible.

Another important source of information was the Results of Spirit Leveling in Iowa From 1896 to 1913, published by the United States Geological Survey in 1915 as Bulletin 569. The descriptions and elevations of bench marks along Mississippi river from Keokuk to New Albin, those along Missouri river from Hamburg to Akron and those along Des Moines river from Keokuk to Des Moines which with some corrections are copied from Bulletin 569 into the present list are from reports by the United States Coast and Geodetic Survey, the Mississippi and Missouri River Commissions and the United States Corps of Engineers. They are the result of precise leveling and have been corrected to agree with the 1912 adjustment of the Coast and Geodetic Survey. The elevations determined by these organizations may be distinguished in this list by the initials of the bureau, usually U.S.C. & G.S. or U.S.C.E. followed by b.m. or p.b.m., in parentheses. They are identifiable also by "Bull. 569" in the Authority column.

Most of the elevations given in Bulletin 569, however, were determined by the United States Geological Survey as a part of its topographic mapping operations in this state. The elevations along the line of the Chicago, Rock Island and Pacific Railway between Council Bluffs and Des Moines are the results of a line of first order levels run in 1905 from the United States Army Engineers' bench mark 348 at Council Bluffs, the cap on an iron pipe in the southwest corner of the courthouse yard, the elevation of which is accepted as 994.335 feet, to the Federal Building (the old Post Office) at Des Moines. The other elevations given in Bulletin 569 for which the U. S. Geological Survey is responsible were the results of third order leveling. All of the United States Geological Survey's determinations which were published in Bulletin 569 are credited in this list by "Bull. 569" in the Authority column. The figures published in Bulletin 569 and republished here have been brought into agreement with the 1912 adjustment of the Coast and Geodetic Survey and therefore should be used in preference to figures marked on bench marks established by the Geological Survey. The elevations in northeastern Iowa are based on bench mark 279 of the Mississippi River Commission, a copper bolt in the northeast corner of the customhouse at Dubuque, the elevation of which is accepted as

644.838 feet above mean sea level. The elevation at Vincennes determined from Chicago, Rock Island and Pacific Railway and United States Corps of Engineers leveling from Keokuk is checked by a single line by the U. S. Geological Survey at St. Francisville, Mo. The other elevations in southeastern Iowa are based on various bench marks established by the Mississippi River Commission and the elevations in western Iowa were based on bench marks of the Missouri River Commission and the Coast and Geodetic Survey. Elevations determined in central Iowa are based on the line of precise levels run from Council Bluffs to Des Moines and on various other U. S. Geological Survey bench marks established in the localities concerned.

The Iowa State College students ran an additional line in the Ames quadrangle in 1911, starting from T. 83 N., R. 24 W., sec. 30 and connecting with Chicago & North Western Railway level bench marks near Ames.

It seems worth while to include in this list the altitudes given by Gannett and so these are given in the Elevation column and are preceded by the letter G. It will be noticed that many of these figures do not quite agree with those credited to the railroads by the present work. There are several facts to account for this. In the first place Doctor Gannett "adjusted" his elevations. That is he attempted to harmonize the figures given by various roads to overcome the discrepancies shown on the different profiles. In the present work, however, no attempt has been made to do this. The figures given here on the authority of the different railroads are just as checked by the engineers of those roads. In the second place some of the roads have resurveyed their lines since the publication of Bulletin 274 and have corrected what mistakes may have been made in earlier surveys. In the third place some of the roads have changed the location of their lines in greater or lesser degree. These three factors are quite sufficient to account for most of the differences in the figures given. Where the differences are large Gannett's figures are not given, as is true also in the case of a very few quite obvious errors, such for instance as the figure of 1800 feet for the Weather Bureau station at Primghar. On the whole the agreement between Gannett's figures and those given by the roads themselves is quite remarkable.

Figures given on authority of the "U.S.G.S.", with no bulletin number following, were for the most part furnished to the Iowa Geological Survey especially for publication here and have not appeared heretofore. A few were taken from Bulletin 274, as indicated in the list, and a few are gathered from other sources, chiefly topographic maps. Of course those taken from Bulletin 274 are not brought into agreement with the 1912 adjustment.

The courtesy of the U. S. Geological Survey in permitting use of its recently determined data in advance of publication in its own reports and also in permitting republication of the data in Bulletins 274 and 569 is greatly appreciated. The latter bulletin is used almost in its entirety in this report.

Figures credited to the Iowa Geological Survey are barometric and were obtained by the authors of the various county reports from which they were taken for this publication.

At the request of the Iowa Geological Survey the engineers of the Des Moines Department of Streets ran a line of levels between the U. S. Geological Survey bench mark on the old Post Office building and the U. S. Corps of Engineers bench mark on Locust Street bridge in order to determine the relation between the two. The Survey is glad to acknowledge this help in its work.

*Bench marks.**—The standard bench marks of the U. S. Geological Survey are of two forms. The first form is a circular bronze or aluminum tablet, $3\frac{1}{2}$ inches in diameter and one-fourth inch thick, having a 3-inch stem, which is cemented in a drill hole in solid rock in the wall of some public building, a bridge abutment, or other substantial masonry structure. The second form, used where masonry or rock is not available, consists of a hollow wrought-iron post $3\frac{1}{2}$ inches in outer diameter and 4 feet in length, which is set about 3 feet in the ground. It is split at the bottom and expanded to a width of 10 inches in order to give a firm bearing on the earth. A bronze or aluminum-bronze cap is riveted upon the top of the post. A third style of bench mark with abbreviated lettering is used for unimportant points. This consists of a special copper nail, $1\frac{1}{2}$ inches in length, driven through a copper washer seven-eighths of an inch in diameter.

The tablets, as well as the caps on the iron posts, are appropriately lettered, and State coöperation is indicated by the addition of the State name.

The numbers stamped on the bench marks described in the fol-

* U. S. Geol. Survey, Bull. 569, pp. 6, 7, 85, 86.

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

Datum.—All United States Geological Survey elevations are referred to mean sea level, which is the level that the sea would assume if the influence of tides and winds were eliminated. This level is not the elevation determined from the mean of the highest and the lowest tides, nor is it the half sum of the mean of all the high tides and the mean of all the low tides, which is called the half-tide level. *Mean sea level is the average height of the water, all stages of the tide being considered.* It is determined from observations made by means of tidal gages placed at stations where local conditions, such as long narrow bays, rivers, and like features will not affect the height of the water. To obtain even approximately correct results these observations must extend over at least one lunar month, and if accuracy is desired they must extend over several years. At ocean stations the half-tide level and the mean sea level usually differ but little. It is assumed that there is no difference between the mean sea levels determined from observations in the Atlantic Ocean, the Gulf of Mexico, and the Pacific Ocean.

Other bench marks.—Along Mississippi river the lines of bench marks established by the Mississippi River Commission and called stone lines are placed normal to the river at intervals of about 3 miles and are numbered consecutively from Cairo northward. Each stone line generally consists of four bench marks, two on each side of the river, the one farthest from the river on the left (east) bank being No. 1.

The elevations of the stone-line bench marks were determined by the ordinary leveling by the topographic party, running from the adjacent precise-level bench marks. The discrepancies between the precise and ordinary leveling, between successive precise-level bench marks, have averaged about 0.06 foot.

The bench marks above Alton, Ill., consist of a flat tile 4 inches thick and 18 inches square, with a copper bolt leaded vertically into the upper face at the center. The tile is set about 3 feet below the surface of the ground and is surmounted by a 4-inch iron post 4 feet long, upon which an iron cap is bolted. The words

“Mississippi River Commission” and letters “U. S.” are printed on both tile and cap.

Where standard bench marks are not used, descriptions of the marks employed are given. The numbers of Mississippi River Commission bench marks are given in parentheses and refer to the surface mark.

In the descriptions of bench marks of the Missouri River Commission along Missouri river the letters “b.m.” refer to permanent bench marks which are designated by fractions, the numerator standing for the number of the bench-mark line counting from the mouth of the river up and the denominator for the number in the line counting from the one on the right bank farthest from the river. The bench marks are similar to those along Mississippi river described above.

The elevations and bench marks along Des Moines river from Keokuk to Des Moines and return were established by the U. S. Corps of Engineers in 1910. The work was done pursuant to an act of Congress and the results were published as a part of Document 1063 of the 62d. Congress, 3d session, which was a report of the Corps of Engineers to the Secretary of War on a survey of Des Moines river. The elevations there given were referred to Memphis datum, but as republished in Bulletin 569 and again in part in this list they are brought into agreement with the 1912 adjustment of the Coast and Geodetic Survey.

In 1906 the Chicago, Rock Island and Pacific Railway ran a line of levels along its Des Moines Valley division between Keokuk and Des Moines, establishing bench marks at each mile post. “Elevations are based on U.S.C.E. p.b.m. No. 3, Keokuk, a copper bolt in doorway of Patterson Bldg., elevation 509.559 feet. The levels were run to U.S.G.S. B.M. on the old post office at Des Moines (elevation, 807.351 feet), a distance of 165 miles. The mile monuments are pieces of 60 pound rail, four feet long, set about 3 feet in the ground opposite mile posts, five feet east of the east rail of track.” The figures obtained from this leveling have recently been adjusted by the U. S. Geological Survey and as so adjusted are published here and credited to the Rock Island Railway. Originally they differed but little from the figures obtained by the U. S. Corps of Engineers and published in Bulletin 569, as described in the preceding paragraph, where the army engineers followed the railroad, as was the case most of the way

between Keokuk and Eddyville. As adjusted the railroad figures are identical with the adjusted figures of the Corps of Engineers. Coincidences of location are indicated in the list by the initials U.S.C.E. b.m. and the bench mark number following the description of the bench mark as given by the railway engineers.

The Corps of Engineers has also used Biloxi, Mississippi, on the Gulf of Mexico, as a datum base. This datum differs from mean sea level as determined by adjustment of precise leveling by various amounts. The Corps of Engineers elevation at Keokuk based on Memphis datum is 7.34 feet above its Biloxi datum and 6.81 feet above mean sea level.

Railroads.—The following list gives the names of Iowa railroads and their abbreviations as shown under the head of Authority in the list of altitudes. Other abbreviations are given in a supplementary list.

Atchison, Topeka & Santa Fe Ry.	A., T. & S.F.
Cedar Rapids and Iowa City Ry.	C.R. & I.C.
Charles City Western Ry.	C.C.W.
Chicago and North Western Ry.	C. & N.W.
Chicago, Burlington & Quincy RR.	C., B. & Q.
Chicago Great Western RR.	C.G.W.
*Chicago, Milwaukee and St. Paul Ry.	C., M. & St.P.
Chicago, Rock Island and Pacific Ry.	C., R.I. & P.
Chicago, St. Paul, Minneapolis & Omaha Ry.	C., St.P., M. & O.
Clinton, Davenport & Muscatine Ry.	C., D. & M.
Davenport, Rock Island & Northwestern Ry.	D., R.I. & N.W.
Des Moines and Central Iowa RR.	D.M. & C.I.
Fort Dodge, Des Moines & Southern RR.	Ft.D., D.M. & S.
Great Northern Ry.	G.N.
Illinois Central RR.	I.C.
Iowa Southern Utilities Co.	I.S.U.
Manchester & Oneida Ry.	M. & O.
Minneapolis and St. Louis RR.	M. & St.L.
Tabor & Northern Ry.	T. & N.
Wabash Ry.	W. R.R.
Waterloo, Cedar Falls & Northern Ry.	W., C.F. & N.

Adj.	Adjusted or Adjustment.
B.M. or b.m.	Bench Mark.
Bull. 569	Bulletin 569, U.S.Geol.Survey, Spirit Leveling in Iowa, 1896 to 1913.
DBQ. or DUBQ.	Dubuque.
G.	Gannett's Dictionary of Altitudes, Bull. 274, U.S. Geol. Survey.
Ia. G.S.	Iowa Geological Survey.
M.P.	Mile post.
M.R.C.	Mississippi River Commission.
P.B.M. or p.b.m.	Permanent bench mark.
Prim.Trav. Sta.	Primary Traverse station.
T.B.M. or t.b.m.	Temporary bench mark.
U.S.C.E.	United States Corps of Engineers.
U.S.C. & G.S.	United States Coast & Geodetic Survey.
U.S.G.S.	United States Geological Survey.
Ynktn.	Yankton.

* On January 15, 1928, this name was changed to Chicago, Milwaukee, St. Paul and Pacific Railway.

Abbreviations for bench marks in some cases are preceded by the initials of the organization doing the work and followed by letters or numbers describing the bench marks.

Some of the locations along the Mississippi at and above Keokuk for which elevations are given are now under water as a result of the building of the Keokuk dam. This also necessitated the raising of the C., B. & Q. RR. track between Keokuk and Montrose.

Some distances are given in the text in terms of meters and kilometers. It will be easy to reduce these to the more familiar units by multiplying meters by 3.28 to reduce them to feet and multiplying kilometers by 0.621 to reduce them to miles. In other words a meter equals 39.37 inches, 3.281 feet, 1.0936 yards; and a kilometer equals 3,281 feet, nearly five-eighths of a mile, or expressed decimally, a little over six-tenths of a mile.

The following railroads, most of which are named in Gannett's Dictionary of Altitudes, have been absorbed by other railroads as indicated or have changed their names. Burlington, Cedar Rapids and Northern Ry. is now part of the Chicago, Rock Island & Pacific Ry. Chicago, Burlington & Kansas City RR., Iowa & St. Louis Ry., Keokuk & Western RR., Kansas City, St. Joseph & Council Bluffs RR., and the St. Louis, Keokuk & Northwestern RR., are now part of the Chicago, Burlington and Quincy RR. Des Moines & Northwestern Ry. is now part of the Chicago, Milwaukee & St. Paul Ry. Iowa Central Ry. is now part of the Minneapolis & St. Louis RR. Sioux City and Northern RR. is now part of the Great Northern Ry. Sioux City & Pacific RR. is now part of the Chicago & North Western Ry. The Interurban Ry. is now the Des Moines & Central Iowa Ry.

The tracks and stations of the Davenport, Rock Island and Northwestern Ry. between Davenport and Clinton are used by the Chicago, Milwaukee & St. Paul Ry. and the Chicago, Burlington & Quincy RR.

The point on the grade of each railway for which elevations of stations and other locations are given is set forth in the list below. Where the original datum was stated by the railway officials it is given in the third column.

A., T. & S.F.	base of rail; east end of depot	U.S.C. & G.S. b.m., 1912 adj.
C.R. & I.C.	top of rail	B.m. of C. & N.W. Ry. at Cedar Rapids.
C.C.W.	base of rail	
C. & N.W.	base of rail, center of depot	Mean Gulf tide, Biloxi, Miss.*
C., B. & Q.	base of rail	Biloxi datum.
C.G.W.	base of rail	U.S.G.S. b.m.
C., M. & St.P.	top of rail	Level of Lake Michigan = 582 feet above sea level.
C., R.I. & P.	subgrade; add rail, tie and ballast, 1½ to 2 feet	
C., St.P., M. & O.	base of rail	
C., D. & M.	base of rail	Davenport to Muscatine—Cairo datum; figures are reduced to Memphis datum. Davenport to Clinton—Memphis datum.* Bull. 569, U.S.G.S.
D.M. & C.I.	top of rail	
Ft.D., D.M. & S.	top of rail	
G.N.	top of rail	
I.C.	top of rail, center of depot	
T. & N.	top of rail	
Wabash	base of rail	St. Louis City datum plane = 413.536 feet above mean Gulf level at Biloxi by U.S. C.E. data or 413.969 feet above mean sea level by adjusted data. St. Louis Union Station is 439.244 feet above mean sea level.
W., C.F. & N.	Waterloo to Cedar Rapids—subgrade Others—top of rail, 1½ feet above subgrade	

Topographic maps.—For a number of years the United States Geological Survey, as a part of its work of mapping the area of the United States, has been making topographic maps of parts of Iowa and since 1907 the Iowa Geological Survey has coöperated in this work of mapping our state. The areas covered by these maps are called quadrangles and are bounded by meridians of longitude and parallels of latitude rather than by political boundary lines. Hence they may include parts of two or three states, as in the case of the Elk Point sheet, which covers parts of Nebraska, South Dakota and Iowa. These maps, in addition to showing natural features, as rivers and lakes, and cultural features, such as towns, public roads and railroads, show by means of contour lines the elevations of the included area. The

* Biloxi datum plane at Keokuk is 0.53 foot above mean sea level, 7.34 feet above Memphis datum plane.

Memphis datum elevations at Keokuk are therefore 6.81 feet greater than mean sea level elevations.

Cairo datum plane at Rock Island is 13.13 feet below Memphis datum plane or 19.94 feet below mean sea level. Elevations above this datum plane are therefore 19.94 feet greater than mean sea level elevations.

contour lines pass through all points having the same altitude, hence their closeness or distance indicates the steepness or flatness of the surface. With the exception of the Fort Dodge, Fort Dodge Special and Lehigh maps all the topographic maps covering parts of Iowa have a contour interval of twenty feet; that is, the interval between contour lines represents a vertical distance of twenty feet on the ground. In the three exceptions the interval is ten feet.

Maps having a scale of 1:62,500 cover an area one-fourth degree or fifteen minutes in length and breadth; that is, one-sixteenth of a square degree. The maps whose scale is 1:125,000 are one-half degree in dimensions and have an area of one-fourth square degree.

With a few exceptions, the maps are published on sheets about 16x20 inches in size. The Omaha and vicinity sheet is 22x32 inches in size and the Camp Dodge sheet is 25x27 inches in size. In many cases an explanation of the map is printed on the back of the sheet.

These maps may be purchased from the Iowa Geological Survey, Des Moines, or from the United States Geological Survey, Washington, D. C.

Name of Map	Counties in Iowa Included	Area in square miles	Scale	Price—cents
Amanaa	Parts of Linn, Johnson, Iowa, Benton	222.50	1:62,500	10
Ames	Parts of Hamilton, Story, Boone.....	221.65	1:62,500	10
Anamosab	Parts of Linn, Jones.....	221.65	1:62,500	10
Baldwin	Parts of Jackson, Clinton, Jones.....	221.65	1:62,500	10
Boone	Parts of Hamilton, Boone, Webster..	221.65	1:62,500	10
Camp Dodge	Parts of Polk, Warren, Dallas.....	496.02	1:62,500	10
Canton (S. Dak.-Iowa)	Part of Lyon.....	870.90	1:125,000	10
Cedar Rapidsa	Parts of Linn, Johnson.....	222.50	1:62,500	10
Chariton	Parts of Marion, Lucas, Warren.....	225.06	1:62,500	10
Clinton (Iowa-Ill.)d	Part of Clinton.....	222.50	1:62,500	10
Cordova (Iowa-Ill.)d	Parts of Clinton, Scott.....	891.73	1:125,000	10
Davenport (Iowa-Ill.)e	Part of Scott.....	223.36	1:62,500	10
Decorah	Parts of Allamakee, Clayton, Fayette, Winneshiek	870.90	1:125,000	10
Des Moines	Parts of Polk, Warren.....	223.33	1:62,500	10
Dewitte	Parts of Clinton, Scott.....	222.50	1:62,500	10
Durante	Parts of Scott, Muscatine, Cedar.....	223.36	1:62,500	10
Edgington (Ill.-Iowa)	Parts of Muscatine, Scott.....	224.21	1:62,500	10
Elk Point (S. Dak.-Neb. Iowa)	Parts of Sioux, Plymouth.....	877.91	1:125,000	10
Elkader (Iowa-Wis.)	Parts of Dubuque, Delaware, Clayton	877.91	1:125,000	10
Fairfaxa	Parts of Linn, Johnson, Iowa, Benton	891.73	1:125,000	10
Farleyb	Parts of Dubuque, Jones, Linn, Delaware	884.85	1:125,000	10

Name of Map	Counties in Iowa Included	Area in square miles	Scale	Price—cents
Fort Dodge	Parts of Humboldt, Webster.....	219.91	1:62,500	10
Fort Dodge Special	Part of Webster.....	220.35	1:62,500	10
Galena (Ill.-Iowa)	Part of Jackson.....	221.65	1:62,500	10
Goose Lake (Iowa-Ill.) ^d	Part of Clinton.....	222.50	1:62,500	10
Iowa City ^a	Parts of Johnson, Washington.....	223.36	1:62,500	10
Kahoka (Mo.-Iowa-Ill.)	Part of Lee.....	911.94	1:125,000	10
Knoxville	Part of Marion.....	224.21	1:62,500	10
Lancaster (Wis.-Iowa-Ill.)	Parts of Clayton, Dubuque.....	877.91	1:125,000	10
LeClaire (Iowa-Ill.) ^d ..	Parts of Clinton, Scott.....	223.36	1:62,500	10
Lehigh	Part of Webster.....	220.78	1:62,500	10
Madrid	Parts of Boone, Polk, Dallas.....	222.50	1:62,500	10
Maquoketa ^c	Parts of Jackson, Clinton.....	221.65	1:62,500	10
Marion ^f	Part of Linn.....	221.65	1:62,500	10
Mechanicsvilles	Parts of Jones, Cedar, Johnson, Linn	222.50	1:62,500	10
Melcher	Parts of Marion, Monroe, Lucas.....	225.06	1:62,500	10
Milan (Ill.-Iowa)	Part of Scott.....	224.21	1:62,500	10
Milo	Parts of Marion, Warren, Polk.....	224.21	1:62,500	10
Monticello ^b	Part of Jones.....	221.65	1:62,500	10
Nebraska City (Neb.-Ia.-Mo.)	Part of Fremont.....	226.73	1:62,500	10
Oelwein	Parts of Clayton, Delaware, Buchanan, Fayette	877.91	1:125,000	10
Omaha and vicinity (Neb.-Iowa)	Parts of Pottawattamie, Mills.....	459.00	1:62,500	20
Oxforda	Parts of Johnson, Washington, Keokuk, Iowa	223.36	1:62,500	10
Pella	Parts of Mahaska, Marion.....	224.21	1:62,500	10
Peosta (Iowa-Ill.) ^c	Parts of Dubuque, Jackson, Clinton, Jones	884.85	1:125,000	10
Rock Island (Iowa-Ill.) ^e ..	Parts of Clinton, Scott, Muscatine, Cedar, Jones	891.73	1:125,000	10
Savanna (Iowa-Ill.) ..	Parts of Jackson, Clinton.....	221.65	1:62,500	10
Shellsburg ^f	Parts of Linn, Benton.....	221.65	1:62,500	10
Slater	Parts of Story, Polk, Boone.....	222.50	1:62,500	10
Stanwood ^g	Parts of Jones, Cedar, Muscatine, Johnson, Linn	891.73	1:125,000	10
Tiptong	Parts of Jones, Cedar.....	222.50	1:62,500	10
Waukee	Parts of Polk, Warren, Madison, Dallas	223.36	1:62,500	10
Waukon (Iowa-Wis.) ..	Parts of Allamakee, Clayton.....	870.90	1:125,000	10
West Liberty ^g	Parts of Cedar, Muscatine, Johnson	223.36	1:62,500	10
Wheatlands	Parts of Clinton, Scott, Cedar, Jones..	222.50	1:62,500	10
Wilton Junctions	Parts of Cedar, Muscatine.....	223.36	1:62,500	10
Winthrop ^f	Parts of Delaware, Linn, Benton, Buchanan	884.85	1:125,000	10

LIST OF QUADRANGLES IN IOWA IN WHICH TOPOGRAPHIC MAPPING
HAS BEEN WHOLLY OR PARTLY COMPLETED; MAPS NOT YET
PUBLISHED

Name of Map	Counties in Iowa Included	Area in square miles	Scale	Price—cents
Albia	Parts of Mahaska, Marion, Monroe.	225.06	1:62,500	10
Bondurant	Parts of Jasper, Marion, Polk, Warren	223.33	1:62,500	10
Coalfield	Parts of Mahaska, Monroe, Wapello	225.06	1:62,500	10
Newton	Parts of Jasper, Marion.....	223.33	1:62,500	10

Total area surveyed and published, 1926.....	12,420
Total area of state.....	56,147
Percentage of total area of state surveyed.....	22

Note 1.—The scale of 1:62,500 equals approximately one mile per inch. The scale of 1:125,000 equals approximately two miles per inch.

Note 2.—Fort Dodge Special map is composed of adjacent halves of Lehigh and Fort Dodge maps. Camp Dodge map is composed of Des Moines and parts of Wauke, Madrid and Slater maps.

Note 3.—Folios have been published by the United States Geological Survey describing the geology of Elk Point, Galena and Lancaster quadrangles.

Note 4.—The United States Geological Survey has published a map of Iowa, without contour lines, on a scale of 8 miles per inch. Size of map, 28½x41 inches. Price 25 cents.

a Amana, Cedar Rapids, Iowa City and Oxford sheets, on scale of 1:62,500, have been reduced and form Fairfax sheet, on scale of 1:125,000.

b Anamosa and Monticello sheets, on scale of 1:62,500, have been reduced and form parts of Farley sheet, on scale of 1:125,000.

c Baldwin and Maquoketa sheets, on scale of 1:62,500, have been reduced and form parts of Peosta sheet, on scale of 1:125,000.

d Clinton, Goose Lake and LeClaire sheets, on scale of 1:62,500, have been reduced and form parts of Cordova sheet, on scale of 1:125,000.

e Davenport, Dewitt, Durant and Wheatland sheets, on scale of 1:62,500, have been reduced and form Rock Island sheet, on scale of 1:125,000.

f Marion and Shellsburg sheets, on scale of 1:62,500, have been reduced and form parts of Winthrop sheet, on scale of 1:125,000.

g Mechanicsville, Tipton, West Liberty and Wilton Junction sheets, on scale of 1:62,500, have been reduced and form Stanwood sheet, on scale of 1:125,000.

A topographic map of Iowa.—The ultimate purpose of the mapping just described, of course, is to make possible an accurate contour map of the entire state. It is evident, however, from the slow progress thus far made, 22 per cent in forty years, that the realization of this purpose is yet a long way in the future. And yet if such a map will ever be serviceable it surely should be as useful now as a hundred and sixty years from now when, presumably, the state will be covered by topographic maps of the present scales. So it seems to be a worthy undertaking to make, with aid of the topographic maps already available and the railway profiles, which cross the state at intervals of a few miles, a preliminary map which will show the topography of Iowa in a general way. Such a map is presented as a part of this report. The contour

lines, which show the elevations above sea level, are based, first on the published contour maps, so far as they cover the state, and second on the profiles of the railroad lines. A few lines are drawn from barometric data. There seems reason to believe, therefore, that the map represents a reasonable degree of accuracy and the hope may be expressed that it will prove to be of some value until one more correct in its details becomes possible.

Lowest and Highest Points in Iowa.—Probably no question is ever raised as to the lowest point in Iowa. It is the mouth of Des Moines river at Keokuk, about 477 feet above sea level. But there are several claimants for the highest point. Without discussing the relative merits of these localities it may be said that the highest points, so far as yet determined, are Ocheyedan Mound, near Ocheyedan, Osceola county, which is 1670 feet above sea level, and the prairies northeast of Sibley, which have about the same elevation. A hill near Hesper, Winneshiek county, 1360 feet, probably is the highest point in Iowa east of Pilot Knob, Hancock county, 1450 feet above sea level. The highest lakes are Rush lake, near Ocheyedan, 1550 feet; Iowa lake, near Rush lake, nearly 1600 feet; Silver lake, at Lake Park, 1460 feet; and Spirit, East and West Okoboji lakes, 1400 feet.

List of Elevations

STATION	ELEVATION FEET	AUTHORITY
Abbott	1103,G1097	M&StL
Abbott Crossing, crossing CRI&P.....	1110,G1102	M&StL
Abbott Crossing	1104	CRI&P
Abbott Crossing, crossing M&StL.....	1104	CRI&P
Ackley	1090,G1092	IC
Ackley, crossing M&StL.....	1093,G1092	IC
Ackley	1101	M&StL
Ackley, crossing IC.....	1100	M&StL
Ackworth	863,G857	CB&Q
Ackworth, T. 76 N., R. 23 W., center of NE.¼ sec. 10, west side road, opposite T road to east, limestone rock 5 by 8 by 28 inches, set 27 inches in the ground; aluminum tablet stamped "931 Adj"	930.189	Bull. 569
Ackworth, 0.75 mile west of, at SE. angle forks of road, limestone rock 8 by 8 by 30 inches, set 29 inches in ground; aluminum tablet stamped "943 Adj"	941.264	Bull. 569
Acme	1207.8	CGW
Adair	1398,G1403	CRI&P
Adair	G1415	Weather Bur.
Adair, 2.5 miles west of, in NW. abutment of bridge, near telegraph pole 420-1; aluminum tablet.....	1,320.798	Bull. 569
Adair, 150 feet south of track, opposite point 375 feet east of station, 300 feet SW. of Davenport Elevator Co.'s elevator; iron post.....	1,399.355	Bull. 569
Adair, in front of CRI&PRy station; top of rail.....	1,404.2	Bull. 569
Adair, 3 miles east of, in SW. abutment of bridge 402; aluminum tablet	1,273.002	Bull. 569
Adams	624,G638	CRI&P
Adaza	1125,G1127	CM&StP
Adel	900,G894	CM&StP
Adel, in SE. cor. courthouse yard, 2 feet from either side of angle formed by sidewalks; iron post (Prim. Trav. Sta. No. 11)	891.391	Bull. 569
Adelphi	776	WRR
Adelphi, 4 miles north of, T. 79 N., R. 22 W., near south corner of secs. 32 and 33, 70 feet west and 15 feet south of T-road north, in top of south heading of concrete		

STATION	ELEVATION FEET	AUTHORITY
culvert under highway No. 2, Federal highway No. 63; chiseled square, marked "899.3"	899.26	USGS
Adelphi, 4 miles north, 1 mile east of, T. 79 N., R. 22 W., near south corner of secs. 33 and 34, 70 feet north and 25 feet west of T-road north, in root on SW. side of 3-foot elm tree; copper nail and washer, marked "847.7"	847.68	USGS
Adelphi, 4 miles north, 2 miles east of, T. 79 N., R. 22 W., near south corner of secs. 34 and 35, 50 feet north and 25 feet east of T-road north, in root on south side of 15-inch maple tree; copper nail and washer, marked "916.2"	916.17	USGS
Adelphi, 3 miles north of, T. 78 N., Rs. 22 and 23 W., near corner of secs. 1, 6, 7 and 12, 40 feet east and 30 feet south of crossroads, in root on SW. side of 16-inch burr oak tree; copper nail and washer, marked "824.8"	824.78	USGS
Adelphi, 2.75 miles north of, T. 78 N., R. 22 W., 0.25 mile west of center of sec. 7, 45 feet south and 25 feet west of T road south, in root on NE. side of 3-foot elm tree; copper nail and washer marked "836.2"	836.19	USGS
Adelphi, 1½ miles north of, T. 78 N., R. 22 W., 0.25 mile west of center of sec. 18, 35 feet south and 15 feet west of road corner, in root on east side of 14-inch elm tree; copper nail and washer, marked "877.1"	877.07	USGS
Adelphi, 1 mile north of, T. 78 N., R. 22 W., 0.25 mile west of quarter corner between secs. 18 and 19, 35 feet south and 35 feet east of T-road south, in root on north side of 1-foot maple tree; copper nail and washer, marked "839.0"	839.02	USGS
Adelphi, 0.7 mile NW. of, T. 78 N., R. 22 W., in NW. ¼ NW. ¼ sec. 30, 52 feet north and 17 feet west of road forks, 1 foot east of wire fence, in top of concrete post; bronze tablet marked "783.4"	783.43	USGS
Adelphi, reference mark, 20.8 feet south of B.M., 1 foot east of corner fence post; top of iron pipe driven in ground	782.73	USGS
Adelphi, T. 78 N., R. 22 W., in NE. ¼ sec. 30, 400 feet NW. of Wabash RR. station, in top of south heading of concrete culvert; chiseled square, marked "778.6"	778.62	USGS
Adelphi, 1700 feet southeast of, T. 78 N., R. 22 W., about 0.2 mile west of quarter corner between secs. 29 and 30, 35 feet east of road forks, top of SE. end of iron culvert; chiseled square, marked "789.5"	789.45	USGS
Adelphi, T. 78 N., R. 22 W., near center of NW. ¼ sec. 32, 30 feet south of road forks, in root on north side of 20-inch elm tree; copper nail and washer, marked "762.4"	762.39	USGS
Aetna	1076	CB&Q
Afton	1195,G1198	CB&Q
Afton	G1212	Weather Bur.
Afton Junction	1097	CB&Q
Afton Junction, crossing over CGW.....	1096.5,G1099	CB&Q
Afton Junction	1077.3	CGW
Afton Junction, Grand river at.....	1040	IaGS
Agency	798,G798	CB&Q
Ainsworth	690,G700	CRI&P
Akron	1151,G1147	CM&StP
Akron, 1.4 kilometers north of, 13 meters south of railway bridge, 6 meters south of road, 15 meters west of railway, 0.5 meter east of pasture fence, 1.6 meters below rails; copper bolt in top of stone post lettered "U. S. B. M." (U. S. C. & G. S. b. m. Q).....	1,138.640	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
Akron, in front doorsill (jasper) of Akron Savings Bank, 0.47 meter NW. of SE. side of doorway, 0.12 meter SW. of front edge, 0.45 meter above sidewalks; bottom of square hole (U.S.C. & G. S. b.m. R.).....	1,146.283	Bull. 569
Akron, at NE. cor. Reed and Second sts. at north sidewalk line, 0.13 meter west of SW. cor. of building, north side of top edge of 1-inch galvanized-iron pipe set solidly in cement flush with sidewalk. (U. S. C. & G. S. b. m. city)	1,145.135	Bull. 569
Akron, 1.5 kilometers south of, 15 meters west of railway, 40 feet west of road along track, 6 meters north of road, 2 meters north and 0.5 meter east of SE. cor. cultivated field, 0.4 meter below rails; copper bolt in top of stone post lettered "U. S. B. M." (U. S. C. & G. S. b. m. S)	1,136.343	Bull. 569
Akron, 4 kilometers south of, 13 meters west of railway, 7 meters north of road, 1 meter east of fence, 0.3 meter above rails; iron pipe (U. S. C. & G. S. b. m. T).....	1,134.841	Bull. 569
Akron, T. 92 N., R. 48 W., sec. 6, NW. cor.; iron post stamped "Ynktn 1140"	1,139.544	Bull. 569
Albany, sec. 14, T. 93 N., R. 8 W., 1,100 feet north of school building; iron post stamped "930 DBQ".....	931.737	Bull. 569
Albert City	1322, 91325	CM&StP
Albia	957, 9959	CB&Q
Albia	965	M&StL
Albia	960	WRR
Albia, junction with M&StL	958	WRR
Albia, crossing CB&Q	948	WRR
Albia, cross-over with M&StL	965	ISU
Albia, T. 72 N., R. 18 W., near center of NE. $\frac{1}{4}$ NE. $\frac{1}{4}$ sec. 26, 300 feet west of CB&Q RR crossing 150 feet west of crossroads, in NE. root of 30-inch white oak tree; copper nail and washer, painted "798.0".....	797.94	USGS
Albia, CB&Q RR crossing at location given above, west rail	803.6	USGS
Albia, Cedar creek, center of floor of steel bridge over, NW. $\frac{1}{4}$ sec. 25.....	803.2	USGS
Albia, T. 72 N., R. 17 W., near center of NW. $\frac{1}{4}$ sec. 25, 75 feet west of T-road south at west end of gate, on south side of road, on south root of 10-inch oak tree; copper nail and washer, painted "812.5".....	812.40	USGS
Albia, T-road south, painted "946.8".....	946.7	USGS
Albia, T. 72 N., Rs. 17 and 18 W., just south of quarter corner between secs. 25 and 30, at SW. cor. crossroads, 6 inches NW. of corner fence post; 1-inch gas pipe projecting 2 inches, painted "959.8".....	959.67	USGS
Albia, T. 72 N., R. 17 W., quarter corner between secs. 19 and 30, 250 feet west of T-road north, 60 feet SW. of house, 1 foot west of corner fence post, 1-inch gas pipe projecting 3 inches above ground, painted "930.2".....	930.07	USGS
Albia, T. 72 N., R. 17 W., quarter corner between secs. 19 and 30, NE. cor. intersection at T-road north, 3 feet NE. corner fence post, in top of cement post projecting 8 inches; bronze tablet stamped "E.B. No. 3 1924 Iowa"	926.862	USGS
Albia, T. 72 N., R. 17 W., near south sixteenth corner between secs. 19 and 20, on SE. concrete wingwall of steel bridge, at base of center guard rail post; painted square	803.90	USGS
Albia, T. 72 N., R. 17 W., about 0.25 mile east of center of sec. 20, north side of road, on west end of cement culvert across drive leading in to residence of Ira Van Dalen; chiseled square, painted "922.6".....	922.46	USGS

STATION	ELEVATION FEET	AUTHORITY
Albia, T. 72 N., R. 17 W., about 0.25 mile SW. center sec. 21, 250 feet east of T-road south, 1 foot east of corner fence post on north side of road: 1-inch gas pipe projecting 3 inches, painted "942.7"	942.53	USGS
Albia, CB&Q RR crossing at above location, above grade of road, base of rail	891.8	USGS
Albia, on west end of third step of north entrance to Monroe county courthouse; bronze tablet stamped "E.B. No. 4 1924 Iowa"	968.790	USGS
Albia, reference mark, 25 feet east of P.B.M., on east end of lowest step to north entrance to courthouse; chiseled square	967.75	USGS
Albia, about 1 block west of CB&Q RR depot at highway crossing railroad tracks; top of south rail of south switch	960.0	USGS
Albia, 1 mile NW. of, near center of sec. 16, T. 72 N., R. 17 W., 120 feet west of road crossing CB&Q RR tracks, on south side of road, in root on west side of a 2.5-foot tree at east end of row of maples; copper nail and washer, painted "U.S.B.M. 959.1"	959.01	USGS
Albia, T. 71 N., R. 17 W., about 0.38 mile east of center of sec. 8, in NW. angle of crossroads, on north end of concrete culvert under road to west; chiseled square, painted "U.S.B.M. 952.6"	952.52	USGS
Albia, at NE. cor. town, in N.W. angle of T-road north at jog, 1 foot south by 3 feet west of corner fence post, driven in ground; top of 0.75-inch gas pipe, painted "U.S.B.M. 954.4"	954.34	USGS
Albia, road crossing M&SL RR near above location; top of west rail	937.2	USGS
Albion	937,G929	M&StL
Albion, Iowa river south of	894	M&StL
Alburnette	889,G891	IC
Alden	1116	C&NW
Alden	1169,G1168	IC
Alexander	1261,G1253	M&StL
Alger	831	CM&StP
Algona	1188,G1193	CM&StP
Algona, crossing under C&NW	1183	CM&StP
Algona	G1213	Weather Bur.
Algona	1204,G1209	C&NW
Algona, crossing over CM&StP	1210	C&NW
Algona	1200	M&StL
Alleman	1013	FtDDM&S
Alleman, T. 82 N., R. 24 W., cor. secs. 2, 3, 34, and 35	1,017	Bull. 569
Alleman, T. 81 N., R. 24 W., SW. cor. sec. 2; iron post stamped "1010"	1,008.810	Bull. 569
Alleman, T. 81 N., R. 24 W., SE. cor. sec. 10; spike in telephone pole, marked "U.S.B.M. 1009"	1,007.38	Bull. 569
Alleman, T. 81 N., R. 24 W., SE. cor. sec. 9; spike in telephone pole, marked "U.S.B.M. 985"	983.97	Bull. 569
Alleman, T. 81 N., R. 24 W., NE. cor. sec. 21; iron post stamped "1007"	1,005.593	Bull. 569
Alleman, T. 81 N., R. 24 W., NE. cor. sec. 28; spike in telephone pole, marked "U.S.B.M. 989"	987.64	Bull. 569
Alleman, T. 81 N., R. 24 W., corner between secs. 35 and 36; spike in telephone pole, marked "U.S.B.M. 943"	942.12	Bull. 569
Alleman, T. 81 N., R. 24 W., center of sec. 35, road south	946	Bull. 569
Allendorf	1598	CRI&P
Allerton	1092,G1103	CRI&P
Allison	1045.0,G1044	CGW
Almont	662,G661	C&NW

STATION	ELEVATION FEET	AUTHORITY
Almoral	974.8,G977	CGW
Alta	1514,G1509	IC
Alta	G1513	Weather Bur.
Alta Vista	1163.5	CGW
Alton, crossing CStPM&O, union station.....	1303,G1299	C&NW
Alton, union station with C&NW.....	1303.6	CSTPM&O
Altoona, T. 79 N., R. 23 W., 127 feet north and 74 feet west of crossroads at corner of secs. 1, 2, 11 and 12, in top of south side of concrete porch of schoolhouse; bronze tablet marked "965.9".....	965.88	USGS
Altoona, reference mark, 38.5 feet south and 19.5 feet west of b. m., in top of SE. cor. concrete foundation for flag pole; chiseled square	962.97	USGS
Altoona, T. 79 N., Rs. 22 and 23 W., near corner of secs. 1, 6, 7 and 12, 30 feet south and 15 feet west of crossroads, in top of west heading of concrete culvert; chiseled square, marked "950.8".....	950.80	USGS
Altoona, T. 79 N., Rs. 22 and 23 W., corner of secs. 7, 12, 13 and 18 at crossroads, 420 feet north and 20 feet west of, in root on south side of 20-inch maple tree; copper nail and washer, marked "957.6".....	957.59	USGS
Altoona, CRI&P Ry, south track of main street crossing; top of south rail.....	956.7	USGS
Altoona, 0.47 mile south of, T. 79 N., Rs. 22 and 23 W., near corner of secs. 13, 18, 19 and 24, 54 feet south and 24 feet west of cross-roads, in top of concrete post; bronze tablet marked "952.3"	952.264	USGS
Altoona, reference mark, 43 feet east and 83 feet north of bench mark, in NE. angle of crossroads, top of east heading of culvert; chiseled square.....	953.97	USGS
Altoona, T. 79 N., R. 22 W., near corner of secs. 17, 18, 19 and 20, 30 feet south and 23 feet east of crossroads, in top of third step leading to school yard; chiseled square, marked "930.4"	930.43	USGS
Altoona, T. 79 N., R. 22 W., near corner of secs. 19, 20, 29 and 30, 26 feet east and 30 feet north of crossroads, in root on west side of 2-foot elm tree; copper nail and washer, marked "951.8".....	951.76	USGS
Altoona, T. 79 N., R. 22 W., 0.25 mile north of corner of secs. 29, 30, 31 and 32, 20 feet south and 20 feet east of crossroads, in top of concrete foundation of corner fence post; chiseled square, marked "941.0".....	940.97	USGS
Altoona, 2 miles east of Rising Sun, T. 78 N., Rs. 22 and 23 W., corner of secs. 1 and 6, 27 feet south and 30 feet east of T-road south, 100 feet north and 75 feet west of D. W. Darr's house, on concrete post; bronze tablet stamped "Prim. Trav. Sta. No. 27-L-S,-1924-Iowa-'" , marked "924.6".....	924.583	USGS
Altoona, reference mark, 117 feet S. 10° E of "L.S. No. 27", top of southwest corner of well platform; chiseled square	925.50	USGS
Altoona, Keokuk line, B.M. top of monument M.P. 351....	969.94	CRI&P
Altoona, B.M. top of monument M.P. 353.....	916.77	CRI&P
Altoona, top of rail, center of depot.....	956.7	CRI&P
Altoona, B.M. top of monument Ia. Div. M.P. 348.....	920.35	CRI&P
Altoona, B.M. top of monument M.P. 356.....	873.29	CRI&P
Altoona, B.M. top of monument M.P. 357.....	869.18	CRI&P
Altoona, B.M. top of monument M.P. 358.....	872.86	CRI&P
Altoona, B.M. top of monument M.P. 359.....	816.79	CRI&P
Altoona, main line	955,G958	CRI&P
Altoona	955	DM&CI
Alvord	1321	GN

STATION	ELEVATION FEET	AUTHORITY
Amara	716.6721	CM&StP
Amber	1009	C&NW
Amboy	964.6967	CRI&P
Ames, main line	917.6922	C&NW
Ames	6926	Weather Bur.
Ames	911	FtDDM&S
Ames, Campus station.....	912	FtDDM&S
Ames, T. 83 N., R. 23 W., NE. cor. sec. 8, SW. cor. crossroads, just inside of fence corner; copper nail in root on north side of box-elder tree, marked "973.8".....	972.82	Bull. 569
Ames, 2 miles east of, T. 83 N., R. 23 W., NW. cor. NE. ¼ sec. 7, NW. cor. schoolhouse yard, SE. cor. road forks south; copper nail in root on west side of 2½-foot maple tree, marked "944.6"	943.62	Bull. 569
Ames, 1.5 miles east of, T. 83 N., R. 24 W., SE. cor. sec. 1, north-south township line between Grant and Washington townships, NW. cor. crossroads, at fence corner; iron post stamped "940".....	939.336	Bull. 569
Ames, 1 mile east of, T. 83 N., R. 24 W., near north center of NW. ¼ sec. 12, SW. cor. steel highway bridge over Skunk river; painted bolthead on top of steel foundation pillar, marked "890.1".....	889.13	Bull. 569
Ames, T. 83 N., R. 24 W., near SW. cor. sec. 1, NW. cor. small bridge just east of second-class road forks south; copper nail in top of piling, marked "889.7".....	888.69	Bull. 569
Ames, C&NW Ry crossing on Duff Ave.; top of north rail of north main track, marked "917.8".....	916.82	Bull. 569
Ames, SW ¼ sec. 2, T. 83 N., R. 24 W., SW. cor. intersection of Story and Kellogg St., NE. cor. post-office building, in ground; iron post stamped "922".....	920.608	Bull. 569
Ames, T. 83 N., R. 24 W., just west of north center of sec. 10, SW. cor. concrete bridge at base of concrete railing at stream crossing; chiseled square, marked "899.9".....	898.95	Bull. 569
Ames, T. 83 N., R. 24 W., corner of secs. 3, 4, 9, and 10, center of T road south, on top of star in cover of manhole of water system; marked "908.2".....	907.22	Bull. 569
Ames, T. 83 N., R. 24 W., near SE. cor. sec. 4, on south side of street at T road north leading to College; 10 feet south of manhole; chiseled square on top of west end of concrete curbing, marked "937.65".....	936.67	Bull. 569
Ames, at FtDDM&S electric line crossing highway just west of College station; top of south rail	913.2	Bull. 569
Ames, T. 83 N., R. 24 W., near center of sec. 4, center of Iowa State College campus, 250 feet south of flagpole, 550 feet west of west entrance to Agriculture Building, 300 feet NW. of Stanton Memorial Chimes tower; iron post stamped "952"	950.977	Bull. 569
Ames, Iowa State College, 8.5 feet east of SE. cor. Engineering Building, just inside of stone walk; brass plug cemented in tile (engineering students' bench-mark elevation brought north from near Kelly).....	960.019	Bull. 569
Ames, T. 83 N., R. 24 W., near center of NW. ¼ sec. 4, NW. cor. concrete bridge over stream, top of base of concrete guard rail; chiseled square, marked "915.1".....	914.11	Bull. 569
[Bench marks established by Iowa State College students.]		
Ames, Dairy Farm station, south side of east-west highway, square cut on NW. cor. west head wall of 14-inch vitrified pipe, 19 feet north of pole A183.....	975.28	Bull. 569
Ames, spike in track side of pole A177, 1.1 feet above ground	974.13	Bull. 569
Ames, square cut on NW. cor. west head wall of 2-foot vitrified pipe, 11 feet south of pole A173.....	967.45	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
Ames, at SE. cor. Knapp St. and Welch Ave., on letters "St" of the word "St. Paul" on projecting base of cap of fire hydrant.....	963.60	Bull. 569
Ames, spike in track side of electric-light pole 9 feet south by 24 feet east of pole A156, north side of Knapp St., east of track	964.33	Bull. 569
Ames, spike in pole A145, on side away from the track, 4 feet above ground, east side of Ridge Ave.....	946.54	Bull. 569
Ames, square cut on corner of the retaining wall on SE. cor. Boone and Ridge Sts., about 1.5 feet above sidewalk	945.34	Bull. 569
Ames, 1.7 feet west of east end of north railing of Boone St. concrete bridge, about 100 feet west of Welch St.....	932.48	Bull. 569
Ames, brass plug in concrete marked "B.M.1," 38.5 feet west by 2.8 feet north of NW. cor. chemistry building, 18.4 feet east of 6-foot concrete walk running north-south in front of engineering laboratory, 45.2 feet SE. of SE. cor. engine room, 42.2 feet east by 4 feet south of NE. cor. engineering laboratory; at Iowa State College	955.99	Bull. 569
Ames, SE. cor. concrete platform of FtDDM&S RR station, 500 feet north of central building of Iowa State College	952.34	Bull. 569
Ames, top of track bolt cemented into north end of east back wall of C&NW Ry bridge 566A (railroad elevation 939.33)	936.87	Bull. 569
Ames, SW. cor. south coping of bridge 566; square cut (railroad elevation 929.09).....	926.63	Bull. 569
Ames, top of track bolt cemented into north end of east back wall of bridge 565 (railroad elevation 926.99).....	924.523	Bull. 569
Ames, b. m. 2, Iowa State College.....	913.44	Bull. 569
Ames, cross on concrete monument.....	944.56	Bull. 569
Anamosa	828,G829	CM&StP
Anamosa, crossing C&NW.....	832	CM&StP
Anamosa, crossing CM&StP.....	831	C&NW
Anamosa	825	C&NW
Anderson	958,G956	CB&Q
Anderson	966	IaGS
Andover	731	C&NW
Andover, Mo.	1094	CB&Q
Andrew, Jackson Co.....	870	USGS
Andrew, middle Perry Tp.....	870	USGS
Andrews Road station.....	853.41	DM&CI
Angus	1026,G1028	M&StL
Anita	1253,G1256	CRI&P
Anita, 3 miles west of, in north abutment of concrete culvert, 50 feet south of wagon road near telegraph pole 428-14; aluminum tablet.....	1,232.213	Bull. 569
Anita, 1 mile west of, in NE. cor. concrete culvert A2; aluminum tablet	1,243.318	Bull. 569
Anita, in front of CRI&P Ry station; top of rail.....	1,256.9	Bull. 569
Anita, 20 feet west of entrance to Keystone Park, 150 feet south of track, opposite point 300 feet west of station; iron post	1,252.360	Bull. 569
Anita, bed of Turkey creek at.....	1236	IaGS
Anita, NE. ¼ NW. ¼ sec. 4, T. 76 N., R. 33 W., base of Missouri limestone in Eureka shaft.....	1198	IaGS
Ankeny	998,G1001	C&NW
Ankeny	996	FtDDM&S
Ankeny, 2.5 miles east by 1 mile south of, T. 80 N., R. 23 W., SE. cor. sec. 19, 40 feet NW. of center crossroads; iron post stamped "938 Adj. 1903".....	936.837	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
Ankeny, Methodist Episcopal Church, in foundation stone facing east and 2 feet south of north main-entrance door; aluminum tablet stamped "997 Adj. 1903".....	995.799	Bull. 569
Ankeny, 1 mile north by 1.5 miles west of, 100 feet west of SE. cor. of field, in SE. cor. sec. 9; iron post stamped "Prim. Trav. Sta. No. 4".....	962.546	Bull. 569
Anthon	1120,G1119	IC
Appanoose, Mississippi river, low water.....	G502	Miss. Riv. Com.
Appanoose, Mississippi river, high water.....	G518	Miss. Riv. Com.
Aplington	967,G958	IC
Arbor Hill, Adair Co., W. line SE. ¼ sec. 18, T. 76 N., R. 30 W.	1068	IaGS
Arbor Hill, SE. ¼ sec. 20, T. 76 N., R. 30 W.	1060	IaGS
Arbor Hill, SE. ¼ sec. 21, T. 76 N., R. 30 W.	1038	IaGS
Arbor Hill, SE. ¼ sec. 27, T. 76 N., R. 30 W.	988	IaGS
Arbor Hill, SE. ¼ sec. 26, T. 76 N., R. 30 W.	943	IaGS
Arbor Hill, NE. ¼ sec. 36, T. 76 N., R. 30 W.	940	IaGS
Arcadia	1386,G1425	C&NW
Arcadia, divide 1 mile east.....	1402	C&NW
Arcadia, uplands just north of.....	1430	IaGS
Arcadia, uplands about 6 miles north of.....	1476	IaGS
Archer	1475,G1468	IC
Ardon	747,G749	CM&StP
Aredale	1023	C&NW
Argand, Jones Co., south line of sec., SE. ¼ SE. ¼ sec. 4, T. 86 N., R. 4 W., corner of yard at schoolhouse; iron post stamped "977"	967.778	Bull. 569
Argyle	669.4,G668	AT&SF
Argyle, 4 miles west, east end bridge over CRI&P, base of rail	566.0	AT&SF
Argyle, 4 miles west, east end bridge over Des Moines river	560.9	AT&SF
Argyle, 4 miles west, bottom Des Moines river.....	500.	AT&SF
Arion	1138	C&NW
Arion, crossing CM&StP.....	1138	C&NW
Arion	1143,G1140	IC
Arion, crossing CM&StP.....	1143,G1140	IC
Arion	1138	CM&StP
Arion, crossing C&NW and IC.....	1138	CM&StP
Arispe	1270.5,G1267	CGW
Arlington	1112,G1112	CM&StP
Arlington, NE. cor. sec. 28, T. 92 N., R. 7 W.; iron post stamped "1080 DBQ".....	1,081.171	Bull. 569
Arlington, 4 miles south of, center Putnam Tp.....	1113	IaGS
Armstrong	1249,G1237	CRI&P
Arnold	1132,G1135	M&StL
Arnolds Park	1429,G1432	CM&StP
Arsenal station, Camp Dodge, at pole 540.....	854.29	DM&CI
Arthur	1287,G1287	C&NW
Ascalon	904	CRI&P
Ascot, MP 501.....	996,G993	IC
Ascot, T. 76 N., R. 44 W., 352 feet S. 79° 55' E. (mag.) from center of sec. 9, on south side of road, on land owned by Mr. Corby; copper bolt in tile surmounted by iron pipe (U.S.C.E. b. m. 124/2):		
Copper bolt	983.15	Bull. 569
Cap on pipe	987.24	
Ashawa	888,G883	M&StL
Ashawa, T. 78 N., R. 25 W., 40 feet NW. of NW. cor. sec. 8, in corner of school yard; iron post stamped "950".....	948.675	Bull. 569
Ashton	1448.9,G1449	CStPM&O

ASPINWALL-ATWOOD

385

STATION	ELEVATION FEET	AUTHORITY
Aspinwall	1380	CM&StP
Aspinwall, divide 2 miles west of.....	1428	CM&StP
Astor	1301,G1304	CM&StP
Atalissa	655,G658	CRI&P
Athelstan	1069.8,G1069	CGW
Atkins	838,G833	CM&StP
Atlantic	1155,G1158	CRI&P
Atlantic	G1164	Weather Bur.
Atlantic, in grass plat of CRI&P Ry station, 200 feet east of station, 20 feet west of standpipe, 30 feet south of main track; iron post.....	1,159.311	Bull. 569
Atlantic, on east side of south wing of county courthouse, 4 feet above ground; aluminum tablet.....	1,215.088	Bull. 569
Atlantic, 0.5 mile east of, in SW. abutment of bridge 440, 375 feet east of road crossing; aluminum tablet.....	1,154.720	Bull. 569
Atlantic, bed of river west of.....	1124	IaGS
Atlantic, bed of Turkey creek, SE. ¼ sec. 28, T. 76 N., R. 36 W.	1136	IaGS
Atlantic, Vista Place	1292	IaGS
Attica, Marion Co., 1.25 miles north of, Tps. 74 and 75 N., R. 19 W., 20 feet west by 10 feet north of corner of secs. 2, 3, 34, and 35, east of T road west; iron post stamped "Prim. Trav. Sta. No. 2, 1908, 908, Iowa"....	906.387	Bull. 569
Attica, T. 75 N., R. 19 W., SE. cor. sec. 32, west and 50 feet south of center of crossroads, 2 feet east of fence; iron post stamped "824 Iowa".....	823.044	Bull. 569
Attica, Tps. 74 and 75 N., R. 20 W., 20 feet south and 25 feet west of corner of sec. 1, 2, 35, and 36; iron post stamped "Prim. Trav. Sta. No. 1, 1908, 916, Iowa"....	914.247	Bull. 569
Attica, one-fourth mile north of, at T road west, NW. angle of road junction, in root of 20-inch oak; nail.....	915.34	Bull. 569
Attica, at center of town, in NE. cor. crossroads; iron post stamped "Iowa 923, 1913".....	922.823	Bull. 569
Attica, 1 mile south of, at Gullion Cemetery, at base of north gatepost, in concrete base; bottom of square cut	925.88	Bull. 569
Attica, 1.9 miles south of, at road forks, 50 feet NE. of mile board "Knoxville 12, Attica 2 miles," 250 feet west of Indiana Chapel, in top of osage stump at head of drain; copper nail.....	905.69	Bull. 569
Attica, T. 74 N., R. 19 W., at corner of secs. 22, 23, 26, and 27; top of section stone.....	901.02	Bull. 569
Attica, T. 74 N., R. 19 W., 0.25 mile south of NE. cor. sec. 27, at NW. angle T road north, 7.1 feet NW. of corner post, in field; iron post stamped "Iowa 868, 1913" Prim. Trav. Sta. 11, 1914.....	867.862	Bull. 569
Attica, T. 74 N., R. 19 W., near center of sec. 26, at highway (covered) bridge over North Cedar creek, in SW. cor. bridge floor; top of bolt painted white.....	746.29	Bull. 569
Attica, T. 74 N., R. 19 W., 0.25 mile south of center of sec. 35, on east side of north-south road, on line with east-west fence, 10 inches north of telephone pole, in hickory peg; copper nail.....	855.25	Bull. 569
Attica, T. 73 N., R. 19 W., at center of sec. 2, at T road north, 15 feet south by 15 feet east of center of road intersection, 110 feet S.W. of Eldorado Church; iron post stamped "Iowa 915, 1913" Prim. Trav. Sta. 10....	914.797	Bull. 569
Attica, 4 miles south of, T. 73 N., R. 19 W., at corner of secs. 2, 3, 10, and 11, at T road north, in section stone; bottom of square	915.25	Bull. 569
Atwood	703,G717	CRI&P
Atwood, crossing C&NW	703,G717	CRI&P

STATION	ELEVATION FEET	AUTHORITY
Atwood, crossing CRI&P	711	C&NW
Atwood, North Skunk river at.....	695	IaGS
Auburn	1232,G1240	C&NW
Audubon	1322,G1297	C&NW
Audubon	1295,G1299	CRI&P
Audubon	G1301	Weather Bur.
Aurelia	1387,G1387	IC
Aurora	1134.5,G1135	CGW
Aurora, T. 90 N., R. 8 W., NE. cor. sec. 21, at side of wagon road; iron post stamped "1063 DBQ".....	1,063.969	Bull. 569
Austin	1210,G1205	CM&StP
Austin, 1.2 kilometers south of, 1.6 kilometers south of railway bridge over Big Sioux River, 13 meters west of railway, 6 meters north of road, 1 meter west of fence, 0.8 meter below rails; copper bolt in top of stone post lettered "U.S.B.M." (U.S.C.&G.S.b.m.E.).....	1,200.313	Bull. 569
Austinville	1003,G1006	IC
Avery	894.14,G903	CB&Q
Avery, T. 72 N., R. 17 W., at SE. cor. SW. $\frac{1}{4}$ SW. $\frac{1}{4}$ sec. 1, 4 feet north by 1 foot east of fence corner, in top of concrete post; bronze tablet stamped "E.B. No. 10 1924 Iowa", painted "U.S.B.M. 917.7".....	917.523	USGS
Avery, reference mark, 21 feet west by 5 feet south of tablet, in root on east side of 6-inch box-elder tree; copper nail and washer.....	918.32	USGS
Avoca	1134,G1137	CRI&P
Avoca, 3 miles NW. of, in SE. wing wall of stone culvert, third step from top; aluminum tablet.....	1,192.860	Bull. 569
Avoca, in stone water table of Avoca bank, on south side, 10 feet from SW. cor.; aluminum tablet.....	1,158.769	Bull. 569
Avoca, near SW. cor. Avoca Hotel, between building and sidewalk; iron post	1,155.38	Bull. 569
Avoca, near SW. cor. city hall lot, town bench mark, a 6- inch iron pipe open at top and filled with concrete, in which is embedded a $\frac{3}{4}$ -inch brass pipe.....	1,165.147	Bull. 569
Avoca, 2 miles east of, in NW. abutment of bridge 459; aluminum tablet	1,171.039	Bull. 569
Avon	780,G783	CRI&P
Ayrshire	1315,G1293	M&StL
Babcock, south end switch	1001	IC
Badger	1154,G1156	M&StL
Badger, 5.5 miles west of, T. 90 N., R. 29 W., quarter corner, S. side of sec. 10, 40 ft. N. of section line crossing road, on east side of road, in base of telephone pole, marked "1,127.2"; spike.....	1,127.07	USGS
Badger, T. 90 N., R. 29 W., center of sec. 10, 20 feet NE. of crossroads; iron post stamped "IOWA 1919 Prim. Trav. Sta. No. 9 1,134".....	1,133.441	USGS
Badger, T. 90 N., R. 29 W., 0.25 mile west of center of sec. 11, at second class road N., 50 ft. NE. of road fork, in base of telephone pole, marked "1,127.2"; spike....	1,127.09	USGS
Badger, T. 90 N., R. 29 W., quarter corner, E. side of sec. 11, at T road W., 40 ft. SE. of road fork, in base of telephone pole, marked "1,120.8"; spike.....	1,120.64	USGS
Badger, 4 miles west of, T. 90 N., R. 29 W., corner of secs. 11, 12, 13 and 14, 50 ft. SE. of crossroads, in base of corner fence post, marked "1,112.2"; spike.....	1,112.05	USGS
Badger, bridge floor over Des Moines river, 3.33 miles W. of Badger	1,043.74	USGS
Badger, T. 90 N., R. 28 W., quarter corner, N. side of		

BADGER-BARNUM

387

STATION	ELEVATION FEET	AUTHORITY
sec. 18, at T road S., 50 ft. SE. of road fork, in base of telephone pole, marked "1,131.6"; spike.....	1,131.43	USGS
Badger, T. 90 N., R. 28 W., corner of secs. 7, 8, 17 and 18, T road north, 35 ft. NW. of road fork; iron post stamped "IOWA 1919 1,136"	1,136.183	USGS
Badger, T. 90 N., R. 28 W., quarter corner, S. side of sec. 8, T road S., 60 ft. NE. of road fork, in base of telephone pole marked "1,131.6"; spike	1,131.45	USGS
Badger, T. 90 N., R. 28 W., corner of secs. 8, 9, 16 and 17, crossroads, 375 ft. E. of road fork, at base of bridge floor and at extreme NW. corner of steel bridge over Badger creek; top of bolt in steel girder, marked "1,117.8"	1,117.62	USGS
Badger, T. 90 N., R. 28 W., corner of secs. 9, 10, 15 and 16, 100 ft. E. of road leading N. at road leading S., 300 ft. W. of railway crossing, 30 ft. SW. of road fork, in base of telephone pole, marked "1,143.4"; spike.....	1,143.30	USGS
Badger, 1 mile east of, T. 90 N., R. 28 W., corner of secs. 10, 11, 14 and 15, 35 ft. SW. of crossroads, iron post stamped "Prim. Trav. Sta. No. 14 1,132 IOWA 1919"	1,131.608	USGS
Badger, T. 90 N., R. 28 W., corner of secs. 11, 12, 13 and 14, 40 ft. NE. of crossroads, in base of corner fence post, marked "1,151.8"; spike.....	1,151.64	USGS
Badger, T. 90 N., Rs. 27 and 28 W., corner of secs. 7, 12, 13 and 18, 35 ft. NW. of crossroads, in fence corner, in root of large willow tree, marked "1,131.7"; copper bolt	1,131.54	USGS
Badger, T. 90 N., R. 27 W., corner of secs. 7, 8, 17 and 18, 30 ft. NW. of crossroads, in top of concrete culvert, marked "1,125.7"; chiseled square	1,125.50	USGS
Badger, T. 90 N., R. 28 W., quarter corner, N. side of sec. 29, at T road E., 75 ft. N. of road fork, E. side, N. end and top of concrete culvert railing over Badger creek; chiseled square, marked "1,088.3"	1,088.18	USGS
Badger, T. 90 N., R. 28 W., quarter corner, N. side of sec. 20, 40 ft. SW. of crossroads, in base of corner fence post, marked "1,131.7"; spike.....	1,131.62	USGS
Bagley, Clayton Co., 1 mile below, on right of way of CM&StP Ry, 500 meters above milepost 76-85, opposite upper end of small curve which is second one above a perpendicular rock cut, and curves toward bluffs, 37 meters above Government light, 3 meters from center of track toward bluffs, rock is 0.6 meter higher than track and is marked "U.S." in large letters on side facing track; copper bolt in rock (U.S.C.E.b.m. 193/3).....	630.90	Bull. 569
Bagley, Guthrie Co.....	1098,G1100	CM&StP
Bailey	1284.8,G1283	CGW
Baird, MP 470.....	1076,G1070	IC
Baldwin	714,G712	C&NW
Balfour	1146.8,G1148	CB&Q
Ballinger, MP 184.....	530	CB&Q
Balltown, Dubuque Co., T. 90 N., R. 1 E., south side sec. 4, in ledge of rock; bronze tablet stamped "1049 DBQ"	1,049.855	Bull. 569
Bancroft	1174,G1189	C&NW
Bankston, Dubuque Co., 0.8 mile south of, T. 89 N., R. 1 W., NE. ¼ sec. 16, SW. cor. O'Connor's orchard; iron post stamped "1193 DBQ"	1,194.293	Bull. 569
Bard	593,G599	CRI&P
Barnes City	901,G910	CRI&P
Barney	1051.7,G1047	CGW
Barney, Clanton creek west of.....	1066	IaGS
Barnum	1177,G1174	IC

STATION	ELEVATION FEET	AUTHORITY
Bartlett	954,G951	CB&Q
Bartlett, T. 70 N., R. 43 W., 45 feet east of NW. cor. NE. ¼ of sec. 17, on east side of north-south road; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 115/2)		
Copper bolt	939.57	Bull. 569
Cap on pipe	943.64	
Bartlett, T. 71 N., R. 43 W., not far from center of NE. ¼ NE.¼ sec. 30, on west side of road running along an old river bank; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 116/2):		
Copper bolt	944.99	Bull. 569
Cap on pipe (approximate).....	948.98	
Bartlett, 6,522 feet south of station, 1,214 feet south of L. M. Gannon's house, 82 feet east of center of public road, 45 feet west of railroad; copper bolt in bench- mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 332):		
Copper bolt	938.289	Bull. 569
Cap on pipe	942.305	
Bartlett, 6,486 feet north of station, 46 feet east of tracks; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 333):		
Copper bolt	941.553	Bull. 569
Cap on pipe	945.572	
Bartlett, bluffs east of.....	1190	IaGS
Bassett	1026,G1029	CM&StP
Batavia	729,G731	CB&Q
Batavia, junction with old main line CB&Q.....	706	CB&Q
Battle Creek	1196,G1195	C&NW
Baxter, Jasper Co.	1004,G1000	CGW
Baxter, MP 199, Lee Co.....	531	CB&Q
Bayard	1133,G1134	CM&StP
Bayfield	682,G684	CRI&P
Beacon	761,G752	M&StL
Beacon, subgrade of track opposite center of depot.....	723.2,G735	CRI&P
Beacon, B.M. top of SE. cor. north pedestal of west pier of CB&Q RR bridge	734.70	CRI&P
Beaconsfield	1212,G1209	CB&Q
Beals, M.P. 408	1200,G1202	IC
Beaman	983,G984	C&NW
Bear Creek	690	CM&StP
Beaver	1024,G1027	C&NW
Beaver Avenue station	808.03	DM&CI
Beaver Park station on electric railroad, at crossing; top of rail	909.86	Bull. 569
Beaver Park	911.54	DM&CI
Beaver Valley Junction, Des Moines.....	808.57	DM&CI
Beck	560,G559	CB&Q
Beck, crossing under Santa Fe.....	556,G559	CB&Q
Beckwith	777,G777	CB&Q
Bedford	1099.59,G1098	CB&Q
Bedford, state line.....	1054	CB&Q
Beech	878	CRI&P
Belfast, 1 mile south of, B.M. top of monument M.P. 19 (U.S.C.E.b.m. 5)	532.10	CRI&P
Belfast, 100 feet east of, B.M. top of monument M.P. 20 (U.S.C.E.b.m. 6)	526.79	CRI&P
Belfast, top of rail, center of depot.....	527.0	CRI&P
Belfast, 1 mile NW. of, B.M. top of monument M.P. 21 (U.S.C.E.b.m. 7)	530.57	CRI&P

BELFAST-BELLEVUE

389

STATION	ELEVATION FEET	AUTHORITY
Belfast, 2 miles NW. of, B.M. top of monument M.P. 22 (U.S.C.E.b.m. 8)	549.35	CRI&P
Belfast, 3 miles NW. of, B.M. top of monument M.P. 23 (U.S.C.E.b.m. 9)	558.43	CRI&P
Belfast, see also Hinsdale		
Belinda, Lucas Co., T. 73 N., R. 20 W., 0.25 mile north of quarter corner on west side of sec. 20, in NE. angle crossroads, in SW. cor. school yard; iron post stamped "Iowa 1,000, 1913"	1,000.408	Bull. 569
Belinda, T. 73 N., R. 20 W., 0.25 mile south of the NW. cor. sec. 17, opposite T road west, 25 feet east of sec- tion corner, 1.5 feet north of telephone pole, in top of wooden peg; copper nail	991.11	Bull. 569
Belinda, 0.5 mile NE. of, at NW. cor. crossroads, at SE. cor. churchyard; iron post stamped "Iowa, 982, 1913"	982.198	Bull. 569
Belinda, 0.5 mile north by 0.5 mile west of, opposite center of T road north, 6 feet west of gate, in root of twin- maple tree; copper nail	986.00	Bull. 569
Belinda, T. 73 N., R. 20 W., 0.25 mile east of quarter corner on north side of sec. 6, at county line between Marion and Lucas counties, in SW. angle T road west, 1 foot SE. of corner post, in top of wooden peg; cop- per nail	973.66	Bull. 569
Belinda, T. 73 N., R. 20 W., at quarter corner on north side of sec. 19, in SW. angle of T road west, 1.5 feet west of corner post, in top of wooden peg; copper nail	999.66	Bull. 569
Belinda, T. 73 N., R. 21 W., just west of quarter corner on south side of sec. 13, at NE. cor. wooden bridge over English creek, in plank; copper nail	892.13	Bull. 569
Belknap	859,G847	CRI&P
Belknap, crossing Wabash	859,G847	CRI&P
Belknap	868	WRB
Belknap, crossing CRI&P	868	WRB
Belknap	G877	Weather Bur.
Bell	1155,G1158	CM&StP
Belle Plaine	821,G824	C&NW
Belle Plaine	G828	Weather Bur.
Bellevue	617,G617	CM&StP
Bellevue, junction with Cascade line	616	CM&StP
Bellevue, Mississippi river, low water	G578	Miss. Riv. Com.
Bellevue, Mississippi river, high water	G598	Miss. Riv. Com.
Bellevue, B.M. at head of slough	G622	Miss. Riv. Com.
Bellevue, North	631,G631	CM&StP
Bellevue, Golden's wood yard, 0.3 mile below log house at, opposite Island 253, 56 feet from top of bank, 2 feet be- low fence on lower side of clearing and upper side of woods, which runs at about right angles to river bank, 8 feet from 10-inch ash tree, blazed facing bench; copper bolt set in tile surmounted by iron pipe (U.S.C.E.p.b.m. 315):		
Copper bolt	587.722	Bull. 569
Cap on pipe	591.685	
Bellevue, 5.5 miles below, at third tree from river of same row of trees where t. b. m. 333 is located, on south side of slough at foot of Island 250, 88 feet from NW. cor. Mr. Golden's log house; copper bolt set in tile and surmounted by iron pipe (U.S.C.E.p.b.m. 313):		
Copper bolt	589.002	Bull. 569
Cap on pipe	592.972	
Bellevue, 3.5 miles below, on line of CM&StP Ry, 705 feet below stone culvert on which t. b. m. 331 is located, 177 feet below lower side of C. A. Harrington's stone barn,		

STATION	ELEVATION FEET	AUTHORITY
40 feet above wooden drain under track, at lower end of small cut, 33 feet east from center of track, 1.5 feet west of east right-of-way fence; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 311):		
Copper bolt	595.636	Bull. 569
Cap on pipe	599.628	
Bellevue, 3.5 miles below, on line of CM&StP Ry track, 250 feet above C. A. Harrington's house, on SW. cor. stone culvert, 3 feet above south side and 3 inches back from west end, marked "U□S"; highest point in square (U.S.C.E.p.b.m. 331)	600.412	Bull. 569
Bellevue, 2.5 miles below, 0.2 mile below bridge 42K, 0.3 mile below milepost 142-19, on line of CM&StP Ry, 279 feet above sluiceway under track, 12 feet west of center of track, on west side of ditch, on natural outcropping of ledge of rock, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 329)	605.721	Bull. 569
Bellevue, 2 miles below, 558 feet above center of CM&StP Ry bridge 42K over Duck creek, 148 feet above milepost 142-19, at upper side of highway crossing, at south side of fence running to cattle guard, 20 feet east of center of track; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 309):		
Copper bolt	605.166	Bull. 569
Cap on pipe	609.146	
Bellevue, in lower end of, on river bank, in first building above sawmill, a two-story stone store, owned by M. G. Heiler, at its west front, second door from north end, marked "U□S"; copper bolt (U.S.C.E.p.b.m. 308).....	610.858	Bull. 569
Bellevue, in south end of, on line of CM&StP Ry, on bridge 44K over Mill creek, between flour mill and sawmill, on north pier at its east end, marked "U□S"; highest point in square (U.S.C.E.p.b.m. 326).....	608.355	Bull. 569
Bellevue, at river shore, on Kilburn & Co.'s warehouse, on projecting stone at east end of south wall, just below iron-bolt plate; highest point in circle cut in stone (U.S.C.E. old U.S. b.m.)	597.033	Bull. 569
Bellevue, on southeast corner of Court and Second Sts., on front of stone store owned by John Baumann, on lower end of water table, 2½ feet above south corner; copper bolt marked "U.S.⊙P.B.M." (U.S.C.E.p.b.m. 307).....	619.297	Bull. 569
Bellevue, in upper part of, on west line of Front St. in NE. cor. lot owned by Mrs. Booth, 2 feet south from north side of lot and south side of street; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 305):		
Copper bolt	618.900	Bull. 569
Cap on pipe	622.899	
Bellevue, North, 1 mile above, 40 feet back from high-water line on river bank, 45 feet north of bank of creek which is crossed by CM&StP Ry bridge 48K where p.b.m. 302 is located, about 984 feet from said railroad, 410 feet below large stone arch culvert under wagon road, 36 feet south from another wagon road winding around south point of bluff; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 303 and 304):		
Copper bolt	591.761	Bull. 569
Cap on pipe	595.734	
Bellevue, North, 1 mile above, on line of CM&StP Ry, 1,279 feet below milepost 138-23, in north abutment, east end of bridge 48K, on third course of stone from		

BELLEVUE

391

STATION	ELEVATION FEET	AUTHORITY
top; copper bolt marked "U.S.⊙P.B.M." (U.S.C.E. p.b.m. 302)	626.521	Bull. 569
Bellevue slough, behind, 262 feet from low-water edge, 1.2 miles below Smiths, 3 miles above North Bellevue, 1,900 feet above bridge 50K, 150 feet below stone culvert on right of way at east fence, but a few feet below t.b.m. 323; copper bolt in tile surmounted by iron pipe (U.S. C.E.p.b.m. 300 and 301):		
Copper bolt	606.203	Bull. 569
Cap on pipe	610.176	
Bellevue, 6 miles below, 50 meters from shore, in wagon road along river, 0.5 meter from east fence and 6 meters south of south fence along east-west wagon road, 100 meters below Mr. Degear's house; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 171/2):		
Copper bolt	616.01	Bull. 569
Cap on pipe	620.02	
Bellevue, Island 253, 0.25 mile above small island and opposite point just below, on sandy ridge in maple timber 20 meters NE. of slough 40 meters wide, 15 meters from river bank; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 171/3):		
Copper bolt	587.76	Bull. 569
Cap on pipe	591.76	
Bellevue, 6 miles below, 480 meters from river, 32 meters west of slough and 25 meters east of another slough, on narrow neck of land between two sloughs; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 171/4):		
Copper bolt	583.96	Bull. 569
Cap on pipe	587.96	
Bellevue, 0.25 mile below head of Island 249, in timber 15 meters west of large slough, 595.7 meters back of following-described bench mark; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 172/1):		
Copper bolt	583.08	Bull. 569
Cap on pipe	587.10	
Bellevue, 0.25 mile below point opposite head of Island 249, 40 meters from bank of slough, in bunch of elms; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 172/2):		
Copper bolt	586.00	Bull. 569
Cap on pipe	590.03	
Bellevue, bridge 40K, 55 meters above, 1 meter west of west right of way fence of CM&StP Ry, 60 meters above wagon bridge which is at foot of bluffs where wagon road turns from river and appears to go up bluffs; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 172/3):		
Copper bolt	604.80	Bull. 569
Cap on pipe	608.88	
Bellevue, upper end of, on east line of north and south alley running between Front and Second Sts., inside of fence on property of Mose Bean (Mr. Bean's house is a large yellow frame building facing Front St. and one block south of Harmony Park); copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 173/3):		
Copper bolt	626.34	Bull. 569
Cap on pipe	630.36	
Bellevue, 3 miles above, 863.5 meters back of following-described bench mark, 15 meters from bank and at intersection of slough with Yonkers Lake, at large bend in		

STATION	ELEVATION FEET	AUTHORITY
slough; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 174/1):		
Copper bolt	587.93	Bull. 569
Cap on pipe	591.95	
Bellevue, 0.25 mile above foot of Island 243, 30 meters from shore, in timber, 300 meters from head of Crooked slough; copper bolt in tile surmounted by iron pipe (U. S.C.E.b.m. 174/2):		
Copper bolt	588.79	Bull. 569
Cap on pipe	592.79	
Bellevue, 0.5 mile above foot of Island 243, 0.5 meter west of west right of way fence of CM&StP Ry, on property belonging to Mr. Efferding, on top of 25-foot railroad cut; copper bolt in tile surmounted by iron pipe (U.S. C.E.b.m. 174/3):		
Copper bolt	637.98	Bull. 569
Cap on pipe	642.02	
Bellevue, 3 miles above, 0.25 meter north of east-west wire fence, on very high ridge, 0.8 mile from river, a rocky point stands about 0.25 mile north of bench mark on property of John Weinert, 20 meters west of a gate, 100 meters west of jog in wire fence; copper bolt in tile sur- mounted by iron pipe (U.S.C.E.b.m. 174/4):		
Copper bolt	746.96	Bull. 569
Cap on pipe	750.99	
Belmond	1190,G1181	M&StL
Belmond, crossing CRI&P	1190,G1181	M&StL
Belmond, crossing CGW	1184,G1178	M&StL
Belmond	1191,G1184	CRI&P
Belmond, crossing CGW	1194	CRI&P
Belmond, crossing M&StL	1186	CRI&P
Belmond	1181.4,G1180	CGW
Belmond, crossing M&StL	1177.1	CGW
Beloit	1253,G1242	CM&StP
Beloit, 420 meters north of station, 13 meters west of track, 4 meters south of private road to orphan asylum, 1 meter east and 2 meters south of NE. cor. garden plot owned by J. Widdy, 1 meter below rails; copper bolt in top of stone post lettered "U.S.B.M." (U.S.C.&G.S.b.m. A)	1,244.177	Bull. 569
Beloit, 170 meters south of station, 31 meters east of track, 14 meters south of roadway, on a jasper rock, in garden plot, 2 meters south and 1 meter east of NW. cor., 0.4 meter below rails; bottom of square hole (U.S.C.&G.S. b.m. B)	1,246.911	Bull. 569
Beloit, 3 kilometers south of, 13 meters west of railway track, 4 meters north of private road, 110 meters north of trestle over ravine, 1 meter east of fence, 0.3 meter below rails; copper bolt in top of stone post lettered "U.S.B.M." (U.S.C.&G.S.b.m. C)	1,236.435	Bull. 569
Ben Clare, S. Dakota	1494	IC
Bennett	741,G742	CRI&P
Bennington, top of rim of upstream edge of iron casing tube of second pier from north end of highway bridge near Morgan Valley on Wabash RR (U.S.C.E.b.m. 59)	752.28	USGS
Bennington, T. 78 N., R. 21 W., at corner of secs. 26, 27, 34 and 35, 80 feet north and 20 feet east of T-road west, in root on west side of 18-inch elm tree; copper nail and washer, marked "791.8"	791.92	USGS
Bennington, T. 78 N., R. 21 W., at corner of secs. 27, 28, 33 and 34, 30 feet south and 25 feet west of T-road		

STATION	ELEVATION FEET	AUTHORITY
south, in root on south side of 30-inch elm tree; copper nail and washer, marked "827.1".....	827.18	USGS
Bennington, Tps. 77 and 78 N., R. 21 W., at corner of secs. 3, 4, 33 and 34, 35 feet south and 20 feet east of crossroads, in root on north side of 30-inch boxelder tree; copper nail and washer, marked erroneously "888.3".....	885.34	USGS
Bennington, T. 77 N., R. 21 W., at corner of secs. 3, 4, 9 and 10, 30 feet north and 20 feet west of T-road east, in root on NE. side of 16-inch elm tree; copper nail and washer, marked "791.6".....	791.72	USGS
Bennington, 1.5 miles west of Percy, in south part of W. C. Wilson's yard, 1 foot north of Wabash RR. fence at road crossing south to wagon bridge over Des Moines river, in top of concrete post; bronze tablet stamped "Prim. Trav. Sta. No. 24-L.S.-1904 reset 1924-Ia." (B569. Elev. and descrip. obsolete).....	772.989	USGS
Bennington, reference mark, 135 feet S. 20° E. of, at west side of north end of river bridge; top of retaining wall; chiseled square	753.66	USGS
Benson	894,G904	IC
Bentley	1261.1,G1266	CGW
Benton	1058.8,G1059	CGW
Bentonsport, B.M. top of monument M.P. 38 (U.S.C.E. b.m. 22)	568.72	CRI&P
Bentonsport, B.M. top of monument M.P. 39 (U.S.C.E. b.m. 23)	574.51	CRI&P
Bentonsport, top of rail, center of depot; (U.S.C.E. b.m. 24)	574.59	CRI&P
Bentonsport, B.M. top of monument M.P. 40 (U.S.C.E. b.m. 25)	569.65	CRI&P
Bentonsport, B.M. top of monument M.P. 41 (U.S.C.E. b.m. 26)	577.61	CRI&P
Bentonsport, B.M. top of monument M.P. 42 (U.S.C.E. b.m. 27)	584.84	CRI&P
Bentonsport, B.M. top of monument M.P. 43 (U.S.C.E. b.m. 28)	578.22	CRI&P
Bentonsport, top of upstream end of first pier from north end of highway bridge (U.S.C.E.b.m 92).....	569.88	Bull. 569
Bentonsville	1086	CB&Q
Berkeley	994,G995	M&StL
Berlin, changed to Lincoln		
Bernard	920,G911	CM&StP
Berne	1213	C&NW
Bernhart	735,G737	CB&Q
Bertram	717,G716	C&NW
Bertram, top of rail on east line of sec. 29, Tp. 83, R. 6, 90 feet south of NE. cor. NE. ¼ SE. ¼ sec. 29.....	772.81	CR&IC
Bertram, top of rail on south line sec. 28, Tp. 83, R. 6, 600 feet west of SE. cor. sec. 28.....	792.11	CR&IC
Bertram, top of rail on east line sec. 34, Tp. 83, R. 6, 650 feet north of SE. cor. sec. 34.....	741.31	CR&IC
Berwick	851.9,G846	CGW
Berwick, 200 feet north of station, east of road, 20 feet north of elm; iron post stamped "841 Adj. 1903".....	839.931	Bull. 569
Berwick, 1.6 miles north of, 150 feet SW. of brick house, 100 feet NE. of fork of road; iron post stamped "942 Adj. 1903"	940.889	Bull. 569
Berwick, T. 79 N., R. 23 W., about 0.2 mile west of corner of secs. 4, 5, 8 and 9, 140 feet east and 20 feet south of T-road south, in root on NE. side of 30-inch forked elm tree; copper nail and washer, marked "858.4".....	858.35	USGS

STATION	ELEVATION FEET	AUTHORITY
Berwick, CGW RR at road crossing between secs. 4 and 9, T. 79 N., R. 23 W.; top of rail.....	898.8	USGS
Berwick, T. 79 N., R. 23 W., near corner of secs. 3, 4, 9 and 10, 150 feet east and 10 feet south of crossroads, near Hammer schoolhouse, on top of south heading of concrete culvert; chiseled square, marked "920.0".....	920.04	USGS
Berwick, T. 79 N., R. 23 W., near corner of secs. 2, 3, 10 and 11, 35 feet east and 20 feet south of crossroads, 13 feet east and 4 feet south of fence corner, in root on SW. side of 16-inch walnut tree; copper nail and washer, marked "960.3".....	960.35	USGS
Bethany Junction	1104,G1106	CB&Q
Bettendorf	575	CM&StP
Bettendorf	572.00	CD&M
Bettendorf, DRI&NW station.....	572.5	CB&Q
Bettendorf, Union Station.....	G565	DRI&NW
Bettendorf, crossing CM&StP.....	G568	DRI&NW
Beverly	736	C&NW
Beverly, crossing CM&StP.....	737	C&NW
Beverly, crossing C&NW	736,G738	CM&StP
Bevington	840,G847	CRI&P
Bevington, Middle river at.....	833	IaGS
Beulah	938,G943	CM&StP
Bidwell	718,G720	CM&StP
Big Mound, Lee Co.....	748	IaGS
Big Rock	710,G696	CM&StP
Bigelow, Minn.	1637.3	CStPM&O
Bingham	1073	WRR
Birmingham	751	CB&Q
Blairsburg	1229,G1224	IC
Blairstown	838,G839	C&NW
Blakesburg	908,G912	CM&StP
Blanchard	985	WRR
Blanden	1234,G1232	CRI&P
Blencoe	1042,G1043	C&NW
Blencoe, T. 82 N., R. 45 W., at NW. cor. NE. $\frac{1}{4}$ SE. $\frac{1}{4}$ sec. 7, in SE. angle formed by crossroads, on land owned by Thorley heirs, 1.5 miles from river bank; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 133/3):		
Copper bolt	1,038.19	Bull. 569
Cap on pipe	1,042.26	
Blencoe, 4.5 miles south of, 165 feet south by 92 feet east of p.b.m. 372, 1,345 feet south of milepost 28, 46 feet east of tracks; copper bolt in bench-mark stone sur- mounted by iron pipe (U.S.C.E.p.b.m. 371):		
Copper bolt	1,031.133	Bull. 569
Cap on pipe	1,035.136	
Blencoe, 4.5 miles south of, 1,148 feet south of milepost 28, 46 feet west of tracks; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 372 equals 132/4): Cap on pipe.....	1,031.930	Bull. 569
Blencoe, 1.8 miles south of, 1,483 feet north of milepost 30, 1,305 feet south of railway bridge 25, 46 feet east of tracks; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 373):		
Copper bolt	1,034.132	Bull. 569
Cap on pipe	1,038.134	
Blencoe, 623 feet north of station, 525 feet west of tracks, 25 feet north by 58 feet east of NE. cor. Isaac Fleener's house; copper bolt in bench-mark stone surmounted by		

STATION	ELEVATION FEET	AUTHORITY
iron pipe (U.S.C.E.p.b.m. 374 equals 133/4):		
Copper bolt	1,037.229	Bull. 569
Cap on pipe	1,041.218	
Blencoe, copper bolt in stone north of C&NW station.....	G1038	Mo. Riv. Com.
Blockley	958	CB&Q
Blockton	1080.1,G1081	CGW
Bloomfield	844,G832	CB&Q
Bloomfield, junction with Wabash.....	881	CB&Q
Bloomfield	857,G845	WRE
Bloomfield, junction with CB&Q.....	881	WRE
Bloomington, Story Co.....	1041	IAGS
Blue Grass	796	CRI&P
Blue Grass	803.87	CD&M
Bluffton, Winneshiek Co., T. 99 N., R. 9 W., SE. cor. sec. 16, in NE. cor. school yard; iron post stamped "1139 DBQ"	1,139.16	Bull. 569
Bode	1155,G1150	CRI&P
Bolan	1228.7,G1222	CGW
Bonair	1309,G1308	CM&StP
Bonaparte, B.M. top of monument M.P. 34 (U.S.C.E. b.m. 18)	561.88	CRI&P
Bonaparte, B.M. top of monument M.P. 35 (U.S.C.E. b.m. 19)	560.71	CRI&P
Bonaparte, top of rail, center of depot (U.S.C.E.b.m. 20)	564.00	CRI&P
Bonaparte, B.M. top of monument M.P. 36.....	564.11	CRI&P
Bonaparte, B.M. top of monument M.P. 37 (U.S.C.E. b.m. 21)	574.37	CRI&P
Bonaparte, high-water mark of 1903, on north end of retaining wall of approach to highway bridge; chisel mark (U.S.C.E.b.m. 93)	557.93	Bull. 569
Bondurant	968.0,G964	CGW
Boone	1138	C&NW
Boone, B.M. on station doorsill.....	1138.40	FtDDM&S
Boone, crossing over C&NW.....	1177	FtDDM&S
Boone	1120,G1122	CM&StP
Boone, crossing over C&NW.....	1130,G1112	CM&StP
Boone, T. 83 N., R. 26 W., south center of SE. 1/4 sec. 2, east-west crossing CM&StP Ry, on north side of road, east side of railroad; spike in base of telephone pole, marked "1140.0"	1,139.10	Bull. 569
Boone, Tps. 83 and 84 N., R. 26 W., CM&StP Ry, crossing township-line road between sec. 2, T. 83 N., and sec. 35, T. 84 N., top of rail.....	1,138.5	Bull. 569
Boone, 1 mile east by 2.5 miles south of, T. 84 N., R. 26 W., SE. cor. sec. 34, just north of township line between Des Moines and Worth townships, SW. cor. crossroads, just west of fence corner; iron post stamped "1119"	1,117.929	Bull. 569
Boone, 1.5 miles SE. of, T. 84 N., R. 26 W., east center of sec. 27, SW. cor. crossroads, west end of drain under road to south; chiseled square on top of stone, marked "1141.7"	1,140.73	Bull. 569
Boone, T. 84 N., R. 26 W., just north of SE. cor. sec. 21, C&NW Ry overhead-crossing road to north on north-south section line, north entrance of subway, west side of, at base of abutment, in top of concrete curbing running north; chiseled square, marked "1116.6".....	1,115.63	Bull. 569
Boone, in grass plot on north side of east entrance to post-office building; iron post stamped "1134".....	1,133.406	Bull. 569
Boone, 1 mile north of, NW. cor. sec. 22, T. 84 N., R. 26 W., at fair grounds, SE. cor. crossroads; chiseled square		

STATION	ELEVATION FEET	AUTHORITY
on top of concrete foundation of manhole of storm sewer, marked "1140.0"	1,139.08	Bull. 569
Boone, 2 miles north of, T. 84 N., R. 26 W., cor. secs. 9, 10, 15, and 16, in center of road forks at T road west; chiseled square on top of corner stone, marked "1141.85"	1,140.89	Bull. 569
Boone, 3 miles north of, T. 84 N., R. 26 W., NE. cor. sec. 9, SW. cor. crossroads, at fence corner; iron post stamped "1135"	1,133.829	Bull. 569
Boone, 4 miles north of, T. 84 N., R. 26 W., NW. cor. sec. 3, SE. cor. crossroads, 20 feet SE. of center of roads, 17 feet NW. of SE. fence corner; chiseled square on top of stone, marked "1131.8"	1,130.78	Bull. 569
Boone, 4.5 miles north of, T. 85 N., R. 26 W., west center of sec. 34, SE. cor. crossroads; chiseled square on top of stone at fence corner, marked "1138.7"	1,137.75	Bull. 569
Boone, 5.2 miles north of, T. 85 N., R. 26 W., west center of SW. ¼ sec. 27, houses on both east and west sides of road, in front of house on east side of road, on fence line east of road, 20 feet south of gate to house; copper nail in root of 1½-foot maple tree, marked "1176.8"	1,175.80	Bull. 569
Boone, 6.1 miles north of, T. 85 N., R. 26 W., east center of SE. ¼ sec. 21, 0.1 mile north of crossroads, SE. cor. schoolhouse yard, west side of road; iron post stamped "1177"	1,176.455	Bull. 569
Boone, 7 miles north of, T. 85 N., R. 26 W., SE. cor. sec. 16, NW. cor. crossroads; copper nail in top of north end of plank drain under road to west, marked "1137.0"	1,136.01	Bull. 569
Booneville	853,G858	CRI&P
Booneville, 50 feet south of track, in NW. cor. of field, opposite point 450 feet west of station; iron post stamped "Prim. Trav. Sta. No. 9"	857.618	Bull. 569
Booneville, in front of CRI&P Ry station; top of rail.....	856.3	Bull. 569
Booneville, 2 miles east of, in SW. abutment of bridge 353; aluminum tablet	845.155	Bull. 569
Border Plains	1090	FtDDM&S
Botna	1292	C&NW
Botna	1290.10,G1298	CGW
Bouton	957,G958	CM&StP
Bowsher station, 0.8 mile south of, bridge over Four Mile creek, in south side of east abutment; aluminum tablet stamped "821 Adj. 1903"	819.296	Bull. 569
Boxholm, B.M. pole No. 908.....	1145.55	FtDDM&S
Boyd, Butler county.....	899	IC
Boyd, Chickasaw county	1132.2	CGW
Boyden	1418,G1424	CM&StP
Boyer	1217	C&NW
Braddyville	963.8,G953	CB&Q
Braddyville, Iowa-Mo. state line.....	964	CB&Q
Bradford	1243	CRI&P
Bradgate	1122,G1123	C&NW
Brady	977.41	DM&CI
Brainard	909,G919	CRI&P
Brandon, switch at Line St. crossing, subgrade.....	819.10	WCF&N
Brayton	1207,G1209	CRI&P
Brazil	906,G933	CB&Q
Brazil, crossing CM&StP.....	G955	CB&Q
Breda	1366,G1365	C&NW
Bremer	1032.9	CGW
Bricker, base of rail opposite E. end depot.....	567.4	AT&SF

BRICKER-BRYANTSBURG

397

STATION	ELEVATION FEET	AUTHORITY
Bricker, 1 mile east of, east end of bridge over CB&Q. base of rail	576.6	AT&SF
Bricker, square cut in north concrete bridge seat, east abutment, bridge over CB&Q.....	573.54	AT&SF
Bridgeport, Jackson Co.....	640	USGS
Bridgewater	1189.88,G1188	CB&Q
Bridgewater, SE. ¼ sec. 34, T. 75 N., R. 33 W.....	1198	IaGS
Bridgewater, SE. ¼ sec. 16, T. 74 N., R. 33 W.....	1155	IaGS
Brighton	750,G743	M&StL
Brighton, crossing over CRI&P.....	755,G747	M&StL
Brighton, crossing, CRI&P track.....	729,G722	M&StL
Brighton, crossing CB&Q.....	751	M&StL
Brighton	722	CRI&P
Brighton, crossing M&StL and CB&Q.....	722	CRI&P
Brighton	740	CB&Q
Brighton, crossing CRI&P.....	744	CB&Q
Brighton, crossing, CRI&P track.....	722	CB&Q
Brighton, Skunk river north of.....	613	IaGS
Briscoe, Adams Co., top of mine shaft at.....	1135	IaGS
Briscoe, Nodaway river bed at Fox quarries, SW. ¼ sec. 31, T. 74 N., R. 35 W.....	1102	IaGS
Bristow	1031.4,G1030	CGW
Britt	1229,G1234	CM&StP
Britt, crossing M&StL.....	1207	CM&StP
Britt	1224,G1229	M&StL
Britt, crossing CM&StP.....	1207	M&StL
Brogan	1232	IC
Bromley	941,G932	M&StL
Brompton	944,G950	CM&StP
Bronson	1103	C&NW
Brooklyn	845,G848	CRI&P
Brooks	1095.3,G1096	CB&Q
Browns, main line	685,G685	CM&StP
Browns, Elk River Junction line.....	676	CM&StP
Bruce, Minn.	1491	IC
Brunsville	1263.4	C&NW
Brushy	1096	FtDDM&S
Brushy, T. 88 N., R. 27 W., cor. secs. 8, 9, 16 and 17, 120 feet north of sec. cor. and directly in front of dwell- ing, on west edge of road, on steel base of mail box post, marked "1,103.5"; chiseled notch.....	1,103.36	USGS
Brushy, interurban railway and highway crossing at, 100 feet north of crossing, on east side of highway, in front end of and south side of church, 2 feet west of and 0.5 foot lower than front door, 1.5 feet above ground; bronze tablet set in concrete, stamped "Iowa 1919 1,106".....	1,106.388	USGS
Brushy, railroad crossing, 0.45 mile south of, 280 feet south of T road west, on east side of road, in front end of concrete walk to house, marked "1,095.4"; chiseled square	1,095.23	USGS
Brushy, T. 88 N., R. 27 W., cor. secs. 20, 21, 28 and 29, 90 feet south of center of crossroads, on west side of north and south road, in base of telephone pole, marked "1,100.3"; spike	1,100.16	USGS
Brushy, T. 88 N., R. 27 W., cor. secs. 28, 29, 32 and 33, 115 feet south of crossroads, on west side of road, on fence line, in root of large lone willow tree, marked "1,095.2"; copper nail and washer.....	1,095.04	USGS
Bryant, Clinton Co.....	771	C&NW
Bryant, Polk Co.....	800	WRR
Bryantsburg	977	CRI&P

STATION	ELEVATION FEET	AUTHORITY
Buchanan	749,G750	CRI&P
Buck Grove	1233,G1233	CM&StP
Buckeye	1154	CRI&P
Buckingham	906	C&NW
Bucknell, T. 72 N., R. 19 W., about 0.35 mile east of quarter corner on south side of sec. 16, in NW. angle of T road north, 4 feet west of corner post; iron post stamped "Iowa 983, 1913".....	983.039	Bull. 569
Bucknell, T. 72 N., R. 19 W., about 0.25 mile west by 0.10 mile south of NE. cor. sec. 16, on east side of road, 10 feet north of wire gate opening into cornfield, lone red-oak tree 2.5 feet in diameter, in top of stump at base of tree; copper nail.....	964.10	Bull. 569
Bucknell, T. 72 N., R. 19 W., 0.25 mile east of quarter corner on north side of sec. 9, opposite secondary T road west, 50 feet NE. of John F. Foley's mail box, 1 foot south of telephone pole, in top of peg; copper nail.....	839.41	Bull. 569
Bucknell, at village, T. 72 N., R. 19 W., at center of sec. 3, in NW. angle of road forks, 150 feet NW. of wooden bridge over White creek, 6 feet west of corner post; iron post stamped "Iowa 811, 1913"	811.399	Bull. 569
Bucknell, T. 73 N., R. 19 W., at center of sec. 34, in SE. angle of T road east, concrete foundation to corner post; center of letter A in "A.B. May 22, 1913".....	966.47	Bull. 569
Bucknell, T. 73 N., R. 19 W., at quarter corner on south side of sec. 27, in NW. angle of crossroads, 3 feet NE. of corner post, in osage peg; copper nail.....	964.01	Bull. 569
Bucknell, T. 73 N., R. 19 W., at quarter corner between secs. 22 and 27, at T road west, on section stone; chiseled square	936.90	Bull. 569
Bucknell, 4.5 miles north of, T. 73 N., R. 19 W., sec. 10, at quarter corner on south side of, in NW. angle T road, 1.5 feet NE. of corner post, in top of peg; copper nail.....	863.39	Bull. 569
Bucknell, T. 73 N., R. 19 W., sec. 22, at NW. cor., at T road north, 200 feet SW. of Cedar Center schoolhouse, 27 feet east by 30 feet south of section corner; iron post stamped "Iowa 943, 1913".....	942.694	Bull. 569
Bucknell, T. 73 N., R. 19 W., sec. 21, at NW. cor., opposite T road north, 18 feet south by 9 feet east of section corner, in top of wooden peg; copper nail.....	921.97	Bull. 569
Bucknell, T. 73 N., R. 19 W., sec. 17, near SW. cor., 47.2 feet due south of center of south wall of schoolhouse, in stump of twin-oak tree 7 inches in diameter; copper nail	909.43	Bull. 569
Bucknell, T. 73 N., R. 19 W., at quarter corner between secs. 18 and 19, top of hill; top of quarter corner stone	884.13	Bull. 569
Budd	700.4	CGW
Buena Vista, Clayton Co., see North Buena Vista.....	626,G626	CM&StP
Buena Vista, Lee Co., M.P. 175.7.....	496,G502	CB&Q
Buena Vista, bridge over Des Moines river, M.P. 175.....	502	CB&Q
Buena Vista, on NW. cor. east abutment CB&Q RR bridge near mouth of Des Moines river, 2.7 miles from Keokuk. Cross mark 1 foot in from face of abutment (U.S.C.E. b.m. 1)	496.63	USCE
Buffalo, union station with CRI&P.....	558	CM&StP
Buffalo	556,G559	CRI&P
Buffalo, 0.8 mile below, on property of W. L. Clark, 1 meter south and 2 meters east of center of SE. ¼ sec. 21, 400 meters from river; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 146/3):		
Copper bolt	613.63	Bull. 569
Cap on pipe	617.63	

BUFFALO-BURLINGTON

399

STATION	ELEVATION FEET	AUTHORITY
Buffalo, on William Karge's brick store and post-office building, in east side near SE. cor., 3 feet above foundation, at NW. cor. Hecker and Second Sts.; brass bolt (U.S.C.E.p.b.m. 36)	565.438	Bull. 569
Buffalo, 0.5 mile east of, on foundation of brick house of Eliza M. Dodge, in upper foundation stone on west side, near SW. cor., 1 meter from ground, 100 meters north of CRI&P RR; brass bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 37)	568.936	Bull. 569
Buffalo Center	1196.61183	CRI&P
Bullard, M.P. 197	559.6559	CB&Q
Burch	819	CGW
Burch	828	CB&Q
Burchinal	1229.7, 61230	CGW
Burdette	1176	CRI&P
Burlington	532.3	CB&Q
Burlington, Union Station	G533	Miss. R. Com.
Burlington, City datum	G435	Miss. R. Com.
Burlington, Mississippi R., low water	G511	Miss. R. Com.
Burlington, Mississippi R., extreme high water, 1851	G531	Miss. R. Com.
Burlington	530	CRI&P
Burlington, 3.5 miles south of, on south side of CB&Q RR, on north side of stone building known as Patterson's grocery near NE. cor., 2½ feet from ground; copper bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 11)	540.156	Bull. 569
Burlington Island, 15 meters from east shore opposite foot of Two Mile Island, 18.3 meters 165° from 15-inch ash tree, 9.2 meters 253° 30' from 30-inch elm tree, 10 meters 70° from 22-inch elm tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 122/1):		
Copper bolt	515.13	Bull. 569
Cap on pipe	519.13	
Burlington, Island 380, 60 meters from head, 17 meters from top of bank, 7.4 meters 148° to 41-inch elm tree, 4.5 meters 235° to 9-inch ash tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 122/2):		
Copper bolt	516.56	Bull. 569
Cap on pipe	520.57	
Burlington Island, at foot of, in field 2 meters north of hedge fence on hill near top, abreast the 4-mile post on CB&Q RR, a two-story stone house with red roof is on slope of hill about 100 meters from stone; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. "Pat"):		
Copper bolt	638.71	Bull. 569
Cap on pipe	642.68	
Burlington Island, in interior of, 560 meters back of following-described bench mark, on east side of an old wagon road, 13 meters 184° to 25-inch elm tree, 10 meters 248° to 18-inch white oak; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 123/1):		
Copper bolt	516.72	Bull. 569
Cap on pipe	520.73	
Burlington Island, on west shore of, on narrow ridge 5 meters from shore, 3 meters 336° to 12-inch willow tree, 3 meters 29° 30' to 15-inch willow, 0.7 meter 121° 30' to 15-inch willow; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 123/2):		
Copper bolt	516.02	Bull. 569
Cap on pipe	520.96	
Burlington, three-mile post on CB&Q RR, on brow of bluff above, in front of dwelling house, 4.5 meters 308° to 6-		

STATION	ELEVATION FEET	AUTHORITY
inch hickory, 4.8 meters 128° to 7-inch hickory, 2.5 meters 186° 30' to 8-inch oak; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 123/3):		
Copper bolt	646.99	Bull. 569
Cap on pipe	651.01	
Burlington, in SE. cor. west abutment of bridge, on stone used as bridge seat and in same course of masonry as those upon which plate girder rests; square cut (U.S.C.E. b.m. 13 R.B.).....	535.90	Bull. 569
Burlington, on NW. cor. Front and Valley sts.; top of water table (U.S.C.E. city b.m. 1).....	537.66	Bull. 569
Burlington, on NE. cor. Main and Valley Sts.; top of stone door sill (U.S.C.E. city b.m. 2).....	538.22	Bull. 569
Burlington, on lower side of round pier to draw span by bridge; high-water mark of 1851.....	530.28	Bull. 569
Burlington, inside of upper stone of mouth of sewer emptying just below elevator; cut (U.S.C.E. high-water mark of 1888)	529.59	Bull. 569
Burlington, private marks in Diamond Jo warehouse (U. S.C.E. high-water marks, 1880, 1881, 1888, 1892, 1892):		
1880	527.60	Bull. 569
1881	528.49	
1888	529.17	
1892	529.50	
1892	528.40	
Burlington, in upper part of, nearly on line with bench marks 124/2 and 124/3, 4.7 meters 314° to 30-inch cottonwood, 7.8 meters 148° 30' to 8-inch locust, 3.2 meters 48° 30' to 18-inch elm, in woods on ridge; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 124/1):		
Copper bolt	520.16	Bull. 569
Cap on pipe	524.16	
Burlington, in upper part of, on sandy ridge, 25 meters from water's edge at old warehouse levee, 60 meters below ferry landing and about 120 meters from old sawmill; copper bolt in tile surmounted by iron pipe (U.S. C.E.b.m. 124/2):		
Copper bolt	521.34	Bull. 569
Cap on pipe	525.33	
Burlington, in upper part of, on brow of bluff at corner of lots of Mr. Churchall and Mrs. Foote, 50 meters north of tall chimney of waterworks engine house; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 124/3):		
Copper bolt	633.64	Bull. 569
Cap on pipe	637.66	
Burlington, Otter Island, at foot of, near large swamp, 626 meters back of following-described bench mark, 1.3 meters 46° to 15-inch cottonwood, 8 meters 136° 30' to 18-inch elm tree, 10.2 meters 292° to 30-inch elm tree; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 125/1):		
Copper bolt	519.79	Bull. 569
Cap on pipe	523.80	
Burlington, Otter Island, at foot of, at head of riprap, 14 meters from water's edge, 6.5 meters 303° to 15-inch black oak, 11.5 meters 12° to 24-inch elm tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 125/2):		
Copper bolt	520.49	Bull. 569
Cap on pipe	524.50	
Burlington, Otter Island, 13 meters west of small slough		

BURLINGTON-BUSSEY

401

STATION	ELEVATION FEET	AUTHORITY
on, 400 meters above foot of island, 100 meters from east side of island, 7.4 meters 65° to 18-inch cottonwood tree, 6 meters 176° 30' to 15-inch cottonwood; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 125/3):		
Copper bolt	519.06	Bull. 569
Cap on pipe	523.04	
Burlington, O'Connell Island, 8 meters from east shore, 250 meters above point opposite head of Rush Island, 5.6 meters 149° to 28-inch maple tree, 8.9 meters 232° 30' to 9-inch maple tree, 7.2 meters 301° to 15-inch maple tree; copper bolt in tile surmounted by iron pipe (U.S. C.E.b.m. 125/4):		
Copper bolt	519.58	Bull. 569
Cap on pipe	523.58	
Burlington, top of water table, NW. cor. Front and Valley Sts., marked "537.48"	537.66	Bull. 569
Burlington, CB&Q RR bridge over Mississippi river; chiseled square on top of north wing wall of west abutment; marked "U.S.B.M. 542.2"	542.37	Bull. 569
Burlington, CB&Q RR bridge over Mississippi river, on south end of bridge seat of west abutment; chiseled square cut in top, marked "535.7" (U. S. Corps of Engineers bench mark)	535.902	Bull. 569
Burlington, West	688.5,G690	CB&Q
Burlington Crossing, under CGW	824	CRI&P
Burnside	1145,G1147	M&StL
Burnside, T. 87 N., R. 28 W., cor. secs. 3, 4, 9 and 10, at road crossing over Crooked creek, on N. edge of road and E. end of bridge, 2.5 ft. above bridge floor, in top of concrete railing, marked "1,100.1"; chiseled square.....	1,100.21	USGS
Burnside, T. 87 N., R. 28 W., cor. secs. 2, 3, 10 and 11, 35 ft. NW. of center of crossroads, at fence corner, in base of telephone pole, marked "1,118.9"; spike.....	1,119.02	USGS
Burnside, T. 87 N., R. 28 W., near cor. secs. 27, 28, 33 and 34, 550 feet west of center of crossroads, in north side of road, at gate entrance to Mr. L. E. Ruper's barn lot, in root of large cottonwood tree (36 inches in diameter); copper nail and washer, marked "U.S.G.S. B.M.".....	1,154.76	USGS
Burnside, T. 87 N., R. 28 W., at cor. secs. 28, 29, 32 and 33, 30 feet NE. of center of crossroads, in north end of concrete culvert; chiseled square "T.B.M. 1,149.8".....	1,149.72	USGS
Burr Oak, Winneshiek Co., T 100 N., R. 9 W., quarter corner on east side of sec. 21, in SW. corner of Ward schoolhouse yard; iron post stamped "1213 DBQ".....	1,212.773	Bull. 569
Burt	1177,G1169	C&NW
Bussey	873	WRR
Bussey	871.32,G873	CB&Q
Bussey, T. 74 N., R. 17 W., near quarter corner between secs. 19 and 30, 120 feet north of bridge over small creek, on west side of road, 10 feet east of right-of-way fence, in root on east side of a 2-foot birch tree; copper nail and washer painted "U.S.B.M. 772.7".....	772.64	USGS
Bussey, T. 74 N., R. 17 W., near quarter corner between secs. 18 and 19, 100 feet east of T-road south, on south side of road, 10 feet north of fence line, in root on east side of a 1-foot elm tree; copper nail and washer, painted "U.S.B.M. 812.4"	812.31	USGS
Bussey, T. 74 N., R. 17 W., cor. secs. 17 and 18, 19 and 20, in NE. angle of roads at T-road north, 6 feet north by 0.5 foot west of corner fence post, in top of concrete		

STATION	ELEVATION FEET	AUTHORITY
post; bronze tablet stamped "E.B. No. 8 1924 Iowa", painted "U.S.P.B.M. 835.1".....	835.042	USGS
Bussey, reference mark, 17 feet south by 5 feet east of tablet, in top of a 6-inch hedge stump 2 feet above ground; copper nail and washer.....	836.68	USGS
Bussey, T. 74 N., R. 17 W., cor. secs. 7, 8, 17 and 18 in NW. angle of roads at T-road west, in top on east side of concrete base to corner fence post; chiseled square, painted "U.S.B.M. 786.3".....	786.22	USGS
Bussey, T. 74 N., R. 17 W., quarter corner between secs. 7 and 8, in NW. angle of crossroads, in top on east side of concrete base to corner fence post; chiseled square, painted "U.S.B.M. 844.6".....	844.53	USGS
Bussey, T. 74 N., R. 17 W., quarter corner between secs. 5 and 6, in NE. angle of crossroads, 70 feet north by 1 foot east of corner of right-of-way fence, in top of a 6- inch hedge stump; copper nail and washer, painted "U. S.B.M. 847.2".....	847.15	USGS
Butler	845,G838	M&StL
Butler, crossing CB&Q.....	840,G833	M&StL
Butler	831	CB&Q
Buxton	769	C&NW
Buxton, T. 73 N., R. 17 W., cor. secs. 1, 2, 11 and 12, in N.W. angle of crossroads, 10 feet west by 1 foot south of fence corner, in top of 6-inch osage orange stump; copper nail and washer, painted "U.S.B.M. 843.8".....	843.49	USGS
Buxton, Tps. 73 and 74 N., R. 17 W., near cor. secs. 1, 2, 35 and 36, on county line, in SE. angle of roads at T- road south, 4 feet south of corner fence post, in top of concrete post; bronze tablet stamped "E.B. No. 13 1924 Iowa", painted "U.S.B.M. 849.8".....	849.539	USGS
Buxton, reference mark, 60 feet north by 10 feet west of tablet, south (5 feet) of fence line, on north side of east and west road, in top of 6-inch elm stump; copper nail and washer.....	849.47	USGS
Buxton, T. 74 N., R. 17 W., near SE. cor. sec. 35, at road crossing C&NW Ry; top of east rail.....	755.5	USGS
Calamus	703,G706	C&NW
Caldwells	1071,G1075	CM&StP
California Junction	1009,G1011	C&NW
California Junction, low water in Missouri river near Blair, Nebr.	G986	USGS
California Junction, high water in Missouri river.....	G1007	USGS
California Junction, 758 feet east of station, NW. cor. A. W. Smith's orchard, 3 feet from each fence, 56 feet south of C&NW track; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m 360 equals 127/3):		
Copper bolt	1,002.475	Bull. 569
Cap on pipe	1,006.481	
California Junction, 1.8 miles north of station, 70 feet south of public-road crossing, 44 feet east of tracks; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 361):		
Copper bolt	1,005.293	Bull. 569
Cap on pipe	1,009.306	
California Junction, on left bank of Missouri river, 1.25 miles from river bank, in SW. cor. sec. 25, T. 78 N., R. 45 W., opposite side of road from H. B. Hendrick's house, from which it is distant about 200 feet; copper		

CALLENDER-CAMANCHE

403

STATION	ELEVATION FEET	AUTHORITY
bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 126/2):		
Copper bolt	998.47	Bull. 569
Cap on pipe	1,002.53	
Callender	1156,G1151	M&StL
Callender, T. 87 N., R. 29 W., cor. secs. 19, 20, 29 and 30, 50 feet NE. of center of crossroads, in concrete base of fence post, marked "1,157.4"	1,157.44	USGS
Callender, T. 87 N., R. 29 W., cor. secs. 17, 18, 19 and 20, 60 feet SW. of road forks, in base of telephone pole, marked "1,159.4"; spike	1,159.45	USGS
Callender, T. 87 N., R. 29 W., cor. secs. 7, 8, 17 and 18, 50 feet NE. of center of crossroads, 2.5 feet south of fence corner; iron post stamped "IOWA 1919 1,155"	1,154.994	USGS
Callender, T. 87 N., R. 29 W., quarter corner south side of sec. 8 at T road north, 40 feet NE. of road fork, in base of corner fence post, marked "1,155.8"; spike	1,155.82	USGS
Callender, T. 87 N., R. 29 W., quarter corner, north side of sec. 8, 50 feet SE. of center of crossroads, in base of corner fence post, marked "1,158.5"; spike	1,158.49	USGS
Callender, T. 87 N., R. 29 W., quarter corner, north side of sec. 5, 50 feet SE. of center of crossroads, in concrete base of corner fence post, marked "1,155.2"; chiseled point	1,155.27	USGS
Callender, T. 87 N., R. 29 W., cor. secs. 4, 5, 32 and 33, T road north, 50 feet south of road fork, in root of 8-inch cottonwood tree, marked "1,152.5"; copper nail and washer	1,152.52	USGS
Callender, T. 88 N., R. 29 W., cor. secs. 28, 29, 32 and 33, at T road east, 35 feet west of road fork, 2 feet east of fence line; iron post stamped "Iowa 1919 1,153"	1,153.406	USGS
Calliope	1191,G1185	CM&StP
Calliope, 5.9 meters south of cor. McCaull-Webster elevator, 18 meters west of railway and 55 meters south of station, 0.4 meter above ground, 0.25 meter north of south end of foundation wall (pink jasper), at east edge; square hole (U.S.C.&G.S.b.m.H.)	1,181.566	Bull. 569
Calmar	1258,G1262	CM&StP
Calmar, junction with Iowa and Dakota division	1265	CM&StP
Caloma, Marion Co., 2 miles west of, T. 75 N., R. 22 W., NE. cor. sec. 26, in SW. angle of crossroads, 50 feet west by 30 feet south of corner; in limestone rock 6 by 10 by 30 inches, set 28 inches in ground; aluminum tablet stamped "966 Adj."	965.179	Bull. 569
Caloma, 1 mile north of, T. 75 N., R. 21 W., NW. cor. sec. 20, at SE. angle of crossroads, limestone rock 8 by 10 by 24 inches, set 22 inches in ground; aluminum tablet stamped "936 Adj."	934.698	Bull. 569
Calumet	1434,G1430	IC
Calumet, crossing under C&NW	1454	IC
Camanche	598	CRI&P
Camanche	599.00	CD&M
Camanche, crossing over C&NW	628	CD&M
Camanche	G596	DRI&NW
Camanche	606	CM&StP
Camanche	598,G599	C&NW
Camanche distillery building, top of upper foundation stone on SE. cor., 2 feet above ground; cross cut in boards above (U.S.C.E.t.b.m. 16 R.B.)	584.99	Bull. 569
Camanche, cut in foundation on east side of warehouse (U.S.C.E. high-water mark, June 25, 1880)	584.53	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
Camanche, in root of first large birch tree 100 meters above old sawmill piling at upper end of; nail (U.S.C.E. t.b.m. 17 R.B.)	576.77	Bull. 569
Camanche, in front of station on branch of CB&Q RR, base of rail (U.S.C.E.b.m.)	597.28	Bull. 569
Camanche, 1 mile north of, 0.5 mile from river, on north-south wagon road, 80 meters north of north fence of cemetery, on ridge 0.5 meter west of east fence; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 159/4):		
Copper bolt	607.19	Bull. 569
Cap on pipe	611.21	
Cambria	1089,G1100	CB&Q
Cambridge	881,G861	CM&StP
Cambridge, crossing over CRI&P	880	CM&StP
Cambridge	853	CRI&P
Cambridge, crossing under CM&StP	854	CRI&P
Cambridge, T. 82 N., R. 23 W., NE. cor. NW. ¼ sec. 10; iron post stamped "942"	940.907	Bull. 569
Cambridge, T. 82 N., R. 23 W., SE. cor. SW. ¼ sec. 10; spike in corner post, marked "U.S.B.M. 918"	916.56	Bull. 569
Cambridge, 1 mile NE. of, iron bridge over county ditch, top of east abutment of north wing wall; marked □ U.S. B.M. 855'	853.32	Bull. 569
Cambridge, in front face of Citizens State Bank; aluminum tablet stamped "872"	870.442	Bull. 569
Cambridge, in front of CRI&P Ry; top of rail	861.6	Bull. 569
Cambridge, T. 82 N., R. 23 W., SW. cor. SE. ¼ sec. 28; spike in telephone pole, marked "U.S.B.M. 884"	882.93	Bull. 569
Cambridge, T. 81 N., R. 23 W., NW. cor. NE. ¼ sec. 4, line between Story and Polk counties; spike in telephone pole, marked "U.S.B.M. 906"	904.51	Bull. 569
Cambridge, T. 81 N., R. 23 W., NW. cor. NE. ¼ sec. 9; iron post stamped "910"	908.698	Bull. 569
Cameron, Cerro Gordo Co.	1228,G1220	M&StL
Cameron, Dubuque Co.	621,G623	CM&StP
Camp Dodge	846.07	DM&CI
Camp Douglas	806.81	DM&CI
Campbell	876,G879	CM&StP
Canton, Jackson Co.	730	USGS
Canton, S. Dakota, SC&D line	1253	CM&StP
Canton, S. Dakota, Ia. & Dak. line	1244,G1246	CM&StP
Cantril	773,G773	CB&Q
Capron	1061	M&StL
Capron, crossing CM&StP	1061	M&StL
Capron, crossing CGW	1059	M&StL
Capron	1052,G1050	CM&StP
Capron, crossing M&StL	1052,G1049	CM&StP
Carbon, Adams Co.	1100	IaGS
Carbon, Middle Nodaway river at	1060	IaGS
Carbon, Davis county	699	WRR
Carl, Adams Co.	1280	IaGS
Carlisle	780,G784	CRI&P
Carlisle, in front of CRI&P Ry station; top of rail	784.2	Bull. 569
Carlisle station, at side of road 200 feet east of tracks, limestone rock 8 by 8 by 30 inches, set 28 inches in ground; aluminum tablet stamped "782 Adj."	781.564	Bull. 569
Carlisle, T. 77 N., R. 23 W., sec. 23, SW. cor. at NE. cor. of crossing, limestone rock 8 by 9 by 32 inches, set 30 inches in ground; aluminum tablet stamped "914 Adj."	912.891	Bull. 569
Carlson	644	CRI&P

CARNARVAN-CATTESE SIDING

405

STATION	ELEVATION FEET	AUTHORITY
Carnarvon	1252	C&NW
Carnes	1274.6,G1273	CStPM&O
Carney's Sdg., M.P. 449.....	1215	IC
Carnforth	806,G808	CRI&P
Carnforth, crossing C&NW	806,G808	CRI&P
Carnforth	811	C&NW
Carnforth, crossing CRI&P.....	810,G832	C&NW
Carpenter	1190,G1192	CM&StP
Carroll	1257,G1261	C&NW
Carroll, under crossing CGW	1244	C&NW
Carroll	1259.7,G1266	CGW
Carroll, crossing over C&NW.....	G1274	CGW
Carroll, crossing, C&NW tracks	G1251	
Carroll	G1265	Weather Bur.
Carrville	1003	IC
Carson, union station with CRI&P.....	1066	CB&Q
Carson	1064,G1066	CRI&P
Cartersville	1182	C&NW
Cascade, Des Moines Co.....	535	CB&Q
Cascade, Dubuque Co.....	831,G832	CM&StP
Cascade, T. 86 N., R. 1 W., NW. ¼ sec. 7, junction of road going south; iron post stamped "961".....	951.797	Bull. 569
Cascade, T. 86 N., R. 2 W., NW. ¼ sec. 1, on line between secs. 1 and 2, at junction of roads going north and west; iron post stamped "957".....	947.900	Bull. 569
Cascade, hydrant at base of water tower.....	G865	USGS
Cascade, top course of bridge over North Fork of Ma- quoketa river	G839	USGS
Case Drive station	826.95	DM&CI
Casey	1225,G1228	CRI&P
Casey, 2.8 miles west of, in SW. stone abutment of bridge 397; aluminum tablet	1,253.485	Bull. 569
Casey, in front of CRI&P Ry station; top of rail.....	1,228.9	Bull. 569
Casey, in stone foundation of T. J. Burns's store, in south wall, halfway between Main St. and alley; aluminum tablet	1,248.979	Bull. 569
Casey, 100 feet south of track, opposite point 300 feet east of station, 200 feet northwest of Lutheran Church, 3 feet east of sidewalk leading to station; iron post.....	1,223.927	Bull. 569
Casey, SE. ¼ sec. 31, T. 77 N., R. 31 W.....	1361	IaGS
Castalia	1240,G1240	CRI&P
Castalia	1238,G1243	CM&StP
Castalia, in SW. cor. school yard; iron, post stamped "1251 DBQ".....	1,251.144	Bull. 569
Castana	1072	C&NW
Cattese	616,G616	CM&StP
Cattese, 5 miles below Dubuque, 0.5 mile above Ninemile Island, near south abutment of bridge 86, where t.b.m. 304 is located, on river end of abutment, lowest course of stone, on northeast corner of step, now marked "□"; highest point in square (U.S.C.E. old U.S.b.m. 24).....	591.042	Bull. 569
Cattese siding, near, 5 miles below Dubuque and 0.5 mile above head of Ninemile Island, on south abutment of bridge 86, river end, on second course of stone below bridge seat, on NE. cor., marked "U□S"; highest point in square (U.S.C.E.t.b.m. 304).....	607.315	Bull. 569
Cattese siding, 1 mile below, 1.3 miles above head of Nine- mile Island, on line of CM&StP Ry, directly opposite milepost 122-39, on bluff side, 9 feet from center, on natural ledge of rock, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 303).....	615.054	Bull. 569

ALTITUDES IN IOWA

STATION	ELEVATION FEET	AUTHORITY
Cattese siding, 72 feet above lower headblock of switch at, 15 feet west from center of side track, in natural ledge of rock marked "U□S," opposite foot of Island 228; highest point in square (U.S.C.E.t.b.m. 302).....	617.226	Bull. 569
Cattese siding, 669 feet above upper headblock of switch to, on upper side of coulee, where t.b.m. 301 is located, 344 feet below milepost 121-40, 43 feet from center of track, on bluff side, in fence corner by gate; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 284-285):		
Copper bolt	613.031	Bull. 569
Cap on pipe	617.030	
Cedar	810	CB&Q
Cedar Falls, CGW crossing at 13th St., top of rail.....	858.9	WCF&N
Cedar Falls, Main Street station, top of rail.....	854	WCF&N
Cedar Falls, Normal Hill, top of rail.....	926.0	WCF&N
Cedar Falls, city datum plane	760.48	
Cedar Falls	860,G854	CRI&P
Cedar Falls	864,G868	IC
Cedar Falls, crossing CRI&P.....	874,G868	IC
Cedar Falls, Normal Hill, cor. Normal and 24th Sts.....	937	T. E. Warriner
Cedar Falls	G854	Weather Bur.
Cedar Falls Junction.....	871.4	CGW
Cedar Heights, at Waterloo Ave., top of rail.....	956.3	WCF&N
Cedar Rapids, Interurban station.....	820	WCF&N
Cedar Rapids, M.P. 59, subgrade.....	821.40	WCF&N
Cedar Rapids	731	C&NW
Cedar Rapids, crossing CM&StP.....	727	C&NW
Cedar Rapids, crossing CRI&P.....	725	C&NW
Cedar Rapids	729	IC
Cedar Rapids	729,G732	CRI&P
Cedar Rapids	734,G737	CM&StP
Cedar Rapids, crossing C&NW.....	730,G733	CM&StP
Cedar Rapids	G733	Weather Bur.
Cedar Rapids, NE. cor. top step, east waiting room door, C&NW Railway station.....	733.25	CR&IC
Cedar Rapids, 292 feet north of SE. cor. sec. 14, Tp. 83, R. 7, top of rail at center line of road on east line sec. 14	779.81	CR&IC
Cedar Rapids, top of rail on east line sec. 24, Tp. 83, R. 7, 212 feet north of SE. cor. of SE. ¼ of NW. ¼ sec. 24	764.21	CR&IC
Cedar Rapids, top of rail on west line of Fourth Ave. and Third St. east	732.87	CR&IC
Cedar Rapids, top of rail, crossing of CM&StP and CR&IC main lines	754.40	CR&IC
Cedar Rapids, top of rail on south line sec. 32, Tp. 83, R. 7, 1625 feet east of SW. cor. sec. 32.....	782.70	IC
Center Grove, east end side track.....	730	CR&IC
Center Grove, IC, nail in floor of highway bridge over Catfish creek	G731	USGS
Center Grove, guard rail of bridge over N. Fork Catfish creek on Delhi road	G735	USGS
Center Junction	907	C&NW
Center Junction, crossing under CM&StP.....	895	C&NW
Center Junction	926,G926	CM&StP
Center Junction, crossing over C&NW.....	915	CM&StP
Center Point, crossing State St., subgrade.....	806.41	WCF&N
Center Point, crossing CRI&P, top of rail.....	813.38	WCF&N
Center Point	811,G819	CRI&P
Centerdale	720,G725	CRI&P

CENTERVILLE-CHARITON

407

STATION	ELEVATION FEET	AUTHORITY
Centerville	1002	CRI&P
Centerville, crossing CB&Q	1000	CRI&P
Centerville	999,G1014	CB&Q
Centerville, crossing CRI&P.....	1007,G1013	CB&Q
Centerville, east side courthouse square at interurban stop	1014	ISU
Centerville, CB&Q transfer.....	931	ISU
Centerville, junction Albia and Mystic lines.....	933	ISU
Centerville	G1013	Weather Bur.
Central City	835,G837	IC
Chamberlin	893.43	DM&CI
Chancy	595	CM&StP
Chancy	588	CRI&P
Chancy	G586	DRI&NW
Chapin	1165,G1157	M&StL
Chapin	1128	CRI&P
Chariton	1014	CRI&P
Chariton, CB&Q overhead crossing.....	1036	CRI&P
Chariton, crossing under CB&Q	1009	CRI&P
Chariton	1041,G1042	CB&Q
Chariton	G1042	Weather Bur.
Chariton, CRI&P Ry, in front of station; top of rail.....	1,015.9	Bull. 569
Chariton, 0.96 mile SE. of, T. 72 N., R. 21 W., at center of sec. 29, in SE. angle of crossroads, in root of 14-inch maple tree; copper nail.....	1,027.12	Bull. 569
Chariton, 2.3 miles SE. of, near SE. cor. sec. 28, T. 72 N., R. 21 W., on north side of road, 80 feet east of new concrete bridge, in root of 28-inch maple tree; copper nail	960.64	Bull. 569
Chariton, 3.4 miles SE. of, about 0.2 mile west of the NE. cor. sec. 34, T. 72 N., R. 21 W., on south side of road, 120 feet SW. of farmhouse, in top of 10-inch osage stump; copper nail.....	1,025.08	Bull. 569
Chariton, 4.2 miles SE. of, T. 72 N., R. 21 W., at quarter corner on south side of sec. 26, 80 feet west of T road north, steel highway bridge over creek, in plank in NE. cor. bridge floor; copper nail.....	930.90	Bull. 569
Chariton, T. 72 N., R. 21 W., near SE. cor. sec. 13, on west side of road, opposite gate to P. D. Schreck's farmyard, 2 feet south of pasture gate, in top of peg; copper nail	1,015.89	Bull. 569
Chariton, 4.5 miles east of, T. 72 N., R. 21 W., 0.25 mile east by 0.25 mile south of center of sec. 24, in NW. angle of T road west, 4 feet south of telephone pole, in top of peg; copper nail.....	1,007.97	Bull. 569
Chariton, T. 72 N., Rs. 20 and 21 W., 0.25 mile north of quarter corner between secs. 25 and 30, at elbow of road east to south, in front yard of John Collinson, in root of 18-inch maple tree on west side of gate; copper nail	1,031.17	Bull. 569
Chariton, T. 72 N., R. 22 W., at SE. cor. sec. 21, in NE. angle of crossroads, 1 foot south of corner post, in top of wooden peg; copper nail.....	924.16	Bull. 569
Chariton, T. 72 N., R. 22 W., at NE. cor. sec. 27, at SW. cor. crossroads, 2 feet NE. of corner post; iron post stamped "Iowa, 1046, 1913".....	1,046.474	Bull. 569
Chariton, T. 72 N., R. 22 W., at NW. cor. sec. 25, in SE. angle of T road south, 1 foot east of corner post, in top of osage peg; copper nail.....	1,027.54	Bull. 569
Chariton, Crystal Lake; water elevation	975.16	Bull. 569
Chariton, T. 72 N., Rs. 21 and 22 W., between secs. 19 and 24, respectively, on north side of road, at corporation limits, west side, 6 inches south of east-west fence, in top of wooden peg; copper nail.....	958.60	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
Chariton, in SW. cor. courthouse yard; iron post stamped "Iowa, 1041, 1913"	1,040.984	Bull. 569
Chariton, 1.2 miles north of, in SW. cor. T road west, about 0.2 mile east of greenhouse, on west side of 16-inch maple tree, in root of tree; iron wire nail with copper washer	1,037.32	Bull. 569
Chariton, 2 miles north of, T. 72 N., R. 21 W., NW. of center of sec. 17, at SE. angle of T road east, south end of plank drain, in top of; copper nail	1,005.42	Bull. 569
Chariton, 3.2 miles north of, in NW. angle of crossroads, 3.5 feet north of corner post; iron post stamped "Iowa, 991, 1913"	991.101	Bull. 569
Charles City	1017.40	CCW
Charles City	1012	IC
Charles City, crossing CM&StP	1011	IC
Charles City	1011,G1013	CM&StP
Charles City, crossing IC	1007,G1023	CM&StP
Charles City	G1005	Weather Bur.
Charleston	700,G701	CB&Q
Charlotte	681,G681	C&NW
Charter Oak	1230,G1232	CM&StP
Chatsworth	1169,G1164	CM&StP
Chatsworth, 1 kilometer north of, 20 meters east of railway, 13 meters north of road, 2 meters east and 1 meter north of SW. cor. pasture, 1.7 meters below rails; copper bolt in top of stone post lettered "U.S.B.M." (U.S.C.&G.S.b.m.M)	1,155.405	Bull. 569
Chatsworth, 25 meters north of station, 29 meters east of railway, 12 meters south of road, on jasper rock 1 meter south and 0.5 meter west of NW. cor. meadow; bottom of square hole (U.S.C.&G.S.b.m.N)	1,159.833	Bull. 569
Chatsworth, on east pier of north pair, under railway water tank, 36 meters south of station, 5.5 meters west of track, in top bevel, 0.19 meter above ground, at east edge and 0.24 meter south of north edge; bottom of square hole (U.S.C.&G.S.b.m.O)	1,161.753	Bull. 569
Chatsworth, 2.3 kilometers south of, 330 meters north of railway bridge, 3 meters north of road, 13 meters west of railway, 1 meter east of fence, 0.5 meter below rails; copper bolt in top of stone post lettered "U.S.B.M." (U.S.C.&G.S.b.m.P)	1,154.348	Bull. 569
Chatsworth, 2 miles NE. of	1252	IaGS
Chautauqua	1009	CRI&P
Chautauqua, west end switch	1009,G1011	CM&StP
Chelsea	788,G789	C&NW
Cherokee	1199,G1201	IC
Chester	1230,G1230	CM&StP
Chesterfield	792	WRR
Chillicothe	662,G660	CB&Q
Chillicothe, southeast corner of SE. wing of west abutment of highway bridge over Des Moines river, (U.S.C.E. b.m. 49)	659.73	Bull. 569
Chillicothe, top of extreme south point of abutment at west end of highway bridge over Des Moines river (U.S.C.E. b.m. 78)	659.73	Bull. 569
Chisholm	859.9	CB&Q
Churchville	953.1,G949	CGW
Churdan	1121,G1123	CM&StP
Cincinnati	1034,G1034	CB&Q
Cisco	818	CRI&P
Clara, M.P. 505	994,G991	IC

CLARA-CLAYTON

409

STATION	ELEVATION FEET	AUTHORITY
Clara, at intersection of north-south and east-west roads, in NW. cor. C. E. Osborn's yard near NW. cor. SW. $\frac{1}{4}$ NW. $\frac{1}{4}$ sec. 34, T. 76 N., R. 44 W.; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 123/2):		
Copper bolt	984.00	Bull. 569
Cap on pipe	988.08	
Clare	1216,G1194	M&StL
Clare, T. 90 N., R. 29 W., quarter corner, N. side of sec. 34, 40 ft. SW. of crossroads, 2 ft. N. of fence corner; iron post stamped "IOWA 1919 1,141"	1,141.307	USGS
Clare, T. 90 N., R. 28 W., at center of sec. 27, at T road W., 50 ft. NE. of road fork, inside church inclosure, in root of 18-inch elm tree, marked "1,177.7"; copper nail and washer	1,177.55	USGS
Clare, 4.5 miles east of, T. 90 N., R. 29 W., quarter corner, S. side of sec. 22, 35 ft. NW. of crossroad, in base of corner fence post, marked "1,152.6"; spike	1,152.49	USGS
Clare, T. 90 N., R. 29 W., quarter corner, S. side of sec. 15, 30 ft. NW. of crossroads, in base of corner fence post, marked "1,146"; spike	1,145.87	USGS
Clarence	827,G825	C&NW
Clarinda	1012,G1009	CB&Q
Clarinda, crossing Villisca and Shenandoah lines	1006.36	CB&Q
Clarinda	G1009	Weather Bur.
Clarion	1166.8,G1170	CGW
Clarion, crossing CRI&P	1165.4,G1168	CGW
Clarion	1174,G1168	CRI&P
Clarion, crossing CGW	1170	CRI&P
Clark	1000.7,G999	CB&Q
Clark	1000	IaGS
Clarkson	770,G772	CB&Q
Clarksville	931,G924	CRI&P
Clarksville	933.8,G933	CGW
Clarksville, crossing CRI&P	G932	CGW
Clay	759,G751	M&StL
Clayton	624,G624	CM&StP
Clayton, 400 meters above foot of Island 181, 20 meters back from bank of river, just above head of Island 182; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 193/2):		
Copper bolt	609.87	Bull. 569
Cap on pipe	613.82	
Clayton, opposite CM&StP Ry station; base of rail (U.S. C.E.b.m.)	623.46	Bull. 569
Clayton, Island 181, 20 meters back from river bank, 600 meters above small slough which empties into river opposite Clayton, 100 meters below upper end of high timber (bank in front of bench mark is steep, but becomes sloping 100 meters below); copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 194/2):		
Copper bolt	613.24	Bull. 569
Cap on pipe	617.19	
Clayton, 0.25 mile above station, on right of way of CM& StP Ry, 1.5 meters from fence, on slope of bluff, 5 meters above railroad bridge 352; 10 meters above a Government light; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 194/3):		
Copper bolt	644.26	Bull. 569
Cap on pipe	648.20	
Clayton, nearly 3 miles below, 4 feet farther down the river than p.b.m. 242, 2 feet above grade of track,		

STATION	ELEVATION FEET	AUTHORITY
marked "U□S" on face of ledge; highest point in square (U.S.C.E.t.b.m. 241)	628.306	Bull. 569
Clayton, nearly 3 miles below, opposite lower part of Island 182, 141 feet below milepost 76, on line of CM&StP Ry, 45 feet above highest point of heavy rock-cut waste, about in center of long sidehill rock cut, at prominent point of bluff in steeply inclined face of rock, 4½ feet above grade, marked "U.S.⊙P.B.M."; copper bolt (U.S.C.E.p.b.m. 242)	630.674	Bull. 569
Clayton, 1 mile below, 866 feet below milepost 74, 230 feet above wooden sand hopper, on more northerly one of two large boulders, 19 feet west of center of track; highest point in square cut on top face, 1 foot from edge, marked "U□S" (U.S.C.E.t.b.m. 239)	632.053	Bull. 569
Clayton, on south side of Main St., 656 feet back from river bank, on southwest corner of Main and Douglas Sts., on brick building occupied by Frank Lier & Co., on east end of doorstep, marked "U.S.⊙P.B.M."; copper bolt (U.S.C.E.p.b.m. 241)	650.304	Bull. 569
Clayton, at CM&StP Ry station, on top stone of foundation pier, at northeast corner of platform, behind center of circle "⊙" (U.S.C.E.t.b.m. "Old U.S.b.m."; also called "Old p.b.m. 27")	626.137	Bull. 569
Clayton, in upper end of, on large stone mill at west side of CM&StP Ry track, on river front of building at lower window and lower end of window sill; top of ring bolt, 1 inch above surface (U.S.C.E. old U.S.b.m.b.)	622.541	Bull. 569
Clayton, Mississippi river, low water	G601	Miss. Riv. Com.
Clayton, Mississippi river, high water	G631	Miss. Riv. Com.
Clayton Center, Clayton Co., sec. 9, T. 93 N., R. 4 W., SE. cor. school yard; iron post stamped "1038 DBQ"	1,038.838	Bull. 569
Clear Lake	1236,G1240	CM&StP
Clear Lake Junction	1164.7	CGW
Clear Lake Junction, crossing CM&StP	1144.1	CGW
Clear Lake Junction	1160	CRI&P
Clearfield	1253,G1250	CB&Q
Cleghorn	1459,G1458	IC
Clemons Grove	960,G953	M&StL
Clermont, in front of CRI&P Ry station; top of rail (on spur line)	854.6	Bull. 569
Clermont, in sec. 34, T. 95 N., R. 7 W., in NE. cor. school yard; iron post stamped "861 DBQ"; as reset in 1924	861.836	Bull. 569
Clermont	859	CRI&P
Cleveland	899	CB&Q
Cleves	1075,G1070	CRI&P
Cliffland, B.M. top of monument M.P. 69	628.44	CRI&P
Cliffland, B.M. top of monument M.P. 70	632.92	CRI&P
Cliffland, B.M. top of monument M.P. 71 (U.S.C.E.b.m. 40)	631.19	CRI&P
Cliffland, top of rail, center section house (U.S.C.E.b.m. 45)	630.50	CRI&P
Cliffland, B.M. top of monument M.P. 72	641.05	CRI&P
Cliffland, B.M. top of monument M.P. 73	638.71	CRI&P
Cliffland, top of SE. cor. downstream end of first concrete pier from north end of highway bridge (U.S.C.E.b.m. 86)	636.00	Bull. 569
Clinton	598	C&NW
Clinton, crossing CM&StP	598	C&NW
Clinton	593	CM&StP
Clinton, crossing C&NW	594	CM&StP
Clinton, CB&Q depot	595	CM&StP
Clinton, DRI&NW station	601	CB&Q
Clinton, junction with City Railway lines	595.18	CD&M
Clinton	591	CRI&P

CLINTON-COALFIELD

411

STATION	ELEVATION FEET	AUTHORITY
Clinton, in extreme southern part of, opposite stock yards, 1 meter east of fence on west side of street forming west line of Chancy Park addition, 131 meters north of north line of Liberty St.; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 160/4):		
Copper bolt	633.80	Bull. 569
Cap on pipe	637.83	
Clinton, in front of CB&Q RR passenger station, base of rail (U.S.C.E.)	590.19	Bull. 569
Clinton, in front of C&NW Ry passenger station; base of rail (U.S.C.E.)	590.83	Bull. 569
Clinton, cut on third capstone of west abutment of C&NW Ry bridge (U.S.C.E. railroad b.m.).....	592.42	Bull. 569
Clinton, at waterworks, cut on top of square stone 1 foot above ground on building line on north side of Sixth Ave. at waterworks (U.S.C.E.t.b.m. 20 r.b. equals city b.m.)	587.25	Bull. 569
Clinton, on NW. cor. Oliver Messer's warehouse; high-water mark of 1880	587.10	Bull. 569
Clinton, on iron safe inside of Smith & Oak's warehouse on river bank; high-water mark of 1892.....	584.30	Bull. 569
Clinton, at east end of C &NW Ry bridge; base of rail over east abutment (U.S.C.E.b.m.).....	593.08	Bull. 569
Clinton, at Chandler St., 648.6 meters back of following-described bench mark, on wagon road running parallel to CB&Q RR tracks, 0.5 meter west of fence on east side of road, 225 meters south of north line of property of C&NW Ry, 14.5 meters 209° 30' to SW. cor. white house owned by C&NW Ry; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 161/1):		
Copper bolt	591.59	Bull. 569
Cap on pipe	595.60	
Clinton, at Chandler St., 1.5 miles below Lyons wagon bridge across river, on prominent point, 25 meters from shore; copper bolt in top of tile surmounted by iron pipe (U.S.C.E.b.m. 161/2):		
Copper bolt	584.77	Bull. 569
Cap on pipe	588.72	
Clinton, 1 meter south by 0.5 meter east of SW. cor. Chandler and North First St., one block south of Joyce's saw-mill; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 161/3):		
Copper bolt	593.34	Bull. 569
Cap on pipe	597.35	
Clinton, C&NW	G589	USGS
Clinton, Mississippi river, low water.....	G566	Miss. Riv. Com.
Clinton, Mississippi river, high water.....	G586	Miss. Riv. Com.
Clinton	G593	Weather Bur.
Clio	1107,G1117	CRI&P
Clive	846,G848	CM&StP
Clive, Motts schoolhouse, 1.1 miles north of, 20 feet north of center of forks of roads, 400 feet west of road north, 400 feet west of SE. corner of sec. 26, T. 79 N., R. 25 W.; iron post stamped "869 Adj 1903"	868.097	Bul. 569
Cloverdale	1522,G1518	CRI&P
Clucas	955	CRI&P
Clutier	856	C&NW
Coalfield, T. 73 N., R. 16 W., near NW. cor. NE. ¼ NE. ¼ sec. 19, in NW. angle of roads at T road north of fence corner, on fence line to north, driven in ground; 0.75-inch gas pipe, painted "U.S.B.M. 871.7".....	871.49	USGS

STATION	ELEVATION FEET	AUTHORITY
Coalfield, T. 73 N., R. 16 W., NW. cor. NE. $\frac{1}{4}$ NE. $\frac{1}{4}$ sec. 18, 10 feet east of right-of-way fence, on fence line east, at angle in road, in root on east side of a 3-foot willow tree; copper nail and washer, painted "U.S.B.M. 855.2"	854.91	USGS
Coalfield, T. 73 N., R. 16 W., near quarter corner between secs. 7 and 8, in NE. angle of roads at T road north, 10 feet east by 1 foot south of corner of right-of-way fence, in top of concrete post; bronze tablet stamped "E.B. No. 12 1924 Iowa", painted "U.S.B.M. 826.3".....	826.041	USGS
Coalfield, reference mark, 15 feet west by 3 feet north of tablet, in root on west side of a 3-foot black oak tree; copper nail and washer	823.66	USGS
Coalfield, T. 73 N., R. 16 W., at NW. cor. NE. $\frac{1}{4}$ NE. $\frac{1}{4}$ sec. 7, in SE. angle of crossroads, 1 foot east of corner fence post, in top of large bowlder; chiseled square, painted "U.S.B.M. 738.0".....	737.78	USGS
Coalfield, T. 73 N., Rs. 16 and 17 W., cor. secs. 1, 6, 7 and 12, in SW. angle of roads at T-road south, 35 feet west by 3 feet south of fence corner, in top of a 1-foot oak stump; copper nail and washer, painted "U.S.B.M. 812.9"	812.57	USGS
Coalfield	723.6719	M&StL
Coatesville	992	WRR
Coburg	1008.6	CB&Q
Coggon	916	IC
Coggon, crossing CA&N.....	908	IC
Coin	995	WRR
Coin, crossing CB&Q.....	1015	WRR
Coin	1039.9, G1031	CB&Q
Coin, crossing Wabash	1039	CB&Q
Cole Junction	711	CB&Q
Colfax, T. 79 N., R. 21 W., at corner of secs. 13, 14, 23 and 24, in NW. cor. crossroads, top of north end of iron culvert; chiseled square, marked "867.5"	867.58	USGS
Colfax, T. 79 N., R. 21 W., near corner of secs. 11, 12, 14 and 13, 175 feet east and 15 feet north of crossroads, top of second concrete step leading to farmhouse yard; chiseled square, marked "881.3".....	881.39	USGS
Colfax, 0.25 mile south of, 30 feet north of elbow in road, at quarter corner between secs. 11 and 12, on concrete post; bronze tablet stamped "Prim. Trav. Sta. No. 20-L.S.-1924-Ia.", marked "915.1".....	915.220	USGS
Colfax, reference mark is 5 feet east of "L.S. 20"; top of gas pipe	915.11	USGS
Colfax, on south Locust St. between West Broadway and West Washington Sts., on west side of public grade school building, on south side north door, in top of foot stone; chiseled square, marked "813.0".....	813.096	USGS
Colfax, CRI&P Ry in, at crossing of Walnut St.; top of south rail	791.54	USGS
Colfax, on north side of, top of NE. end of railing of concrete bridge on Highway No. 64 over Skunk river drainage ditch; chiseled square, marked "794.6".....	794.71	USGS
Colfax, Skunk river drainage ditch near, surface of water underneath bridge on May 22, 1926, 2.30 p.m.....	775.78	USGS
Colfax, T. 80 N., R. 21 W., in NW. $\frac{1}{4}$ NW. $\frac{1}{4}$ sec. 36, near road junctions, 85 feet west of line of highway south and 45 feet south of line of highway west and road east, in root on south side of 30-inch maple tree; copper nail and washer, marked "808.0".....	808.06	USGS
Colfax, T. 80 N., R. 21 W., in NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ sec. 35, 160		

COLFAX-CORALVILLE

413

STATION	ELEVATION FEET	AUTHORITY
feet north and 25 feet west of T-road west, top of west heading of concrete culvert; chiseled square, marked "857.6"	857.73	USGS
Colfax, T. 80 N., R. 21 W., near quarter corner between secs. 23 and 26, 30 feet south and 30 feet east of cross-roads, top of concrete post (witness mark of corner); iron rod, marked "927.3"	927.38	USGS
Colfax	786.71	DM&CI
Colfax	788, G791	CRI&P
Collett	752	CB&Q
Collins	1007, G1005	CM&StP
Collins, Altamont moraine east of	1022	IaGS
Colo	1043, G1043	C&NW
Colo, Altamont moraine east of	1016	IaGS
Columbia Siding	816	C&NW
Columbus Junction	586, G595	CRI&P
Columbus Junction, crossing CRI&P, Burlington line	586	CRI&P
Commerce	833, G836	CRI&P
Commerce, 2.5 miles west of, in NW. cor. concrete culvert; aluminum tablet	834.843	Bull. 569
Commerce, 50 feet south of track, 75 feet SW. of first stone culvert west of station, 2 feet west of gate, in right of way fence, near section tool house; iron post	836.074	Bull. 569
Commerce, in front of CRI&P Ry station; top of rail	836.5	Bull. 569
Cone	615, G618	CRI&P
Cone, crossing CM&StP	614	CRI&P
Cone	612, G615	CM&StP
Cone, crossing CRI&P	613, G615	CM&StP
Conger	921.41	DM&CI
Connables—Subgrade of track opposite shelter	528.3	CRI&P
Connables, 1.8 miles SE. of, top of monument M.P. 10 (U.S.C.E.b.m. 2)	512.56	CRI&P
Connables, 0.8 mile SE. of, top of monument M.P. 11 (U.S.C.E.b.m. 3)	515.24	CRI&P
Connables, top of monument M.P. 12	533.79	CRI&P
Connables, top of monument M.P. 13	542.27	CRI&P
Connor, Allamakee Co., T. 98 N., R. 6 W., SE. cor. sec. 9, in SW. cor. West Ridge school yard; iron post stamped "1254 DBQ"	1,253.487	Bull. 569
Conover, in front of CM&StP Ry station; top of rail	1,235.2	Bull. 569
Conover, sec. 15, T. 97 N., R. 9 W., north of front entrance to village hall; iron post stamped "1233 DBQ"	1,233.449	Bull. 569
Conover	1235.6	USGS
Conover	1236	CM&StP
Conover, junction with Decorah branch	1239	CM&StP
Conrad	992	C&NW
Conroy	878, G883	CM&StP
Consol	793.99	C&NW
Conway	1141.5, G1140	CB&Q
Conway Crossing (changed to Merle Junction) Creston branch	1154.6, G1158	CB&Q
Conway Crossing, crossing CB&Q	G1156	CB&Q
Coon Rapids	1170, G1174	CM&StP
Coon Valley	779	CRI&P
Cooper	1079, G1081	CM&StP
Coppock	617	CB&Q
Coppock	623, G620	M&StL
Cora	1258	IC
Coralville, top of rail on south line sec. 31, Tp. 80, R. 6, 240 feet west of SE. cor. sec. 31	730.40	CR&IC

STATION	ELEVATION FEET	AUTHORITY
Coralville, top of rail at center line of CRI&P and CR&IC crossing	663.30	CR&IC
Coralville, bench mark, top of water table on SW. cor. sub-station	664.78	CR&IC
Coralville, top of rail on south line sec. 5, Tp. 79, R. 6, 1025 feet east of S. ¼ cor. sec. 5.....	662.80	CR&IC
Cordova	738	WRR
Cordova, T. 77 N., R. 20 W., 0.5 mile east of SW. cor. sec. 12, 30 feet south and 85 feet west of center of cross-roads, 4 feet north of fence; iron post stamped "837 Iowa"	835.423	Bull. 569
Corley	1176,G1180	CRI&P
Cornelia	1223.0,G1223	CGW
Cornell	1396	M&StL
Corning	1117,G1117	CB&Q
Corning, E. line sec. 4, Mercer Tp.....	1280	IaGS
Corning	G1117	Weather Bur.
Correctionville	1128	C&NW
Correctionville, crossing IC.....	1126	C&NW
Correctionville	1127,G1129	IC
Correctionville, crossing C&NW.....	1130,G1129	IC
Corwith	1174,G1177	M&StL
Corwith, crossing M&StL	1178,G1178	M&StL
Corydon	1083	CRI&P
Corydon, crossing under CB&Q	1078	CRI&P
Corydon	1089,G1105	CB&Q
Cotter	694	CRI&P
Cottonville, Jackson Co.....	990	USGS
Cottonville, Middle Richland Tp.....	840	USGS
Cottonwood	708	CB&Q
Cou Falls, top of rail on south line sec. 16, Tp. 81, R. 7, 550 feet east of SW. cor. sec. 16.....	743.60	CR&IC
Cou Falls, bench mark, top of east end of middle concrete pier on north side of elevator.....	743.15	CR&IC
Cou Falls, top of rail on east line sec. 21, Tp. 81, R. 7, 1350 feet north of SE. cor. sec. 21.....	700.50	CR&IC
Cou Falls, top of rail on north end of Iowa river bridge....	700.70	CR&IC
Cou Falls, top of rail on south end of Iowa river bridge....	700.60	CR&IC
Coulter	1239.4	CGW
Council Bluffs	983.1,G984	CGW
Council Bluffs, crossing C&NW	980.30,G984	CGW
Council Bluffs, crossing CB&Q	983.0,G988	CGW
Council Bluffs	989,G984	IC
Council Bluffs, Levee Jet.	991	IC
Council Bluffs, North Jet.....	990	IC
Council Bluffs	986	C&NW
Council Bluffs, east switch	981	WRR
Council Bluffs, west end Wabash yards.....	983	WRR
Council Bluffs	977,G983	CRI&P
Council Bluffs, crossing CGW.....	989	CRI&P
Council Bluffs, crossing Wabash and CB&Q.....	976	CRI&P
Council Bluffs, crossing CM&StP.....	977	CRI&P
Council Bluffs, crossing C&NW.....	977	CRI&P
Council Bluffs, U.P. transfer.....	978	CRI&P
Council Bluffs, in front of CRI&P station; top of rail.....	981.9	Bull. 569
Council Bluffs, in south wall of post office, near SW. cor.; aluminum tablet	1,000.654	Bull. 569
Council Bluffs, 2.5 miles east of, in west pier of CGW Ry bridge crossing CRI&P Ry and CM&StP Ry tracks, 5 feet from ground; aluminum tablet.....	994.520	Bull. 569
Council Bluffs, 6 miles east of, halfway between CRI&P		

COUNCIL BLUFFS-CRANSTON

415

STATION	ELEVATION FEET	AUTHORITY
Ry and CM&StP Ry tracks, 6 feet north of wagon road at crossing SE. of John Slightam's house; iron post.....	1,019.720	Bull. 569
Council Bluffs	988,G984	CB&Q
Council Bluffs, crossing Wabash & CRI&P.....	988	CB&Q
Council Bluffs	976,G979	CM&StP
Council Bluffs, U.P. transfer station.....	981,G984	CM&StP
Council Bluffs, crossing CB&Q and Wabash.....	976	CM&StP
Council Bluffs, 4 miles SE. of CB&Q station, 615 feet south of railway bridge over Mosquito creek, 49 feet east of railway; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 342):		
Copper bolt	970.461	Bull. 569
Cap on pipe	974.473	
Council Bluffs, in stone doorsill of CM&StP roundhouse, 0.3 foot from east side of door frame and same from front face of sill, 8 feet from SW. cor. building; top of copper bolt in stone (U.S.C.E.p.b.m. 343).....	981.002	Bull. 569
Council Bluffs Union Station, in window sill of second window west of NE. cor. station, 0.4 foot from east jamb and 0.3 foot from face of sill; copper bolt in stone (U.S.C.E.p.b.m. 347).....	986.570	Bull. 569
Council Bluffs, in SW. cor. courthouse yard, 3 feet from west fence and 3 feet from south fence; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 348 equals 121/2):		
Copper bolt	990.339	Bull. 569
Cap on pipe	994.355	
Council Bluffs, 197 feet above upper end of ways of United States boat yard, 112 feet from river bank, 3 feet from NW. cor. boat-yard storehouse; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 349 equals 122/2):		
Copper bolt	975.362	Bull. 569
Cap on pipe	979.378	
Council Bluffs, 4 miles above, 62 feet south of south end of bridge 1066, 404 feet north of milepost 4, 28 feet east of C&NW Ry track; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 350):		
Copper bolt	995.615	Bull. 569
Cap on pipe	999.621	
Council Bluffs, 6 miles north of Union Station, 630 feet north of shore end of upper Government dike, 367 feet north of south end of bridge 1043, 16 feet west of C&NW Ry track; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 351)		
Copper bolt	986.740	Bull. 569
Cap on pipe	990.756	
Council Bluffs, Missouri river, low water	G962	Mo. River Com.
Council Bluffs, Missouri river, high water.....	G981	Mo. River Com.
Council Bluffs	G990	Weather Bur.
County Line	776	CRI&P
Covington	762,G762	CM&StP
Covington, south crossing under CRI&P.....	791	CM&StP
Covington, north crossing under CRI&P.....	812	CM&StP
Crabb Hill, Jackson Co.....	700	USGS
Craig, Plymouth Co.....	1406.49	C&NW
Craig, divide 1 mile west of, surface.....	1441	C&NW
Craig, 1 mile west of, track.....	1433	C&NW
Craig, Polk Co.....	962.63	DM&CI
Cranston	660,G663	CM&StP
Cranston, crossing Cedar river	604,G607	CM&StP

STATION	ELEVATION FEET	AUTHORITY
Crawfordsville	731	CB&Q
Crescent	992,G995	C&NW
Crescent, 183 feet south of station, 15 feet east of rail- road, in small park belonging to railway company; cop- per bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 352):		
Copper bolt	988.440	Bull. 569
Cap on pipe	992.459	
Cresco	1300,G1298	CM&StP
Cresco	G1300	Weather Bur.
Creston	1314,G1312	CB&Q
Crippen	1260,G1265	CM&StP
Crocker	981,G985	C&NW
Crocker, T. 81 N., R. 24 W., NW. cor. sec. 34; spike in telephone pole, marked "U.S.B.M. 995"	993.58	Bull. 569
Crocker, T. 81 N., R. 24 W., SW. cor. sec. 35; iron post stamped "979"	977.418	Bull. 569
Crocker, T. 80 N., R. 24 W., NE. cor. sec. 4; spike in tele- phone pole, marked "U.S.B.M. 981"	980.08	Bull. 569
Crocker, T. 81 N., R. 24 W., SW. cor. sec. 33; spike in tele- phone pole, marked "U.S.B.M. 975"	974.22	Bull. 569
Crocker, T. 80 N., R. 24 W., NE. cor. sec. 6; iron post stamped "977"	975.742	Bull. 569
Cromwell	1253,G1255	CB&Q
Crooks	1162	FtDDM&S
Crooks, T. 87 N., R. 28 W., near cor. secs. 29, 30, 31 and 32, about 600 feet east of crossroads, in concrete walk at SE. corner of west porch on Mr. Grant Spangler's residence, bronze tablet stamped "Iowa 1921"	1,165.353	USGS
Crooks, T. 87 N., R. 28 W., near cor. secs. 29, 30, 31 and 32, about 600 feet east of crossroads, in Mr. Grant Spangler's yard, near front gate, in root of maple tree (10 inches in diameter); copper nail and washer marked "U.S.G.S.B.M." S 10° E. 93.1 ft. from bronze tablet desc. above	1,162.24	USGS
Crooks, T. 87 N., Rs. 28 and 29 W., at cor. secs. 25, 30, 31 and 36, about 280 feet west of junction of T road north, in south side of road, in foot of willow stump; copper nail and washer marked "U.S.G.S.B.M."	1,153.90	USGS
Crooks, T. 87 N., R. 29 W., at cor. secs. 25, 26, 35 and 36 in schoolyard at NE. cor. crossroads, 40 feet SW. of schoolhouse, in root of maple tree (15 inches in di- ameter); copper nail and washer marked "U.S.G.S. B.M."	1,158.85	USGS
Crooks, 0.5 mile west of, T. 87 N., R. 29 W., at cor. secs. 23, 24, 25 and 26, in SW. cor. crossroads, inside field fence and 6 feet south of fence corner; iron post stamped "Iowa 1921"	1,158.061	USGS
Crooks, 0.5 mile west of, T. 87 N., R. 29 W., cor. secs. 23, 24, 25 and 26, in south end of concrete culvert, at SE. cor. crossroads; chiseled square N. 65° E. 66.1 ft. from iron post desc. above	1,158.06	USGS
Crooks, T. 87 N., R. 29 W., at cor. secs. 13, 14, 23 and 24, in schoolyard at SE. cor. crossroads, 40 feet west of schoolhouse, in root of soft maple tree (14 inches in diameter); copper nail and washer marked "U.S.G.S. B.M." T.B.M. 1,157.4	1,157.27	USGS
Croton, B.M. top of monument M.P. 24 (U.S.C.E.b.m. 10)	544.32	CRI&P
Croton, B.M. top of monument M.P. 25 (U.S.C.E.b.m. 11)	548.21	CRI&P
Croton, top of rail, center of depot	543.4	CRI&P
Croton, B.M. top of monument M.P. 26 (U.S.C.E.b.m. 12)	542.72	CRI&P

CROTON-DAVENPORT

417

STATION	ELEVATION FEET	AUTHORITY
Croton, B.M. top of monument M.P. 27 (U.S.C.E.b.m. 13)	560.61	CRI&P
Croton, B.M. top of monument M.P. 28 (U.S.C.E.b.m. 14)	553.40	CRI&P
Crown	1143	CB&Q
Crystal Lake	1258	CRI&P
Cuba	739,G744	CM&StP
Cuba, English river near	725	IaGS
Culver	543	CRI&P
Culver, junction with CRI&P.....	545	CM&StP
Cumberland	1224.64,G1223	CB&Q
Cumberland, level of Seven Mile creek, 1½ miles north of	1105	IaGS
Cumberland, first hilltop south of.....	1317	IaGS
Cummings	972.7,G971	CGW
Cummins	917.87	DM&CI
Curlew	1243	M&StL
Cushing	1275,G1275	C&NW
Cylinder	1188,G1194	CM&StP
Daileys	966.40	DM&CI
Daileys Park	807.76	DM&CI
Dakota City	1124,G1125	C&NW
Dakota City, crossing over M & StL.....	1135	C&NW
Dakota City, T. 92 N., R. 28 W., near NW. cor. sec. 26, 1,551 feet (by traverse) south of T road east, in south corner of right angle bend in road to north and west; iron post stamped "Iowa 1921".....	1,127.149	USGS
Note: Set in place of Prim. Trav. Sta. No. 11 which had been removed, and in the hole where traverse post had been, as pointed out by nearby resident.		
Dakota City, T. 92 N., R. 28 W., near NW. cor. sec. 26, bearing N. 50° W., distant 67.5 feet from above post, 1,524 feet south of T road east, at north cor. of right angle bend in road, in root of oak tree (12 inches in di- ameter); copper nail and washer marked "U.S.G.S.B. M."	1,127.60	USGS
Dale	560	CRI&P
Dallas, Dallas Co.	944.27	DM&CI
Dallas, Marion Co., see Melcher.		
Dallas Center	1073,G1068	M&StL
Dallas Center, T. 79 N., R. 27 W., NE. cor. NW. ¼ sec. 14, in corner of lot at SW. cor. junction of crossroads, 10 feet from either road; iron post stamped "1049"	1,047.306	Bull. 569
Dallas Center, T. 79 N., R. 27 W., sec. 2, in east face of Citizen's Bank, 27 feet from south edge; aluminum tablet stamped "1073".....	1,071.985	Bull. 569
Dallas Center, T. 80 N., R. 27 W., NW. cor. SW. ¼ sec. 23, in corner of field at SE. cor. crossroads, 15 feet from either road and 3 feet from side of fence around field; iron post stamped, "1024".....	1,022.376	Bull. 569
Dallas Center, T. 80 N., R. 26 W., SE. cor. NE. ¼ sec. 19, in corner of field at NW. cor. T road, 10 feet from either road, 3 feet from either side of fence around field; iron post stamped "1029".....	1,027.993	Bull. 569
Dalton	1203	GN
Dana	1123,G1118	M&StL
Danbury	1157	C&NW
Danville	723,G726	CB&Q
Darby (abandoned, 1908)	867,G871	CM&StP
Davenport	569,G559	CM&StP
Davenport, crossing CRI&P.....	575	CM&StP
Davenport	606,G591	CRI&P
Davenport, crossing Telegraph Road and Indian Road.....	592.07	CD&M
Davenport, crossing over CRI&P.....	727.96	CD&M

STATION	ELEVATION FEET	AUTHORITY
Davenport, crossing, top of CRI&P rail.....	703.20	CD&M
Davenport, DRI&NW station	566	CB&Q
Davenport, 3 miles below, 0.5 meter west of fence on Davenport wagon road along bluffs, 1,569.5 meters back from bench mark 148/3, 35.5 meters 229° to NW. cor. Fairview schoolhouse; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 148/4):		
Copper bolt	616.22	Bull. 569
Cap on pipe	620.12	
Davenport, in top of corner of foundation of glucose works in southern part of, on SW. cor. east wing of building; copper bolt marked "M.R.C.⊙B.M.U.S." (U.S.C.E. b.m. 149/3):	563.63	Bull. 569
Davenport, top of top bolt in fire plug at west end of retaining wall, Davenport end of Government bridge (U.S. C.E.t.b.m. 3 r.b.)	566.05	Bull. 569
Davenport, top of water table SW. cor. Davenport waterworks (U.S.C.E.t.b.m. r.b.)	564.94	Bull. 569
Davenport, in front of CM&StP Ry station; base of rail (U.S.C.E.b.m.)	560.17	Bull. 569
Davenport, in front of passenger station of CRI&P Ry; base of rail	592.12	Bull. 569
Davenport, top of stone doorsill west end of stone of Masonic Temple entrance on Third St. (U.S.C.E. city b.m.)	583.33	Bull. 569
Davenport, top of water table NW. cor. CRI&P Ry passenger station (U.S.C.E. city b.m.).....	593.38	Bull. 569
Davenport and Rock Island bridge, on draw pier; Government gage; elevation of zero.....	542.52	Bull. 569
Davenport, 500 meters above last lumber yard above, 30 meters from bank of river, 0.5 meter north of fence, in oak grove, 115 meters above culvert across creek, 11.5 meters 334° 30' to 10-inch hickory tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 150/3):		
Copper bolt	585.77	Bull. 569
Cap on pipe	589.82	
Davenport, Rock Island rapids, opposite guide pier 22; on top of solid ledge of rock at extreme point of rock at bend (U.S.C.E.b.m. 22 R.B.) (Col. King).....	560.58	Bull. 569
Moline, Ill., just below iron post opposite upper end of, on solid ledge of rock (U.S.C.E.b.m. 21 R.B.).....	559.82	Bull. 569
Davenport, Rock Island, 1.5 miles above head of, on property of George Walker, 60 meters east of east line of club grounds belonging to M. Y. Cady, 0.5 meter east of wire fence between properties of George Walker and Lawrence Rassmusson, 25 meters south of river, 125 meters north of CB&Q RR; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 151/2):		
Copper bolt	564.04	Bull. 569
Cap on pipe	568.06	
Davenport, Rock Island, 1.5 miles above head of, on property of Young Stokes, 0.5 meter west of line between properties of Stokes and Hartman, 400 meters south of Pleasant Valley wagon road, 300 meters north of river bank on high ridge; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 151/3):		
Copper bolt	568.31	Bull. 569
Cap on pipe	572.33	
Davenport, Rock Island, 1.5 miles above head of, cut on top of solid ledge of rock opposite and below guide pier 16,		

DAVENPORT-DAYTON

419

STATION	ELEVATION FEET	AUTHORITY
marked "B.M. 15" black on white (U.S.C.E.b.m. 15 R.B.)	557.90	Bull. 569
Davenport, West, at lower end of, near river bank, in west side near SW. cor. foundation of vinegar works, 0.4 meter from ground; brass bolt, marked "U.S.P.B.M." (U.S. C.E.p.b.m. 38)	567.505	Bull. 569
Davenport, in north abutment of Rock Island and Davenport railway bridge over main channel of Mississippi river, in coping of east or upper side of abutment, on plane with sidewalk, 4.1 meters from river face of abutment and 0.1 meter inside of railing; copper bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 39)	573.562	Bull. 569
Davenport, Arsenal Island, at lower end of, on base of stone tower of United States arsenal stone building A1865, in east side NE. cor., 4 feet from ground; copper bolt marked "U.S.P.B.M." (U.S.C.E.p.b.m. 40)	577.627	Bull. 569
Davenport, new city datum	G529	Weather Bur.
Davenport	G606	Weather Bur.
Davenport, West, yard	G568	CM&StP
Davenport, West, crossing CRI&P	G568	CM&StP
Davenport, West	583	CRI&P
David	1265.9,G1265	CGW
Davis City	913,G914	CB&Q
Dawson	1036,G1039	CM&StP
Dayton, Washington Co.	823	IaGS
Dayton, Webster Co.	1083,G1089	C&NW
Dayton	1139,G1131	M&StL
Dayton, crossing over C&NW	1139,G1139	M&StL
Dayton, crossing, C&NW track	1116,G1116	M&StL
Dayton, T. 86 N., R. 27 W., near center of sec. 20, bend in road to west, east side of road at bend; copper nail in base of telephone pole, marked "1122.3"	1,121.33	Bull. 569
Dayton, T. 86 N., R. 27 W., west center of sec. 20, NE. cor. crossroads, at fence corner; iron post stamped "Prim. Trav. Sta. No. 6, 1912, 1130"	1,128.531	Bull. 569
Dayton, T. 86 N., R. 27 W., SE. cor. sec. 19, NW. cor. forks at T road west; copper nail in base of corner fence post, marked "1132.6"	1,131.66	Bull. 569
Dayton, T. 86 N., R. 27 W., NE. cor. sec. 31, SW. cor. crossroads, in corner of fence post; copper nail marked "1129.5"	1,128.55	Bull. 569
Dayton, T. 86 N., R. 28 W., 0.25 mile south of NE. cor. sec. 24 at crossroads, 40 feet SW. of center of crossroads, in base of corner fence post, marked "1,130.6"; spike	1,130.58	USGS
Dayton, 0.6 mile SE. of, near south quarter corner of sec. 13, at bend in road to east, on north side of road, on fence line; copper nail and washer, in root of 12-inch oak tree, marked "1,126.1"	1,126.15	USGS
Dayton, C&NW Ry crossing at station; top of south rail, marked "1.082.5"	1,082.5	USGS
Dayton, C&NW Ry station, 58 feet west of, at C&NW and M&StL railways crossing, 50 feet east of crossing, on south edge of C&NW roadbed. in center of concrete culvert, marked "1,109.4"; chiseled square	1,109.38	USGS
Dayton, T. 86 N., R. 28 W., corner of secs. 14, 15, 22 and 23, at T road west, 130 feet west of road fork, on south edge of road, in top of concrete culvert; bronze tablet stamped "Iowa 1919 1,124"	1,123.970	USGS
Dayton, T. 86 N., R. 28 W., cor. secs. 15, 16, 21 and 22, 50 feet SW. of center of crossroads, in fence corner, in		

STATION	ELEVATION FEET	AUTHORITY
root of 12-inch maple stump marked "1,153"; copper nail and washer	1,153.05	USGS
Dayton, T. 86 N., R. 28 W., cor. secs. 16, 17, 20 and 21, 35 feet NW. of center of crossroads, in concrete base of fence post, marked "1,173.2"; chiseled square.....	1,173.24	USGS
Dayton, Tps. 86 and 87 N., R. 27 W., cor. secs. 4, 5, 32 and 33, T road north, 30 feet south of road fork, 3 feet north of fence line, in root of 12-inch oak tree, marked "1,107.6"; copper nail and washer.....	1,107.44	USGS
Dayton, Tps. 86 and 87 N., R. 27 W., quarter cor., south side of sec. 32 at T road south, 60 feet SW. of road fork, 6 feet south of fence corner; iron post stamped "Iowa 1919 1,116"	1,115.720	USGS
Dayton, T. 86 N., R. 27 W., 0.25 mile south of center of sec. 5; T road east, 25 feet SE. of road fork, in base of corner fence post, marked "1,119"; spike.....	1,118.86	USGS
Dayton, T. 86 N., R. 27 W., quarter corner, south side of sec. 5, T road west, 25 feet northwest of road fork, in base of corner fence post, marked "1,118.6"; spike....	1,118.43	USGS
Dayton, T. 86 N., R. 27 W., quarter corner, north side of sec. 17, T road north, 25 feet south of road fork, in corner fence post, marked "1,117.8"; spike.....	1,117.62	USGS
Dayton, about 3 miles east of, at C&NW Ry. bridge over Skillet creek, on west end and north side of bridge, in wooden top sill over ties, marked "963.8"; iron bolt....	963.63	USGS
Dayton, T. 86 N., R. 27 W., one-sixteenth corner, south side of SW. $\frac{1}{4}$ sec. 17, 50 ft. west of old abandoned road entering timber, 12 ft. north of fence line, in root of 10-inch oak tree; marked "1,111.5"; copper nail and washer	1,111.35	USGS
Dayton, T. 86 N., R. 27 W., quarter cor., west side sec. 19, T road east, 100 feet north of road cor., on east side of north and south road, in base of telephone pole, marked "1,136.9"; spike	1,136.91	USGS
Dayton, T. 86 N., R. 28 W., 0.25 mile south of NE. cor. sec. 24, at crossroads, 40 feet SW. of center of crossroads, in base of cor. fence post, marked "1,130.6"; spike	1,130.58	USGS
Dayton, T. 86 N., R. 28 W., at cor. secs. 9, 10, 15 and 16, 30 feet SE. of center of crossroads, in east end of iron culvert under road; painted square "T.B.M. 1,153.2"	1,153.24	USGS
Dayton, T. 86 N., R. 28 W., about 500 feet south of cor. secs. 3, 4, 9 and 10, in driveway to Aivie Larson's residence just opposite house, in root of boxelder; copper nail and washer marked "U.S.G.S.B.M." 65.2 feet due west of iron post desc. below.....	1,149.43	USGS
Dayton, T. 86 N., R. 28 W., about 500 feet south of cor. secs. 3, 4, 9 and 10, just inside gate and on south side of driveway to Aivie Larson's residence; iron post stamped "Iowa 1921"	1,150.198	USGS
Dayton, T. 87 N., R. 28 W., 1,280 feet north of south corner of secs. 33 and 34, on north side of driveway to David A. Miller's residence, 100 feet N.W. of house in root of maple tree (15 inches in diameter); copper nail and washer marked "U.S.G.S.B.M." T.B.M. 1,146.9....	1,146.86	USGS
Dean	828.5, G834	CB&Q
Decatur City	1137	CB&Q
Decorah	859	CRI&P
Decorah, in front of CRI&P Ry station; top of rail.....	861.2	Bull. 569
Decorah, in front of CM&StP Ry station; top of rail.....	863.1	Bull. 569
Decorah, SE. $\frac{1}{4}$ sec. 16, T. 98 N., R. 8 W., in foundation		

DECORAH-DES MOINES

421

STATION	ELEVATION FEET	AUTHORITY
of jail at NE. cor., 3 feet above ground; bronze tablet stamped "904 DBQ".....	904.152	Bull. 569
Decorah, T. 99 N., R. 8 W., 0.25 mile east of SW. cor. sec. 21, NW. of road intersection; iron post marked "1148 DBQ".....	1,148.355	Bull. 569
Decorah	875	CM&StP
Decorah	G875	Weather Bur.
Dedham	1262	CM&StP
Deep River	839	C&NW
Defiance	1280,G1275	CM&StP
De Kalb	963,G960	CB&Q
Delaware	1063,G1065	IC
Delaware, crossing under CM&StP.....	1071	IC
Delaware	1078,G1080	CM&StP
Delaware, crossing over IC.....	1088,G1089	CM&StP
Delaware, crossing, IC track	G1068	CM&StP
Delaware, SW. ¼ sec. 32, T. 88 N., R. 4 W., NW. cor. street opposite post office and Knowles Hotel; iron post stamped "1089".....	1,079.668	Bull. 569
Delaware, in front of IC RR station; top of rail.....	1,065.4	Bull. 569
Delaware	G1083	Weather Bur.
Delhi	997,G998	CM&StP
Delhi, near north line of sec. 20, T. 88 N., R. 4 W., on east side of road, about 100 feet east of CM&StP Ry station; iron post stamped "1016".....	1,007.208	Bull. 569
Delmar	807,G807	C&NW
Delmar, crossing CM&StP.....	819	C&NW
Delmar	821,G820	CM&StP
Delmar, crossing C&NW.....	820	CM&StP
Deloit	1185	C&NW
Deloit	1190,G1191	IC
Delphos	1133,G1140	CB&Q
Delray	1147	CB&Q
Delta	787	CRI&P
Delta, North Skunk river at mill.....	682	IaGS
Delta, Cedar creek east of.....	693	IaGS
Delvida	844	CRI&P
Denison	1169,G1170	IC
Denison, crossing C&NW.....	1169,G1170	IC
Denison	1171,G1176	C&NW
Denison, crossing IC	1170	C&NW
Denison	G1180	Weather Bur.
Dennis	896	ISU
Dennis, crossing Chariton river	884	ISU
Denova	720,G720	CB&Q
Denver, depot, top of rail.....	940.1,G943	WCF&N
Denver Junction	1008.5,G1007	CGW
Derby	1093,G1094	CB&Q
Des Moines, Keokuk line, B.M. top of monument M.P. 360.....	797.17	CRI&P
Des Moines, B.M., top of monument M.P. 361.....	796.61	CRI&P
Des Moines, B.M., top of monument M.P. 362.....	800.31	CRI&P
Des Moines, B.M., top of monument M.P. 363.....	792.47	CRI&P
Des Moines, B.M. west anchor bolt on north side of cylinder pier, west end of Des Moines river bridge.....	795.14	CRI&P
Des Moines, top of rail, center of depot.....	799.14	CRI&P
Des Moines, main line	796,G799	CRI&P
Des Moines, East	790,G793	CRI&P
Des Moines, East, crossing main line and Short Line.....	797	CRI&P
Des Moines, East, crossing CB&Q.....	793	CRI&P
Des Moines, East, crossing CGW.....	793	CRI&P
Des Moines, East, crossing Wabash.....	793	CRI&P

STATION	ELEVATION FEET	AUTHORITY
Des Moines, Union Station.....	802,G805	CM&StP
Des Moines, crossing Valley Junction interurban line.....	816	CM&StP
Des Moines, East, crossing CRI&P.....	796.1,G789	CGW
Des Moines, East, crossing CB&Q.....	794.2,G791	CGW
Des Moines, East, Des Moines river bridge.....	G796	CGW
Des Moines, South	800.8	CGW
Des Moines, South, crossing CB&Q.....	799.9	CGW
Des Moines, Union Station, not now used by M&StL.....	801	M&StL
Des Moines, East	794.9,G792	CB&Q
Des Moines, West, old depot	801.4	CB&Q
Des Moines, West, crossing CGW.....	803	CB&Q
Des Moines, East	795	WRR
Des Moines, Union Station	800±	WRR
Des Moines, West, 2d & Grand.....	802	FtDDM&S
Des Moines, W. 2d and Grand Ave., top of rail.....	800.25	DM&CI
Des Moines, East	797,G803	C&NW
Des Moines, SE. cor. sec. 19, T. 79 N., R. 24 W., 50 feet N.W. center of crossroads, 2 miles north of University Ave.; iron post stamped "935 Adj. 1903".....	933.983	Bull. 569
Des Moines, Youngstown, center of south side of sec. 5, T. 78 N., R. 23 W., CRI&P Ry bridge over Four Mile creek, west face of coping stone above east pier; alumin- um tablet stamped "796 Adj. 1903".....	794.172	Bull. 569
Des Moines, 1 mile west of station, in SE. cor. park ad- joining old pumping station of Des Moines Water Works Co., 100 feet north of CM&StP Ry tracks; iron post stamped "797"	795.560	Bull. 569
Des Moines, in foundation stone 1 foot east of SW. cor. old post office, now Federal Bldg.; aluminum tablet stamped "809"	807.351	Bull. 569
Des Moines, in NE. cor. yard adjoining city hall, 60 feet north of Locust St.; iron post stamped "804" (now city market site, post removed).....	802.510	Bull. 569
Des Moines, in front of CRI&P Ry station; top of rail....	799.2	Bull. 569
Des Moines, CRI&P Ry bridge over Des Moines river, north face of coping, 2 feet west of east end of pier on south bank, SE. cor. sec. 11, T. 78 N., R. 24 W.; aluminum tablet stamped "797 Adj 1903".....	795.206	Bull. 569
Des Moines, Twenty-eighth St. crossing of CRI&P Ry, SW. ¼ NW. ¼ sec. 8, T. 78 N., R. 24 W., 30 feet north of cottonwood tree; iron post stamped "804 Adj 1903"	802.978	Bull. 569
Des Moines	G861	Weather Bur.
Des Moines, Locust St. bridge, on 2d pier from west end; zero of gage	773.695	City Engineer*
Des Moines Junction	1163	CB&Q
De Soto	888,G892	CRI&P
De Soto, 1.5 miles SW. of, in SW. stone abutment of bridge 368; aluminum tablet	920.595	Bull. 569
De Soto, 150 feet south of track, opposite west end of station, 2 feet north of wire fence; iron post.....	888.266	Bull. 569
De Soto, in front of CRI&P Ry station; top of rail.....	891.8	Bull. 569
Devon	1196.5,G1195	CGW
Dewar	891.1,G891	CGW
Dewitt	719,G710	CM&StP
Dewitt, crossing C&NW	701,G687	CM&StP
De Witt	683,G683	C&NW
De Witt, crossing CM&StP.....	684	C&NW
Dexter, in front of CRI&P Ry station; top of rail.....	1,148.3	Bull. 569
Dexter, in stone water table of National Bank of Dexter,		

* By checked levels, Jan., 1925. This gage zero is believed to be zero of City datum and 0.88 foot higher than zero of gage tied to by U. S. Corps of Engineers in 1910.

DEXTER-DOUGLASS

423

STATION	ELEVATION FEET	AUTHORITY
on north side of building, 1 foot from NW. cor.: aluminum tablet	1,152.335	Bull. 569
Dexter, 150 feet south of track, opposite point 300 feet east of station, 50 feet north of wagon road, opposite S. C. Paton & Co.'s elevator; iron post.....	1,144.048	Bull. 569
Dexter	1144,G1148	CRI&P
Diagonal	1094,G1087	CB&Q
Diagonal, crossing over CGW.....	1099	CB&Q
Diagonal, CGW track	1079	CB&Q
Diagonal	1087.3,G1089	CGW
Diagonal, crossing CB&Q	G1088	CGW
Dickens	1324,G1330	CM&StP
Digby	825	CRI&P
Dike	943	C&NW
Dillon	983,G977	M&StL
Dinsdale	934	CRI&P
Dion	1385	CM&StP
Divide Spur	1548	CRI&P
Dixon	675,G663	CM&StP
Dixon, crossing CRI&P	664,G652	CM&StP
Dixon	674,G676	CRI&P
Dixon, crossing CM&StP	655	CRI&P
Dolliver	1287	C&N W
Donohue	713,G700	CM&StP
Donnan, crossing CRI&P, union station.....	1150,G1150	CM&StP
Donnan	1153	CRI&P
Donnelley	756,G760	CB&Q
Donnelley, RR bridge over White Breast creek near.....	753.22	CB&Q
Donnelley, bed of White Breast creek at RR bridge, near.....	723	IaGS
Donnelley, T. 76 N., R. 20 W., SW. cor. sec. 15, 28 feet north and east of center of crossroads, 3 feet west of fence, 10 feet north of corner fence post; iron post stamped "781 Iowa"	779.879	Bull. 569
Donnellson, Fort Madison line.....	703,G704	CB&Q
Donnellson, crossing Keokuk-Mt. Pleasant line.....	703,G703	CB&Q
Donnellson, Keokuk line.....	702	CB&Q
Doon	1302.1	CStPM&O
Doon	1276	GN
Dorchester, Allamakee Co., T. 100 N., R. 5 W., north of quarter corner east side sec. 16, 60 feet south of SE. cor. schoolhouse, north side of road; iron post stamped "842 DUBQ"	843.468	Bull. 569
Dorchester, 1 mile west of, T. 100 N., R. 6 W., NW. ¼ sec. 23, NW. of road intersection by cemetery; iron post stamped "1087 DBQ"	1,086.825	Bull. 569
Doris	1012	IC
Dotson	847.71	DM&CI
Doubleday	1133,G1136	CM&StP
Douds, B.M. top of monument M.P. 52 (U.S.C.E.b.m. 36)	603.38	CRI&P
Douds, B.M. top of monument M.P. 53 (U.S.C.E.b.m. 37)	606.18	CRI&P
Douds, B.M. top of monument M.P. 54 (U.S.C.E.b.m. 38)	609.05	CRI&P
Douds, top of rail, center of depot.....	608.9	CRI&P
Douds, B.M. top of monument M.P. 55 (U.S.C.E.b.m. 39)	610.11	CRI&P
Douds, B.M. top of monument M.P. 56 (U.S.C.E.b.m. 40)	605.65	CRI&P
Douds and Leando, top of upstream end of north abutment of highway bridge between (U.S.C.E.b.m. 90).....	612.20	Bull. 569
Dougherty	1099	C&NW
Douglass, Fayette Co., T. 95 N., R. 9 W., 0.4 mile north by 0.1 mile west of SE. cor. sec. 22, opposite road intersection by east-west road, east side; iron post stamped "1151 DBQ"	1,152.424	Bull. 569

ALTITUDES IN IOWA

STATION	ELEVATION		AUTHORITY
	FEET		
Dover Mills, Fayette Co., level of flood plain.....	863		IaGS
Dow City	1136,G1132		IC
Dow City	1131,G1132		C&NW
Dow City	G1142		Weather Bur.
Downey	678,G681		CRI&P
Dows	1150,G1142		CRI&P
Drake Siding, M.P. 106.....	861		CB&Q
Drakeville	878,G891		CRI&P
Dubuque	608.1,G611		CGW
Dubuque, crossing IC.....	G616		CGW
Dubuque, Fairground	629.4		CGW
Dubuque, crossing CM&StP	608.2		CGW
Dubuque	606,G610		CM&StP
Dubuque, crossing I.C.	607		CM&StP
Dubuque, North Junction switch	606		CM&StP
Dubuque, crossing CGW	608,G611		CM&StP
Dubuque Shops	611,G614		CM&StP
Dubuque	607,G616		IC
Dubuque, crossing CB&Q	610,G616		IC
Dubuque, crossing CM&StP	607,G616		IC
Dubuque	G612		CB&Q
Dubuque, curbstone near lamp-post at junction of Dodge street with North Cascade road	G841		USGS
Dubuque, city B.M. on doorstep of building, First and Main streets	G629		Miss. River Com.
Dubuque, Mississippi river, zero of U.S. gage	G605		Miss. River Com.
Dubuque, Mississippi river, high water	G607		Miss. River Com.
Dubuque	G698		Weather Bur.
Dubuque, NE. cor. customhouse, copper bolt marked U.S. P.B.M.b.m. 279	644.838		Bull. 569
Dubuque, 3 miles below, on property of Joe Herod, 15 meters back from river bank, 0.5 meter from right of way fence of railroad, 15 meters north of perpendicular rock cliff, 100 meters below railroad bridge 92K; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 179/3):			
Copper bolt	608.53		Bull. 569
Cap on pipe	612.49		
Dubuque, 0.8 mile above railroad bridge over river at, on right bank below shops of CM&StP Ry, 0.5 meter north of SW. cor. small stockyards which are just south of roundhouse of that RR. and 50 meters SE. of roundhouse and 25 meters back from bank of slough; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 180/3):			
Copper bolt	607.48		Bull. 569
Cap on pipe	611.48		
Dubuque, 3 miles above, at foot of bluffs, 8 meters toward bluffs from center of CM&StP Ry track, 125 meters above signboard reading "Slow, 6 miles per hour," 100 meters below a point opposite ferry landing on left bank; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 181/3):			
Copper bolt	614.35		Bull. 569
Cap on pipe	618.30		
Dubuque, NE. cor. Grandview and Dodge Sts.; iron post stamped "875"	874.486		Bull. 569
Dubuque, T. 88 N., R. 2 E., SW. ¼ sec. 15, south side of road, 60 feet from center of porch; iron post stamped "1071"	1,070.924		Bull. 569
Dubuque, 3.2 miles below, 660 feet below milepost 121-40, 370 feet above upper headblock of siding at Cattese and			

DUBUQUE

425

STATION	ELEVATION FEET	AUTHORITY
295 feet below Creston Crossing, on lower side of coulee, 25 feet west of center of track, on natural ledge of rock, marked "U□S"; highest point in square (U.S. C.E.t.b.m. 301)	616.807	Bull. 569
Dubuque, 1 mile below, at point of bluff on south side of Rugdale hollow, through which IC RR passes from river, 36 feet from t.b.m. 299, 623 feet from CM&StP Ry bridge, 180 feet above house owned by R. Smith, 131 feet west from center of track, 43 feet NW. from blazed elm on upper side of large flat rock; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 282 and 283): Copper bolt	610.038 614.037	Bull. 569
Cap on pipe		
Dubuque, 1 mile below, at point of bluff on lower side of ravine through which the IC Ry passes from river, 623 feet below bridge on CM&StP Ry track, 164 feet above house owned by R. Smith, 98 feet west of center of CM&StP Ry track, on top of large flat rock, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 299)	610.779	Bull. 569
Dubuque, in southern extremity of, at bluff, 0.1 mile below sawmill, directly opposite end of runway to mill, 305 feet above headblock of sawmill siding, 26 feet west from center of siding, in recess in face of rock bluff; copper bolt (U.S.C.E.p.b.m. 281)	612.463	Bull. 569
Dubuque, at river front below harbor, on SW. cor. Houser & Linnehan's boat store, 1½ feet above corner, on water table, in center of buttress, marked "⊙"; highest point of circle in circle (U.S.C.E. old U.S.b.m. b)	606.311	Bull. 569
Dubuque, at river front below harbor, on Diamond Joe store, on upstream end of upstream stone doorsill, marked "□"; highest point of circle in square (U.S. C.E. old U.S.b.m. a)	607.450	Bull. 569
Dubuque, on IC station, at north end, about in center of east side of tower, in water table; highest point in square (U.S.C.E.t.b.m. 297)	608.309	Bull. 569
Dubuque, on west end and first pier of IC RR bridge across Mississippi river, at upper end of pier, near its west edge, about in center of bridge-seat stone; copper bolt marked "U.S.⊙P.B.M." (U.S.C.E.p.b.m. 280)	618.106	Bull. 569
Dubuque, north side of Fourth St., opposite CM&StP Ry station, on Page House, on water table 6 inches in front of west window, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 296)	608.391	Bull. 569
Dubuque, SW. cor. First and Main Sts., near SE. cor. Jess's store, on north end of doorstep; highest point in square (U.S.C.E. city b.m.)	608.976	Bull. 569
Dubuque, on north side of Second St., at east door of older part of Julien House, on east end of doorstep, which is about 32 feet west of Iowa St.; highest point in square (U.S.C.E. city b.m)	612.626	Bull. 569
Dubuque, at NE. cor. U. S. post-office building, 10 inches south of north corner and 3 feet above stone pavement; copper bolt marked "U.S.⊙P.B.M." (U.S.C.E.p.b.m. 279)	644.838	Bull. 569
Dubuque, on SW. cor. Elm and Ninth Sts., on end of curb abutting against NE. cor. CM&StP freight house, marked "U□S"; highest point in square (U.S.C.E. t.b.m. 295)	607.548	Bull. 569
Dubuque, at NW. cor. Fifteenth and Pine Sts., on south side of Iowa Coffin Co.'s warehouse, on west end of first		

STATION	ELEVATION FEET	AUTHORITY
doorstep from Pine St.; copper bolt marked "U.S.⊙ P.B.M." (U.S.C.E.p.b.m. 278).....	609.624	Bull. 569
Dubuque, 0.5 mile below CM&StP Ry shops, at SE. cor. Iowa Coffin Co.'s warehouse, on top of foundation stone; highest point in square (U.S.C.E.t.b.m. 294).....	609.500	Bull. 569
Dubuque, in upper part of, on line of CM&StP Ry, at NW. cor. of their freight-car repair shop, on SW. cor. of foundation stone, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 293).....	611.085	Bull. 569
Dubuque, Eagle Point, 0.2 mile below Dubuque Wooden- ware Co.'s works, on line of CM&StP Ry, 2,181 feet above milepost 115-46, 394 feet above bridge 114, 267 feet below bridge 114½, over sewer, on upper end of mound built up from earth excavation from opposite side of track, 1½ feet west from east fence and 13.6 feet from center of track; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 276 and 277):		
Copper bolt	608.017	Bull. 569
Cap on pipe	612.010	
Dubuque, Eagle Point, in main building of Dubuque Woodenware Co., on river bank, in foundation on south side, 1.8 feet from west corner and 2.1 feet above ground; copper bolt, marked "U.S.⊙P.B.M." (U.S. C.E.t.b.m. 275).....	605.875	Bull. 569
Dubuque, Eagle Point, on Dubuque Woodenware Co.'s dry- ing house, east of railroad tracks, on top of stone founda- tion, 10 feet from west side, on lower side of building, marked "U□S"; highest point in square (U.S.C.E. t.b.m. 291).....	608.864	Bull. 569
Dubuque, Eagle Point, at prominent point of river bank covered with large rock, above ferry landing, on SW. part of very large triangular-shaped rock lying at water's edge; highest point in bottom part of letter "B" cut on rock (U.S.C.E. old U.S.b.m. 23).....	594.527	Bull. 569
Dubuque, 1.25 miles above Eagle Point, 0.2 mile below milepost 113-48, midway between two small wooden-box culverts, 20 feet west of center of track, on natural ledge, marked "U□S"; highest point in square (U.S.C.E. t.b.m. 289).....	618.348	Bull. 569
Dubuque, 2.3 miles above Eagle Point, 58 feet south of small stone culvert on which t.b.m. 287 is located, 436 feet below bridge 122K, 896 feet below railroad plat- form in front of Mr. James Cushing's house, 23.3 feet east of center of track, on right of way; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 273 and 274):		
Copper bolt	608.283	Bull. 569
Cap on pipe	612.279	
Dubuque, 2.3 miles above Eagle Point, 1,569 feet below milepost 112-49, 1,161 feet above bridge 120K, 377 feet below bridge 122K, 836 feet below small railroad platform in front of Mr. Cushing's house, 6 feet west from center of track, on upper end of capstone of small stone culvert, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 287).....	611.406	Bull. 569
Dudley	675.18,G678	CB&Q
Duggan, Jackson Co.	830	USGS
Duggan, center Butler Tp.....	1010	USGS
Dumas, Mo., base of rail opposite E. end depot.....	556.6,G559	AT&SF
Dumfries	1241	WRR
Dumont	978.3,G977	CGW

DUMONT-EARLVILLE

427

STATION	ELEVATION FEET	AUTHORITY
Dumont, crossing C&NW.....	978.40,G978	CGW
Dumont	975	C&NW
Dumont, crossing CGW	978	C&NW
Dunbar	914	CM&StP
Duncan	1248	CM&StP
Duncombe	1110,G1108	IC
Duncombe, T. 88 N., R. 27 W., at west quarter cor. of NW. quarter of sec. 4, at T road south, 90 feet SE. of road corners, just inside fence line, in root of large maple tree, marked "1,105.4"; copper nail and washer	1,105.31	USGS
Duncombe, T. 88 N., R. 27 W., cor. secs. 4, 5, 8 and 9, 50 feet SW. of center of crossroads, just inside fence corner, in root of elm tree, marked "1,103.8"; copper nail and washer	1,103.71	USGS
Dundee, at CGW Ry station; iron post stamped "997 DBQ"	997.847	Bull. 569
Dundee, in front of CGW Ry station; top of rail.....	998.0	Bull. 569
Dundee	998.6,G998	CGW
Dunkerton	947.7,G947	CGW
Dunlap	1094,G1097	C&NW
Dunlap	1095,G1091	IC
Dunreath	739	WRR
Dunreath, in front of Wabash RR station; top of rail (U.S.C.E.b.m. 55)	740.0	Bull. 569
Dunreath, near, in ground on south side of Wabash RR, at milepost "Des Moines 27"; top of rail set vertically (U.S.C.E.b.m. 56) not found in 1926.....	757.63	Bull. 569
Dunreath, T. 77 N., R. 20 W., 0.5 mile east of SW. cor. sec. 9, 15 feet west and 50 feet north of center of cross- roads, 3 feet east of fence; iron post stamped "824 Iowa"	822.294	Bull. 569
Durango	641.8,G644	CGW
Durango, T. 89 N., R. 1 E., near SE. cor. sec. 16, east end of south abutment of wagon bridge over south fork of Maquoketa river; bronze tablet stamped "732 DBQ"	733.564	Bull. 569
Durant	713,G717	CRI&P
Durham	743,G745	CB&Q
Dyersville	943,G944	CGW
Dyersville	941,G941	IC
Dyersville, about 100 feet north of east end of IC RR station; iron post stamped "952".....	942.308	Bull. 569
Dysart	973,G968	CRI&P
Eagle Grove	1114,G1115	C&NW
Eagle Grove, crossing CGW	1107	C&NW
Eagle Grove	1109.2,G1112	CGW
Eagle Grove, crossing C&NW.....	1105.4,G1109	CGW
Eagle Point, see Dubuque, Eagle Point		
Earlham, 100 feet south of track, opposite point 560 feet east of station, 150 feet south of derailing switch, 2 feet north of fence; iron post	1,104.188	Bull. 569
Earlham, in front of CRI&P Ry station; top of rail.....	1,106.1	Bull. 569
Earlham, 1.5 miles east of, in south side of a concrete culvert, near telegraph pole 485-30; aluminum tablet....	1,065.576	Bull. 569
Earlham	1102,G1105	CRI&P
Earling	1307,G1309	CM&StP
Earlville	994	IC
Earlville, bottom step of station platform.....	G1005	USGS
Earlville, B.M. in east end stock yard.....	G999	USGS
Earlville, T. 89 N., R. 3 W., NW. $\frac{1}{4}$ sec. 33, near north line, where highway goes south from IC RR; iron post stamped "1022"	1,011.966	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
Early	1332,G1331	C&NW
Easley	1152	FtDDM&S
East Clayton	G625	CM&StP
East Pleasant Plain	735,G749	CRI&P
Eckard, in front of CM&StP Ry station; base of rail (U.S.C.E.b.m.)	622.93	Bull. 569
Eckard, 1 mile below, opposite head of McMillan Island, on line of CM&StP Ry, 1,722 feet above milepost 79 from La Crosse, 722 feet above first road crossing below Eckard, 27 feet west of center of track, on an embedded rock, marked "U□S"; highest point in square (U.S. C.E.t.b.m. 245)	623.014	Bull. 569
Eckard, 0.2 mile below, where CM&StP Ry comes to bluff, 215 feet above mile post 78-83, opposite upper end of curve, 96½ feet west of center of track, 4½ feet from corner of fence, between this fence and highway which runs parallel with railroad, 82 feet above cluster of butternut trees; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 243 and 244):		
Copper bolt	620.008	Bull. 569
Cap on pipe	624.015	
Eckard	623,G623	CM&StP
Eddyville	675,G676	M&StL
Eddyville, crossing CRI&P	702	M&StL
Eddyville, crossing under C&NW	682	M&StL
Eddyville, low water in Des Moines river at.....	677	M&StL
Eddyville, B.M. top of monument M.P. 88 (U.S.C.E.b.m. 51)	686.76	CRI&P
Eddyville, B.M. top of monument M.P. 89 (Last tie to U.S.C.E.b.m. 52)	670.33	CRI&P
Eddyville, B.M. top of monument M.P. 90.....	671.02	CRI&P
Eddyville, top of rail, center depot	671.7	CRI&P
Eddyville, B.M. top of monument M.P. 92.....	674.92	CRI&P
Eddyville, B.M. top of monument M.P. 93.....	673.84	CRI&P
Eddyville, B.M. top of monument M.P. 94.....	685.38	CRI&P
Eddyville, in front of M&StL station; top of rail (U.S.C. E.b.m. 53)	669.79	Bull. 569
Eddyville, in north end of timber cap on bank bent of pil- ing at east end of C&NW Ry bridge over Des Moines river; top of railroad spike (U.S.C.E.b.m. 74).....	685.44	Bull. 569
Eddyville, top of downstream end of third pier from east end of M&StL RR bridge over Des Moines river (U.S. C.E.b.m. 75)	671.30	Bull. 569
Eddyville, top of downstream end of first pier from left bank or Eddyville side of highway bridge over Des Moines river (U.S.C.E.b.m. 76)	671.00	Bull. 569
Eddyville, on south end of water table of post-office build- ing (De Long Building), at connection of cement blocks and brick wall, first and second building north side of Main St. (U.S.C.E.b.m. 77)	671.61	Bull. 569
Eddyville, upstream edge of north pier tube at east end of Gately highway bridge (U.S.C.E.b.m. 73)	682.98	Bull. 569
Edgewood	1165,G1165	CM&StP
Edgewood, T. 91 N., R. 4 W., NW. cor. sec. 22, at NW. cor. schoolhouse; iron post stamped "1168"	1,168.870	Bull. 569
Edgewood, T. 91 N., R. 5 W., quarter corner south side sec. 16; iron post stamped "1240 DBQ"	1,241.790	Bull. 569
Edmore	613	CM&StP
Edmore, in front of CM&StP Ry station; base of rail (U.S.C.E.)	614.74	Bull. 569
Edmore, Island 217, on left bank of, 10 meters from river		

ELMORE-ELGIN

429

STATION	ELEVATION FEET	AUTHORITY
bank, 0.25 mile below head of island; copper bolt in tile surmounted by iron pipe (U.S.C.E. 182/2):		
Copper bolt	600.02	Bull. 569
Cap on pipe	603.99	
Edmore, 0.8 mile above, on right of way CM&StP Ry track, 531 feet below south end of bridge 124K over Little Maquoketa river, 6.8 miles above Dubuque, on west side of track, 2 feet from fence, opposite center of curve in railroad line; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 271 and 272):		
Copper bolt	612.309	Bull. 569
Cap on pipe	616.308	
Edmore, 1.5 miles above Little Maquoketa river bridge, on line of CM&StP Ry, 0.7 mile above Zollicoffer lake, 1,076 feet above milepost 109-52, 12 feet west of track, on large flat rock inside of bank, inclining perhaps 30° to horizon, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 283)	616.590	Bull. 569
Edna	1417	IC
Egan, Allamakee Co., T. 96 N., R. 4 W., 1,000 feet west of SE. cor. sec. 2, in NE. cor. schoolhouse No. 1; iron post stamped "1137 DBQ"	1,137.865	Bull. 569
Ehler	970	IC
Elberon	840,G836	CM&StP
Elberon, crossing C&NW	823	CM&StP
Elberon	821	C&NW
Elberon, crossing CM&StP	822	C&NW
Eldon, Keokuk line, B.M. top of monument M.P. 62.....	622.07	CRI&P
Eldon, B.M. top of monument M.P. 63.....	621.86	CRI&P
Eldon, top of rail, center of depot.....	628.24	CRI&P
Eldon, on south side street crossing highway bridge, B.M. top of monument M.P. 64 (U.S.C.E.b.m. 42).....	625.86	CRI&P
Eldon, 1 mile NW. of, B.M. top of monument M.P. 65 (U.S.C.E.b.m. 43)	619.80	CRI&P
Eldon, B.M. top of monument M.P. 66.....	630.35	CRI&P
Eldon, B.M. top of monument M.P. 67.....	638.16	CRI&P
Eldon, 4 miles NW. of, B.M. top of monument M.P. 68 (U.S.C.E.b.m. 44)	632.22	CRI&P
Eldon, Kansas City line	619,G630	CRI&P
Eldon, on top of and at NW. cor. first stone pier from north end of CRI&P Ry bridge (U.S.C.E.b.m. 88).....	623.68	Bull. 569
Eldon, on top of and at NW. cor. first stone pier from north end of highway bridge (U.S.C.E.b.m. 87).....	622.23	Bull. 569
Eldora	1071,G1064	M&StL
Eldora, crossing C&NW	1067,G1059	M&StL
Eldora	1051.91	C&NW
Eldora, crossing M&StL.....	1061	C&NW
Eldora	G1070	Weather Bur.
Eldora, Court House hill	1110	IaGS
Eldora mill, low water below dam.....	955	IaGS
Eldora Junction	956	C&NW
Eldorado, Fayette Co.	924	IaGS
Eldorado, T. 95 N., R. 8 W., 0.5 mile north of center of sec. 21, in schoolyard; iron post stamped "983 DBQ"	983.688	Bull. 569
Eldridge Junction	804,G794	CM&StP
Eldridge Junction, junction with Maquoketa line.....	802	CM&StP
Eleanor	966	C&NW
Elgin	834	CRI&P
Elgin, floor of Turkey river bridge.....	G807	USGS
Elgin, T. 94 N., R. 6 W., NE.¼ sec. 33, NE. cor. school yard; iron post stamped "876 DBQ".....	877.585	Bull. 569

STATION	ELEVATION	AUTHORITY
	FEET	
Elgin, in front of CRI&P Ry station, top of rail.....	835.1	Bull. 569
Elgin, T. 94 N., R. 7 W., SE. ¼ sec. 16, in school yard; iron post stamped "989 DBQ".....	989.926	Bull. 569
Elkader, in front of CM&StP Ry station; top of rail.....	724.5	Bull. 569
Elkader, sec. 23, T. 93 N., R. 5 W., NE. cor. courthouse yard; in concrete foundation of flagpole; iron post stamped "759 DBQ" as reset in 1919.....	761.610	Bull. 569
Elkader	722,726	CM&StP
Elkhart	975	CRI&P
Elkhart, T. 81 N., R. 23 W., about 0.4 mile east of NW. cor. sec. 16, SE. cor. crossroads; spike in telephone pole, marked "U.S.B.M. 898".....	896.96	Bull. 569
Elkhart, T. 81 N., R. 23 W., SE. cor. sec. 17; spike in telephone pole, marked "U.S.B.M. 981".....	979.38	Bull. 569
Elkhart, T. 81 N., R. 23 W., NW. cor. sec. 28; iron post stamped "986".....	984.513	Bull. 569
Elkhart, T. 81 N., R. 23 W., SW. cor. sec. 28; spike in telephone pole, marked "U.S.B.M. 985".....	983.84	Bull. 569
Elkhart, T. 81 N., R. 23 W., SE. cor. sec. 32; spike in telephone pole, marked "U.S.B.M. 982".....	981.26	Bull. 569
Elkhart, T. 80 N., R. 23 W., NE. cor. sec. 6; iron post stamped "959".....	958.215	Bull. 569
Elkhart, T. 81 N., R. 23 W., SW. cor. sec. 31; spike in telephone pole, marked "U.S.B.M. 974".....	972.56	Bull. 569
Elk Point, S. Dakota	1130	CM&StP
Elkport, changed to Garber.....	G655	CM&StP
Elk River, 0.25 mile below mouth of, 200 meters from river bank, opposite head of Island 281, on small ridge 10 meters east of slough; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 164/3):		
Copper bolt	576.83	Bull. 569
Cap on pipe	530.86	
Elk River Junction, opposite north end of station at, 0.5 meter east of west right-of-way fence of CM&StP Ry; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 164/4):		
Copper bolt	589.21	Bull. 569
Cap on pipe	593.23	
Elk River Junction, 0.25 mile above Island 276, 0.25 mile below head of slough, 30 meters from shore, in bunch of tall cottonwood trees; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 165/2):		
Copper bolt	577.59	Bull. 569
Cap on pipe	581.60	
Elk River Junction, Island 276, 0.25 mile above head of, 14 meters from top of bank and on south bank of small slough below mouth of Dark Slough, 10 meters west is 12-inch hickory; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 165/3):		
Copper bolt	582.31	Bull. 569
Cap on pipe	586.32	
Elk River Junction, 3 miles above, in maple timber on high ground, 4 meters west of large slough, 742 meters from river bank, 4 meters north to 6-inch burr oak; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 165/4):		
Copper bolt	579.22	Bull. 569
Cap on pipe	583.24	
Elk River Junction	595.G594	CM&StP
Elliott	1083.G1075	CB&Q
Ellmaker	741.5	CB&Q

STATION	ELEVATION FEET	AUTHORITY
Ells	1221	IC
Ellston	1214,G1214	CB&Q
Ellsworth	1082,G1084	C&NW
Ellsworth, Minn.	1455	CRI&P
Ellsworth Spur	1199	CRI&P
Elma	1189,G1188	CGW
Elmira	753,G751	CRI&P
Elmore, Minn.	1129	C&NW
Elm Springs	1221	CM&StP
Elm Springs, 5 kilometers northwest of, 13 meters west of railway, 8 meters north of road, on south line of sec. 5, T. 97, R. 48, 2 meters north and 1 meter east of fences, 0.2 meter below rails; top of iron pipe (U.S.C.&G.S.b.m. D)	1,280.109	Bull. 569
Elon, Allamakee Co., 2,500 feet east of, $\frac{1}{4}$ mile east of center sec. 33, T. 98 N., R. 4 W., NE. of fence post NE. of schoolhouse; iron post stamped "1238 DBQ"	1,238.726	Bull. 569
Elon, T. 98 N., R. 4 W., sec. 16, 200 feet east of bridge over small tributary of Village creek, on north side of road and south side of fence; iron post stamped "834 DBQ"	835.510	Bull. 569
Elrick Junction	567,G560	M&StL
Elwell	970	CM&StP
Elwood	733,G735	CM&StP
Ely	734,G741	CRI&P
Emeline, Jackson Co.	963	USGS
Emeline, Center Brandon Tp.....	955	USGS
Emerson	1056.34,G1057	CB&Q
Emmetsburg	1232,G1237	CM&StP
Emmetsburg, crossing CRI&P	1229,G1234	CM&StP
Emmetsburg	1238,G1234	CRI&P
Emmetsburg, crossing CM&StP.....	1237	CRI&P
Enterprise	992	CRI&P
Enterprise, 4 miles east, 1 mile north of, T. 80 N., R. 22 W., at cor. secs. 7, 8, 17 and 18, 25 feet east and 20 feet north of crossroads, 0.7 foot south of corner fence post, top of 0.5-inch gas pipe, marked "977.4"	977.63	USGS
Enterprise, 3 miles east, 1 mile north of, T. 80 N., Rs. 22 and 23 W., at cor. secs. 7, 12, 13 and 18, 25 feet south and 20 feet west of crossroads, on concrete post; bronze tablet stamped "Prim. Trav. Sta. No. 15-L-S-1924-Ia." marked "984.1"	984.313	USGS
Enterprise, reference mark is 39.4 feet N.80° E. of "L. S. No. 16", in SE. angle of crossroads, top of east head- ing of concrete culvert; chiseled square.....	984.38	USGS
Enterprise, 2 miles east, 1 mile north of, T. 80 N., R. 23 W., at cor. secs. 11, 12, 13 and 14, 26 feet south and 17 feet east of crossroads, in top of east heading of con- crete culvert; chiseled square, marked "986.8"	987.11	USGS
Enterprise, 1 mile north, 1 mile east of, T. 80 N., R. 23 W., at cor. secs. 10, 11, 14 and 15, in NW. angle of crossroads, top of concrete corner fence post; chiseled square, marked "999.1"	999.40	USGS
Enterprise, 1 mile north of, in SE. cor. J. Wohlwind's farm, on north side of east and west road, 2.5 feet NW. corner post of field; iron post stamped "Prim. Trav. Sta. No. 5", marked "980.7"	981.023	USGS
Enterprise, reference mark is 57.5 feet S.45°E. of P.T. Sta. No. 5, 12 feet west of railroad, 16 feet south of road, top of south end of tile; chiseled square.....	978.15	USGS
Enterprise, 260 feet south and 150 feet west of station,		

STATION	ELEVATION FEET	AUTHORITY
220 feet north of road junction, on east side of road, in root on west side of 2-foot maple tree; copper nail and washer, marked "1001.1"	1,001.40	USGS
Enterprise, 0.5 mile west of, T. 80 N., R. 23 W., at cor. secs. 16, 17, 20 and 21, in SE. angle of crossroads, top of east end of tile, painted square, marked "987.9"	988.18	USGS
Enterprise, 1 mile south, ½ mile west of, T. 80 N., R. 23 W., at cor. of secs. 20, 21, 28 and 29, 25 feet east of T-road west, 1 foot west of corner of fence post; top of iron rod, marked "963.4"	963.70	USGS
Enterprise, 1 mile south, 1½ miles west of, T. 80 N., R. 23 W., SE. cor. sec. 19, 40 feet NW. center of crossroads; iron post stamped "938 ADJ. 1903 936.537"	936.837	USGS
Epworth, I. C. road crossing at stock yards	G1048	USGS
Epworth	1034	IC
Ericson	1127	FtDDM&S
Ericson, T. 83 N., Rs. 25 and 26 W., cor. secs. 1, 6, 7, and 12, center of road forks at T road south; chiseled square on top of corner stone, marked "1144.1"	1,143.18	Bull. 569
Ericson, T. 83 N., R. 25 W., SW. cor. sec. 7, on north-south township line between Colfax and Worth townships, NE. cor. crossroads, at fence corner, top of large rock; chiseled square, marked "1121.96"	1,121.06	Bull. 569
Ericson, T. 83 N., R. 25 W., NW. cor. sec. 17, SE. cor. crossroads, at NW. cor. grove; copper nail in root on north side of soft-maple tree, marked "1106.95"	1,106.04	Bull. 569
Ericson, T. 83 N., R. 25 W., cor. secs. 8, 9, 16, and 17, in center of crossroads; chiseled square on top of corner stone, marked "1082.4"	1,081.47	Bull. 569
Essex	999.8,G992	CB&Q
Estherville	1292,G1287	CRI&P
Estherville, crossing M&StL	1290	CRI&P
Estherville	1295,G1298	M&StL
Estherville, crossing CRI&P	1277,G1287	M&StL
Estherville	G1298	Weather Bur.
Euclid	1010	IC
Evans	727,G733	CRI&P
Evans, Keokuk line, B.M. top of monument M.P. 101	720.29	CRI&P
Evans, B.M. top of monument M.P. 102	724.12	CRI&P
Evans, top of rail, center of depot	732.6	CRI&P
Evans, B.M. top of monument M.P. 103	731.73	CRI&P
Evans, B.M. top of monument MP. 307	747.66	CRI&P
Evanston, T. 88 N., R. 28 W., near quarter corner, S. side sec. 2, at road crossing, 40 ft. SW. of road crossing, in base of railroad signpost, marked "1,112.6"; spike	1,112.45	USGS
Evanston, T. 88 N., R. 28 W., quarter corner, W. side of sec. 12, in base of railway signpost, marked "1,104.9"; spike	1,104.74	USGS
Evanston, 150 ft. SE. of CGW RR station, 90 ft. S. of schoolhouse, 45 ft. NE. of crossroads; iron post stamped "Iowa 1919 1,109"	1,108.421	USGS
Evanston, 0.74 mile east of, at road crossing, 20 ft. N. of crossing, in base of railway signpost, marked "1,105.3"; spike	1,105.15	USGS
Evanston, 1.48 miles E. of, at road crossing, 15 ft. NE. of crossing, in base of railway signpost, marked "1,101.3"; spike	1,101.14	USGS
Evanston Junction	1105	FtDDM&S
Eveland, see Givin		
Everly	1360,G1365	CM&StP
Ewart	985	M&StL

STATION	ELEVATION FEET	AUTHORITY
Excelsior	713,G702	M&StL
Exira	1224,G1227	CRI&P
Exline	1014,G1013	CB&Q
Fairbank	996.4,G996	CGW
Fairfax	766,G769	C&NW
Fairfax	790,G795	CM&StP
Fairfield	766,G780	CRI&P
Fairfield, crossing CRI&P	771,G780	CRI&P
Fairfield	772.26,G780	CB&Q
Fairfield, crossing CRI&P	774,G780	CB&Q
Fairfield	G780	Weather Bur.
Fairmount, B.M. top of monument M.P. 334	918.82	CRI&P
Fairmount, B.M. top of monument M.P. 335	913.05	CRI&P
Fairmount, top of rail, center of depot	923.3,G921	CRI&P
Fairmount, B.M. top of monument M.P. 336	923.88	CRI&P
Fairmount, B.M. top of monument M.P. 337	924.15	CRI&P
Fairmount, B.M. top of monument M.P. 338	926.28	CRI&P
Fairport	557,G567	CRI&P
Fairport, union station with CRI&P	558	CM&StP
Fairport, on foundation of pottery owned by John Feustel, in west side near SW. cor. stone foundation, 350 meters above railroad station and near river bank; copper bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 33)	555.550	Bull. 569
Fairport, 0.25 mile above, 1 meter north of south fence of Muscatine-Davenport wagon road, 295 meters east of east line of street which is eastern boundary of Fair- port; copper bolt in tile surmounted by iron pipe (U.S. C.E.b.m. 143/3):		
Copper bolt	592.38	Bull. 569
Cap on pipe	596.40	
Fairport, Island 325, on north side of, opposite a point about 400 meters below foot of Island 326, 25 meters from bank of river; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 144/2):		
Copper bolt	545.49	Bull. 569
Cap on pipe	549.44	
Fairport, 3.5 miles above, on property of J. B. Bar, 0.5 meter west of line between secs. 21 and 22, 150 meters from railroad track, on side of hill at edge of timber, 10.7 meters south of intersection of north-south section line, south line of J. C. Fitchner; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 144/3):		
Copper bolt	630.89	Bull. 569
Cap on pipe	634.90	
Fairport, T. 77 N., R. 1 E., near NE. cor. sec. 8, 100 feet west of crest of hill, 70 feet south of roadway, opposite barn, on top of stump in field; copper nail, marked "710.63"	710.70	Bull. 569
Fairport, T. 77 N., R. 1 E., NW. cor. NE. ¼ sec. 8, SE. cor. crossroads, in NW. cor. Patterson schoolhouse lot; iron post stamped "Prim. Trav. Sta. No. 2 Iowa 1910, 728"	728.044	Bull. 569
Fairport, T. 77 N., R. 1 E., NW. cor. sec. 8, 150 feet east of crossroads, near middle of south side of bridge, in floor; copper nail, marked "654.50"	654.58	Bull. 569
Fairport, T. 77 N., R. 1 E., NW. cor. sec. 7, SE. cor. T road east, east end of wooden drainpipe; copper nail, marked "715.36"	715.45	Bull. 569
Fairport, T. 77 N., meridian line SE. ¼ sec. 1, R. 1 W., middle of east line; T road west, marked "724.9"	725	Bull. 569
Fairport, T. 77 N., R. 1 W., near SW. cor. sec. 1, north		

STATION	ELEVATION FEET	AUTHORITY
side of road, on east side of Pine creek, 20 feet NE. of NE. cor. bridge over Pine creek, 15 feet NW. of 6-inch boxelder, 10 feet east of 4-foot boxelder, 13 feet east of 6-inch boxelder; iron post stamped "623"	622.864	Bull. 569
Fairport, T. 77 N., R. 1 W., near west line of sec. 28, NE. cor. road forks, northeast from river road, 1.5 feet west of fence, 20 feet north of fence; iron post stamped "558.8"	559.054	Bull. 569
Fairport, T. 77 N., R. 1 W., NW. $\frac{1}{4}$ sec. 29, near middle of south line, at road forks, SE. cor. bridge on river road; top of plank backing for steel abutment marked "558.70"	558.90	Bull. 569
Fairview, S. Dakota	1220	CM&StP
Farley	1061,G1064	CGW
Farley	1104	IC
Farley, junction CM&StP	1107	IC
Farley	1113	CM&StP
Farley, crossing IC	G1115	CM&StP
Farley, SW. $\frac{1}{4}$ sec. 13, T. 88 N., R. 1 W., west side of Wood St., where street crosses IC RR; iron post stamped "1117"	1,108.148	Bull. 569
Farley, T. 88 N., R. 1 W., middle north line of sec. 6, at road junction; iron post stamped "1139"	1,130.066	Bull. 569
Farlin	1072	CM&StP
Farmersburg	907,G909	CM&StP
Farmersburg, crossing south of CM&StP Ry station; top of rail	905.4	Bull. 569
Farmersburg, T. 94 N., R. 5 W., SW. cor. sec. 15, SW. cor. schoolhouse yard; iron post stamped "1077 DBQ"	1,078.516	Bull. 569
Farmington	571,G567	CB&Q
Farmington, B.M. top of monument M.P. 29	562.76	CRI&P
Farmington, B.M. top of monument M.P. 30 (U.S.C.E. b.m. 15)	570.17	CRI&P
Farmington, top of rail, center of depot	566.5	CRI&P
Farmington, 1 mile NW. of, B.M. top of monument M.P. 31 (U.S.C.E.b.m. 16)	561.27	CRI&P
Farmington, 2 miles NW. of, B.M. top of monument M.P. 32 (unadjusted)	553.67	CRI&P
Farmington, 3 miles NW. of, B.M. top of monument M.P. 33 (U.S.C.E.b.m. 17)	574.33?	CRI&P
Farnam	670,G677	CRI&P
Farnhamville	1142	C&NW
Farragut	963.4,G959	CB&Q
Farson	799,G801	CM&StP
Faulkner	1113,G1105	M&StL
Fayette	1002	CM&StP
Fenton	1241	C&NW
Ferguson	911,G908	CM&StP
Fernald	1037	CRI&P
Fifield	724	WRR
Fifield, T. 76 N., R. 19 W., SE. cor. sec. 2, west and 85 feet north of center of crossroads, 18 feet west of center of roadway, 30 feet east of bank of small creek; iron post stamped "749 Iowa"	747.844	Bull. 569
Fifield, above; top of west side of north shore pier of highway bridge (U.S.C.E.b.m. 65) (Pier pushed 1 foot down stream by ice and lowered)	725.03	Bull. 569
Fillmore	831,G830	CM&StP
Fillmore, T. 87 N., R. 1 W., at quarter-section line of sec. 25, Whitewater Tp., road crossing CM&StP Ry, near		

FINDLEY-FOREST CITY

435

STATION	ELEVATION FEET	AUTHORITY
north end of second tie from east cattle guard; iron post stamped "889"	879.594	Bull. 569
Findley, M.P. 494	1023,G1020	IC
Findley, crossing over C&NW	1028	IC
Finley Landing, on line of CM&StP Ry, 649 feet below milepost 101-60, 180 feet above bridge 162, on right of way, 2 feet from south fence and 38 feet from center of track; copper bolt in tile surmounted by iron pipe (U. S.C.E.p.b.m. 260 and 261):		
Copper bolt	618.870	Bull. 569
Cap on pipe	622.873	
Flagler	746,G746	CB&Q
Flagler, crossing CRI&P	726.5	CB&Q
Flagler, T. 76 N., R. 19 W., 0.25 mile north of SE. cor. sec. 27, in pasture of P. Augustine, 290 feet north of T road, near fence west of road, in fork of boxelder tree; 40-penny nail	797.028	Bull. 569
Flagler, T. 75 N., R. 19 W., center of sec. 15, north and 55 feet east of center of crossroads, 2 feet south of fence; iron post stamped "854 Iowa"	852.285	Bull. 569
Flagler, T. 75 N., R. 19 W., 0.5 mile north of SE. cor. sec. 27, south and 55 feet west of center of crossroads, 3 feet north of fence; iron post stamped "888 Iowa"	886.459	Bull. 569
Flagler, T. 75 N., R. 19 W., SE. cor. sec. 27, at center of crossroads; section corner stone	909.96	Bull. 569
Flagler, RR bridge over English creek, 1 mile east of	727.4	CB&Q
Flagler, bed of English creek at RR bridge, 1 mile east of	704	IaGS
Flanders	1081,G1085	CM&StP
Flint	1169	CRI&P
Florence	1126.60,G1130	CGW
Floris	708,G706	CRI&P
Floyd	1104,G1099	IC
Floyd crossing	1072	CM&StP
Flugstad	1116	FtDDM&S
Flynns	870,G865	CM&StP
Foley Switch	536	CB&Q
Follets	606	CRI&P
Folsom	974.5	CB&Q
Folsom, T. 73 N., R. 44 W., 0.25 mile east by 430 feet south of NW. cor. sec. 12, on east side of old stage road, 300 feet north of house of J. C. Cole; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 119/2):		
Copper bolt	961.34	Bull. 569
Cap on pipe	965.40	
Fonda	1231,G1234	CM&StP
Fonda, crossing IC	1231,G1235	CM&StP
Fonda	1230	IC
Fonda, crossing CM&StP	1230	IC
Fontanelle	1334.84	CB&Q
Fontanelle (old station)	1247	CB&Q
Fontanelle, E. line SE. 1/4 sec. 18, T. 75 N., R. 32 W.	1282	IaGS
Forbush	979	ISU
Ford	760,G760	CB&Q
Ford, 0.75 mile NE. of, in top of SE. pier of south span of highway bridge over Des Moines river; aluminum tablet stamped "Prim. Trav. Sta. No. 1, 763 Adj" (see also Runnels)	761.635	Bull. 569
Forest City	1265,G1251	CRI&P
Forest City, crossing M&StL	1249	CRI&P
Forest City	1221,G1220	M&StL
Forest City	G1226	Weather Bur.

STATION	ELEVATION FEET	AUTHORITY
Forest City, Pilot Knob	1450	IaGS
Fort Atkinson	1016,G1021	CM&StP
Fort Atkinson, sec. 7, T. 96 N., R. 9 W., west side of town, in NW. cor. church yard; iron post stamped "1019 DBQ"	1,019.721	Bull 569
Fort Dodge	1111.1,G1115	CGW
Fort Dodge, crossing FtDDM&S	1108.8	CGW
Fort Dodge, crossing over IC, CGW track.....	G1101	CGW
Fort Dodge, CGW crossing, IC track	G1061	CGW
Fort Dodge	1025	IC
Fort Dodge, M&StL Jct.	1008	IC
Fort Dodge, crossing over M&StL	1016	IC
Fort Dodge, crossing over FtDDM&S	1100	IC
Fort Dodge, crossing under CGW.....	1059	IC
Fort Dodge	1009,G1011	M&StL
Fort Dodge, crossing under IC, IC track.....	1017,G1017	M&StL
Fort Dodge, crossing under IC, M&StL track.....	994,G994	M&StL
Fort Dodge	1111	FtDDM&S
Fort Dodge, East	1107	FtDDM&S
Fort Dodge, T. 88 N., R. 29 W., quarter corner, west side of sec. 3, at right angle in road, second class road leading north, 50 feet SE. of road fork, in fence corner, in root of 12-inch maple tree, marked "1,128.8"; copper nail and washer	1,128.70	USGS
Fort Dodge, T. 88 N., R. 29 W., 0.25 mile west of quarter cor., east side of sec. 3, at T road north, 75 feet NW. of road fork, 25 feet north of fence corner, 1.5 feet east of fence line; iron post stamped "Iowa 1919 1,125" (said to have been moved)	1,125.423	USGS
Fort Dodge, T. 88 N., R. 29 W., 0.25 mile west of NE. cor. sec. 3, at T road south, 250 feet west of T road north, 40 feet SE. road fork, in base of corner fence post, marked "1,123.1"; spike	1,123.03	USGS
Fort Dodge, T. 89 N., R. 29 W., near NE. cor. sec. 36, CGW RR crossing range line, 75 feet SW. railway crossing, in base of telephone pole, marked "1,124.1"; spike	1,124.03	USGS
Fort Dodge, T. 89 N., Rs. 28 and 29 W., cor. secs. 31, 36, 25 and 30, 50 feet SW. of center of crossroads at fence corner, in base of telephone pole marked "1,112"; spike	1,111.94	USGS
Fort Dodge, top of south rail of CGW RR, marked "1,125.8"	1,125.7	USGS
Fort Dodge, 1.5 miles SW. of, CGW RR bridge over Des Moines river, at western end of bridge and south side of track, about 1.5 feet lower than the track; point in concrete abutment marked "1,197.1"	1,096.99	USGS
Fort Dodge, T. 89 N., R. 29 W., near center of sec. 26, 450 feet SW. of top of slope leading down to Lizard creek, at bend in road to west, just inside of fence on south side of road, in root of 2.5 foot maple tree, marked "1,113.1"; copper nail and washer.....	1,113.04	USGS
Fort Dodge, T. 89 N., R. 29 W., quarter corner, S. side of sec. 3, 60 ft. NE. of center of crossroads, in root of large maple tree, marked "1,126.1"; copper nail and washer	1,125.98	USGS
Fort Dodge, Tps. 89 and 90 N., R. 29 W., quarter corner, S. side of sec. 34, at T road W., 35 ft. NW. of road fork, in fence corner, in root of large willow tree, marked "1,124.4"; copper nail and washer.....	1,124.24	USGS
Fort Dodge, Tps. 89 and 90 N., R. 28 W., cor. secs. 4, 5, 32 and 33, T road N., 35 ft. S. of road fork, in concrete		

FORT DODGE

437

STATION	ELEVATION FEET	AUTHORITY
base of corner fence post, marked "1,131.1"; chiseled mark	1,130.99	USGS
Fort Dodge, Tps. 89 and 90 N., R. 28 W., quarter corner, S. side of sec. 32, 40 ft. NW. of crossroads, in root of 5-inch catalpa tree, marked "1,146.2"; copper nail and washer	1,146.08	USGS
Fort Dodge, T. 90 N., R. 28 W., quarter corner, N. side of sec. 32, T road W., 38 ft. SW. of road fork; iron post stamped "IOWA 1919 1,121"	1,121.258	USGS
Fort Dodge, intersection of 5th Ave. S. and interurban railway, top of west rail, marked "1,110.5"	1,110.6	USGS
Fort Dodge, 15th St. crossing of CGW RR; top of south rail, marked "1,098.7"	1,098.6	USGS
Fort Dodge, 15th St. and 5th Ave. S., crossing, 25 ft. NE. of center of street crossing, 2 ft. SW. of telephone pole; chiseled square, in concrete curbing, marked "1,107.4"	1,107.30	USGS
Fort Dodge, 5th St. and 1st Ave. N., crossing, 50 ft. NE. of center of street crossing, on edge of sidewalk; copper nail and washer, in root of 18-inch maple tree	1,122.13	USGS
Fort Dodge, P. O., rear end, NW. corner, 20 inches above sidewalk and 12 inches from north edge of building; bronze tablet stamped "IOWA 1,099"	1,098.500	USGS
Fort Dodge, 2nd Ave N. and CGW RR crossing, 50 ft. E. of railway and 15 ft. south of highway; chiseled point on top of large terra cotta pipe marked "1,108.9"	1,108.80	USGS
Fort Dodge, 10th Ave. N. and CGW RR crossing, 25 ft. SE. of crossing, in base of telephone pole, spike, marked "1,109.1"	1,109.07	USGS
Fort Dodge, at CGW RR crossing, 10th Ave. N., top of east rail	1,112.5	USGS
Fort Dodge, T. 89 N., R. 28 W., cor. secs. 15, 16, 21 and 22, at T road N., 40 ft. S. of center of road fork, 3 ft. N. of fence line and 2 ft. N. of telephone pole; iron post stamped "IOWA 1919 1,109"	1,108.794	USGS
Fort Dodge, T. 89 N., R. 28 W., cor. secs. 14, 15, 22 and 23, 145 ft. E. of section corner and 60 ft. S. of front of dwelling, on N. side of road, in base of telephone pole; spike, marked "1,115.6"	1,115.49	USGS
Fort Dodge, T. 89 N., R. 28 W., cor. secs. 13, 14, 23 and 24, 300 ft. W. of second class road to north, on N. side of road, in base of telephone pole; spike, marked "1,109.2"	1,109.14	USGS
Fort Dodge, T. 89 N., Rs. 27 and 28 W., cor. secs. 13, 18, 19 and 24, 50 ft. SE. of center of crossroads; iron post stamped "Prim. Trav. Sta. No. 5 1919 IOWA 1,113"	1,112.589	USGS
Fort Dodge, T. 89 N., R. 27 W., cor. secs. 17, 18, 19 and 20, 50 ft. NW. of center of crossroads, in fence corner; copper nail and washer in root of large willow tree, marked "1,117.8"	1,117.66	USGS
Fort Dodge, T. 89 N., R. 27 W., 1/16 corner, N. side of NE. quarter cor. sec. 20, at second class road crossing, 40 ft. NW. of center of crossroads, in concrete base of corner fence post, marked "1,113.9"; chiseled square	1,113.77	USGS
Fort Dodge, T. 89 N., R. 27 W., quarter corner, N. side of sec. 21, at T road S., 75 ft. SW. of road fork, 4 ft. N. of fence line, 3 ft. W. of telephone pole; iron post stamped "IOWA 1919 1,120"	1,119.661	USGS
Fort Dodge, T. 89 N., R. 27 W., quarter corner S. side of sec. 15, at T road N., 25 ft. NW. of center of road fork; chiseled square, in concrete base of fence post, marked "1,110.9"	1,110.82	USGS

STATION	ELEVATION FEET	AUTHORITY
Fort Dodge, T. 89 N., Rs. 27 and 28 W., cor. secs. 19, 24, 25 and 30, 30 ft. SE. of center of crossroads, in concrete base of corner fence post, marked "1,110.6"; chiseled square	1,110.50	USGS
Fort Dodge, T. 89 N., Rs. 28 and 29 W., cor. secs. 24, 25, 19 and 30, T road S., 75 ft. SW. of road fork, on fence line, in base of telephone pole, marked "1,118"; spike	1,117.97	USGS
Fort Dodge, T. 89 N., R. 29 W., cor. secs. 23, 24, 25 and 26, at right angle of road, in front of Oakdale dairy farm, 40 ft. N. of second class road fork, 6 ft. E. of fence corner; iron post stamped "IOWA 1919 1,120"	1,120.222	USGS
Fort Madison, Ottumwa line.....	522	CB&Q
Fort Madison, Keokuk line.....	520,G523	CB&Q
Fort Madison, Mississippi river, low water.....	G502	Miss. R. Com.
Fort Madison, Mississippi river, high water.....	G518	Miss. R. Com.
Fort Madison	G522	Weather Bur.
Fort Madison, base of rail opposite east end depot.....	522.9,G522	AT&SF
Fort Madison, in middle of west side of brick chimney of woodenware factory on NE. cor. Front St. and Broadway, 3 feet above base of chimney in building owned by W. H. Cretzinger; copper bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 8)	539.671	Bull. 569
Fort Madison, 4 miles above, on brick house of James Gibbs, in top foundation stone on south side, 3 feet from SE. corner, house stands about 150 meters west of CB&Q RR track; copper bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 9)	545.996	Bull. 569
Fort Madison, 9 miles north of, on east abutment of CB&Q RR bridge over Skunk river, in north end of abutment; copper bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 10)	548.076	Bull. 569
Fort Madison, 450 meters below station at, in top of north corner of stone pier of railroad water tank, on second pier NW. of spout to tank; top of stone (U.S.C.E. b.m. 4 R.B.)	522.54	Bull. 569
Fort Madison, in water table of Hotel Anthes, on Front St. near AT&SF station, near center of building on south side; copper bolt marked "U.S.P.B.M." (U.S. C.E.p.b.m. 7)	534.513	Bull. 569
Fort Madison, lower part of, on hillside, 12 meters SE. center of public road, 80 meters from river bank, at point where bluffs turn back from river; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 117/1): Copper bolt	575.56	Bull. 569
Cap on pipe	579.56	
Fort Madison, Niota Island, on sandy ridge which extends along west bank of, 69 meters 68° to north corner of little frame house, 25 meters north of water's edge; copper bolt in tile surmounted by iron pipe (U.S.C.E.b. m. 117/2): Copper bolt	513.29	Bull. 569
Cap on pipe	517.31	
Fort Madison, in vacant lot belonging to Mr. Wilson, in SW. quarter of block inclosed by Spruce St. on west, Division St. on south, Locust St. on east, and Des Moines St. on north, 1.5 meters from line of lot west belonging to J. C. Atlee, 46.5 meters east of Spruce St., 11 meters south of alley running east and west through block; copper bolt in tile surmounted by iron pipe (U. S.C.E.b.m. 117/3): Copper bolt	524.07	Bull. 569
Cap on pipe	528.08	

FORT MADISON-FOSTERDALE

439

STATION	ELEVATION FEET	AUTHORITY
Fort Madison Bridge, in south side of second stone pier from Iowa end of; cut in stone (U.S.C.E. zero of gage)	502.53	Bull. 569
Fort Madison, cut in stone on west end of north abutment of Fort Madison Bridge (U.S.C.E. high-water marks 1880, 1888, 1851):		
1880	518.66	Bull. 569
1888	519.26	
1851	524.13	
Fort Madison, on shore opposite to Pontoosuc, Ill., in cluster of large soft maple trees, west of large patch of willows, 45 meters from bank, between two long dikes, 500 meters above lower and 200 meters below upper dike; copper bolt in tile surmounted by iron pipe (U.S. C.E.b.m. 119/3):		
Copper bolt	511.39	Bull. 569
Cap on pipe	515.37	
Fort Madison, Green Lake, 150 meters south of outlet of, 807 meters back of above-described bench mark, by side of wagon road, in heavy timber, 7.5 meters 320° to 30-inch elm tree, 13.2 meters 58° to 36-inch elm tree, 8 meters 158° to 11-inch elm tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 119/4):		
Copper bolt	512.79	Bull. 569
Cap on pipe	516.80	
Fort Madison, U.S.P.B.M., square cut in SE. cor. top step of west wing wall north side Mississippi river bridge....	535.25	USC&GS and AT&SF CM&StP
Foster	900, G904	
Fosterdale, T. 75 N., R. 17 W., 0.25 mile west of quarter corner on east side of sec. 27, on east side of road, 84 feet north of CB&Q RR track, 3 feet west of fence, 0.8 foot underground; iron post stamped "700 Iowa".....	698.736	Bull. 569
Fosterdale, reference mark, 25 feet west and 7 feet north of b.m., in root 0.5 foot underground, on south side of 2.5-foot locust tree; copper nail and washer.....	700.77	USGS
Fosterdale, T. 75 N., R. 17 W., near center of sec. 28, 140 feet west and 15 feet south of T road north, top of east end of south heading of concrete culvert under road; chiseled square, marked "709.7".....	709.74	USGS
Fosterdale, T. 75 N., R. 17 W., near SE. cor. NE. ¼ NE. ¼ sec. 35, 15 feet west of center of road forks, in root on east side of 3-foot elm tree; copper nail and washer, tree is painted "U.S.B.M. 689.7".....	689.30	USGS
Fosterdale, at road crossing CB&Q RR; top of south rail	701.8	USGS
Fosterdale, T. 75 N., R. 17 W., near center of sec. 25, 13 feet east by 13 feet north of SE. cor. Jack Oak School yard fence, in NW. angle of roads at T-road north, in root on east side of 2-foot black oak tree; copper nail and washer, painted "U.S.B.M. 763.7".....	763.33	USGS
Fosterdale, T. 75 N., R. 17, at quarter corner between secs. 24 and 25, in NE. angle of roads at T road north, 4 feet north of corner fence post, driven in ground; 0.75 inch gas pipe painted "U.S.B.M. 739.9".....	739.55	USGS
Fosterdale, opposite CB&Q RR station, top of rail.....	701.45	Bull. 569
Fosterdale, T. 75 N., R. 17 W., quarter corner on north side of sec. 25, T corner, on rock; painted square	729.29	Bull. 569
Fosterdale, T. 75 N., R. 17 W., quarter corner on north side of sec. 24, 30 feet west and 30 feet north of center road, SE. cor. Charles Oswandel's place, crossroads; iron post stamped "772 Iowa" (Junction point).....	771.045	Bull. 569
Fosterdale	693	CB&Q

STATION	ELEVATION FEET	AUTHORITY
Fosterdale, 0.5 mile south of, in east side of burr-oak tree on bank of river, about 200 feet upstream from residence of A. B. Henry; twentypenny nail, which is also high-water mark of 1903 (U.S.C.E.b.m. 71).....	688.62	Bull. 569
Fostoria	1447,G1449	CM&StP
Franklin, Lee Co.	700,G699	CB&Q
Franklin, Jasper Co.	762	CRI&P
Frankville, T. 97 N., R. 6 W., center, 20 feet west of road intersection on north side of, at Center schoolhouse, Allamakee Co.; iron post stamped "1169 DBQ".....	1,168.880	Bull. 569
Frankville, T. 97 N., R. 7 W., near center of sec. 15, NW. of road junction, in SE. cor. McKay school yard; iron post stamped "1144 DBQ"	1,144.127	Bull. 569
Fraser, bench mark	896.44	FtDDM&S
Fraser, crossing Des Moines river.....	910	FtDDM&S
Frederic	747.47,G752	CB&Q
Fredericksburg	1076.2,G1076	CGW
Fredonia	593,G602	CRI&P
Freeman	1157,G1150	M&StL
Freeman	1146.6,G1140	CGW
Freeport, Winneshiek Co., T. 98 N., R. 7 W., 0.4 mile west of southeast cor. sec. 16, 2 rods north of northwest cor. of road intersection; iron post stamped "845 DBQ"....	844.805	Bull. 569
Fremont	827	CB&Q
Fremont	850,G842	M&StL
French Creek, Allamakee Co., T. 99 N., R. 5 W., near quarter corner on north side sec. 21, NW. of schoolhouse, 25 feet south of fence-corner post; iron post stamped "1060 DUBQ" (map shows B.M. in sec. 15).....	1,060.838	Bull. 569
Frenchtown landing, Dubuque Co., on right of way of CM&StP Ry, at fence, at upper end of small picnic grounds, 25 meters below end of bridge 148K; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 184/3 equals U.S.P.B.M. 263):		
Copper bolt	610.88	Bull. 569
Cap on pipe	614.88	
Frenchtown Landing, 35 feet above t.b.m. 277, 1,335 feet above milepost 104-57, 80 feet below bridge 148, 60 feet above platform on side of railroad and at entrance to picnic grounds, on east side of coulee, 38 feet south from center of track, on right of way, 1½ feet from south limit, under extreme northwest point of table-land forming picnic ground; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 263 and 264):		
Copper bolt	610.878	Bull. 569
Cap on pipe	614.877	
Frenchtown Landing, 0.2 mile above milepost 104-57, 115 feet below bridge 148, 25 feet above end of platform at entrance to picnic grounds, 20 feet south from center of track, on flat rock, embedded, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 277)	614.002	Bull. 569
Frenchtown Landing, in front of Island 207, 919 feet above milepost 102-59, 79 feet above section post 10-11, on west abutment of bridge 156, at its north end, on fourth stone step from top, 3 inches from end face of third step, 9 inches back from east face; copper bolt marked "U.S.⊙P.B.M." (U.S.C.E.p.b.m. 262).....	615.622	Bull. 569
Froelich	1017	CM&StP
Fruitland, Muscatine Co.	544,G552	CRI&P
Fruitland, Polk Co.	830.56	DM&CI
Fulton, Jackson Co.,	785	USGS

FULTON-GARWIN

441

STATION	ELEVATION FEET	AUTHORITY
Fulton, center Farmers Creek Tp.	700	USGS
Galbraith	1162.0	C&NW
Galland	532	CB&Q
Galland, in top of coping of west wall near SW. tower of guard lock; top of brass bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 2)	507.922	Bull. 569
Galland, on east side of guard lock, just above upper gate of Des Moines Rapids canal; gage cut in stone masonry (U.S.C.E. "gage at guard lock")	496.94	Bull. 569
Galland, Des Moines Rapids canal, 580 meters above a point on railroad opposite upper gate of guard lock of, 3 meters east of track, 4 meters from south end of culvert, at upper end of large gravel bar, nearly opposite U. S. light on large stone pier; stone post (U.S.C.E. "channel survey b.m.")	517.66	Bull. 569
Galland, Des Moines Rapids canal, 1,250 meters above point on railroad opposite upper gate of guard lock of, 250 meters above U. S. light on upper end of long narrow towhead, at top edge of right bank of river, on north side of mouth of ravine, 20 meters east of railroad, opposite north end of culvert; stone post (U.S.C.E. "channel survey b.m.")	518.28	Bull. 569
Galland and Montrose, about halfway between, between river bank and public road, directly in front of residence of Charles Hummel, between an old stone culvert and west corner of hedge inclosing an orchard on hillside, 14 meters from river bank, 8 meters from wagon track of public road at point 13 meters south of where small ravine crosses road, 27.5 meters from corner of hedge and 18.7 meters from 8-inch hickory tree; copper bolt in tile surmounted by iron post (U.S.C.E.b.m. 114/2):		
Copper bolt	519.43	Bull. 569
Cap on pipe	523.46	
Galland and Montrose, about halfway between, on little hillock between public road and railroad, on section line running west from river on south line of Solferino farm, 61 meters from river bank, 56.5 meters from center of road, 43.7 meters from center line of railroad, 37 meters from large arched stone culvert on railroad; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 114/3):		
Copper bolt	523.59	Bull. 569
Cap on pipe	527.60	
Galt	1204,G1198	CRI&P
Galva	1287,G1286	C&NW
Galva	G1290	Weather Bur.
Garber, formerly Elkport.....	656,G655	CM&StP
Garden City	1196	CRI&P
Garden Grove	1114,G1115	CB&Q
Gardiner	953.53	DM&CI
Garfield	1011	CB&Q
Garland	767	CRI&P
Garnavillo, SE. ¼ sec. 18, T. 93 N., R. 3 W., SE. cor. park; iron post stamped "1065 DBQ"	1,066.760	Bull. 569
Garner	1216,G1209	CRI&P
Garner, crossing CM&StP	1218,G1209	CRI&P
Garner	1212	CM&StP
Garner, crossing CRI&P.....	1217,G1212	CM&StP
Garrison	863,G859	CRI&P
Garry Owen, Jackson Co.....	975	USGS
Garwin	895	C&NW

STATION	ELEVATION FEET	AUTHORITY
Gaza	1508,G1508	IC
Geneva	1100,G1092	M&StL
George	1374,G1377	IC
Georgetown, Dubuque Co., T. 90 N., R. 1 W., north line sec. 17, corner of O. W. Burns's field, iron post stamped "1159 DBQ"	1,159.854	Bull. 569
Gerled	1152	C&NW
Gerled, crossing CRI&P	1153	C&NW
Gerled	1180	CRI&P
Gerled, crossing over C&NW	1180	CRI&P
Giard	800	CM&StP
Gibson	886	CRI&P
Gibson, crossing C&NW	882	CRI&P
Gifford	956	M&StL
Gifford, crossing C&NW	956	M&StL
Gifford	951,G953	C&NW
Gifford, crossing M&StL	951	C&NW
Gilbert	994	C&NW
Gilbert, T. 84 N., R. 24 W., 300 feet east of SW. cor. sec. 17, NW. cor. forks at T road north, in SW. foundation of small shed at windmill; square cut in top of stone, marked "954.5"	953.48	Bull. 569
Gilbert, 1.5 miles west by 1 mile south of, T. 84 N., R. 24 W., NW. cor. sec. 17, SE. cor. crossroads, 5 feet south of fence corner; iron post stamped "965"	964.255	Bull. 569
Gilbert, 1.5 miles west of, T. 84 N., R. 24 W., cor. secs. 5, 6, 7, and 8, center of crossroads; chiseled square cut on top of stone, marked "960.1"	959.12	Bull. 569
Gilbert, 1.5 miles west by 1 mile north of, T. 85 N., R. 24 W., SW. cor. sec. 32, on east-west township line between La Fayette and Franklin townships, NE. cor. of cross- roads; copper nail in base of telephone pole, marked "993.2"	992.15	Bull. 569
Gilbert, 1.5 miles west by 2 miles north of, T. 85 N., R. 24 W., SW. cor. sec. 29, NE. cor. crossroads, SW. cor. schoolhouse yard; iron post stamped "1048"	1,047.281	Bull. 569
Gilbert, 0.5 mile west by 2 miles north of, T. 85 N., R. 24 W., NW. cor. sec. 33, SE. cor. crossroads; chiseled square on top of large stone, marked "1024.2"	1,023.23	Bull. 569
Gilbert station, 2 miles north of, on railroad, just south of road crossing, north end of east guardrail of small railroad bridge; top of painted bolt-head, marked "1036.2"	1,035.22	Bull. 569
Gilbert, 0.5 mile east by 2 miles north of, T. 85 N., R. 24 W., SW. cor. sec. 27, NE. cor. crossroads; copper nail in top of post at east end of drain under road north, marked "1037.7"	1,036.73	Bull. 569
Gilbert, 1.5 miles east by 2 miles north of, T. 85 N., R. 24 W., SW. cor. sec. 26, NE. cor. crossroads, 10 feet north of fence corner; iron post stamped "1013"	1,012.349	Bull. 569
Gilbert, 5.5 miles west of, T. 84 N., R. 25 W., SE. cor. sec. 4, north side of road opposite T road south, just west of section line at foot of telephone pole; iron post stamped "Prim. Trav. Sta. No. 3, 1912, 1034"	1,032.988	Bull. 569
Gilbert, T. 84 N., R. 25 W., NW. cor. sec. 3, 45 feet NE. of north end bridge over branch of Squaw creek, just south of township line between Jackson and Harrison townships, east side of road at fence line; copper nail in root on west side of red-oak tree, marked "972.2"	971.19	Bull. 569
Gilbert, T. 85 N., R. 24 W., SW. cor. sec. 20, N.E. cor.		

GILBERTVILLE-GORDONS FERRY

443

STATION	ELEVATION FEET	AUTHORITY
crossroads; top of north end of tile drain under road to east; painted square, marked "1032.8"	1,031.82	Bull. 569
Gilbertville, road intersection, subgrade	822.09	WCF&N
Gillett Grove	1297,G1300	CM&StP
Gilliat	1033.3	CGW
Gilman	1037,G1031	M&StL
Gilmore City	1228	M&StL
Givin, B.M. top of monument M.P. 95	687.49	CRI&P
Givin, B.M. top of monument M.P. 96	688.65	CRI&P
Givin, B.M. top of monument M.P. 97	696.66	CRI&P
Givin, top of rail, center depot	696.9	CRI&P
Givin, B.M. top of monument M.P. 99	707.80	CRI&P
Givin	703,G697	M&StL
Givin, at NE. cor. Eveland Church; iron post (U.S.C.E.b.m. 54 equals U. S. Geological Survey primary traverse station mark No. 9)	680.422	Bull. 569
Givin, top of upstream end of second pier from north or left bank of Eveland highway bridge (U.S.C.E.b.m. 72)	687.087	Bull. 569
Gladbrook	949.5,G949	CGW
Gladbrook, crossing C&NW	949.7,G949	CGW
Gladbrook	953,G950	C&NW
Gladbrook, crossing CGW	951	C&NW
Gladstone	835,G827	CM&StP
Gladwin	597,G600	CM&StP
Gladwin, crossing Iowa river	600,G603	CM&StP
Glendale	754.9,G758	CB&Q
Glendon	1032,G1038	CRI&P
Glen Ellen	1095,G1097	CM&StP
Glen Ellen, crossing C&NW	1089	CM&StP
Glenwood	1031,G1037	CB&Q
Glenwood Junction, Mo.	964.8	CB&Q
Glidden	1226,G1226	C&NW
Golden	1048,G1053	IC
Golden, middle sec. 31, T. 88 N., R. 5 W., highway crossing 150 feet west of IC RR, north side of road and south of station; iron post stamped "1055"	1,046.158	Bull. 569
Goldfield	1115,G1108	CRI&P
Goldfield, crossing C&NW	1120	CRI&P
Goldfield	1133	C&NW
Goldfield, crossing CRI&P	1119	C&NW
Goldfield, 4 miles west of, Tps 91 and 92 N., R. 27 W., at south cor. secs. 1, 2, 35 and 36, 120 feet west by 40 feet south of junction, on T road north, in northwest cor. of small maple grove, in root of small maple tree; copper nail and washer "U.S.G.S.B.M."	1,145.28	USGS
Goldfield, T. 92 N., R. 27 W., near cor. secs. 25, 26, 35 and 36, north side of road, about 50 feet west of drain ditch; iron post stamped "Prim. Trav. Sta. No. 12, 1919"	1,123.684	USGS
Goldfield, T. 92 N., R. 27 W., near cor. secs. 25, 26, 35 and 36, in root of soft maple tree, 50 feet west of schoolhouse and 400 feet due west of above iron post, in root of soft maple tree (24 inches in diameter); copper nail and washer marked "U.S.G.S.B.M."	1,128.02	USGS
Goodell	1242,G1236	CRI&P
Goodwin	790	CRI&P
Goose Lake	695,G694	C&NW
Gordons Ferry	609,G609	CM&StP
Gordons Ferry, 20 meters from river bank on Island 237, in open ground, 200 meters above head of Harris slough;		

STATION	ELEVATION FEET	AUTHORITY
copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 176/2):		
Copper bolt	588.06	Bull. 569
Cap on pipe	592.09	
Gordons Ferry, 0.5 mile above, 0.5 meter west of right of way fence of CM&StP Ry, on bench above railroad track, 10 meters from perpendicular rock bluff and about 150 meters below large bridge 66K across creek; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 176/3):		
Copper bolt	614.26	Bull. 569
Cap on pipe	618.26	
Gordons Ferry, 1.5 miles below, 0.3 mile below milepost 132-29, on low ridge at upper side of coulee, 49 feet west from center of CM&StP Ry track, on right of way, at west fence; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 296 and 297):		
Copper bolt	607.203	Bull. 569
Cap on pipe	611.216	
Gordons Ferry, 1.2 miles below, on line of CM&StP Ry, 396 feet below milepost 132-29, 18 feet west of center of track, 0.5 foot above surface of ground, on flat rock, marked "U□S"; highest point in square (U.S.C.E.t.b. m. 318)	611.180	Bull. 569
Gordons Ferry, 250 feet below bridge 64, 215 feet below station, 125 feet above lower headblock of siding, 45 feet below lower side of stockyard, 34 feet from center of main track on bluff side; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 294 and 295):		
Copper bolt	614.320	Bull. 569
Cap on pipe	618.303	
Gordons Ferry, 0.5 mile above, 1,876 feet below bridge 66, 1,213 feet above water tank, midway between two projecting points of bluff 12 feet west from center of track, 1½ feet above grade on natural ledge of rock, marked "U□S"; highest point in square (U.S.C.E.t.b. m. 315)	612.082	Bull. 569
Gordons Ferry, 1 mile above, 345 feet above Tete des Mort Creek, 215 feet below bridge 68, on which t.b.m. 314 is located, 75 feet below old stone building, 27 feet west of center of CM&StP Ry track; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 292 and 293):		
Copper bolt	600.707	Bull. 569
Cap on pipe	604.710	
Gordons Ferry, 1 mile above, on line of CM&StP Ry, 52 feet below sign "Gordon's Ferry one mile," on south abutment, river end of bridge 68K, just above ruins of large stone house, on fourth course of stone from top, on center of north end of inner stone, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 314).....	599.185	Bull. 569
Gordons Ferry, 3 miles above, 285 feet above t.b.m. 312, 125 feet below center of bridge 72K, opposite head of Island 235, 43 feet west of center of CM&StP Ry track, on right of way, at railroad fence; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 290 and 291):		
Copper bolt	604.415	Bull. 569
Cap on pipe	608.417	
Gordons Ferry, Snyder's wood yard, opposite head of Island 235, 1,270 feet above milepost 128-33, 410 feet below bridge 72K, 12 feet west of center of track, on lower end of very large inclined rock at rocky point, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 312)....	611.489	Bull. 569

GOSHEN-GRAVELDALE

445

STATION	ELEVATION FEET	AUTHORITY
Goshen	1182,G1180	CB&Q
Gowrie	1145	FtDDM&S
Gowrie	1137,G1139	C&NW
Gowrie, crossing FtDDM&S and CRI&P.....	1135	C&NW
Gowrie	1142,G1138	M&StL
Gowrie, T. 86 N., R. 29 W., cor. secs. 7, 8, 17 and 18, 50 feet NW. of center of crossroads at fence corner; iron post stamped "Iowa 1919 1,146"	1,146.277	USGS
Gowrie, 2 miles east of, railway crossing; top of south rail, marked "1,148.8"	1,148.9	USGS
Gowrie, T. 86 N., R. 29 W., cor. sec. 5, 6, 7 and 8, 50 feet N.E. of center of crossroads, in base of sign post marked "1,151"; spike	1,151.01	USGS
Gowrie, Tps. 86 and 87 N., on line between, R. 29 W., cor. secs. 5, 6, 31 and 32, T road west, 60 feet east of road fork, on east side of north and south road, in base of telephone pole, marked "1,148.4"; spike	1,148.45	USGS
Gowrie, T. 87 N., R. 29 W., cor. secs. 29, 30, 31 and 32, 25 feet SW. of center of crossroads, 20 feet south of fence corner and 2 feet east of fence line; iron post stamped "IOWA 1919, 1,157"	1,157.219	USGS
Grable	1002,G999	IC
Graettinger	1252	CRI&P
Graf	766.2,G767	CGW
Grafton	1225	CM&StP
Grand Junction, union station with M&StL.....	1039,G1041	C&NW
Grand Junction, union station with C&NW.....	1040	M&StL
Grand Mound	720,G721	C&NW
Grand River	982.5	CB&Q
Granger	888.95	DM&CI
Granger, crossing CM&StP	877.85	DM&CI
Granger	889,G887	CM&StP
Granger, T. 80 N., R. 26 W., NE. cor. NE. $\frac{1}{4}$ sec. 16, in corner of lot at SW. cor. crossroads; iron post stamped "970"	968.443	Bull. 569
Granger, T. 80 N., R. 26 W., 200 feet east of SW. cor. sec. 4; spike head in NE. cor. wooden bridge over small creek	917.50	Bull. 569
Granger, 1.5 miles north by 1.5 miles east of, at T road in front of schoolhouse, east center SE. $\frac{1}{4}$ sec. 31, Madison township; iron post stamped "974"	972.673	Bull. 569
Granger, 2 miles north of, at T road, center of sec. 36, Des Moines township; spike in base of fence post.....	982.99	Bull. 569
Granger, 1.5 miles north of, at T road; spike in base of fence post	952.48	Bull. 569
Granger, 1.5 miles north by 1 mile west of, at road crossing; spike in base of telephone pole	902.89	Bull. 569
Granger, 1.5 miles north by 2 miles west of, at Nixon, Electric RR station; spike in base of trestle post at overhead crossing	877.05	Bull. 569
Granger, 1.5 miles north by 2.5 miles west of, at T road; copper nail in SW. cor. bridge floor over Beaver creek....	868.79	Bull. 569
Granite	1313	CRI&P
Granite, T. 99 N., R. 48 W., NW. cor. sec. 6; iron post stamped "Ynktn 1420"	1,419.700	Bull. 569
Granite, T. 100 N., R. 48 W., NW. cor. sec. 19; iron post stamped "Ynktn 1343"	1,343.277	Bull. 569
Granite, 1 mile south of	1440	IaGS
Grant Center	1067,G1070	CM&StP
Granville	1447,G1445	C&NW
Graveldale	999	CM&StP

STATION	ELEVATION FEET	AUTHORITY
Gravity	1151,G1149	CB&Q
Gray	1352,G1350	C&NW
Grayson	1149,G1145	CM&StP
Greasers Siding	851	CRI&P
Great Western Crossing	1093	CB&Q
Greeley	1139	CM&StP
Greeley, ½ mile north of, sec. 20, T. 90 N., R. 4 W., at road corner; iron post stamped "1142 DBQ".....	1,143.753	Bull. 569
Greendale, stock yard	996	CM&StP
Greene	961,G955	CRI&P
Greenfield	1370.45,G1368	CB&Q
Greenfield	1368	IaGS
Greenfield, SE. ¼ sec. 19, T. 76 N., R. 31 W.....	1360	IaGS
Greenfield, SE. ¼ sec. 14, T. 75 N., R. 32 W.....	1278	IaGS
Greenfield, W. line NW. ¼ sec. 13, T. 75 N., R. 32 W.....	1388	IaGS
Greenfield, NW. cor. sec. 13, T. 75 N., R. 32 W.....	1298	IaGS
Green Island	600,G601	CM&StP
Green Island, 0.8 mile above Island 256, 0.5 meter south of fence on north side of wagon road on line of division fence of Warner and A. O. Hunt, on sand prairie, 1,356.8 meters back of following-described bench mark; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 170/1):		
Copper bolt	631.60	Bull. 569
Cap on pipe	635.63	
Green Island, 1.25 miles below mouth of Maquoketa river, 30 meters from river bank, in thick timber 0.25 mile above Island 256, on south bank of small slough leading back from river; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 170/3):		
Copper bolt	584.82	Bull. 569
Cap on pipe	588.80	
Green Island, 0.8 mile above Island 256, 20 meters from west bank of small dry slough, in open bottom land, 746 meters from river bank, in open pocket in timber ex- tending to bluffs on west, 60 meters west of edge of timber; copper bolt in tile surmounted by iron pipe (U. S.C.E.b.m. 170/4):		
Copper bolt	585.33	Bull. 569
Cap on pipe	589.34	
Green Island, in front of CM&StP Ry station; base of rail	597.80	Bull. 569
Green Mountain	997.2,G995	CGW
Greenville	1395,G1397	M&StL
Greenville, crossing CRI&P	1348	M&StL
Gridley	1274	C&NW
Gridley, crossing CRI&P	1275	C&NW
Grimes	964,G967	CM&StP
Grimes, T. 80 N., R. 25 W., NW. cor. NW. ¼ sec. 34, in field opposite junction of T roads; iron post stamped "885"	883.280	Bull. 569
Grimes, T. 79 N., R. 25 W., 150 yards west of SE. cor. sec. 4, in brick foundation on west side of schoolhouse; aluminum tablet stamped "976".....	974.226	Bull. 569
Grimes Road station	841.09	DM&CI
Grinnell, union station with M&StL.....	1007	CRI&P
Grinnell, crossing M&StL.....	1007	CRI&P
Grinnell	1016,G1011	M&StL
Grinnell, crossing CRI&P	1016,G1011	M&StL
Grinnell	G1023	Weather Bur.
Grinnell and Montezuma Junction	1005	M&StL
Griswold	1106,G1098	CB&Q

STATION	ELEVATION FEET	AUTHORITY
Griswold	1100	CRI&P
Griswold, bed of river west of	1076	IaGS
Groveland	1162	CB&Q
Grundy Center	983,G976	CRI&P
Grundy Center	G976	Weather Bur.
Gruver	1311,G1300	CRI&P
Guernsey	810	C&NW
Guinn	894	CB&Q
Guthrie Center	1070,G1077	CRI&P
Guthrie Center	G1077	Weather Bur.
Guttenberg	622,G620	CM&StP
Guttenberg, NE. cor. Herder and First Sts., T. 92 N., R. 2 W.; aluminum tablet stamped "630 DBQ"	631.603	Bull. 569
Guttenberg, T. 93 N., R. 2 W., near north line of sec. 31, in school grounds; iron post stamped "681 DBQ"	682.054	Bull. 569
Guttenberg, T. 92 N., R. 3 W., SW. ¼ sec. 9, in school-house grounds; iron post stamped "959 DBQ"	960.200	Bull. 569
Guttenberg, 3 miles below, on right bank on right of way of CM&StP Ry, 1 meter from fence, 5 meters west of small ravine, 10 meters above bridge 238; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 190/4):		
Copper bolt	635.30	Bull. 569
Cap on pipe	639.20	
Guttenberg, in front of CM&StP Ry station; base of rail (U.S.C.E.b.m.)	620.61	Bull. 569
Guttenberg, at upper end of, on island in front of Swift slough, 20 meters from left bank of Guttenberg channel, 400 meters from head of island; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 191/3):		
Copper bolt	609.03	Bull. 569
Cap on pipe	612.98	
Guttenberg, on property of John Hirschbueller, corner of Second St. and Washington Ave., at his north line, 10 meters east of east line of Second St.; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 191/4):		
Copper bolt	621.54	Bull. 569
Cap on pipe	625.49	
Guttenberg, 400 meters above head of McMillan Island, on right bank, 15 meters back from river bank, 100 meters below bench mark the bank is very steep; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 192/3):		
Copper bolt	609.59	Bull. 569
Cap on pipe	613.53	
Guttenberg, 3 miles below, 3.2 miles above point of bluff at railroad on north side of Turkey river, on bridge 236, north abutment, east end, 1 foot west from end of abutment and 6 inches north of its south face, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 253)	622.220	Bull. 569
Guttenberg, 2.2 miles below, 63 feet below t.b.m. 252, on opposite side of track, 1.5 feet east of west right-of-way fence and 18 feet from center, 0.5 mile below where track comes to bluff, 150 feet above bridge 258, at place where wagon road turns up into coulee and 24½ feet east of center of road; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 249 and 250):		
Copper bolt	616.842	Bull. 569
Cap on pipe	620.839	
Guttenberg, 2.2 miles below station, on line of CM&StP Ry, 213 feet above bridge 258, at lower end of cut, 17 feet east of center of track, on an embedded boulder, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 252)	622.988	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
Guttenberg, on CM&StP Ry, 2,254 feet below station, on upper abutment of bridge 274, on river side of track, on fourth course of stone from top, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 50).....	616.301	Bull. 569
Guttenberg, on west side of Front St., 72.7 feet above NW. cor. Front and Goethe Sts., in Clayton County Bank building, 8.5 feet upstream from south side of entrance way and 3.7 feet above bottom step, marked "U.S.⊙P.B.M."; copper bolt (U.S.C.E.p.b.m. 248).....	638.200	Bull. 569
Guttenberg, on NE. cor. Herder and First Sts., on front of Joseph Huene's general store, in doorstep, 5.8 feet from SW. cor. of building, 4.5 inches from angle of casing, and 3½ inches back from face of stone; copper bolt, marked "U.S.⊙P.B.M." (U.S.C.E.p.b.m. 247).....	631.593	Bull. 569
Guttenberg, 2.3 miles above, on line of CM&StP Ry, midway between bridges 284 and 286, 2,001 feet below milepost 80, at light cut, 28.5 feet east of center of track and 2 feet west of right-of-way fence, 30 feet west of blazed 14-inch hickory tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 245 and 246): Copper bolt	617.535	Bull. 569
Cap on pipe	621.528	
Gypsum	1108	FtDDM&S
Gypsum, crossing IC, union station.....	1116.8	CGW
Gypsum	1118	IC
Gypsum, crossing CGW.....	1118	IC
Gypsum, T. 89 N., Rs. 27 and 28 W., cor. secs. 25, 36, 30 and 31, 40 ft. NW. of road fork at fence corner, in base of telephone pole, marked "1,109"; spike.....	1,108.93	USGS
Gypsum, Tps. 88 and 89 N., Rs. 27 and 28 W., cor. secs. 2, 3, 31 and 36, at railway crossing, 50 ft. NW. of railway crossing on W. side of highway, in line with railway right-of-way fence; iron post stamped "Iowa 1919 1,110"	1,109.400	USGS
Gypsum, T. 88 N., R. 28 W., quarter corner, west side of sec. 2, at right angle in road, on NW. corner of road, in base of corner fence post, marked "1,111.5"; spike....	1,111.36	USGS
Hadden Hill	1014,G1014	CM&StP
Hagerty	946,G946	CB&Q
Hagerty, T. 72 N., R. 17 W., at north sixteenth corner between secs. 5 and 6, in NE. angle of crossroads, 5 feet west by 3 feet north of corner fence post, in concrete post; bronze tablet stamped "E.B. No. 5 1924 Iowa", painted "U.S.P.B.M. 956.3"	956.234	USGS
Hagerty, reference mark, 100 feet north by 100 feet west of tablet, in top at west end of concrete tube culvert under CB&Q RR: chiseled square.....	957.57	USGS
Hagerty, T. 73 N., Rs. 17 and 18 W., at quarter corner between secs. 31 and 36, 150 feet NW. of crossroads in top of center of concrete headwall at east end of bridge under road; chiseled square, painted "U.S.B.M. 947.4"	947.25	USGS
Hagerty, T. 73 N., R. 18 W., near east sixteenth corner between secs. 25 and 36, in NE. angle of crossroads, 5 feet north of corner fence post, on fence line; top of 0.75-inch gas pipe driven in ground, painted "U.S.B.M. 958.2"	958.09	USGS
Hagerty, T. 73 N., R. 18 W., near center of sec. 25, in NW. angle of roads at T road east in root on east side of a 3-foot black oak tree; railroad spike, painted "U.S.B.M. 951.8"	951.72	USGS
Halbur	1335	C&NW

HALBUR-HAMPTON

449

STATION	ELEVATION FEET	AUTHORITY
Halbur	1377.1,G1384	CGW
Hale	780,G783	CM&StP
Haley, M.P. 462	1122,G1120	IC
Halfa	1269	C&NW
Hamburg	911,G913	CB&Q
Hamburg, 1.5 miles south of station, in pedestal block forming bridge seat at west end of south pier of bridge over Nishnabotna river, 0.67 foot south of south edge of bedplate under inclined end post, 10 feet west of track center; copper bolt in stone (U.S.C.E.p.b.m. 323).....	908.328	Bull. 569
Hamburg, 1,998 feet north of station, 43 feet east of railway; in bench-mark stone; copper bolt in stone surmounted by iron pipe (U.S.C.E.p.b.m. 324):		
Copper bolt	903.017	Bull. 569
Cap on pipe	907.045	
Hamburg, 3.8 miles north of, in SE. cor. W. H. Frake's dooryard, 46 feet SE. of SE. cor. Frake's dwelling, 52 feet SW. of SW. cor. schoolhouse, 328 feet west of track; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 110/2):		
Copper bolt	905.530	Bull. 569
Cap on pipe	909.519	
Hamburg, T. 67 N., R. 43 W., 1,200 feet west of east line of sec. 34, SE. cor. orchard belonging to Oliver Taylor, on left bank, on north side of Stateline road between Missouri and Iowa; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 109/2):		
Copper bolt	911.36	Bull. 569
Cap on pipe	915.41	
Hamburg, T. 67 N., R. 43 W., 5,180 feet east of east line of sec. 34, on south side of State-line road, in SE. angle of fence formed by intersection of north-south and east-west roads, on premises owned by Joseph Payne; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 109/3):		
Copper bolt	905.27	Bull. 569
Cap on pipe	909.34	
Hamill	719,G721	CB&Q
Hamilton	904,G906	CB&Q
Hamilton	904	WRR
Hamilton, T. 74 N., R. 17 W., at quarter corner between secs. 30 and 31, in NW. angle of crossroads, in top center of concrete headwall to culvert under road; chiseled square, painted "U.S.B.M. 845.3".....	845.24	USGS
Hamilton, T. 74 N., R. 17 W., center of sec. 30, in NE. angle of crossroads, in top on SW. cor. concrete base to corner fence post; chiseled square, painted "U.S.B.M. 872.7"	872.60	USGS
Hamilton, Ill., 350 meters SW. of station, 1 meter north of south right-of-way fence of TP&W RR, 18 meters north of east of sycamore tree, 25 meters NW. of black oak, 16 meters SW. of black oak, all blazed facing pipe; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 111/1):		
Copper bolt	504.62	Bull. 569
Cap on pipe	508.57	
Hamlin	1255,G1257	CRI&P
Hampton	1145	CRI&P
Hampton, crossing CGW	1140	CRI&P
Hampton, crossing M&StL	1135	CRI&P
Hampton	1151,G1143	M&StL

STATION	ELEVATION FEET	AUTHORITY
Hampton, CGW transfer	1146	M&StL
Hampton, Belmont branch	1146	M&StL
Hampton	1140.0,G1140	CGW
Hampton, crossing M&StL	1141.3,G1142	CGW
Hampton, crossing CRI&P	1145.2	CGW
Hancock	1109,G1113	CRI&P
Hanford	1188	C&NW
Hanley	887,G882	CGW
Hanley, Clanton creek north of	849	IaGS
Hanlontown	1202	C&NW
Hanna	1177,G1179	M&StL
Hansell	1031.4,G1031	CGW
Hansell, 4 miles east of, Franklin Co. line.....	991	CGW
Harcourt, B.M. on concrete foundation N. of station, E. of track	1173.69	FtDDM&S
Harcourt	1169	C&NW
Harcourt, T. 86 N., R. 28 W., cor. secs. 17, 18, 19 and 20, 50 feet SW. of center of crossroads, 3 feet north of fence and 7 feet NE. of fence corner; iron post stamped "Iowa 1919, 1,170"	1,170.245	USGS
Harcourt, T. 86 N., R. 28 W., cor. secs. 13, 18, 19 and 24, T road east, 35 feet SE. of road fork, in base of corner fence post, marked "1,167.4"; spike	1,167.42	USGS
Harcourt, T. 86 N., R. 28 W., quarter corner, west side of sec. 18, at right angle in road, on north side of, in line with east edge of road, in base of telephone pole, marked "1,169.4"; spike	1,169.38	USGS
Harcourt, 700 feet south of FtDDM&S Ry station, at road crossing; top of east rail, marked "1,172.2".....	1,172.2	USGS
Harcourt, T. 86 N., R. 29 W., quarter corner, east side of sec. 14, at T road east, 30 feet NW. of center of T road, in base of telephone pole, marked "1,159.7"; spike.....	1,159.73	USGS
Harcourt, 0.6 mile NW. of, at C&NW railway crossing, top of south rail, marked "1,156.4"	1,156.4	USGS
Harcourt, T. 86 N., R. 29 W., cor. secs. 10, 11, 14 and 15, railroad crossing at, 60 feet south of crossing, on east side of road, in line with railway right-of-way fence; iron post stamped "Iowa 1919 1,162".....	1,162.464	USGS
Harcourt, T. 86 N., R. 29 W., cor. secs. 9, 10, 15 and 16, 50 feet SW. of center of crossroads; in top of 2 foot locust stump, marked "1,161.4"; copper nail.....	1,161.46	USGS
Harcourt, T. 86 N., R. 29 W., cor. secs. 8, 9, 16 and 17, 50 feet SW. of center of crossroads, in root of 2-foot cottonwood tree, marked "1,148.7"; copper bolt.....	1,148.76	USGS
Hardy	1135,G1129	CRI&P
Harl, M.P. 421	1248	IC
Harl, crossing over C&NW.....	1273	IC
Harlan	1208.7	CGW
Harlan	1190,G1194	CRI&P
Harlan	1195	C&NW
Harlan Junction	1135,G1138	CRI&P
Harper	796,G810	CRI&P
Harper, Clear creek east of.....	743	IaGS
Harpers Ferry	647,G645	CM&StP
Harpers Ferry, T. 97 N., R. 3 W., ¼ mile south of center sec. 16. NE. of junction of roads; iron post stamped "1061D"	1,061.974	Bull. 569
Harpers Ferry, 1.5 miles below, on NE. cor. downstream stone abutment of CM&StP Ry bridge 462K, at lower end of bottom land where Harpers slough strikes bluffs,		

HARPERS FERRY-HASTIE

451

STATION	ELEVATION FEET	AUTHORITY
2.5 feet below track, on first course of stone, 9 feet east of center; square cut (U.S.C.E. t.b.m. 20, R.B.).....	630.25	Bull. 569
Harpers Ferry, opposite head of Island 162, on irregular-shaped island just below Island 161, in small clump of heavy timber 15 meters from shore; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 201/3):		
Copper bolt	615.65	Bull. 569
Cap on pipe	619.62	
Harpers Ferry, 1.5 miles above, on main bank, 600 meters from foot of bluffs, 0.5 meter east of fence along wagon road, 500 meters below two-story frame house standing opposite triangulation station "Oil Spring;" 150 meters below land line between John Martell on north and Peter Joice on south, 150 meters below upper end of row of cottonwood trees standing along bank of slough; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 201/4):		
Copper bolt	638.14	Bull. 569
Cap on pipe	642.07	
Harpers Ferry, Island 158, planted on, 150 meters below head of island, on high ground in bunch of elms, 50 meters back from shore; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 202/3):		
Copper bolt	614.62	Bull. 569
Cap on pipe	618.58	
Harpers Ferry, opposite Lynxville, Wis., at side of old wagon road, 0.5 meter west of right-of-way fence of CM&StP Ry, nearly opposite upper end of railroad curve, on side of bald, grassy, round-topped bluff, 200 meters below where Harpers Slough turns away from bluffs toward Lynxville; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 202/4):		
Copper bolt	649.93	Bull. 569
Cap on pipe	653.86	
Harris, Osceola Co.	1551	CRI&P
Harris, Polk Co.	938.09	DM&CI
Hartford	813	CRI&P
Hartford, T. 76 N., R. 22 W., center of SW. ¼ sec. 4, west of road opposite T road east, limestone rock 6 by 8 by 33 inches, set 32 inches in ground; aluminum tablet stamped "773 Adj"	772.575	Bull. 569
Hartford, at south edge of town, SE. angle of T road east, sandstone rock 8 by 10 by 20 inches, set 19 inches in ground; aluminum tablet stamped "888"	887.171	Bull. 569
Hartley	1456,G1462	CM&StP
Hartley	1465,G1462	CRI&P
Hartley, crossing CM&StP	1469,G1462	CRI&P
Hartwick	934	C&NW
Harvard	1071	CRI&P
Harvey	733	CB&Q
Harvey, union station with CRI&P.....	710	WRR
Harvey, union station with Wabash.....	704,G718	CRI&P
Harvey, crossing Wabash	704,G718	CRI&P
Harvey, opposite; top of nut on west side of north tube pier of highway bridge across cut-off (U.S.C.E.b.m. 67)..	703.70	Bull. 569
Harvey, near, on top of south or downstream side of west shore pier of CRI&P Ry bridge over Des Moines river; cross mark (U.S.C.E.b.m. No. 68).....	703.80	Bull. 569
Haskell	893.48	DM&CI
Haskins	753,G756	CM&StP
Hastie	780	WRR

STATION	ELEVATION FEET	AUTHORITY
Hastings	999,G999	CB&Q
Hastings	999	IaGS
Havelock	1231,G1232	C&NW
Haverhill	1025,G1022	CM&StP
Havre	747	CB&Q
Hawarden	1180,G1181	C&NW
Hawarden, crossing CM&StP	1178	C&NW
Hawarden	1186,G1182	CM&StP
Hawarden, crossing to C&NW	1184,G1181	CM&StP
Hawarden, 5 kilometers north of, on south sandstone pier of railway bridge over Big Sioux river, 0.4 meter north of south edge and 2 meters west of east end of capstone, 2 meters east of center of track, 1.7 meters below rails; bottom of square hole (U.S.C.&G.S.b.m. F).....	1,182.593	Bull. 569
Hawarden, 3 kilometers north of, 13 meters west of railway, 9 meters west of road, opposite crossing, 3 meters south and 1 meter east of NE. cor. field owned by M. Austin; copper bolt in top of stone post lettered "U.S.B.M." (U.S.C.&G.S.b.m. G)	1,177.488	Bull. 569
Hawarden, in doorway of Wood & Fleshman (1902) block, 1.8 meters south of center and 2.2 meters east of front edge of front step; a yellow circle in blue square tiling, 5 centimeters on each edge, the most southeasterly blue square in the design (U.S.C.&G.S.b.m. I).....	1,180.650	Bull. 569
Hawarden, on north side of Dakota St., 20 meters west of west line of Kansas St., at SW. cor. lot 14, block 5, on south sidewalk line; center of cap upon upper end of piece of heavily galvanized 3-inch iron pipe, 8 feet long, resting on rock 6 feet underground (U.S.C.&G.S.b.m. City)	1,177.347	Bull. 569
Hawarden, 1 kilometer south of, 13 meters east of railway, 10 meters north of road, 1 meter west and 2 meters north of SW. cor. field owned by John Abbey, at level of rails; copper bolt in top of stone post lettered "U.S.B.M." (U.S.C.&G.S.b.m. J).....	1,172.675	Bull. 569
Hawarden, 3 kilometers south of, 14 meters west of railway, 6 meters west of road, opposite crossing, 1 meter east of west road fence, at level of rails; iron pipe (U.S.C.&G.S.b.m. K)	1,171.267	Bull. 569
Hawarden, 4.5 kilometers south of, 500 meters north of railway cut, 240 meters by rail south of section line, 13 meters northwest of railway and 5 meters south of road, 0.4 meter below rails, marked by boulder; iron pipe (U.S.C.&G.S.b.m. L)	1,165.361	Bull. 569
Hawarden, 2.5 miles SE., junction with Northern Iowa division	1239.31	C&NW
Hawkeye	1174	CM&StP
Hawkeye, T. 94 N., R. 9 W., NE. cor. sec. 16; iron post stamped "1194 DBQ"	1,195.442	Bull. 569
Hawkeye, in front of CM&StP Ry station, top of rail....	1,176.5	Bull. 569
Hawkeye, NW. ¼ sec. 14, Windsor Tp.....	1285	IaGS
Hawley	1213,G1214	M&StL
Hawley, crossing CRI&P	G1214	M&StL
Hayes, Adams Co.	1160	IaGS
Hayesville	795,G800	CM&StP
Hayfield	1243	CRI&P
Hayfield, crossing M&StL	1221	CRI&P
Hayfield	1214	M&StL
Hayfield Junction	1221	CRI&P
Haynies, opposite switch	960,G956	CB&Q
Haynies, 2.5 miles south of, on east side of public road, on		

STATION	ELEVATION FEET	AUTHORITY
land of Bruce Collier, 984 feet south of Thomas Collier's house, 1,099 feet west of track; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 334 equals 116/3):		
Copper bolt	944.545	Bull. 569
Cap on pipe	948.551	
Haynies, 174 feet NW. of south headblock, 43 feet south of fence corner of west right-of-way fence, 45 feet west of track; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.b.m. 335):		
Copper bolt	947.702	Bull. 569
Cap on pipe	951.714	
Hazleton, at CRI&P station; iron post stamped "995 DBQ"	996.674	Bull. 569
Hazleton	996,G998	CRI&P
Hedrick, union station with CM&StP	829	M&StL
Hedrick, crossing CB&Q	814	M&StL
Hedrick, crossing CM&StP	830	M&StL
Hedrick	803	CB&Q
Hedrick, crossing CM&StP	806	CB&Q
Hedrick	823	CM&StP
Hedrick, over crossing M&StL	G827	CM&StP
CM&StP track	G794	CM&StP
Henderson	1034,G1031	CB&Q
Henderson	1031	IaGS
Hentons	967	CB&Q
Hentons, 2.5 miles south of, on line between secs. 5 and 8, T. 72 N., R. 43 W., 308 feet east of quarter-section cor. and 46 feet east of railway, land on east side belongs to J. Martin; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 338):		
Copper bolt	957.997	Bull. 569
Cap on pipe	962.022	
Hentons, in NE. cor. James Meisner's dooryard, 3 feet from each fence and 259 feet northeast of station; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 339):		
Copper bolt	962.219	Bull. 569
Cap on pipe	966.228	
Hentons, 2.5 miles north of station, 741 feet south of bridge 11, section 38, 427 feet west of Hans Schroeder's house, 43 feet east of railway; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 340):		
Copper bolt	969.017	Bull. 569
Cap on pipe	973.030	
Hepburn	1023,G1016	CB&Q
Herndon, main line	1061,G1062	CM&StP
Herndon, Des Moines line	1060	CM&StP
Herring	1227	C&NW
Herrold	850.42	DM&CI
Hesper, Winneshiek Co., T. 100 N., R. 8 W., SE. cor. sec. 16, 10 feet north of NW. cor. road crossing; iron post stamped "1264 DBQ"	1,263.835	Bull. 569
Hesper, west of	1360	IaGS
Heytmans	636,G632	CM&StP
Heytmans, Island 151, on, 50 meters back from shore, opposite center of small island, a little below a point opposite a Government light, two large elms stand close to bench mark, one of which appears to be tallest tree in vicinity; copper bolt in tile surmounted by iron pipe		

STATION	ELEVATION FEET	AUTHORITY
(U.S.C.E.b.m. 203/2):		
Copper bolt	615.59	Bull. 569
Cap on pipe	619.65	
Heytmans, opposite head of Crooked Slough, at foot of bluffs, along wagon road, 1 meter west of right-of-way fence of CM&StP Ry, 175 meters below a sign "1500 Feet to Sta." (Heytmans), 15 meters above whistling post and 25 meters above lower end of small curve; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 203/3):		
Copper bolt	647.28	Bull. 569
Cap on pipe	651.24	
Heytmans, 6.5 miles below Lansing, 1 mile above Heytmans, on downstream side and river end of upstream stone abutment of CM&StP Ry. bridge 504K, 2.7 feet below top of rail and 12 feet toward river from center track, 300 meters below signboard "Station 1 mile," 70 feet above whistling post; square cut (U.S.C.E.t.b.m. 23 R. B.)	633.86	Bull. 569
Hiattsville	1001	WRR
Hickory	805, G799	M&StL
Hickory, T. 72 N., R. 17 W., NW. cor. NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ sec. 1, 6 feet east by 6 feet south of fence corner, in NW. cor. timber, in root on east side of 6-inch hickory tree; copper nail and washer, painted "U.S.B.M. 826.7"	826.47	USGS
Hickory, T. 73 N., R. 17 W., NW. cor. SE. $\frac{1}{4}$ SW. $\frac{1}{4}$ sec. 25, in SE. angle of roads at T road south, in NW. cor. yard to farmhouse, in root on west side of a 2-foot maple tree; copper nail and washer, painted "U.S.B.M. 897.7"	897.50	USGS
Hickory, T. 73 N., R. 16 W., near NE. cor. SW. $\frac{1}{4}$ sec. 30, in NE. angle of roads at T road north, 160 feet west of angle in road to south, 40 feet east by 25 feet north of center of road junction, in top of concrete post; bronze tablet stamped "E.B. No. 11 1924 Iowa", painted "U.S.B.M. 856.0"	855.809	USGS
Hickory, reference mark, 12 feet east by 12 feet north of tablet, in root on NW. side of 2-foot white oak tree; copper nail and washer	853.90	USGS
Hickory, T. 73 N., R. 16 W., near SE. cor. SW. $\frac{1}{4}$ sec. 19, 10 feet north by 35 feet east of bridge over creek, on east side of road, 3 feet east of fence, in top of a 4-inch walnut stump; copper nail and washer, painted "U.S.B.M. 761.1"	760.85	USGS
Hicks, crossing C&NW, union station	907.1, G906	CGW
Hicks	908.81	C&NW
High Bridge	931	CM&StP
High Bridge, over Des Moines river	923, G925	CM&StP
High Bridge, 2 miles east of, at crossroads, west side of sec. 21, Madison Tp.; iron post stamped "951"	949.429	Bull. 569
High Bridge, 1.5 miles east by 0.5 mile north of, at T road, NW. cor. sec. 20, Madison Tp.; spike in base of telephone pole (map says 930)	914.62	Bull. 569
High Bridge, 1.5 miles by 0.5 mile south of, at T road, SW. cor. sec. 20, Madison Tp.; spike in base of fence post	929.03	Bull. 569
Highland	776, G780	CM&StP
Highlandville, Winneshiek Co., 2 miles north of, T. 100 N., R. 7 W., SE. cor. sec. 16, NW. cor. road crossing; iron post stamped "1136 DBQ"	1,135.833	Bull. 569
Highview	1133, G1137	IC
Hills, Johnson Co.	637	CRI&P

HILLS-HORNICK

455

STATION	ELEVATION FEET	AUTHORITY
Hills, Minn., center line passing track.....	1454	IC
Hills, Minn., crossing GN	1450	IC
Hills, Minn.	1448	GN
Hills, crossing IC.....	1445	GN
Hillsboro	732	CB&Q
Hillside	874.55	DM&CI
Hilton	993	ISU
Hilton	964	WRR
Hill Top	951	CM&StP
Hinsdale—Subgrade of track opposite center of cinder platform	549.8	CRI&P
Hinsdale, B.M. top of monument M.P. 16.....	558.70	CRI&P
Hinsdale, B.M. top of monument M.P. 17.....	539.99	CRI&P
Hinsdale, B.M. top of monument MP. 18.....	532.10	CRI&P
Hinsdale and Belfast, top and extreme southwest corner of east abutment of Santa Fe RR bridge crossing Des Moines river between; top of abutment (U.S.C.E.b.m. 4)	560.68	Bull. 569
Hinton, union station with CStPM&O	1146	GN
Hinton	1150,G1144	IC
Hinton, crossing GN	G1144	IC
Hinton	1148	CStPM&O
Hiteman, T. 72 N., R. 18 W., near center of sec. 22, on north side of road, 400 feet west of crossroads in SE. base of 36-inch cottonwood tree; railroad spike, painted "970.7" (County Engineer's B.M.)	970.76	USGS
Hiteman, T. 72 N., R. 18 W., at NE. cor. SE. ¼ SW. ¼ sec. 22, in SW. angle of roads at T road west, 5 feet west by 1 foot north of corner fence post, in top of concrete post; bronze tablet stamped "E.B. No. 2 1924 Iowa"	962.928	USGS
Hobarton	1213,G1211	CM&StP
Holland	1001,G995	CRI&P
Holmes	1152	CRI&P
Holstein	1445,G1443	C&NW
Homestead	861,G864	CRI&P
Homestead, crossing CM&StP	764	CRI&P
Honey Creek	1009,G1008	C&NW
Honey Creek, 1.8 miles south of station, 112 feet north of north end of railway bridge 1007, 1,936 feet south of milepost 12, 49 feet east of C&NW Ry track; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 353):		
Copper bolt	996.097	Bull. 569
Cap on pipe	1,000.106	
Honey Creek, near station, in west end of south bridge seat of plate-girder bridge 998 over Honey creek, 4 feet west of south end of west girder; copper bolt (U.S.C.E.p.b.m. 354)	1,004.808	Bull. 569
Honey Creek, 2 miles north of station, 2,730 feet south of milepost 16 and 46 feet east of railway; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 355):		
Copper bolt	1,000.641	Bull. 569
Cap on pipe	1,004.660	
Hope, B.M. spike in pole west of station	1158.59	FtDDM&S
Hopkinton	866,G866	CM&StP
Hopkinton, SW. ¼ sec. 13, T. 87 N., R. 4 W., NW. cor. Main and Locust Sts., near Central drug store; iron post stamped "872"	862.706	Bull. 569
Hopley	1137	CRI&P
Hornick	1067,G1070	CM&StP

STATION	ELEVATION FEET	AUTHORITY
Horrabin	641	CRI&P
Hospers	1344.6,G1343	CSTPM&O
Hotchkiss	873.55	DM&CI
Houghton, Mount Pleasant line	719,G721	CB&Q
Houghton, crossing over CB&Q, Ft. Madison line.....	696	CB&Q
Houghton, Ft. Madison line track	680.9	CB&Q
Howell	711	WRR
Howell, near, sec. 20, T. 76 N., R. 18 W., 525 feet north of Wabash crossing, 40 feet west of road, 60 feet north and 35 feet west of road junction, 0.5 foot north of wire fence; iron post (Bul. 569, p. 38).....	711.960	USGS
Howell, reference mark, 450 feet south of b.m., in top of south end of concrete porch, in front of Pella Pumping station No. 1 building; chiseled square.....	712.37	USGS
Howell, 800 feet east of station, in ground on south side of Wabash RR track, top of rail set vertically (U.S.C.E.B.M. 63) (U.S.C.E. elev. from B569, p. 118=712.780 ft.).....	711.36	USGS
Howell, at north end of highway bridge; top of east tube pier (U.S.C.E.B.M. 64) (Bul. 569, p. 118=714.030 ft.)..	712.49	USGS
Howell, 0.7 mile west of, railroad crossing; north rail.....	717.7	Bull. 569
Howell, 2 miles NW. of, railroad crossing; south rail	724.3	Bull. 569
Howell, 3 miles west by 0.33 mile north of, T. 76 N., R. 19 W., in NW. cor. sec. 23, in Coalridge Church yard, 25 feet east and 25 feet south of center of crossroads; iron post stamped "Prim. Trav. Sta. No. 3, 1908, Iowa".....	822.831	Bull. 569
Hubbard	1097,G1099	C&NW
Hudson	888.6,G888	CGW
Hudson, S. Dakota	1228,G1224	CM&StP
Hudson, S. Dakota, junction with Rock Valley line.....	1223	CM&StP
Hudson, S. Dak., Rock Valley line	1232,G1224	CM&StP
Hudson, S. Dak., junction with SC&D line	1223	CM&StP
Hughes	1105	C&NW
Hugo, Jackson Co., middle south side sec. 18, Butler Tp....	1085	USGS
Hull	1429,G1435	CM&StP
Humboldt	1087,G1088	M&StL
Humboldt	G1095	Weather Bur.
Humeston	1105,G1104	CB&Q
Humeston, Shenandoah line	1099	CB&Q
Huntington	1345,G1346	M&StL
Hunt's Siding, stock pen	1339	IC
Hurley	1170	CRI&P
Huron, 400 meters below foot of Johnson Island, 8 meters from water's edge, 5.7 meters 194° to 12-inch ash, 3.6 meters 72° to 7-inch maple, 10.2 meters 293° to 18-inch elm tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 129/3):		
Copper bolt	525.96	Bull. 569
Cap on pipe	529.98	
Hurstville, Jackson Co.	664	USGS
Hurstville	670,G663	CM&StP
Hutchins	1202,G1208	CM&StP
Huxley	1021,G1035	CM&StP
Huxley, crossing under FtDDM&S	1024	CM&StP
Huxley	1046	FtDDM&S
Huxley, T. 82 N., R. 24 W., SW. cor. SE. ¼ sec. 14; spike in telephone pole, marked "U.S.B.M. 1003".....	1,001.99	Bull. 569
Huxley, near center of north side of sec. 26, T. 82 N., R. 24 W., 50 feet west of electric-railway station; iron post stamped "1040"	1,038.481	Bull. 569
Huxley, T. 82 N., R. 24 W., NW. cor. NE. ¼ sec. 27; spike in telephone pole, marked "U.S.B.M. 1048"	1,046.79	Bull. 569

HUXLEY-IOWA CITY

457

STATION	ELEVATION FEET	AUTHORITY
Huxley, T. 82 N., R. 24 W., NW. cor. NE. ¼ sec. 34; spike in telephone pole, marked "U.S.B.M. 1037"	1,035.94	Bull. 569
Huxley, T. 82 N., R. 24 W., SW. cor. SE. ¼ sec. 34; spike in telephone pole, marked "U.S.B.M. 1021"	1,019.49	Bull. 569
Hyperion Club station	858.15	DM&CI
Ida Grove	1225,G1225	C&NW
Imogene	1044	WRR
Independence	917,G923	IC
Independence, crossing CRI&P	912,G921	IC
Independence	914,G921	CRI&P
Independence, crossing IC	912	CRI&P
Indian Creek, top of rail, center line of overhead bridge on east line sec. 19, Tp. 83, R. 6, 140 feet north of SE. cor. sec. 19	724.31	CR&IC
Indianola	961,G966	CRI&P
Indianola, crossing CB&Q	962	CRI&P
Indianola	972	CB&Q
Indianola, T. 76 N., R. 23 W., SW. cor. sec. 16, NE. angle of crossroads, limestone rock; aluminum tablet stamped "948 Adj"	946.812	Bull. 569
Indianola	G969	Weather Bur.
Indianola Junction	1040,G1040	CB&Q
Industry	1124.3,G1129	CGW
Industry, 2 miles south by 1 mile east of, T. 89 N., R. 27 W., cor. secs. 7, 8, 17 and 18, 30 ft. NW. of crossroads, in base of corner fence post, marked "1,117.8"; spike	1,117.74	USGS
Industry, 1 mile south by 1 mile east of, T. 89 N., R. 27 W., cor. secs. 5, 6, 7 and 8, 55 ft. NW. of crossroads, in root of 15-inch boxelder tree, marked "1,124.8"; copper nail and washer	1,124.65	USGS
Industry, 1 mile east of, Tps. 89 and 90 N., R. 27 W., cor. secs. 5, 6, 31 and 32, 35 ft. NE. of crossroads; iron post stamped "IOWA 1919 1,130"	1,129.600	USGS
Industry, Tps. 89 and 90 N., Rs. 27 and 28 W., cor. secs. 1, 6, 31 and 36, 40 ft. SW. of crossroads, in root of large willow tree, marked "1,121.6"; copper nail	1,121.49	USGS
Industry, 1 mile west of, Tps. 89 and 90 N., R. 28 W., cor. secs. 1, 2, 35 and 36, T road N., 35 ft. NE. of road fork; at fence corner, in top of stump standing 6 inches above ground, marked "1,124.5"; copper nail and washer	1,124.44	USGS
Industry, Tps. 89 and 90 N., R. 28 W., cor. secs. 2, 3, 34 and 35, 40 ft. SE. of crossroads; iron post stamped "IOWA 1919 1,136"	1,135.573	USGS
Industry, 3 miles west of, Tps. 89 and 90 N., R. 28 W., cor. secs. 3, 4, 33 and 34, 30 ft. NE. of crossroads, in root of large willow tree, marked "1,128.2"; copper nail and washer	1,128.12	USGS
Ingersoll	882,G885	CM&StP
Ingersoll, T. 80 N., R. 26 W., SE. cor. SE. ¼ sec. 12, in corner of field, 2.5 feet west of Dallas county line, on C. E. Waters's place, 200 yards east of house; iron post stamped "867"	866.142	Bull. 569
Ingersoll, T. 80 N., R. 25 W., SW. cor. NE. ¼ sec. 20, NE. cor. schoolhouse yard; iron post stamped "881"	879.221	Bull. 569
Inwood	1466,G1473	CM&StP
Fonia	1144,G1149	CM&StP
Iowa City, top of rail, north end of Iowa river bridge, Iowa City	668.00	CR&IC
Iowa City, bench mark, SE. cor. of step of east door of Engineering Building, State University of Iowa	699.71	CR&IC
Iowa City, Burlington St. Sta.	654,G654	CRI&P

STATION	ELEVATION FEET	AUTHORITY
Iowa City, Wright St. Sta.	671	CRI&P
Iowa City	G685	Weather Bur.
Iowa Falls, St. Paul-Kansas City line.....	1098	CRI&P
Iowa Falls, crossing over C&NW.....	1096	CRI&P
Iowa Falls, crossing Sioux Falls line CRI&P.....	1107	CRI&P
Iowa Falls, Sioux Falls line	1112,G1107	CRI&P
Iowa Falls, crossing IC.....	1109	CRI&P
Iowa Falls	1090	C&NW
Iowa Falls	1104,G1103	IC
Iowa Falls, crossing St. Paul Div. CRI&P.....	1110	IC
Iowa Falls, crossing Sioux Falls line CRI&P.....	1106,G1105	IC
Iowa Falls, crossing over C&NW	1099	IC
Iowa Falls	G1107	Weather Bur.
Iowa Falls and Alden, morainal hill between, on north side river	1225	IaGS
Iowa Junction	627,G628	CRI&P
Iowana	580.40	CD&M
Ira	831.7,G829	CGW
Ireton	1368,G1373	C&NW
Irma	927	IC
Iron Hill, Allamakee Co.	1320	USGS
Iron Hill, Jackson Co.	940	USGS
Irving	798	C&NW
Irvington	1151,G1155	C&NW
Irwin	1265.2	CGW
Irwin	1263,G1262	C&NW
Island City	622.50	CD&M
Island Park	982.5,G980	CB&Q
Island Park, 1,148 feet south of station, 164 feet south of public-road crossing, 46 feet east of railway; copper bolt in bench-mark stone surmounted by iron pipe (U. S.C.E.p.b.m. 341):		
Copper bolt	967.718	Bull. 569
Cap on pipe	971.737	
Island Park, T. 73 N., R 43 W., on south line of sec. 6, 603 feet east of SW. cor. of SE. ¼ SE. ¼ sec. 6, in dooryard of C. H. W. Busse; copper bolt in tile sur- mounted by iron pipe (U.S.C.E.b.m. 119/3):		
Copper bolt	968.92	Bull. 569
Cap on pipe	973.00	
Jackson Junction, Ia. & Dak. line.....	1163,G1169	CM&StP
Jackson Junction, Davenport line.....	1161,G1169	CM&StP
Jacobs Switch	990,G971	M&StL
Jamaica	1043,G1042	CM&StP
James	1130	IC
James, Platform (abandoned)	1122	GN
James	1125	CStPM&O
Jamison	973	CB&Q
Janesville	893,G891	IC
Jefferson	1056,G1057	C&NW
Jefferson, CM&StP crossing.....	1053	C&NW
Jefferson	1059,G1062	CM&StP
Jefferson, crossing C&NW.....	1054,G1056	CM&StP
Jefferson, S. Dakota	1117,G1102	CM&StP
Jerome	1038,G1042	CM&StP
Jesup	979,G980	IC
Jewell, Des Moines line	1054,G1059	C&NW
Jewell, Eagle Grove line	1056	C&NW
Johnson	832.19	DM&CI
Johnson, NE. ¼ sec. 7, T. 79 N., R. 24 W., northeast		

JOHNSON-JUNIATA

459

STATION	ELEVATION FEET	AUTHORITY
corner Lawson schoolhouse; iron post stamped "833 Adj 1903"	831.943	Bull. 569
Johnson, Ridgedale schoolhouse, near center sec. 36, T. 80 N., R. 25 W., SE. cor. school yard, opposite road south; iron post stamped "959 Adj. 1903"	957.965	Bull. 569
Johnsonport, Allamakee Co., 200 meters above last house in upper end of, 2 meters west of west right-of-way fence of CM&StP Ry, 150 meters above mouth of Paint creek, 143 meters above bridge 438K; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 199/3):		
Copper bolt	637.25	Bull. 569
Cap on pipe	641.21	
Joice	1262	C&NW
Jolley	1230,G1232	CM&StP
Jordan	1110	C&NW
Jordan, 4.5 miles east of, T. 84 N., R. 25 W., SE. cor. sec. 25, at county line between Boone and Story counties, NW. cor. forks at T road west, at fence corner; iron post stamped "1016"	1,014.972	Bull. 569
Jordan, 3.5 miles east of, T. 84 N., R. 25 W., cor. secs. 25, 26, 35 and 36, in center of crossroads; chiseled square cut in top of corner stone, marked "1011.5"	1,010.524	Bull. 569
Jordan, T. 84 N., R. 25 W., NW. cor. sec. 35, north-south section line crossing east-west road, south side of road about 20 feet east of section line, inside of fence; copper nail in top of willow stump, marked "1042.9"	1,041.93	Bull. 569
Jordan, 1.5 miles east by 3 miles south of, T. 83 N., R. 25 W., SE. cor. sec. 9, NW. cor. crossroads, 7 feet north of fence corner; iron post stamped "1095"	1,093.738	Bull. 569
Jordan, 1.5 miles east by 2 miles south of, T. 83 N., R. 25 W., NE. cor. sec. 9, SW. cor. crossroads, inside of fence corner; copper nail in root of forked soft-maple tree, marked "1071.1"	1,070.21	Bull. 569
Jordan, 1.5 miles east by 1 mile south of, Tps. 83 and 84 N., R. 25 W., cor. secs. 33, 34, 3, and 4, in center of crossroads; chiseled square in top of corner stone, marked "1070.8"	1,069.88	Bull. 569
Jordan, 1.5 miles east of, T. 84 N., R. 25 W., SW. cor. sec. 27, NE. cor. crossroads; iron post stamped "1040"	1,039.379	Bull. 569
Jordan, T. 84 N., R. 25 W., SW. cor. sec. 22, NE. cor. road forks at T road east, top south end of east side of concrete drain under road north; chiseled square, marked "1045.8"	1,044.81	Bull. 569
Jordan, 1.5 miles east by 1.5 miles north of, T. 84 N., R. 25 W., west center of sec. 22, NE. cor. crossroads, in corner fence post; copper nail in post about 1½ feet above ground, marked "1061.3"	1,060.36	Bull. 569
Jordan, T. 84 N., R. 25 W., SW. cor. sec. 15, NE. cor. crossroads, inside of fence corner, just north of corner fence post; copper nail in base of willow tree, marked "1064.5"	1,063.50	Bull. 569
Jordan, T. 84 N., R. 25 W., SW. cor. sec. 10, NE. cor. crossroads, 65 ft. NE. of center of crossroads; copper nail in base of telephone pole, marked "1045.9"	1,044.91	Bull. 569
Judd	1112,G1111	IC
Judith	818	CRI&P
Julien	846,G842	IC
Julien, T. 89 N., R. 1 E., sec. 36, east-west road crossing IC RR near railroad fence, north side of wagon road, 50 feet west of railroad track; iron post stamped "869"	860.048	Bull. 569
Juniata	1384,1380	CM&StP

STATION	ELEVATION FEET	AUTHORITY
Junction Switch	842	CM&StP
Kains	638,G632	CM&StP
Kains, in front of CM&StP Ry station; base of rail (U. S.C.E.b.m.)	634.52	Bull. 569
Kains, Battle Island (137), on high sand ridge, 0.5 mile above foot of island, 75 meters from edge of sand bar, 20 meters from main bank, 100 meters below lower end of small willows on bar; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 208/2):		
Copper bolt	622.11	Bull. 569
Cap on pipe	626.06	
Kains, Island 139, about opposite center of Battle Island, 100 meters back from bank of river, 25 meters below south end of dam across slough; copper bolt in tile sur- mounted by iron pipe (U.S.C.E.b.m. 208/3):		
Copper bolt	619.93	Bull. 569
Cap on pipe	623.87	
Kains, Island 139, in timber on west bank of small dry slough, in bend of large slough, 50 meters east and 50 meters south from bank of slough; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 208/4):		
Copper bolt	621.53	Bull. 569
Cap on pipe	625.47	
Kains, 1 mile above, 5 miles below New Albin, on up- stream side and river end of downstream abutment of CM&StP Ry bridge 560K, 125 meters above milepost 29- 132, 3 feet below track, 10 feet toward river from center; square cut (U.S.C.E.t.b.m. 28, R. B).....	636.18	Bull. 569
Kalo	1016	M&StL
Kalona	651,G661	CRI&P
Kamrar	1115	C&NW
Kanawha	1191,G1183	M&StL
Kellerton	1193,G1197	CB&Q
Kelley	1029,G1033	C&NW
Kelley	1027	FtDDM&S
Kelley, T. 82 N., R. 25 W., NW. cor. sec. 1; iron post stamped "1046"	1,044.226	Bull. 569
Kelley, T. 83 N., R. 24 W., SW. cor. sec. 30; iron post stamped "1032"	1,030.455	Bull. 569
Kelley, T. 83 N., R. 24 W., SW. cor. sec. 28; spike in tele- phone pole, marked "U.S.B.M. 1003".....	1,001.60	Bull. 569
Kelley, T. 83 N., R. 24 W., SE. cor. sec. 28, spike in base of telephone pole, marked "U.S.B.M. 1017".....	1,015.64	Bull. 569
Kelley, T. 83 N., R. 24 W., center of sec. 27, at NW. cor. crossroads; iron post stamped "987".....	986.151	Bull. 569
Kelley, T. 83 N., R. 24 W., center of sec. 26, SE. cor. crossroads; spike in telephone pole, marked "U.S.B.M. 943"	941.79	Bull. 569
Kelley, T. 83 N., R. 24 W., center of line between secs. 25 and 26, SW. cor. of crossroads; top of large rock, marked "□U.S.B.M. 930".....	928.30	Bull. 569
[Established by Iowa State College students.]		
Kelley, on west side of equalizer foundation in south pipe line (of 2), 33 feet west of pole 770 of FtDDM&S Ry, 21 feet east of similar equalizer in north pipe line; square cut	1,027.23	Bull. 569
Kelley, square-cut on track side of concrete base of east- bound home signal, 10.5 feet east of point of switch, 30 feet east of pole 766.....	1,027.14	Bull. 569
Kelley, square cut on east end of baggage-door lintel of station of FtDDM&S Ry, opposite pole 763.....	1,029.29	Bull. 569

KELLEY-KEOKUK

461

STATION	ELEVATION FEET	AUTHORITY
Kelley, spike in track of pole 757, 1 foot above ground...	1,030.69	Bull. 569
Kelley, spike in track side of pole A414, 1 foot above ground	1,029.73	Bull. 569
Kelley, T. 83 N., R. 24 W., spike in track side of pole A386, south side of east-west road along north line of sec. 32....	1,013.03	Bull. 569
Kelley, Pole A360, 1 foot above ground, in track side of; spike	1,015.89	Bull. 569
Kelley, T. 83 N., R. 24 W., spike in track side of pole A332, 1 foot above ground, first pole north of east-west road along north line of sec. 29.....	1,023.31	Bull. 569
Kellogg	842,G844	CRI&P
Kemper	528,G529	CB&Q
Kennebec	1056,G1061	IC
Kennedy	954,G957	CM&StP
Kensett	1220	CRI&P
Kensett	1218,G1212	M&StL
Kent	1191,G1189	CB&Q
Kenwood	1241,G1245	CM&StP
Kenwood, divide in SE. ¼ sec. 32, Hanover Tp., Crawford Co.	1355	CM&StP
Keokuk, union station	504,G505	CB&Q
Keokuk, center Union Depot, top of rail.....	506.0	CRI&P
Keokuk, B.M. cross on top of foundation wall, NW. cor. CRI&P Ry engine house	496.23	CRI&P
Keokuk, top of monument M.P.2.....	497.69	CRI&P
Keokuk, top of monument M.P. 3.....	499.25	CRI&P
Keokuk, top of monument M.P. 4.....	506.42	CRI&P
Keokuk, in coping of shore side of lower lock of Des Moines Rapids canal, in recess between stone steps and stone pier of lower hydraulic tower, on south side of pier; copper bolt (U.S.C.E.p.b.m. 1).....	493.641	Bull. 569
Keokuk, in south face of Iowa shore pier of railroad bridge, 8 inches above bench in pier, in tenth stone from west end; copper bolt (U.S.C.E.p.b.m. 2).....	494.346	Bull. 569
Keokuk, Des Moines river bridge, at intersection of cross cut in upper surface of stone buttress; small conical hole (U.S.C.E.p.b.m. 4)	499.828	Bull. 569
Keokuk, 2 miles above, in coping of west wall of sluiceway at south end of middle canal lock; copper bolt (U.S.C.E.p.b.m 1)	501.571	Bull. 569
Keokuk, below, on south side of right of way fence on south side of CB&Q RR, 150 meters from right bank, 400 meters below or west of lower one of sawmills on right bank, 500 meters above head of Island 405, which is at upper mouth of Des Moines river; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 110/3): Copper bolt	487.20	Bull. 569
Cap on pipe	491.17	
Keokuk, second door from corner of Johnson St., in SW. cor. three-story stone building, owned by Mr. Patterson, facing on Water St., 8 inches above west doorsill, on inner side of outer wall, 15 meters from corner of Water and Johnson Sts.; copper bolt (U.S.C.E.p.b.m. 3).....	509.559	Bull. 569
Keokuk, in wall at upper end of front of Brown's warehouse; spike (U.S.C.E.p.b.m. 52 Mackenzie equals high-water mark of 1851)	498.58	Bull. 569
Keokuk, at NW. cor. Union Station building on Water St., near foot of Exchange St., top of wagon-guard stone (U.S.C.E. city b.m.)	506.74	Bull. 569
City datum	483.24	
Keokuk, in south face of Iowa shore abutment of railroad		

STATION	ELEVATION FEET	AUTHORITY
bridge, 8 inches above bench of abutment, in tenth stone from west end; copper bolt (U.S.C.E.p.b.m. 2).....	494.346	Bull. 569
Keokuk, in stone masonry at extreme lower end of east wall or pier of lower lock of Des Moines Rapids canal; cut in stone (U.S.C.E. zero, U. S. Engineer gage, lower lock) elevation of zero	477.84	Bull. 569
Keokuk, at side of U. S. Engineers' gage on extreme lower end of east wall or pier of lower lock of Des Moines Rapids canal; marks cut in stone masonry and figures by them (U.S.C.E. high-water marks of 1851, 1888, 1881):		
1851	498.80	Bull. 569
1888	497.48	
1881	496.78	
Keokuk and Hamilton bridge, 270 meters east of east end of, 45 meters north of railroad track, in woods 13 meters SE. of road, 75 meters east of where road joins railroad before crossing bridge; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 111/2):		
Copper bolt	487.45	Bull. 569
Cap on pipe	491.41	
Keokuk, on top of coping on outer corner of apex of lower gate recess on shore side of lower lock of Des Moines Rapids canal (U.S.C.E. canal b.m. Stickney).....	493.60	Bull. 569
Keokuk, Des Moines Rapids canal, 920 meters below lower end of sluiceway of middle lock of, in yard about 30 meters west of railroad, 30 meters above house, 70 meters above an old ice house, the road from top of bluff at Rand Park passes about 15 meters west of stone and joins road up west side of railroad at point about 50 meters north of stone; stone post (U.S.C.E. Δ lower base)	513.55	Bull. 569
Keokuk, 2 miles above, in coping of west wall of sluiceway at south end of middle canal lock; copper bolt (U. S.C.E.p.b.m. 1)	501.571	Bull. 569
Keokuk, Des Moines Rapids canal, in stone masonry on east side of middle lock of, just below lower gate; gage is cut in stone (U.S.C.E.b.m. lower gage, middle lock)	484.04	Bull. 569
Keokuk, Des Moines Rapids canal, just below lower gate, on east side of middle lock, marks and figures cut in masonry by gage (U.S.C.E. high-water marks of 1891, 1888, 1881):		
1891	498.84	Bull. 569
1888	497.54	
1881	496.84	
Keokuk, Des Moines Rapids canal, in stone masonry on east side of middle lock of, just above upper gate; cut in stone (U.S.C.E. upper gage, middle lock).....	492.00	Bull. 569
Keokuk, Des Moines Rapids canal, on north side of sluiceway from dry dock of middle lock of, cut in stone (U. S.C.E. rapids gage, middle lock).....	485.98	Bull. 569
Keokuk, Des Moines Rapids canal, on north side of sluiceway from dry dock of middle lock of; mark and figures cut in stone masonry by gage (U.S.C.E. high-water mark 1888, rapids, middle lock).....	499.85	Bull. 569
Keokuk, Des Moines Rapids canal, 30 meters north of switch at upper end of middle lock, 3 meters west of railroad, immediately opposite entrance to dry dock from canal; stone post (U.S.C.E. Δ upper base).....	502.01	Bull. 569
Keokuk, Des Moines Rapids canal, 1 mile above middle lock of, in timber on left bank, about 20 meters from left		

KEOKUK-KING

463

STATION	ELEVATION FEET	AUTHORITY
bank, 11½ meters east of center of road up river bank, 15 meters west of center of old road up river, but farther up on hillside, 130 meters north of half-section line, which is a lane on bluff, on north side of small cemetery, 40 meters north of wash or small ravine on hillside, on land of Martha Parsons, 400 meters above some exposed rocks near left bank at low water; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 112/2):		
Copper bolt	549.30	Bull. 569
Cap on pipe	553.32	
Keokuk, on NW. cor. east abutment of CB&Q RR bridge near mouth of Des Moines river, 1 foot from face of abutment; cross mark (U.S.C.E.b.m. 1)	496.63	Bull. 569
Keokuk, Mississippi river, low water	G477	Miss. Riv. Com.
Keokuk, Mississippi river, high water	G494	Miss. Riv. Com.
Keokuk, city base	G482	Weather Bur.
Keokuk	G614	Weather Bur.
Keosauqua, B.M. top of monument M.P. 3	667.53	CRI&P
Keosauqua, B.M. top of monument M.P. 4	636.51	CRI&P
Keosauqua, top of rail, center of depot	635.08	CRI&P
Keosauqua, B.M. cross on top of bench of pier under SE. cor. of depot	636.98	CRI&P
Keosauqua, at SW. cor. concrete porch floor of Manning Hotel (U.S.C.E.b.m. 29)	579.14	Bull. 569
Keosauqua, on top of east end of south abutment of highway bridge; cross mark (U.S.C.E.b.m. 30)	588.41	Bull. 569
Keosauqua	G664	Weather Bur.
Keota	787,G800	CRI&P
Kesley	995	C&NW
Keswick	863,G872	CRI&P
Ketcham	691,G694	CB&Q
Kew	1110.4,G1109	CB&Q
Keystone	881,G875	CM&StQ
Keywest, junction of road south to cemetery gate	G841	USGS
Kidder	847.6,G849	CGW
Kilbourne—Subgrade of track opposite center of depot	596.5	CRI&P
Kilbourne, B.M. top of monument M.P. 48 (U.S.C.E.b.m. 32)	596.96	CRI&P
Kilbourne, 1 mile NW. of, B.M. top of monument M.P. 49 (U.S.C.E.b.m. 33)	601.41	CRI&P
Kilbourne, 2 miles NW. of, B.M. top of monument M.P. 50 (U.S.C.E.b.m. 34)	603.95	CRI&P
Kilbourne, 3 miles NW. of, B.M. top of monument M.P. 51 (U.S.C.E.b.m. 35)	598.71	CRI&P
Kilbourne, top of SW. cor. north abutment of highway bridge (U.S.C.E.b.m. 91)	599.86	Bull. 569
Kilduff	932	M&StL
Kimball	814	CRI&P
Kimball, T. 75 N., R. 21 W., west of SE. cor. sec. 5, NW. angle of crossroads, in limestone rock 6 by 8 by 28 inches, set 27 inches in ground; aluminum tablet stamped "869 Adj"	867.704	Bull. 569
Kimball, T. 76 N., R. 21 W., NE. cor. sec. 33, 2.5 miles south of Pleasantville, in SW. angle of crossroads, at NE. cor. schoolhouse, sandstone rock 8 by 10 by 22 inches, set 21 inches in ground; aluminum tablet stamped "894 Adj"	893.119	Bull. 569
King, Dubuque Co., T. 88 N., R. 3 E., near center NE. ¼ sec. 27, St. Katherine's Church, NW. cor. yard of priest's house; iron post stamped "1123"	1,114.552	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
Kingsley	1236,G1237	C&NW
Kingston, 0.5 mile above Oquawka, on Iowa shore, 10 meters from river bank, 140 meters below Government light opposite upper end of Oquawka, Ill.; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 128/3):		
Copper bolt	525.15	Bull. 569
Cap on pipe	529.14	
Kingston, on small ridge 674 meters back of preceding bench mark, 4.3 meters 222° to 18-inch hickory tree, 6.8 meters 15° to 12-inch ash tree, 6.6 meters 125° to 20-inch elm tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 128/4):		
Copper bolt	525.35	Bull. 569
Cap on pipe	529.36	
Kinross	758,G767	CRI&P
Kinsey	882.28	DM&CI
Kirgis	989.73	DM&CI
Kirkman	1233	C&NW
Kirkman	1233.5,G1235	CGW
Kirkville, B.M. top of monument M.P. 81.....	662.65	CRI&P
Kirkville, B.M. top of monument M.P. 82.....	658.83	CRI&P
Kirkville, B.M. top of monument M.P. 83.....	666.78	CRI&P
Kirkville, B.M. top of monument M.P. 84.....	670.70	CRI&P
Kirkville, top of rail, center depot.....	697.5	CRI&P
Kirkville, B.M. top of monument M.P. 85.....	688.71	CRI&P
Kirkville, B.M. top of monument M.P. 86.....	687.33	CRI&P
Kirkville, B.M. top of monument M.P. 87 (U.S.C.E.b.m. 50)	704.93	CRI&P
Kiron	1307	C&NW
Kiron, divide in NW. ¼ sec. 9, Stockholm Tp., Crawford Co.	1419	C&NW
Kiron, crossing Otter creek	1287	C&NW
Kiron, divide in SW. ¼ sec. 10, Otter Creek Tp., Crawford Co.	1455	C&NW
Klemme	1227	CRI&P
Klondike Junction, Des Moines	826.71	DM&CI
Knierim	1178,G1178	IC
Knierim, crossing over CRI&P.....	1205	IC
Kniffin	1075,G1086	CRI&P
Knoke	1243,G1240	CM&StP
Knowlton	1102.2,G1102	CGW
Knoxville	904	CB&Q
Knoxville	G910	Weather Bur.
Knoxville, T. 76 N., R. 20 W., 0.25 mile west of NE. cor. sec. 24, west and 130 feet south of center of crossroads, 40 feet south of small wooden culvert, in angle of rail fence; iron post stamped "819 Iowa"	817.718	Bull. 569
Knoxville, T. 76 N., R. 19 W., SE. cor. sec. 20, near Mount Vernon Chapel, in front yard of J. J. Woody, SE. of house and just inside fence along north side of road; iron post stamped "864 Iowa"	862.777	Bull. 569
Knoxville, T. 76 N., R. 19 W., SE. cor. sec. 29, near Washington Church, in line with east and west road, in NE. root of maple tree 30 inches in diameter; 40-penny nail....	876.718	Bull. 569
Knoxville	895,G909	CRI&P
Koenigsmark (Lefebure), top of rail on south line sec. 17, Tp. 82, R. 7, 1150 feet east of SW. cor. sec. 17.....	810.60	CR&IC
Koenigsmark, top of rail on south line sec. 20, Tp. 82, R. 7, 340 feet east of SW. cor. sec. 20.....	852.90	CR&IC
Koenigsmark, top of rail on south line sec. 29, Tp. 82, R. 7, 100 feet east of SW. cor. sec. 29.....	853.60	CR&IC
Koyle	979	CB&Q
Koyle, Des Moines line	983	CB&Q

LAKE-LAKEWOOD

465

STATION	ELEVATION FEET	AUTHORITY
Lacey	812,G805	M&StL
Lacona	824,G822	CB&Q
Lacona, T. 74 N., R. 22 W., NW. cor. sec. 9, in SE. cor. crossroads, at south end of tile drain, on 4 by 2 by 2.5 foot boulder; highest point of chiseled circle.....	901.37	Bull. 569
Lacona, T. 74 N., R. 22 W.; SW. cor. sec. 3, in NE. cor. crossroads, at SW. cor. school yard; iron post stamped "Iowa, 865, 1913"	864.605	Bull. 569
Lacona, T. 74 N., R. 22 W., SE. cor. sec. 3, at crossroads, center of jog in east-west road, at SW. cor. wooden bridge over Flank creek, in bridge floor; copper nail.....	813.85	Bull. 569
Lacona, high-water mark June 24, 1913, wooden bridge over Flank creek, west side of bridge, on east side of center rail post; pencil mark "815.8"	815.8	Bull. 569
Lacona, T. 75 N., R. 22 W., SW. cor. sec. 35, at St. Mary's Catholic Church, 6 feet east of stump of cottonwood tree, at N.E. angle of crossroads, in sandstone post; aluminum tablet stamped "Prim. Trav. Sta. No. 5, 926." (An old tablet reset in new stone same location but 0.265 foot lower. Old stone had split)	924.436	Bull. 569
Lacona, T. 74 N., R. 22 W., SW. cor. sec. 1, at NE. cor. crossroads, 25 feet east of corner post, in root of 10-inch elm tree; copper nail	885.27	Bull. 569
Lacona, T. 74 N., R. 22 W., sec. 12, at NE. cor. at SW. cor. private T road south, 10 feet west of fence corner; iron post stamped "Iowa, 909, 1913"	909.171	Bull. 569
La Crew	715,G717	CB&Q
Laddsdale	625	CRI&P
Ladoga	1224	CB&Q
Ladora	780,G783	CRI&P
Lafayette, crossing under road, subgrade.....	883.09	WCF&N
Lafayette, overhead highway bridge	897.53	WCF&N
Lainsville	599,G599	CM&StP
Lainsville, 250 meters below, 0.5 meter from fence on right of way of CM&StP Ry, 25 meters above small bridge; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 168/3):		
Copper bolt	606.50	Bull.569
Cap on pipe	610.52	
Lainsville, on right bank opposite Arnolds landing, at head of Island 259, 25 meters from river bank, in open timber partly cleared; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 169/3):		
Copper bolt	584.07	Bull.569
Cap on pipe	588.06	
Lainsville, on right bank opposite Arnolds landing, 696 meters from river bank, on east bank of slough in open timber; copper bolt in tile surmounted by iron pipe (U. S.C.E.b.m. 169/4):		
Copper bolt	584.77	Bull.569
Cap on pipe	588.79	
Lake City	1243,G1249	C&NW
Lake Mills	1266,G1266	M&StL
Lake Mills	1257	C&NW
Lake Mills, crossing M&StL	1258	C&NW
Lake Okoboji, West, hill back of Lakeside Laboratory, Millers Bay	1510	IaGS
Lake Park	1469,G1469	CRI&P
Lakeside	1407	CM&StP
Lakes Okoboji	1409	CM&StP
Lakewood	1331.8	CStPM&O

ALTITUDES IN IOWA

STATION	ELEVATION FEET	AUTHORITY
Lake View	1243	C&NW
Lakota	1156	CB&P
Lamoille	936,G936	C&NW
Lamoni	1123,G1126	CB&Q
Lamont	1045.9	CGW
Lamont, T. 90 N., R. 7 W., NE. cor. sec. 21, at road crossing; iron post stamped "1061 DBQ"	1,061.951	Bull. 569
Lamont, in front of CGW RR station; top of rail	1,045.6	Bull. 569
La Motte	911,G910	CM&StP
La Motte, T. 86 N., R. 4 E., SW. ¼ sec. 6, junction of wagon roads near Anton Ernest's house; iron post stamped "708"	700.149	Bull. 569
La Motte, T. 87 N., R. 3 E., sec. 22, SE. cor. Nat Mandor's shed, west side of road, 200 feet SW. of bridge over Tete des Morts creek, on half-section line; iron post stamped "718"	709.829	Bull. 569
La Motte, sec. 4, T. 86 N., R. 3 E., cor. Market and Water Sts., 40 feet NE. of railroad; iron post stamped "923"	914.661	Bull. 569
La Motte, middle NE. ¼ sec. 6, Richland Tp.	1125	USGS
La Motte, east ½ sec. 6, Prairie Spring Tp.	1190	USGS
La Motte, Middle Prairie Spring Tp.	740	USGS
Lamp Siding, stock pen	1114	CM&StP
Lanesboro	1141.5,G1148	CGW
Langdon	1370,G1371	M&StL
Langworthy	867,G868	CM&StP
Lansing	635,G630	CM&StP
Lansing, NE. of intersection of Main and Second Sts., near SW. cor. implement warehouse of Nielande & Co.; aluminum tablet stamped "653 DBQ"	654.493	Bull. 569
Lansing, T. 99 N., R. 4 W., on east side sec. 20 (map shows B.M. in sec. 16), 12 feet west of NE. cor. post cemetery; iron post stamped "1216 DBQ"	1,217.533	Bull. 569
Lansing, Carol Island, planted on, 250 meters below head of Ferry slough, 25 meters back from shore, opposite foot of first small island below head of Ferry slough, 100 meters above a log cabin, in bunch of elms; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 204/2):		
Copper bolt	618.62	Bull. 569
Cap on pipe	622.59	
Lansing, Capoli bluff, on right bank directly under, 0.5 meter outside of right-of-way fence of CM&StP Ry (bluff side), 25 meters above upper end of sharp curve around foot of Capoli bluff; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 204/3):		
Copper bolt	654.43	Bull. 569
Cap on pipe	658.37	
Lansing, Island 148, 400 meters above head of, on large island, in bunch of willows, 50 meters back from shore, 150 meters above head of bay; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 205/2):		
Copper bolt	615.50	Bull. 569
Cap on pipe	619.45	
Lansing, 2 miles below station, in meadow at foot of bluffs on property of Julius Nelson, 0.5 meter toward bluffs from fence along wagon road, 155 meters below milepost 123-38, 120 meters above culvert 518; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 205/3):		
Copper bolt	653.78	Bull. 569
Cap on pipe	657.74	

LANSING-LAWN HILL

467

STATION	ELEVATION FEET	AUTHORITY
Lansing, in front of CM&StP Ry station; base of rail (U.S.C.E.b.m.)	632.69	Bull. 569
Lansing, on SE. cor. G. W. Herndt's warehouse; high-water mark of June, 1880	633.98	Bull. 569
Lansing, Island 146, on high ground in bunch of elms, 40 meters back from shore at Government light, opposite upper end of Lansing; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 206/2):		
Copper bolt	619.61	Bull. 569
Cap on pipe	623.57	
Lansing, opposite 1-mile post above, 34 meters back from railroad, at foot of bluffs, 75 meters above an old mill that stands on bank of slough, and is last building in upper end of Lansing; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 206/3):		
Copper bolt	644.83	Bull. 569
Cap on pipe	648.77	
Lansing, 1.5 miles above, on upstream side and river end of downstream abutment of CM&StP Ry bridge 530K, 0.8 foot below track and 7 feet east of center; square cut (U.S.C.E.t.b.m. 26, R. B).....	637.35	Bull. 569
Lansing, Island 140, opposite foot of Island 141, 30 meters back from shore, 100 meters below upper end of timber, 30 meters below an old shed, inside a lot, 1 meter from east fence; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 207/3):		
Copper bolt	620.70	Bull. 569
Cap on pipe	624.67	
Lansing, 3 miles above, planted at foot of bluffs, 1 meter east of west right-of-way fence of CM&StP Ry, 425 meters above bridge 540K, 475 meters above a house, 0.5 mile above triangulation station Cowles, opposite end of railroad curve, 0.5 mile below schoolhouse; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 207/4):		
Copper bolt	640.19	Bull. 569
Cap on pipe	644.15	
Lansing, 3.8 miles above, on downstream side and river end of upstream stone abutment of CM&StP Ry bridge 546K, 3 feet below track, 8 feet toward river from center; square cut (U.S.C.E.t.b.m. 27, R. B).....	635.73	Bull. 569
Lansing, hydrant, Main and Front Sts.....	G640	USGS
Lansing, Mississippi river, low water.....	G612	Miss. Riv. Com.
Lansing, Mississippi river, high water.....	G632	Miss. Riv. Com.
Lansing	G632	Weather Bur.
Lanyon	1171	FtDDM&S
La Porte City	817,G812	CRI&P
La Porte City, north end of wye, subgrade.....	816.84	WCF&N
Larchwood	1468,G1462	CRI&P
Larchwood	G1465	Weather Bur.
Larrabee	1367,G1366	IC
Latimer	1247	M&StL
Latty, union station with CRI&P	725	CB&Q
Latty	726,G733	CRI&P
Laurel	1048,G1034	M&StL
Laurens	1313,G1312	C&NW
Laurens, crossing CRI&P	1304	C&NW
Laurens	1303,G1303	CRI&P
Laurens, crossing C&NW	1305	CRI&P
Lavinia	1219,G1214	CM&StP
Lawler	1084,G1088	CM&StP
Lawn Hill	1080	C&NW

STATION	ELEVATION FEET	AUTHORITY
Lawton	1170	C&NW
Leando, see Douds		
Le Claire, DRI&NW station	587	CB&Q
Le Claire	590	CM&StP
Le Claire	586.13	CD&M
Le Claire, Union Station	G580	DRI&NW
Le Claire, Mississippi river, low water	G562	Miss. Riv. Com.
Le Claire, Mississippi river, high water	G576	Miss. Riv. Com.
Le Claire	G576	Weather Bur.
Le Claire, 0.8 mile below Hampton, Ill., 0.5 meter west of east wagon road fence and 0.5 meter south of east-west line through center of sec. 13, T. 78, R. 4 E., 100 meters south of Mr. Dodd's house, 170 meters south of Pigeon Creek, near foot of bluffs; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 152/4):		
Copper bolt	588.47	Bull. 569
Cap on pipe	592.49	
Le Claire, 100 meters above mouth of Spencer creek, opposite point midway between red barn and white house in walnut grove on left bank, 10 meters above road running back to farmhouse on bluff; highest point of large sandstone rock (U.S.C.E.t.b.m. 6 R. B).....	562.23	Bull. 569
Le Claire, lower edge of, 1 meter west of east right of way fence of railroad, 325 meters above bridge 370 over Barber creek, on line of fence dividing lots owned by James Clark and George Cooley, 0.5 mile below Port Byron, Ill., 10 meters E. 4° to east end of north abutment of bridge 468; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 154/2):		
Copper bolt	583.72	Bull. 569
Cap on pipe	587.74	
Le Claire, near NE. cor. Louis Schworm's house on Dodge St., SW. cor. alley between Main St. and Wisconsin Ave.; copper bolt leaded horizontally in east face of stone porch 1 foot above ground, 8 inches from NE. cor. porch and 2.6 feet from top of porch, marked "M.R.C.U.⊙ S.B.M." (U.S.C.E.b.m. 154/3):	601.00	Bull. 569
Le Claire, on SE. cor. old frame warehouse between river and rear of building, 1 block north of Becker's store (U.S.C.E. high-water mark of 1870).....	573.81	Bull. 569
Ledyard	1150	C&NW
Leeds, platform	1108	GN
Leeds, crossing IC	1111	GN
Leeds	1117,G1113	IC
Lees Siding	868	CRI&P
Le Grand	938,G938	C&NW
Lehigh	945	FtDDM&S
Lehigh	956.0	CGW
Lehigh, T. 87 N. R. 28 W., cor. secs. 1, 2, 11 and 12, T road N., 40 ft. NE. of road fork, in base of corner fence post, marked "1,112"; spike	1,112.13	USGS
Lehigh, 0.67 mile N. of, on W. side of river, 80 ft. W. of CGW RR. 70 ft. NW. of road fork, on N. side of main road leading W., 15 ft. N. of fence, in root of 12-inch elm tree, marked "947.8"; copper nail and washer	947.93	USGS
Lehigh, at highway bridge over Des Moines river, at W. end of bridge, 1.5 ft. N. of edge of flooring and 0.5 ft. lower than same, in top of concrete abutment; bronze tablet stamped "Iowa 1919 954"	953.627	USGS
Water level, July 2, 1919, at 1 p.m.	933.500	USGS
Lehigh, 0.50 mile NE. of, top of hill and T road S., 35 ft. S.		

LEHIGH-LEIGHTON

469

STATION	ELEVATION FEET	AUTHORITY
of road fork, on E. side of road leading S., 15 ft. N. of fence corner, in base of telephone pole, marked "1,103.5"; spike	1,103.59	USGS
Lehigh, 0.71 mile NE. of, at T road E., 40 ft. SW. of road fork, in concrete base of fence post, marked "1,111.8"; chiseled square	1,111.96	USGS
Lehigh, T. 87 N., R. 27 W., cor. secs. 5, 6, 7 and 8, at T road N., 30 ft. NW. of road fork, 3 ft. S. of fence cor., in base of telephone pole, marked "1,107.8"; spike	1,107.95	USGS
Lehigh, Tps. 87 and 88 N., R. 27 W., cor. of secs. 4, 5, 32 and 33, 45 feet NW. of center of crossroads, 3 ft. east of fence cor.; iron post stamped "Iowa 1919 1,094".....	1,093.624	USGS
Lehigh, T. 87 N., R. 27 W., cor. secs. 4, 5, 8 and 9, 50 feet NW. of center of crossroads, 12 feet west of fence corner, on fence line, on north side of road, in root of large maple tree, marked "1,105.7"; copper nail and washer	1,105.53	USGS
Lehigh, T. 87 N., R. 27 W., quarter cor., south side of sec. 5, 50 feet NW. of center of road fork, in base of corner fence post, marked "1,097.5"; spike	1,097.30	USGS
Lehigh, T. 87 N., R. 27 W., quarter cor., south side of sec. 8, at section line crossing road, on west side of road, on section and fence line, in base of large gate post, marked "1,104.5"; spike	1,104.31	USGS
Lehigh, T. 87 N., R. 27 W., same loc. as above, pavement leading to E. L. Woodle's residence, point just outside of gate on NE. edge (not a B.M.), marked "1,104.4".....	1,104.23	USGS
Lehigh, 2 miles east by 1 mile south of, at schoolhouse, at front end of, 2 feet from east edge of; bronze tablet stamped "Iowa 1919 1,081"	1,081.238	USGS
Lehigh, 1 mile south by 2.5 miles east of, T. 87 N., R. 27 W., S. line sec. 16, at old ford across Des Moines river, on west bank of river where it flows north, 50 feet south of ford, in base of 2-foot oak tree, marked "931.6"; spike	931.37	USGS
Lehigh, 1 mile south by 2.5 miles east of, at old ford across Des Moines river, on east bank of river, where it flows north, 120 feet south of ford, 20 feet west of road and 10 feet east of water's edge, in root of 12-inch elder tree, marked "928.5"; copper nail and washer	928.30	USGS
Elevation of water level at this point (high water), June 9, 1919	925.000	USGS
Lehigh, T. 87 N., R. 27 W.; quarter cor., north side of NW. quarter sec. 33, at T road north, 50 feet NW. of road fork, in base of telephone pole, marked "1,120.7"; spike	1,120.48	USGS
Lehigh, T. 87 N., R. 27 W., cor. of secs. 28, 29, 32 and 33, T road south, 50 feet NW. of road fork, in base of telephone pole, marked "1,123.1"; spike.....	1,122.89	USGS
Leighton, B.M. top of monument M.P. 308.....	751.58	CRI&P
Leighton, B.M. top of monument M.P. 309.....	758.94	CRI&P
Leighton, top of rail, center of depot.....	765.5	CRI&P
Leighton, B.M. top of monument M.P. 310.....	766.14	CRI&P
Leighton, B.M. top of monument M.P. 311.....	774.04	CRI&P
Leighton, B.M. top of monument M.P. 312.....	780.80	CRI&P
Leighton, B.M. top of monument M.P. 313.....	792.49	CRI&P
Leighton, T. 76 N., R. 17 W., center of sec. 26, crossroads, in corner fence post; three 40-penny nails.....	848.67	Bull. 569
Leighton, T. 76 N., R. 17 W., quarter corner on east side of sec. 25, on stone at intersection of crossroads; painted square	842.51	Bull. 569
Leighton, T. 76 N., R. 17 W., 0.25 mile north of SW. cor.		

ALTITUDES IN IOWA

STATION	ELEVATION FEET	AUTHORITY
sec. 19, T corner; iron post stamped "Prim. Trav. Sta. No. 8, Iowa 1908, 813"	811.246	Bull. 569
Leighton, T. 76 N., R. 17 W., 0.2 mile west of SE. cor. sec. 1, in projecting knob of base of 14-inch oak tree; 40-penny nail; T corner	796.01	Bull. 569
Leighton, T. 76 N., R. 17 W., 0.3 mile west of SE. cor. sec. 13, T corner, on west side of road, 40 feet north of center of road; iron post stamped "735 Iowa"	733.317	Bull. 569
Leighton, T. 76 N., R. 17 W., SW. cor. sec. 15, on east side of road, 17 feet southeast of road intersection, 10 feet south of corner fence post; crossroads	840.341	Bull. 569
Leighton, 0.5 mile east of, railway crossing; top of rail...	758.13	Bull. 569
Leighton, quarter corner on south side of sec. 35, T. 76 N., R. 17 W., west side of road, 50 feet north of railroad; iron post stamped "761 Iowa"	759.497	Bull. 569
Leland	1218,G1217	M&StL
Le Mars, junction switch with IC	1232.6	CStPM&O
Le Mars, union station	1234,G1232	IC
Le Mars, junction with CStPM&O	1233,G1232	IC
Le Mars	G1224	Weather Bur.
Lena	1130,G1126	M&StL
Lenox	1295,G1293	CB&Q
Lenox	G1250	Weather Bur.
Leon	1019,G1019	CB&Q
Leon, Des Moines line	1026	CB&Q
Le Roy	1113,G1112	CB&Q
Leroy, Minn.	1286,G1285	CM&StP
Leroy, Minn.	1283.1,G1282	CGW
Leroy, Minn., crossing CM&StP	1286.7,G1284	CGW
Leslie	1177	CB&Q
Lester	1379	GN
Lester, crossing CRI&P	1373	GN
Lester	1380	CRI&P
Letts	650	CRI&P
Letts, divide, 2 miles east of	706	CRI&P
Leverett	1365,G1363	CRI&P
Leverett, crossing CM&StP	1381	CRI&P
Levey	782,G782	CB&Q
Levey, 0.5 mile north of, 6 miles below Des Moines, top of east side of concrete pier at north end of CB&Q RR bridge over Des Moines river (U.S.C.E.b.m. 57) (destroyed)	789.92	Bull. 569
Levey, 15 feet west of road, 175 feet NW. of E. S. Irwin's house; iron post stamped "Prim. Trav. Sta. No. 7, 782 Adj 1903"	780.515	Bull. 569
Lewis	1154,G1157	CRI&P
Lewis, bed of Spring creek west of	1080	IaGS
Lewis, bed of Nishnabotna river below dam at	1093	IaGS
Lewis, crest of hill at	1208	IaGS
Lewis, base of sandstone on Spring creek, west of	1102	IaGS
Liberty Center, Warren Co., T. 74 N., R. 23 W., NW. cor. sec. 3, moved 100 feet west of point, 30 feet south by 60 feet east of crossroads, in limestone rock; aluminum tablet stamped "Prim. Trav. Sta. No. 6 937 Adj" set in 4 by 4 inch concrete post	932.253	Bull. 569
Liberty Center, T. 74 N., R. 23 W., NE. cor. sec. 3, in SW. cor. T road south, in top of west end of plank culvert; copper nail	935.80	Bull. 569
Liberty Center, T. 74 N., R. 23 W., SE. cor. sec. 3, in NW. cor. crossroads, 2 feet west of corner post; iron post stamped "Iowa 934, 1913"	933.865	Bull. 569

LIBERTY CENTER-LOHRVILLE

471

STATION	ELEVATION FEET	AUTHORITY
Liberty Center, T. 74 N., R. 23 W., at NW. cor. sec. 35, in SE. cor. crossroads, in root on west side of twin maple tree; copper nail	1,016.45	Bull. 569
Liberty Center, T. 74 N., R. 23 W., at quarter corner on east side sec. 27, at SW. cor. crossroads, 7 feet south of telephone pole; iron post stamped "Iowa, 1021, 1913"	1,021.180	Bull. 569
Liberty Center, 1 mile east of, T. 74 N., R. 23 W., at SW. cor. sec. 14, in NE. angle of crossroads, 75 feet NE. of section corner, in root of 14-inch cottonwood tree; copper nail	1,014.23	Bull. 569
Liberty Center, T. 74 N., R. 23 W., at NW. cor. sec. 14, in SE. angle of crossroads, 5 feet north of corner post, in stump of telephone pole; copper nail	1,013.64	Bull. 569
Liberty Center, T. 74 N., R. 23 W., at SE. cor. sec. 3, in NW. cor. crossroads, 2 feet west of corner post; iron post stamped "Iowa, 934, 1913"	933.865	Bull. 569
Libertyville	754	CRI&P
Libertyville, crossing CB&Q	754	CRI&P
Libertyville	750	CB&Q
Libertyville, crossing CRI&P	753	CB&Q
Lida	854.9,G849	CGW
Lida, North river at	840	IaGS
Lidderdale	1236.5,G1244	CGW
Lima	932,G933	CM&StP
Lime Kilns	710	CRI&P
Lime Springs	1246,G1245	CM&StP
Linby, crossing CM&StP	810.8	CB&Q
Linby	815,G817	CM&StP
Linby, crossing CB&Q	815	CM&StP
Lincoln	1059.4,G1059	CGW
Linden	1124,G1126	CM&StP
Lineville	1084	CRI&P
Linn	749,G756	CRI&P
Linn Grove	1256,G1257	C&NW
Linwood, union station with CRI&P	564	CM&StP
Linwood	565	CRI&P
Linwood, 0.25 mile above hotel at, 1 meter east of west fence of road on section line dividing secs. 23 and 24, 2 meters north of north fence on Davenport road, 20 meters from river bank; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 147/3):		
Copper bolt	558.96	Bull. 569
Cap on pipe	562.97	
Lisbon	873,G873	C&NW
Liscomb	1004,G997	M&StL
Little Cedar	1181.0	CGW
Littleport, T. 92 N., R. 4 W., SW. ¼ sec. 16, in SE. cor. schoolhouse yard; iron post stamped "929 DBQ"	930.628	Bull. 569
Littleport	700,G698	CM&StP
Little Rock	1477	CRI&P
Little Rock, 1 mile west of	1505	IaGS
Livermore	1132,G1134	M&StL
Livermore	1142,G1136	CRI&P
Livermore, crossing M&StL	1131	CRI&P
Lockridge	729,G732	CB&Q
Logan	1036,G1033	IC
Logan	1033	C&NW
Lohrville	1148.3,G1155	CGW
Lohrville, crossing CM&StP	1138.4,G1144	CGW
Lohrville, crossing C&NW	1138.3,G1144	CGW
Lohrville	1155	C&NW

STATION	ELEVATION FEET	AUTHORITY
Lohrville, crossing CM&StP	1142	C&NW
Lohrville	1145,G1149	CM&StP
Lohrville, crossing C&NW	1143,G1146	CM&StP
Lone Rock	1210	C&NW
Lone Tree	707	CRI&P
Long Grove	782	CM&StP
Long Point	804	C&NW
Longview	747	CB&Q
Lorah	1197,G1204	CRI&P
Lorah, creek bed east of	1184	IaGS
Lorimor	1230.5,G1227	CGW
Lost Nation	741,G744	CM&StP
Lothrop	822,G829	CRI&P
Louisa	819,G814	CM&StP
Louisa, crossing over IC, CM&StP track.....	815,G812	CM&StP
Louisa, crossing, IC track	G789	CM&StP
Louisa, crossing over WCF&N.....	815	CM&StP
Loveland	1004,G1007	C&NW
Loveland, crossing under IC	1001	C&NW
Loveland, on SW. cor. bridge 979 over Boyer river, 0.3 foot east of bedplate under inclined end post, 2.5 feet from north edge of abutment; copper bolt in stone (U.S.C.E. p.b.m. 356)	1,000.119	Bull. 569
Lovilia	930.8,G932	CB&Q
Lovilia	932	WRR
Lovilia, T. 73 N., R. 18 W., near center SE. ¼ sec. 23, 280 feet south of T road east, on west side of highway, in top center of concrete headwall to culvert under road; chiseled square, painted "U.S.B.M. 943.9".....	943.79	USGS
Lovilia, T. 73 N., R. 18 W., center of sec. 23, in SE. angle of road forks, 4 feet east of corner fence post, in top of concrete post; bronze tablet stamped "E.B. No. 6 1924 Iowa" painted "U.S.P.B.M. 931.0".....	930.897	USGS
Lovilia, reference mark, 120 feet north by 50 feet west of tablet, 20 feet east of house, in root on east side of a 2-foot maple tree; copper nail and washer.....	931.97	USGS
Lovilia, T. 73 N., R. 18 W., near NE. cor. sec. 23, 1,800 feet NE. of switch to coal mine, on NE. cor. small trestle over small drain, along C&NW RR; on large bolt-head with chiseled cross, painted "U.S.B.M. 863.1".....	863.00	USGS
Lovilia, T. 73 N., R. 18 W., near center of sec. 13, 230 feet north of road crossing C&NW Ry, in top center of east headwall to concrete bridge over small creek; chiseled square, painted "U.S.B.M. 828.9"	828.77	USGS
Lovilia, T. 73 N., R. 17 W., near SW. cor. sec. 7, 110 feet south by 40 feet east of road crossing C&NW Ry, in NW. cor. of timbered pasture, in root on NW. side of a 2.5-foot oak tree; copper nail and washer, painted "U.S.B.M. 809.4"	809.27	USGS
Lovilia, T. 73 N., Rs. 17 and 18 W., cor. secs. 1, 7, 6 and 12, in NW. angle of crossroads, 5 feet north by 0.5 foot east of corner fence post; top of 0.75-inch gas pipe driven in ground, painted "U.S.B.M. 918.0".....	917.95	USGS
Lowden	717,G717	C&NW
Low Moor	640,G643	C&NW
Luana	1123,G1128	CM&StP
Lucas	885.69,G888	CB&Q
Lucas, T. 72 N., R. 23 W., at quarter corner, on north side of sec. 11, in SW. angle of crossroads, 1 foot south of corner post, in top of wooden peg; wire nail.....	1,044.64	Bull. 569
Lucas, 0.5 mile west by 0.5 mile north of, T. 72 N., R. 23		

LUCAS-LUNDGREN

473

STATION	ELEVATION FEET	AUTHORITY
W., at center of sec. 14, at center of crossroads, in top of rock presumed to be section stone; bottom of square cut	970.89	Bull. 569
Lucas, in front of CB&Q RR station; top of rail.....	888.98	Bull. 569
Lucas, near center of town, at SW. cor. Leehart's drug store; iron post stamped "Iowa, 895, 1913".....	895.010	Bull. 569
Lucas, 0.8 mile east of, at NE. angle of T road north, in top of sandstone rock 5 feet north of corner post; bottom of chiseled square	892.21	Bull. 569
Lucas, 1 mile east of, CB&Q RR crossing, top of rail.....	878.5	Bull. 569
Lucas, Whitebreast creek; water elevation, 11 a.m., July 31, 1913, "854.2"	854.3	Bull. 569
Lucas, 1.8 miles east of, at SW. angle of T road south, 100 feet south of corner post, driven flush with ground; iron rod, 11 inches long	867.35	Bull. 569
Lucas, T. 72 N., R. 22 W., near NE. cor. sec. 30, at NE. angle of crossroads, 2 feet north of corner post; iron post stamped "Iowa 1044, 1913"	1,043.891	Bull. 569
Lucas, T. 72 N., R. 22 W., about 1,000 feet west of the SE. cor. sec. 20, at NE. cor. bridge over creek, in plank; copper nail	889.35	Bull. 569
Lundgren, B.M. pole No. 1735	1142.81	FtDDM&S
Lundgren, T. 87 N., Rs. 28 and 29 W., cor. secs. 6, 7, 1 and 12, at T road south, 50 ft. SW. of road fork, on concrete base of corner fence post, marked "1,137.6"; chiseled point	1,137.63	USGS
Lundgren, T. 87 N., R. 28 W., cor. secs. 5, 6, 7 and 8, 30 ft. SE. of center of crossroads, on top of steel sewer, marked "1,126"; cross mark	1,126.12	USGS
Lundgren, T. 87 N., R. 28 W., cor. secs. 4, 5, 8 and 9, 50 ft. SW. of center of crossroads, 1.5 ft. N. of fence line; iron post stamped "Iowa 1919 Prim. Trav. Sta. No. 8 1,123"	1,122.728	USGS
Lundgren, T. 87 N., R. 29 W., at cor. secs. 11, 12, 13 and 14, 70 feet north by 30 feet west of center of crossroads, in field along fence line, 20 feet north of fence corner, in top of large granite boulder; chiseled square, T.B.M. 1,148.1	1,148.00	USGS
Lundgren, T. 87 N., R. 29 W., cor. secs. 1, 2, 11 and 12, 160 feet south of crossroads, on east side of road in concrete front of schoolhouse 6 feet north of front door, 1.0 foot west of wall and about 1 foot above ground; bronze tablet stamped "Iowa 1919 1,148"	1,147.582	USGS
Lundgren, T. 87 N., R. 29 W., west sixteenth corner south side of sec. 4, at T road north, east side of T road and north side of east and west road, in base of corner fence post, marked "1,151"; spike	1,151.06	USGS
Lundgren, T. 87 N., R. 29 W., cor. secs. 3, 4, 9 and 10, 70 feet SW. of crossroads, 25 feet SW. of cor. of fence in school yard enclosure, in root of 18-inch maple tree, marked "1,156.5"; copper nail and washer.....	1,156.55	USGS
Lundgren, T. 87 N., R. 29 W., cor. secs. 2, 3, 10 and 11, 50 feet SW. of center of crossroads, in base of corner fence post, marked "1,153.4"; spike.....	1,153.49	USGS
Lundgren, T. 87 N., R. 29 W., cor. secs. 1, 2, 11 and 12, 160 feet south of crossroads, on east side of road in concrete front of schoolhouse, 6 feet north of front door, 16 feet west of wall and about 1 foot above ground; bronze tablet stamped "Iowa 1919 1,148".....	1,147.582	USGS
Lundgren, railway crossing at, 20 feet south of crossing, 3		

STATION	ELEVATION FEET	AUTHORITY
feet west of track, in base of power transmission pole, marked "1,142.6"; spike	1,142.65	USGS
Lundgren, T. 87 N., R. 29 W., quarter cor., north side of sec. 1, at road crossing, 50 feet east of railway track, on south side of highway on fence line, in root of large maple tree marked "1,125.2"; copper nail and washer	1,125.24	USGS
Lundgren, T. 88 N., R. 29 W., quarter cor., north side of sec. 36, 30 feet south of railway crossing, 4 feet west of track, in base of power transmission pole, marked "1,117.3"; spike	1,117.36	USGS
Luray	939.2, G936	CGW
Luther	1093, G1095	CM&StP
Luther, 2 miles south of, SW. cor. sec. 6, Garden Tp., at T road; spike in base of telephone pole, marked "1077.70"	1,076.37	Bull. 569
Luther, 1 mile south of, at T road, SW. cor. sec. 31, Colfax Tp.; iron post stamped "1080"	1,078.397	Bull. 569
Luther, at road crossing, NE. cor. sec. 36, Worth Tp.; copper nail in root of maple tree	1,100.75	Bull. 569
Luther, 1 mile north of, at road crossing, SW. cor. sec. 19, Colfax Tp.; spike in base of telephone pole.....	1,097.79	Bull. 569
Luther, 2 miles north of, at road crossing, SE. cor. sec. 13, Worth Tp.; iron post stamped "1106"	1,104.565	Bull. 569
Luther, 2 miles north by 1 mile west of, at road crossing, in sec. 23, Worth Tp.; spike in base of telephone pole....	1,120.11	Bull. 569
Luther, 2 miles north by 3 miles west of, SW. cor. sec. 15, Worth Tp.; iron post stamped "Prim. Trav. Sta. No. 15, 1094"	1,092.664	Bull. 569
Luther, 1.5 miles north by 3 miles west of, at T road, in front of Gildea school, in sec. 22, Worth Tp.; copper nail in root of oak tree on east side of north-south highway	1,089.77	Bull. 569
Luton	1080	CM&StP
Luverne	1167	C&NW
Luverne, crossing M&StL	1156	C&NW
Luverne	1168, G1169	M&StL
Luverne, crossing C&NW	1156, G1156	M&StL
Luxemburg, sec. 21, T. 90 N., R. 2 W., in Catholic churchyard, iron post stamped "1179 DBQ"	1,180.636	Bull. 569
Luzerne	893, G897	C&NW
Lybrand, Allamakee Co., T. 96 N., R. 6 W., SW. cor. schoolhouse yard; iron post stamped "1186 DBQ".....	1,185.654	Bull. 569
Lyle, Minn.	1203	IC
Lyle, Minn., crossing CM&StP	1205	IC
Lyle, Minn., crossing CGW	1208	IC
Lyle, Minn.	1204	CM&StP
Lyle, crossing IC	1201	CM&StP
Lynnville	892	M&StL
Lynnville Junction	922	M&StL
Lyons	592, G589	CM&StP
Lyons, crossing C&NW	592	CM&StP
Lyons	588	C&NW
Lyons, crossing CM&StP	589	C&NW
Lyons, 1 mile above, 30 meters above yard limits of CM&StP Ry, 12 meters west of that railroad company's tracks, on side of bluff near bottom, 1 meter east of fence, 5.5 meters above fence corner, 100 meters below house of Peter Johnson; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 162/3):		
Copper bolt	599.34	Bull. 569
Cap on pipe	603.38	
Lyons, in scattering timber on Fulton Island, 100 meters from river bank, opposite center of Island 279, 200		

LYTTON-MCGREGOR

475

STATION	ELEVATION FEET	AUTHORITY
meters above head of small slough; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 164/2):		
Copper bolt	580.80	Bull. 569
Cap on pipe	584.80	
Lytton	1225,G1220	CM&StP
McCallsburg	1094,G1089	M&StL
McCallsburg, crossing CRI&P	1089	M&StL
McCallsburg	1080	CRI&P
McCallsburg, crossing M&StL	1080	CRI&P
McCausland	610	CRI&P
McClains Park	862.81	DM&CI
McClelland	1239.4,G1245	CGW
McCloy, M.P. 429	1231,G1232	IC
McConville	965	ISU
McCook, S. Dakota	1111	CM&StP
McDanel	974	ISU
McGregor	627,G627	CM&StP
McGregor, 3.2 miles below, 0.5 mile below mouth of Wisconsin river, 1,968 feet below milepost 67 of CM&StP Ry, 45 feet west of center of track, directly opposite lower end of bridge K382, in which t.b.m. 231 is located, in steeply inclined face of hard ledge of rock, marked "U.S.⊙P.B.M."; copper bolt (U.S.C.E.p.b.m. 238).....	635.872	Bull. 569
McGregor, 0.5 mile below mouth of Wisconsin river, on south abutment of bridge K382, on river end of second course of stone from top, 1 foot from northeast corner of stone marked "U□S"; highest point in square (U.S.C.E.t.b.m. 231)	627.561	Bull. 569
McGregor, 1.8 miles below, 275 feet above milepost 66, directly opposite Pictured Rock, on right of way of CM&StP Ry, 35 feet east of center of track; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 236 and 237):		
Copper bolt	627.771	Bull. 569
Cap on pipe	631.774	
McGregor, 1.8 miles below, 55 meters above milepost 66, on bluff side of CM&StP Ry, 15 feet from center, on large prominent boulder, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 230)	632.167	Bull. 569
McGregor, 1.8 miles below, on right of way of CM&StP Ry, 11 meters east of center of track, 84 meters above milepost 66, directly opposite Pictured Rocks; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 196/3):		
Copper bolt	627.78	Bull. 569
Cap on pipe	631.78	
McGregor, in front of CM&StP Ry station; base of rail (U.S.C.E.b.m.)	627.17	Bull. 569
McGregor, SW. from little park in center of town, in west end of brick building owned by Mrs. J. Reynolds, now occupied by Huntington Grain Firm, 23 inches south from N.W. cor. and 4 feet and 10 inches above ground; copper bolt, marked "U.S.⊙P.B.M." (U.S.C.E.p.b.m. 235)	632.804	Bull. 569
McGregor, on north side of Main St., just above Masonic block, in brick building occupied by Elbling Cigar Manufactory, in stone doorsill 2 feet from SW. cor. building, 4.5 inches back from front line; copper bolt marked "U.S.⊙P.B.M." (U.S.C.E.p.b.m. 234).....	631.655	Bull. 569
McGregor, at NW. cor. Main St. and railroad, at sidewalk entrance to Gregor McGregor's residence, on river end		

STATION	ELEVATION FEET	AUTHORITY
of bottom step, on level with sidewalk, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 228).....	628.838	Bull. 569
McGregor, T. 95 N., R. 3 W., SE. ¼ sec. 33, SW. cor. schoolhouse; iron post stamped "1103 DBQ"	1,104.674	Bull. 569
McIntire	1280.2, G1279	CGW
McNally	1330.51	C&NW
McPaul	946, G941	CB&Q
McPaul, 1.3 miles SW. of station, 656 feet north by 26 feet west of SE. cor. SW. ¼ sec. 5, T. 69 N., R. 42 W., on land of William Woods, 3 feet west of hedge on west side of public road; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 330 equals 114/3):		
Copper bolt	931.360	Bull. 569
Cap on pipe	935.352	
McPaul, 4,941 feet north of station, 46 feet south of center of public road, 13 feet south of fence corner, 48 feet east of railway; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 331):		
Copper bolt	936.875	Bull. 569
Cap on pipe	940.890	
McPaul, T. 69 N., R. 43 W., 810 feet north of SW. cor. sec. 5, on east side of north-south road; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 114/2):		
Copper bolt	931.21	Bull. 569
Cap on pipe	935.29	
McPherson	1109	CB&Q
McVeigh	747	CB&Q
Macedonia	1111.6, G1107	CB&Q
Mackey, 2 miles south of, T. 85 N., R. 25 W., SW. cor. sec. 27, NE. cor. crossroads, just east of fence corner; iron post stamped "1009"	1,008.180	Bull. 569
Mackey, 1 mile south of, T. 85 N., R. 25 W., cor. secs. 21, 22, 27 and 28, 20 feet east of center of crossroads, in center of road east; chiseled square cut in top of stone, marked "1025.2"	1,024.12	Bull. 569
Mackey, T. 85 N., R. 25 W., SW. cor. sec. 15, NE. cor. crossroads, at schoolhouse; copper nail in base of tele- phone pole, marked "1004.9"	1,003.87	Bull. 569
Mackey, 1 mile north of, T. 85 N., R. 25 W., SE. cor. sec. 9, NW. cor. crossroads, at fence corner; iron post stamped "978"	976.833	Bull. 569
Mackey, 2 miles north of, T. 85 N., R. 25 W., cor. secs. 3, 4, 9, and 10, 10 feet south of center of crossroads; chiseled square on top of stone, marked "1025.96"	1,024.87	Bull. 569
Mackey, 3 miles north of, T. 86 N., R. 25 W., SE. cor. sec. 33, NW. cor. crossroads, in west end of plank drain under road to north, at mail-box post; copper nail, marked "1028.9"	1,027.75	Bull. 569
Mackey, 4 miles north of, T. 86 N., R. 25 W., NE. cor. sec. 33, SW. cor. crossroads; copper nail in base of telephone pole, marked "1039.2"	1,038.10	Bull. 569
Mackey, 5 miles north of, T. 86 N., R. 25 W., SE. cor. sec. 21, 8 miles west of Randall, NW. cor. crossroads, at fence corner; iron post stamped "1061"	1,060.100	Bull. 569
Mackey, Boone Co., 2 miles south by 1 mile east of, T. 85 N., R. 25 W., SW. cor. sec. 26, NE. cor. crossroads; cop- per nail in base of telephone pole, marked "964.3"	963.25	Bull. 569
Mackey, 2 miles south by 2 miles east of, T. 85 N., R. 25 W., NW. cor. sec. 36, south side of road at T road north,		

	ELEVATION FEET	AUTHORITY
east side of private road south; copper nail in base of telephone pole, marked "978.98".....	977.97	Bull. 569
Mackey, 2 miles south by 3 miles east of, T. 85 N., R. 25 W., SE. cor. sec. 25, on north-south county line between Boone and Story counties, NW. cor. crossroads; copper nail in base of telephone pole, marked "969.1".....	968.09	Bull. 569
Maclay	1365,G1363	CRI&P
Macuta, base of rail opposite station sign.....	533.8,G533	AT&SF
Macy	1162	IC
Madison Junction (Hayfield)	1214	M&StL
Madrid (main line)	1000,G1001	CM&StP
Madrid, Boone line	1021	CM&StP
Madrid, crossing C&CB division	1021	CM&StP
Madrid, 3 miles west of, at road crossing, SE. cor. sec. 28, Cass Tp.; iron post stamped "894".....	892.973	Bull. 569
Madrid, T. 81 N., R. 25 W., NE. cor. sec. 5; spike in telephone pole, marked, "U.S.B.M. 991".....	989.69	Bull. 569
Madrid, T. 81 N., R. 25 W., SE. cor. sec. 5; spike in corner fence post, marked "U.S.B.M. 992".....	991.00	Bull. 569
Madrid, 2 miles east by 3 miles south of, at T road, NE. cor. sec. 17, Madison Tp.; spike in base of fence post....	938.17	Bull. 569
Madrid, 2 miles east by 3.5 miles south of, at road crossing near United Brethren Church, east side of sec. 17, Madison Tp.; spike in root of maple tree.....	975.07	Bull. 569
Madrid, T. 82 N., R. 25 W., south corner between secs. 27 and 28; spike in corner fence post, marked "U.S.B.M. 1010".....	1,008.46	Bull. 569
Madrid, T. 82 N., R. 25 W., SE. cor. sec. 29; iron post stamped "1000".....	998.766	Bull. 569
Madrid, on south end of middle pier of cement railroad bridge about 250 feet east of station; aluminum tablet stamped "997".....	995.769	Bull. 569
Madrid, 1.9 miles north of, on east side of north-south highway; spike in base of telephone pole at T road....	1,042.24	Bull. 569
Madrid, 2.4 miles north of, SW. cor. sec. 18, Garden Tp., at T road; iron post stamped "1033".....	1,031.730	Bull. 569
Madrid, 3.3 miles north of, at SW. cor. sec. 7, Garden Tp., at road crossing; spike in base of telephone pole.....	1,060.45	Bull. 569
Madura, changed to Cranston	660,G663	CM&StP
Magill	1219.0	CGW
Maine	997	ISU
Malcom	889,G892	CRI&P
Mallard	1220	M&StL
Malone	658,G659	C&NW
Maloy	1120.0,G1120	CGW
Malta	1068,G1058	M&StL
Malvern	1045.5,G1047	CB&Q
Malvern, top of rail	996.50	T&N
Malvern	1000	WRR
Malvern, crossing CB&Q	1005	WRR
Malvern	G995	Weather Bur.
Manchester, in front of IC RR station; top of rail	941.9	Bull. 569
Manchester, 150 feet south of stock yards, on west side of IC RR track, south side of street; iron post stamped "949".....	939.802	Bull. 569
Manchester, railroad crossing Maquoketa river.....	G919	USGS
Manchester	941	IC
Manilla	1317,G1320	CM&StP
Manilla, divide 3 miles west of	1465	CM&StP
Manly	1204.1,G1199	CGW
Manly, crossing CRI&P	1205.1,G1199	CGW

ALTITUDES IN IOWA

	ELEVATION FEET	AUTHORITY
Manly	1210,G1202	M&StL
Manly, crossing CRI&P	1211	M&StL
Manly, crossing CGW	1210	M&StL
Manning	1324,G1324	C&NW
Manning	1364	CM&StP
Manning, crossing over C&NW and CGW.....	1360	CM&StP
Manning	1320.2	CGW
Manson	1234,G1232	CRI&P
Manson, crossing IC	1237	CRI&P
Manson	1237,G1233	IC
Manson, crossing CRI&P	1236,G1233	IC
Maple Hill	1285,G1275	CRI&P
Maple Hill, crossing C&NW	1280	CRI&P
Maple River	1265,G1263	C&NW
Mapleton	1113	C&NW
Mapleton	1135,G1138	CM&StP
Mapleton, crossing over C&NW	1134	CM&StP
Maquoketa	701,G691	CM&StP
Maquoketa	G688	Weather Bur.
Maquoketa	687,G684	C&NW
Maquoketa, center Maquoketa Tp.	700	USGS
Maquoketa, center South Fork Tp.	660	USGS
Marathon	1392,G1395	C&NW
Marathon, crossing CM&StP	1392	C&NW
Marathon	1391,G1395	CM&StP
Marathon, crossing C&NW	1393	CM&StP
Marble Rock	1018,G1002	CRI&P
Marcus	1455,G1451	IC
Marengo	735,G738	CRI&P
Marietta	898,G892	M&StL
Marion	841,G848	CM&StP
Marne	1190,G1193	CRI&P
Marne, 75 feet south of track, opposite a point 100 feet west of station, 10 feet south of corner post of P. C. Meredith's yard; iron post	1,184.096	Bull. 569
Marne, in front of CRI&P station, top of rail	1,193.3	Bull. 569
Marne, 3 miles east of, in NW. stone abutment of bridge 444; aluminum tablet (reset in 1906 by railroad engineer)	1,211.1	Bull. 569
Marne, 3 miles east of, on NE. cor. east abutment; chiseled cross	1,210.18	Bull. 569
Marquette (formerly North McGregor)	627,G624	CM&St.P
Marquette, in front of station; base of rail (U.S.C.E.b.m.)	627.74	Bull. 569
Marquette, at upper end of, where bluffs come out to tracks, 0.5 meter east of perpendicular rock cliff and at an elevation about 9 meters higher than railroad tracks, 15 meters above sign "R. R. Crossing Stop 400 feet;" copper bolt in solid rock surmounted by iron pipe (U.S. C.E.b.m. 197/3):		
Copper bolt	664.02	Bull. 569
Cap on pipe	666.75	
Marquette, on north side of North St., in O. A. Bratsberg's brick store, in water table 1 foot east of entrance, marked "U.S.⊙P.B.M."; copper bolt (U.S.C.E.p.b.m. 233)	631.292	Bull. 569
Marquette, 131 feet below station, 8 feet east of SE. cor. small wagon road and footbridge, 6 feet below floor on river end of south abutment; highest point in square, marked "U□S" (U.S.C.E.t.b.m. 227)	620.727	Bull. 569
Marquette, 2 miles west of, at top of Hatch Hill, on south		

MARQUETTE-MASSEY

479

STATION	ELEVATION FEET	AUTHORITY
side of road, in NW. cor. yard of J. K. Gray; iron post stamped "1096 DBQ"	1,096.904	Bull. 569
Marquette, Mississippi river, low water.....	G604	Miss. Riv. Com.
Marquette, Mississippi river, high water.....	G626	Miss. Riv. Com.
Marquette	G626	Weather Bur.
Marsh, Black Hawk Co.	963	IC
Marsh, Louisa Co.	744,G737	M&StL
Marshalltown	889,G883	M&StL
Marshalltown, crossing C&NW and CGW.....	897,G891	M&StL
Marshalltown	884	C&NW
Marshalltown, crossing M&StL and CGW.....	893	C&NW
Marshalltown	897.8,G899	CGW
Marshalltown, crossing C&NW and M&StL.....	876.1,G890	CGW
Marshalltown, crossing Timber creek east of.....	861	C&NW
Marshalltown, crossing Timber creek east of.....	877	M&StL
Martelle	906,G908	CM&StP
Martensdale	824	CRI&P
Martensdale, crossing under CGW	830	CRI&P
Martensdale, crossing CRI&P	833.2	CB&Q
Martensdale	866.6	CGW
Martensdale, Middle river at CB&Q bridge at.....	816	IaGS
Martins	630	CRI&P
Martinsburg	821,G814	M&StL
Martinsburg	805	CB&Q
Marysville, Marion Co., bridge at	760.5	IaGS
Mason City	1125	M&StL
Mason City	1121.1,G1120	CGW
Mason City, crossing C&NW.....	1135.7,G1124	CGW
Mason City, crossing CM&StP	G1146	CGW
Mason City	1120	C&NW
Mason City, crossing CM&StP	1141	C&NW
Mason City, crossing M&StL	1181	C&NW
Mason City	1125,G1126	CM&StP
Mason City, junction with Ia.&Minn. Div.....	1129	CM&StP
Mason City, crossing CGW	1142	CM&StP
Mason City	G1130	Weather Bur.
Mason City Junction, crossing M&StL.....	1128,G1131	CM&StP
Mason City Junction, crossing CM&StP	1134	M&StL
Masonville	1002,G1004	IC
Massena	1212.64,G1211	CB&Q
Massena, crest of hill north of.....	1306	IaGS
Massena, SW. cor. sec. 31, T. 74 N., R. 34 W.....	1206	IaGS
Massena, center of Massena Tp.	1316	IaGS
Massena, level Nodaway river south of station.....	1183	IaGS
Massena, crest of ridge one mile south of.....	1306	IaGS
Massey	621	CM&StP
Massey, about 3 miles below, on right of way of CM&StP Ry, 0.5 meter from fence, opposite a point about 10 meters below a post on roadbed marked "34-127," 400 meters below railroad bridge 74K; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 177/3):		
Copper bolt	623.20	Bull. 569
Cap on pipe	627.18	
Massey, 1 mile below foot of Ninemile Island, on south abutment of bridge 76, west end, on second course of stone from ton, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 311)	611.551	Bull. 569
Massey, opposite foot of Ninemile Island, at wood yard, 20 feet below road leading from wood yard across CM&StP Ry track up bluff, 36 feet east from center of track and 2 feet west of east right-of-way fence; copper bolt		

STATION	ELEVATION	AUTHORITY
	FEET	
in tile surmounted by iron pipe (U.S.C.E.p.b.m. 288 and 289):		
Copper bolt	603.772	Bull. 569
Cap on pipe	607.771	
Massey station, 1.4 miles below, on south abutment of CM&StP Ry bridge 78K, west end, on second course of stone from top, on SW. cor., marked "U□S"; highest point in square (U.S.C.E.t.b.m. 308).....	607.082	Bull. 569
Massey, behind Ninemile Island, 0.5 mile below Massey station, 1,970 feet below milepost 124-37, 449 feet above CM&StP Ry bridge 80K, 170 feet below bridge 82K, 30 feet west of center of track, spike in base of black-oak tree (U.S.C.E.t.b.m. 307).....	609.690	Bull. 569
Massey, 50 meters below railroad station, on right of way CM&StP Ry, 50 meters toward river from foot of bluffs, 0.5 meter from farthest fence from river; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 178/3):		
Copper bolt	619.67	Bull. 569
Cap on pipe	623.62	
Massillon	733,G720	CM&StP
Matlock	1395,G1395	IC
Maurice	1307,G1308	C&NW
Maurice, crossing GN	1292	C&NW
Maurice	1303	GN
Maurice, crossing over C&NW	1313	GN
Maurice, C&NW track	1289	GN
Maurice, 3 miles east of	1395	IaGS
Max	1555,G1561	CM&StP
Maxon	947	M&StL
Maxon, crossing CB&Q	949	M&StL
Maxon	941.5,G944	CB&Q
Maxon, 220 feet NE. of water tank, at road crossing CB&Q RR, 20 feet south of tracks, in top on NE. cor. concrete retaining wall to culvert over switch cables; chiseled square, painted "U.S.B.M. 945.3".....	945.12	USGS
Maxon, road crossing M&StL RR near above location, top of north rail	933.2	USGS
Maxon	G944	Weather Bur.
Maxwell	885,G874	CM&StP
Maynard	1099	CRI&P
Maynard, T. 92 N., R. 8 W., NE. cor. sec. 21; in school yard; iron post stamped "1168"	1,168.916	Bull. 569
Maynard, NE. cor. sec. 21, T. 92 N., R. 9 W.; iron post stamped "1164 DBQ"	1,165.162	Bull. 569
Maynard, 120 feet south of CRI&P Ry station, at crossing; top of rail	1,102.4	Bull. 569
Maynard, 5 miles east of, center Smithfield Tp.....	1168	IaGS
Meadows	1009	ISU
Mechanicsville	896,G895	C&NW
Mechanicsville	G899	Weather Bur.
Mederville	735,G733	CM&StP
Mederville, SW. ¼ sec. 22, T. 92 N., R. 5 W., SW. cor. schoolhouse yard; iron post stamped "767 DBQ".....	768.000	Bull 569
Mediapolis, union station with CB&Q	774	CRI&P
Mediapolis, junction with CRI&P	772	CB&Q
Meigs, M.P. 182	530	CB&Q
Melbourne	1045.0,G1041	CGW
Melbourne, crossing M&StL	1052.0	CGW
Melbourne, crossing over CM&StP	1058.6	CGW
Melbourne	1031	CM&StP
Melbourne, crossing under CGW.....	1032	CM&StP
Melcher	948	CRI&P

STATION	ELEVATION FEET	AUTHORITY
Melcher, T. 74 N., R. 21 W., at SE. cor. sec. 6, at NW. cor. T road west, on top of north end of corrugated iron drain; painted square	850.22	Bull. 569
Melcher, T. 74 N., R. 21 W., near SW. cor. sec. 8, 200 feet NW. of road forks, at west end of steel highway bridge over Whitebreast creek, top course, north end of sandstone abutment; bottom of chiseled square	801.43	Bull. 569
Melcher, Whitebreast creek, surface of water, July 1, 1913	781.8	Bull. 569
Melcher, T. 74 N., R. 21 W., at NW. cor. sec. 16, opposite T road west, 20 feet east by 2 feet south of section corner stone; iron post stamped "Iowa, 947, 1913"	946.588	Bull. 569
Melcher, T. 74 N., R. 21 W., at quarter corner on west side of sec. 9, at center of T road east, on east side in root of 36-inch cottonwood tree; copper nail	894.00	Bull. 569
Melcher, T. 74 N., R. 21 W., at quarter corner on east side of sec. 9, at summit of hill, 25 feet NW. of quarter corner stone, 2 feet west of fence corner, in top of wooden peg; copper nail	918.99	Bull. 569
Melcher, 1.3 miles west of, T. 74 N., R. 21 W., about 0.25 mile east of SW. cor. sec. 3, 35 feet NW. of road intersection, in peg at foot of 20-inch oak tree; copper nail....	921.28	Bull. 569
Melcher, T. 74 N., R. 21 W., near quarter corner on east side of sec. 17, at NW. cor. T road north, in crotch near base of corner post; copper nail.....	956.95	Bull. 569
Melcher, T. 74 N., R. 21 W., near quarter corner on east side of sec. 16, in SW. cor. T road south, 15 feet west of center of triangular grass plat, 10 feet NW. of mail box, in top of wooden peg; copper nail	852.77	Bull. 569
Melcher, T. 74 N., R. 21 W., about 0.25 mile south of quarter corner on west side of sec. 22, at angle in road to west, in top of wooden peg, at SW. cor. yard; copper nail	985.13	Bull. 569
Melcher, T. 74 N., R. 20 W., 0.25 mile west of the SE. cor. sec. 30, in NW. angle crossroads, 8 feet north of corner post; iron post stamped "Iowa 887, 1913"	887.445	Bull. 569
Melcher, T. 74 N., R. 20 W., 0.25 mile east of quarter corner on north side of sec. 30, at elbow road (north to east) 1 foot east of corner post on inside of turn, in top of wooden peg; copper nail	898.27	Bull. 569
Melcher, T. 74 N., R. 20 W., at quarter corner on east side sec. 19, in NW. angle of T road west, 5 feet north of corner post, in top of peg; copper nail	922.70	Bull. 569
Melcher, T. 74 N., R. 20 W., at quarter corner on east side sec. 18, at NW. angle of crossroads, SE. cor. yard, in root of 18-inch maple tree; copper nail	924.56	Bull. 569
Melcher, T. 74 N., R. 20 W., in SE. cor. sec. 7, opposite T road east, on west side of north-south road, 15 feet north of fence corner; iron post stamped "Iowa 869, 1913"	869.649	Bull. 569
Melcher, T. 74 N., R. 20 W., at NW. cor. sec. 16, in SE. angle of T road south, 20 inches east of corner post, in top of peg; copper nail	906.34	Bull. 569
Melcher, T. 74 N., R. 20 W., at quarter corner on south side of sec. 9, at T road north, 20 feet north of road junction, in SE. cor. bridge floor; copper nail.....	807.17	Bull. 569
Melcher, T. 74 N., R. 20 W., at quarter corner on north side of sec. 9, in SW. angle of crossroads, south end of plank drain, in top of; copper nail	869.37	Bull. 569
Melcher, T. 74 N., R. 20 W., at quarter corner on north side of sec. 4, in SW. angle of T road south, 1 foot east of corner post, in top of wooden peg; copper nail.....	881.16	Bull. 569
Melcher, T. 74 N., R. 20 W., 0.25 mile east of NW. cor. sec.		

STATION	ELEVATION FEET	AUTHORITY
4, 20 feet south and 15 feet west of junction of T road north, 3 feet north of fence; iron post stamped "901 Iowa"	900.001	Bull. 569
Melcher, T. 75 N., R. 21 W., 0.25 mile north of SW. cor. sec. 23, at T road on east side of north and south road, 35 feet east of fence, 10 feet north of north fence on east-west road; iron post stamped "912 Iowa"	910.688	Bull. 569
Melcher, T. 75 N., R. 20 W., 0.25 mile east of SW. cor. sec. 33, 20 feet south and 15 feet west of junction of T road north and east and west road; 3 feet north of fence; iron post stamped "901 Iowa"	900.001	Bull. 569
Melcher, T. 75 N., R. 21 W., 0.25 mile west of SE. cor. sec. 35, 18 feet east and 10 feet south of center of crossroads, near corner fence post at SE. angle T road, in stone; aluminum tablet stamped "Prim. Trav. Sta. No. 4, 927, Iowa"	925.789	Bull. 569
Melcher, west side of Dallas, stone at corporation limits, in center of road; painted "919.8" on fence.....	919.72	Bull. 569
Melcher, at west side of Dallas, 200 feet NW. of highway bridge over CRI&P Ry, at SW. cor. main east-west street with T road north, in root of 10-inch maple tree; copper nail	946.32	Bull. 569
Melrose	870,G871	CB&Q
Melrose, T. 72 N., R. 20 W., in NW. cor. sec. 36, in SE. angle of crossroads, 250 feet west of schoolhouse, on tail wall of concrete drain; bottom of chiseled square....	999.80	Bull.569
Melrose, T. 72 N., R. 20 W., 0.25 mile east of quarter corner on north side of sec. 36, in SW. angle of crossroads, north of La Grange Church, 5 feet west of fence corner; iron post stamped "Iowa 1012, 1913"	1,012.489	Bull.569
Melrose, T. 72 N., R. 19 W., near NE. cor. sec. 31, on south side of road, at crest of hill, on east side of drive leading into S. L. Auxier's residence, on concrete block at gate; painted square	1,003.95	Bull.569
Melrose, T. 72 N., R. 19 W., at quarter corner between secs. 29 and 32, at T road north, in front of Wayne School, on section stone; chiseled circle	1,010.28	Bull.569
Melrose, 1.5 miles north of, T. 72 N., R. 19 W., at quarter corner on south side of sec. 28, in NW. angle of T road north, 5 feet north of corner post; iron post stamped "Iowa 994, 1913"	994.370	Bull.569
Melrose, T. 72 N., R. 19 W., at center of sec. 21, in NW. angle of crossroads, 12 feet north of corner post, in top of wooden peg; copper nail	981.80	Bull.569
Meltonville	1202.9,G1196	CGW
Melvin	1585,G1581	CRI&P
Mendota, Mo.	881.6,G883	CB&Q
Menlo	1261,G1264	CRI&P
Menlo, 1.5 miles west of, in NW. abutment of bridge 385 (bridge over wagon road); aluminum tablet.....	1,279.018	Bull. 569
Menlo, in front of CRI&P Ry station; top of rail	1,265.2	Bull. 569
Menlo, 30 feet south of track, opposite point 300 feet east of station, 75 feet east of road crossing; iron post.....	1,263.893	Bull. 569
Menlo, SW. ¼ sec. 1, T. 76 N., R. 31 W.....	1098	IaGS
Meriden	1404,G1402	IC
Merle Junction, Creston branch	1154.6	CB&Q
Merle Junction, Shenandoah line	1169	CB&Q
Merrill	1177.9	C&NW
Merrill, union station with CStPM&O	1177,G1174	IC
Merrill, crossing C&NW	G1174	IC
Merrill	1177	GN
Mertensville	702	CB&Q

STATION	ELEVATION FEET	AUTHORITY
Mertensville, crossing under CB&Q, Mt. Pleasant line.....	681	CB&Q
Meservey	1256.3,G1255	CGW
Meservey, 1 mile south of, Franklin-Cerro Gordo Co. line.....	1256	CGW
Metz	787,G790	CRI&P
Miami, Tps. 73 and 74 N., Rs. 17 and 18 W., Tp. cor. in SE. angle of T road south, 20 feet south by 1 foot west of corner of yard fence to farmhouse, in top of concrete post; bronze tablet stamped "E.B. No. 7 1924 Iowa" painted "U.S.P.B.M. 914.9"	914.796	USGS
Miami, reference mark, 65 feet north by 85 feet east of tablet, in root on SE. side of a 5-foot cottonwood tree; copper nail and washer	914.78	USGS
Miami	778.35	C&NW
Middle Amana	717	CM&StP
Middle Amana, crossing under CRI&P	746	CM&StP
Middletown	724,G724	CB&Q
Midland, Lyon Co.	1435	CRI&P
Midland Junction, Clinton Co.....	595,G593	CM&StP
Mid River, top of rail on south line sec. 22, Tp. 81, R. 7, 1100 feet east of SW. cor. sec. 22	706.50	CR&IC
Mid River, top of rail on south line sec. 27, Tp. 81, R. 7, 550 feet west of SE. cor. sec. 27.....	725.30	CR&IC
Midvale	996	FtDDM&S
Midvale, T. 82 N., R. 24 W., 0.25 mile north of center of sec. 2, road to east; spike in telephone pole; marked "U.S.B.M. 977"	976.11	Bull. 569
Midvale, T. 82 N., R. 24 W., SW. cor. SE. ¼ sec. 2; iron post stamped "979"	977.405	Bull. 569
Midvale, T. 82 N., R. 24 W., NW. cor. of NE. ¼ sec. 14; spike in telephone pole, marked "U.S.B.M. 1001".....	1,000.12	Bull. 569
Midway	683,G681	CRI&P
Miles	780,G780	CM&StP
Milford	1439,G1441	CM&StP
Miller, Hancock Co.....	1225	CRI&P
Miller, Polk Co.	873.55	DM&CI
Milleray, Dubuque Co., T. 87 N., R. 1 E., SE. ¼ sec. 11, NE. cor. frame building at junction of roads going south (formerly Melleray post office, commonly called the "Corners"); iron post stamped "1065"	1,065.583	Bull. 569
Millerton	1074	CRI&P
Millman	834.4	CGW
Millman	G830	Weather Bur.
Mill Rock, Jackson Co.	715	USGS
Millville	640,G639	CM&StP
Millville, NW. cor. sec. 15, T. 91 N., R. 2 W.; iron post stamped "638"	639.310	Bull. 569
Millville, T. 91 N., R. 3 W., near center of sec. 13, 100 feet east of junction of roads; iron post stamped "897"	898.170	Bull. 569
Milo	973,G972	CB&Q
Milo, T. 74 N., R. 23 W., NW. cor. sec. 1, SW. angle of crossroads; in limestone rock 8 by 8 by 33 inches, set 32 inches in ground; aluminum tablet stamped "977 Adj"	976.674	Bull. 569
Milo, T. 74 N., R. 23 W., SW. cor. sec. 1, in NE. cor. crossroads, at Greenplain School, west side of concrete walk, top of south end, date 1911; mark on raised part of upper loop of figure "9"	990.90	Bull. 569
Milo, T. 74 N., Rs. 22 and 23 W., at cor. secs. 6, 7, 1 and 12, in center of crossroads, 3.5 miles south of Milo, in section stone; highest point of square cut.....	948.83	Bull. 569
Milo, T. 74 N., R. 22 W., SE. cor. sec. 6, in NW. cor.		

STATION	ELEVATION FEET	AUTHORITY
crossroads, 3 feet east of corner post; iron post stamped "Iowa 880, 1913"	880.465	Bull. 569
Milo, 1.75 miles west of, T. 75 N., R. 23 W., west of center of sec. 23, at SW. cor. crossroads, 10 feet south of corner post, in limestone rock, 6 by 8 by 30 inches, set 29 inches in ground; aluminum tablet stamped "896 Adj"	894.377	Bull. 569
Milo, T. 75 N., R. 23 W., about 0.25 mile east of NW. cor. sec. 26, opposite T road west, 2 feet south of telephone pole, in top of wooden peg; copper nail.....	921.55	Bull. 569
Milo, T. 75 N. R. 23 W., about 0.25 mile east of the SW. cor. sec. 26, at NW. cor. crossroads, 12 feet north of corner post, in root of 12-inch locust tree; copper nail....	908.92	Bull. 569
Milo, T. 75 N., R. 23 W., sec. 10, 0.25 mile west of NE. cor., 4 feet west of corner post, at SW. angle of road forks, limestone rock 8 by 9 by 32 inches; aluminum tablet stamped "958 Adj"	957.178	Bull. 569
Milo, South river at CB&Q bridge south of	775	IaGS
Milton	804,G803	CB&Q
Minburn	1052,G1046	M&StL
Minden	1178.2,G1185	CGW
Minden, crossing CRI&P	1177.8,G1191	CGW
Minden	1193	CRI&P
Minden, 100 feet south of CRI&P Ry track, opposite a point 120 feet west of station, 6 feet south of wagon road; iron post	1,187.345	Bull. 569
Minden, in front of CRI&P Ry station; top of rail	1,196.8	Bull. 569
Minden, 0.25 mile east of, in SW. concrete abutment of CRI&P Ry bridge crossing the CGW Ry track, 2 feet from outer corner of abutment; aluminum tablet.....	1,201.385	Bull. 569
Mineola	1028	WRR
Mineola	1036	IaGS
Mineral Ridge, Boone Co., 0.5 mile north by 2.2 miles east of, T. 85 N., R. 26 W., NE. cor. sec. 16, SW. corner of crossroads; copper nail in base of telephone pole, marked "1163.0"	1,162.02	Bull. 569
Mineral Ridge, T. 85 N., R. 26 W., NE. cor. sec. 9, SW. cor. crossroads, 7 feet south of SW. fence corner; iron post stamped "1138"	1,136.704	Bull. 569
Mineral Ridge, T. 86 N., R. 26 W., SW. cor. sec. 34, on county line between Webster and Boone counties, NE. cor. crossroads; copper nail in base of corner fence post, marked "1106.4"	1,105.38	Bull. 569
Mineral Ridge (the village)	1200	USGS
Mineral Ridge (the hill) 1 mile north by 1 mile east of the village	1240	USGS
Minerva	919,G916	M&StL
Minerva Junction	890,G883	M&StL
Mingo	826.5,G823	CGW
Mississippi Park	607.00	CD&M
Missouri Valley	1005,G1006	C&NW
Missouri Valley, 2.2 miles south of, 300 feet south of south end of bridge 978, 90 feet south of milepost 20, 46 feet east of tracks; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 357):		
Copper bolt	994.995	Bull. 569
Cap on pipe	999.007	
Missouri Valley, at NW. cor. Second and Erie Sts., in SE. cor. Kreder's billiard hall, 7½ inches west of east face of building and 1.23 feet above sidewalk; copper bolt (U.S.C.E.p.b.m. 358)	1,006.448	Bull. 569
Missouri Valley, 3 miles west of, 335 feet east of east end of railway bridge 4, 886 feet west of milepost 3, 47 feet		

MITCHELL-MONDAMIN

485

STATION	ELEVATION FEET	AUTHORITY
north of C&NW track; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 359):		
Copper bolt	1,001.635	Bull. 569
Cap on pipe	1,005.654	
Mitchell	1195	IC
Mitchellville	965,9967	CRI&P
Mitchellville	969.26	DM&CI
Modale	1015,61016	C&NW
Modale, 0.8 mile south of, 195 feet north of railway bridge 10, 46 feet east of railway; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 362):		
Copper bolt	1,008.745	Bull. 569
Cap on pipe	1,012.737	
Modale, 1 mile north of, 2,320 feet north of milepost 11, 60 feet south of highway crossing, 46 feet east of tracks; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 363):		
Copper bolt	1,010.123	Bull. 569
Cap on pipe	1,014.132	
Modale, T. 79 N., R. 45 W., 150 feet west of one-quarter post between secs. 22 and 27, between Soldier River and Horse Shoe Lake, on north side of east-west road; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 128/3):		
Copper bolt	1,012.83	Bull. 569
Cap on pipe	1,016.90	
Moingona	906,6905	C&NW
Moingona, 2 miles SE. of, near center sec. 17, Marcy Tp., west abutment of Sixteen to One Bridge over Des Moines river	872.80	Bull. 569
Moingona, 1.5 miles south of, at Y road, SE. cor. sec. 13, Marcy Tp.; iron post stamped "1060"	1,058.725	Bull. 569
Moingona, 1.5 miles south by 1.2 miles west of, at T road, south center SE. ¼ sec. 14, Marcy Tp.; spike in base of telephone pole	1,080.18	Bull. 569
Moingona, T. 83 N., R. 27 W., SW. cor. sec. 10, on north side of road at T road south, foot of corner fence post, west side of gate; chiseled square on concrete foundation, marked "1089.6"	1,088.74	Bull. 569
Moingona, T. 83 N., R. 27 W., NW. cor. sec. 22, SE. cor. crossroads, NW. cor. schoolhouse yard, inside fence corner; iron post stamped "Prim. Trav. Sta. No. 14, 1093"	1,092.280	Bull. 569
Mona, Mitchell Co.	1174,61172	IC
Mona Siding, East switch, Black Hawk Co.	869	IC
Mondamin	1025,61025	C&NW
Mondamin, 2 miles south of, 7 feet west of west right of way fence, 54 feet west of tracks; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 364):		
Copper bolt	1,013.797	Bull. 569
Cap on pipe	1,017.813	
Mondamin, 246 feet east of tracks, in center of sandstone block in SW. cor. brick building occupied by D. Ganet & Co. 0.71 foot from west wall of building; copper bolt (U.S.C.E.p.b.m. 365)	1,025.041	Bull. 569
Mondamin, 2,238 feet north of station, 889 feet south of public-road crossing, 33 feet south of milepost 17, 46 feet east of railway; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 366):		
Copper bolt	1,022.003	Bull. 569
Cap on pipe	1,026.005	
Mondamin, 2.2 miles north of, 246 feet north of public-		

STATION	ELEVATION FEET	AUTHORITY
road crossing, 299 feet north of dwelling of Joseph Krummel, 105 feet east of tracks, in corner of field; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 367 equals 130/2):		
Copper bolt	1,020.506	Bull. 569
Cap on pipe	1,024.499	
Mondamin, T. 79 N., R. 45 W., on west side of section-line road between secs. 3 and 4, 1,208 feet south of NE. cor. sec. 4, on land owned by John Harrington, 2 miles from river; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 129/3):		
Copper bolt	1,013.67	Bull. 569
Cap on pipe	1,017.74	
Moneta	1452,G1447	CRI&P
Moningers	898,G896	M&StL
Monmouth	764,G761	C&NW
Monmouth, center Monmouth Tp.....	712	USGS
Monona, in front of CM&StP Ry station; top of rail.....	1,215.6	Bull. 569
Monona, T. 95 N., R. 5 W., 0.2 mile north of center sec. 10, 60 feet north of railroad track, SE. of Walsh's house; iron post stamped "1184 DBQ"	1,185.584	Bull. 569
Monona	G1216	USGS
Monroe, B.M. top of monument M.P. 329.....	906.76	CRI&P
Monroe, B.M. top of monument M.P. 330.....	913.63	CRI&P
Monroe, B.M. top of monument M.P. 331.....	906.92	CRI&P
Monroe, top of rail, center of depot.....	921.4,G922	CRI&P
Monroe, B.M. top of monument M.P. 332.....	913.11	CRI&P
Monroe, B.M. top of monument M.P. 333.....	907.35	CRI&P
Montieth	1037,G1037	CRI&P
Montezuma	948,G958	CRI&P
Montezuma	969	M&StL
Montgomery	1451	CM&StP
Monticello	840,G839	CRI&P
Monticello, south end of railroad bridge over Maquoketa river	G823	USGS
Monticello, same as above	818	CM&StP
Monticello, highway crossing	G843	USGS
Montour	853,G850	C&NW
Montpelier	560,G566	CRI&P
Montpelier, union station with CRI&P.....	560	CM&StP
Montpelier, 2 miles north of, on middle pier of bridge over Pine creek, on line of CRI&P Ry, in north end of pier of bridge 60; brass bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 34)	554.605	Bull. 569
Montpelier, 1 kilometer south of, on south pier of CRI&P RR bridge 52, in west end of pier; brass bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 35)	564.812	Bull. 569
Montpelier, 0.5 mile east of station, on west abutment of CRI&P RR bridge 45, in south end of abutment; brass bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 35a).....	557.309	Bull. 569
Montpelier, on bench about 0.25 mile above slough between islands 324 and 325, on cleared grassy spot at edge of timber, 91 meters back of wagon road, 100 meters back of Andalusia slough; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 145/2):		
Copper bolt	627.39	Bull. 569
Cap on pipe	631.42	
Montpelier, on street running north from station, opposite and in line with south side of schoolhouse, 0.5 meter east of wire fence on west side of street; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 145/3):		
Copper bolt	600.91	Bull. 569

MONTPELIER-MONTROSE

487

STATION	ELEVATION	AUTHORITY
	FEET	
Cap on pipe	604.94	
Montpelier, on street running north from station, opposite and in line with south side of schoolhouse, 0.5 meter east of wire fence on west side of street; iron post stamped "Mississippi River Commission 1892," surmounting U. S. Corps of Engineers b.m. 145/3. (The cap on this pipe is quite loose, varying from 0.01 to 0.02 foot in elevation)	604.94	Bull. 569
Montpelier, 1.25 miles north of, T. 77 N. R. 1 E., near NW. cor. sec. 13, west side of road, south side of drain, on top of fence post (about on level with roadbed); copper nail marked "702.94"	702.95	Bull. 569
Montpelier, T. 77 N., R. 1 E., about middle of west line of NW. ¼ sec. 12, SE. cor. T road south, 2.5 feet above center of road, 6 feet east of corner fence post; copper nail about middle of brace post, marked "762.20"	762.23	Bull. 569
Montpelier, T. 77 N., R. 1 E., center of north half of sec. 11; T road north, marked "733"	733	Bull. 569
Montpelier, T. 77 N., R. 1 E., about center of W. ½ NW. ¼ sec. 11, in SE. cor. T road south, 3 feet south of fence post, 15 feet east of fence line; iron post stamped "696"	695.922	Bull. 569
Montpelier, T. 77 N., R. 1 E., about center of N. ½ sec. 10, on south side of road opposite drive to residence of O. A. Bohnsack, in base of brace post; copper nail	659.40	Bull. 569
Montpelier, T. 77 N., R. 1 E., near north line of sec. 9; T road east, marked "629.9"	630	Bull. 569
Montpelier, T. 77 N., R. 1 E., about middle of north line of NE. ¼ sec. 9, SE. cor. bridge over branch of Pine creek, 150 feet west of north-south road, 1 foot north of east end of south truss; copper nail in floor, marked "633.10"	633.16	Bull. 569
Montrose	531.5	CB&Q
Montrose, Mississippi river, low water	G500	Miss. Riv. Com.
Montrose, in upper foundation stone of brick store building on south corner of Main and Cedar Sts., on east side, 3 feet from north corner; copper bolt, marked "U.S.P. B.M." (U.S.C.E.p.b.m. 3)	530.432	Bull. 569
Montrose, just above, 125 meters below mouth of Jack creek, 110 meters above upper warehouse in Montrose and 15 meters from river bank, in root of 30-inch tree in willow grove; spike (U.S.C.E. "61 Mackenzie") marked by circular iron plate spiked in tree	507.33	Bull. 569
Montrose, on east side of first warehouse above station, near center of building, marked with black paint; high-water marks (U.S.C.E. high-water marks of 1851, 1888, 1881, 1880):		
1851	514.65	Bull. 569
1888	513.09	
1881	512.25	
1880	511.40	
Montrose, opposite Nauvoo, Ill., on right bank of river, 11 meters from bank, in cluster of large soft maple trees, at mouth of Excelsior slough; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 115/3):		
Copper bolt	505.29	Bull. 569
Cap on pipe	509.30	
Montrose, 1.5 miles above, on sand ridge on west side of wagon road, 10 feet inside of fence, 300 meters below milepost 30, 300 meters above small shanty near corner of hedge fence; copper bolt in tile surmounted by iron		

STATION	ELEVATION FEET	AUTHORITY
pipe (U.S.C.E.b.m. 115/4 equals \odot Sand Ridge):		
Cap on pipe	546.88	Bull. 569
Montrose, Devils Island, 22 meters from bank of river, midway between shore and small slough running parallel with shore; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 116/3):		
Copper bolt	506.90	Bull. 569
Cap on pipe	510.90	
Montrose, Devils Island, 740 meters back of previous bench mark, on small ridge between pond and overflowed ground back; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 116/4):		
Copper bolt	507.59	Bull. 569
Cap on pipe	511.59	
Montrose, Bluff Park	518	CB&Q
Mooar	667,G666	CB&Q
Mooar	G654	Weather Bur.
Moore	791,G784	M&StL
Moorhead	1102	C&NW
Moorland	1146.7,G1152	CGW
Moorland, crossing M&StL	1147.0,G1152	CGW
Moorland,	1151	M&StL
Moorland, T. 88 N., R. 29 W., cor. secs. 20, 21, 28 and 29, 50 feet NW. of center of crossroads, in root of 18-inch maple tree, marked "1,143.9"; copper nail and washer	1,143.94	USGS
Moorland, T. 88 N., R. 29 W., cor. secs. 16, 17, 20 and 21, 60 feet NW. of center of crossroads, in base of corner fence post; marked "1,138.2"; spike	1,138.14	USGS
Moorland, T. 88 N., R. 29 W., cor. secs. 8, 9, 16 and 17, at T road south, 50 feet SE. of road fork, 6 feet east of fence corner, 2.5 feet north of fence line; iron post stamped "Iowa 1919 1,130"	1,129.955	USGS
Moorland, T. 88 N., R. 29 W., cor. secs. 9, 10, 15 and 16, T road west, 50 feet north of T road corners, in SE. cor. of bridge over drainage ditch, marked "1,116.6"; cop- per nail and washer	1,116.61	USGS
Moorland, T. 88 N., R. 29 W., cor. secs. 3, 4, 9 and 10, 100 feet NW. of center of crossroads, in root of 2.5 foot cot- ton wood tree; marked "1,129"; copper nail and washer	1,128.92	USGS
Moran	926.04	DM&CI
Moran, 2.5 miles south by 1 mile east of, at Y road, SE. cor. sec. 32, Des Moines Tp.; iron post stamped "878"	876.688	Bull. 569
Moran, 2.5 miles south of, at road crossing, SW. cor. sec. 32, Des Moines Tp.; spike in base of fence post.....	928.33	Bull. 569
Moravia	1009	ISU
Moravia	997,G1001	CM&StP
Moravia	999	WRR
Moravia, crossing CM&StP	995	WRR
Morgan Valley	750	WRR
Morgan Valley, see Bennington		
Morley	799,G800	CM&StP
Morningside	1234	CM&StP
Morning Sun	758,G752	M&StL
Morning Sun, crossing CRI&P	755,G748	M&StL
Morning Sun	741,G745	CRI&P
Morning Sun, crossing M&StL	748	CRI&P
Morning Sun, divide 2 miles west of.....	843	M&StL
Morrison	953,G947	CRI&P
Morse	760,G763	CRI&P
Moscow	647,G654	CRI&P
Motor, Warren Co., 1 mile west of, T. 75 N., R. 22 W., SE. cor. sec. 3, NW. angle of crossroads, sandstone rock 8 by		

STATION	ELEVATION FEET	AUTHORITY
10 by 24 inches, set 23 inches in ground; aluminum tablet stamped "943 Adj"	941.926	Bull. 569
Moulton	991	WRR
Moulton, crossing CB&Q	991	WRR
Moulton	990,G987	CB&Q
Moulton, crossing Wabash	976,G984	CB&Q
Moulton Junction	988	WRR
Mount Auburn	871,G863	CRI&P
Mount Ayr	1217,G1232	CB&Q
Mount Ayr	G1236	Weather Bur.
Mount Clara	684,G683	CB&Q
Mount Etna, Adams Co.	1090	IaGS
Mount Joy	749,G739	CM&StP
Mount Pleasant, Keokuk line	723,G719	CB&Q
Mount Pleasant, main line	725	CB&Q
Mount Pleasant	G729	Weather Bur.
Mount Sterling	655.7,G655	CB&Q
Mount Union	727,G720	CB&Q
Mount Vernon	843,G843	C&NW
Mount Vernon	G847	Weather Bur.
Mount Vernon, top of rail on east line sec. 7, Tp. 82, R. 5, 30 feet north of NE. cor. of SE. $\frac{1}{4}$ of NE. $\frac{1}{4}$ sec. 7....	803.41	CR&IC
Mount Vernon, top of rail on east line sec. 8, Tp. 82, R. 5, at NE. cor. of SE. $\frac{1}{4}$ of NE. $\frac{1}{4}$ sec. 8.....	827.91	CR&IC
Mount Vernon, bench mark, mark on cement sidewalk at SE. cor. street intersection at west end of paving in Mount Vernon	867.32	CR&IC
Mount Vernon, paha at	932	IaGS
Mount Zion, B.M. top of monument M.P. 44	610.71	CRI&P
Mount Zion, B.M. top of monument M.P. 45.....	661.44	CRI&P
Mount Zion, top of rail, center of depot	696.2	CRI&P
Mount Zion, B.M. SW. cor. south tank pedestal; jet. Keo- sauqua branch	696.16	CRI&P
Mount Zion, B.M. top of monument M.P. 47.....	630.70	CRI&P
Mount Zion, B.M. top of monument M.P. 1, Keosauqua branch	719.96	CRI&P
Mount Zion, B.M. top of monument M.P. 2.....	701.11	CRI&P
Moville	1147	C&NW
Murphy	832	M&StL
Murray	1214,G1216	CB&Q
Muscatine	548,G552	CM&StP
Muscatine, Mississippi river, low water	G531	Miss. Riv. Com.
Muscatine, Mississippi river, high water, 1881.....	G547	Miss. Riv. Com.
Muscatine	547,G554	CRI&P
Muscatine, crossing Wilton line CRI&P.....	557.73	CD&M
Muscatine, junction with City Railway lines, top of rail...	556.98	CD&M
Muscatine Bridge, 1.5 miles above, 1 meter north of hedge fence on property of Capt. John W. Anderson, 1 meter east of east line of John Berry's property, 3 meters 34° to 12-inch wild-cherry tree; copper bolt in tile sur- mounted by iron pipe (U.S.C.E.b.m. 141/4). (Cap of iron pipe had been removed; the pipe was removed, the line tied to copper bolt, and then pipe was put in place again, but no new elevation for top established).....	595.68	Bull. 569
Muscatine, 7.5 miles south of, 22 meters south of gate leading to Esquire Walton's house, 8 meters north of wagon road, 15 meters from edge of river bank; top of stone with block over it and three marking stakes set 3 feet off and three small black-locust trees blazed near by; top of stone is about 1 foot below surface of ground (U.S.C.E.p.b.m. 25)	544.428	Bull. 569
Muscatine, 7 miles below, on brick foundation of E.		

STATION	ELEVATION FEET	AUTHORITY
Beatty's dwelling on right bank of river, in east side NE. cor. foundation; copper bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 26)	548.539	Bull. 569
Muscatine, on brick chimney of Hershey's lower sawmill, on middle of east face of chimney, about 3 feet above ground; copper bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 27)	550.455	Bull. 569
Muscatine, on waterworks chimney, in north face, about 1.1 meters from ground; copper bolt marked "U.S.P.B.M." (U.S.C.E.p.b.m. 28)	551.964	Bull. 569
Muscatine, 50 meters north of station, on north abutment of wagon bridge in NE. cor. abutment; copper bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 29)	552.417	Bull. 569
Muscatine, 3 miles north of, on abutment of CRI&P RR bridge, in top of stone coping of south end of west abutment; copper bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 30)	553.595	Bull. 569
Muscatine, 5 miles NE. of, on abutment of CRI&P RR bridge over Sweetland creek, in west end of north abutment; copper bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 31)	552.814	Bull. 569
Muscatine, 6 miles above, in natural rock on line of CRI&P RR, in face of rock where it has been blasted off for railroad bed, 4 feet above track, 20 feet north of center of track, 740 meters west of bridge 77; copper bolt, marked "U.S.P.B.M." (U.S.C.E.p.b.m. 32)	561.452	Bull. 569
Muscatine, 7 miles below, 1,149.5 meters (distance read by stadia) back of bench mark 138/2, in low ground on prairie, 40 meters west of small lake, 50 meters north of cultivated piece of ground which rises about 5 feet higher than prairie, midway between two old wagon roads that join 15 meters south; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 138/2):		
Copper bolt	532.81	Bull. 569
Cap on pipe	536.79	
Muscatine Island, 30 meters from river bank, 1 meter west of E. Beatty's front-yard fence, 4 meters 200° to 15-inch coffee-bean tree, 6 meters 80° to 24-inch honey locust, 30 meters 94° to NE. cor. Beatty's house; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 138/3):		
Copper bolt	545.14	Bull. 569
Cap on pipe	549.16	
Muscatine, Copperas creek, in open spot 100 meters below mouth of, 30 meters back of narrow island whose head is 100 meters above mouth of creek, 15 meters above fence corner, 4 meters east of wagon road, 80 meters below dwelling house on main bank of river; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 139/1):		
Copper bolt	539.86	Bull. 569
Cap on pipe	543.87	
Muscatine, 1 mile below head of Blanchard Island, on ridge 100 meters from river, 60 meters from slough on west, 25 meters from small slough on east; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 139/2):		
Copper bolt	541.85	Bull. 569
Cap on pipe	545.86	
Muscatine, 3.5 miles below, on property of D. Freeman, at intersection of two wire fences, one north-south and the other east-west, north of two lone cottonwood and birch trees; 204 meters north of south line of sec. 22, 156 meters west of levee; copper bolt in tile surmounted by		

MUSCATINE

491

STATION	ELEVATION FEET	AUTHORITY
iron pipe (U.S.C.E.b.m. 139/3):		
Copper bolt	539.81	Bull. 569
Cap on pipe	543.84	
Muscatine Island, along east-west hedge on property be- longing to R. F. Parmelee, 12.5 meters 90° to center SE. ¼ sec. 21 along hedge; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 139/4):		
Copper bolt	547.42	Bull. 569
Cap on pipe	551.39	
Muscatine, in lower part of, on ridge between two sloughs, 7 meters west of one slough and 12 meters east of an- other slough, 100 meters above their junction, 530 meters from river bank, 486 meters from bench mark 140/2; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 140/1):		
Copper bolt	538.41	Bull. 569
Cap on pipe	542.44	
Muscatine, in lower part of, north of lumber yards, on side hill in meadow belonging to Weltz, 58 meters north of Bowling Green road along north-south fence; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 140/4):		
Copper bolt	644.85	Bull. 569
Cap on pipe	648.88	
Muscatine, on east side of waterworks building in top of stone foundation; cut (U.S.C.E. high-water mark of 1881)	548.04	Bull. 569
Muscatine, top of NE. cor. west abutment of Front St. wagon bridge, about 50 meters NE. of station (U.S.C.E. b.m.)	549.71	Bull. 569
Muscatine, in Iowa side of second pier, on SW. cor. pier; elevation of high water of 1892	549.19	Bull. 569
Muscatine, SE. cor. east pier on north side of railroad track, Muscatine high bridge; top of stone (U.S.C.E. b.m., city b.m.)	552.03	Bull. 569
Muscatine, on lower pier of third pair of tubular piers from Illinois side of Muscatine wagon bridge; high- water mark of 1892	548.95	Bull. 569
Muscatine bridge, 1.5 miles above, in timber 80 meters from river bank, on main bank, about 0.25 mile below head of Island 334; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 141/2):		
Copper bolt	542.84	Bull. 569
Cap on pipe	546.89	
Muscatine bridge, 1.5 miles above, 0.5 meter north of south right-of-way fence of CRI&P Ry, 192 meters west of bridge 93, 18 meters west of switch where siding runs to tile factory, 14.5 meters south of railroad track; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 141/3):		
Copper bolt	542.57	Bull. 569
Cap on pipe	546.60	
Muscatine bridge, 1.5 miles above, 1 meter north of hedge fence, on property of Capt. John W. Anderson, 1 meter east of east line of John Berry's property, 3 meters 34° to 12-inch wild-cherry tree; copper bolt in tile sur- mounted by iron pipe (U.S.C.E.b.m. 141/4):		
Copper bolt	595.68	Bull. 569
Cap on pipe	599.77	
Muscatine, Island 331, opposite foot of, 0.25 mile south of river, on line of north-south fence, 30 meters above fence corner at foot of bluff; copper bolt in tile sur-		

STATION	ELEVATION FEET	AUTHORITY
mounted by iron pipe (U.S.C.E.b.m. 142/2):		
Copper bolt	563.84	Bull. 569
Cap on pipe	567.85	
Muscatine, 4.5 miles above, on property of Mrs. McDonald, 30 meters below small creek crossed by railroad bridge 78, 5 meters east of SE. cor. house, 1 meter east of large apple tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 142/3):		
Copper bolt	569.33	Bull. 569
Cap on pipe	573.37	
Mystic	906	ISU
Mystic	892,G896	CM&StP
Mystic, crossing over CB&Q	948	CM&StP
Nahant	563	CRI&P
Napier	1044	FtDDM&S
Napier, T. 83 N., R. 25 W., NW. cor. sec. 36; spike in fence post marked "U.S.B.M. 1049"	1,047.96	Bull. 569
Napier, T. 83 N., R. 25 W., SE. cor. sec. 25; spike in telephone pole, marked "U.S.B.M. 1040"	1,038.76	Bull. 569
Nashua	971,G968	IC
Nashville	715	C&NW
National, Clayton Co., T. 94 N., R. 3 W., SW. ¼ sec. 8, NW. cor. schoolhouse yard; iron post stamped "699 DBQ"	700.235	Bull. 569
National, SE. ¼ sec. 15, T. 94 N., R. 4 W., in SW. cor. schoolhouse yard; iron post stamped "1110 DBQ"	1,111.436	Bull. 569
National, Hamilton Co.	1100	FtDDM&S
Nebraska City Junction	928,G923	CB&Q
Nebraska City Junction, 1.25 miles south of station, 384 feet west of house occupied by Johnson Gibson, 35 feet north of north end of farm gate, 46 feet east of railway; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 326):		
Copper bolt	915.877	Bull. 569
Cap on pipe	919.900	
Nebraska City Junction, 3,844 feet north of station, 45 feet east of railroad, on sand knoll; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E. p.b.m. 327):		
Copper bolt	919.664	Bull. 569
Cap on pipe	923.689	
Nebraska City Junction, 3,884 feet north of station, 45 feet east of CB&Q RR track, on sand knoll; top of cap of iron pipe marked "Missouri River Commission"	923.689	Bull. 569
Nebraska City Junction, 600 feet north of station, 40 feet west of CB&Q RR tracks; iron post stamped "Prim. Trav. Sta. No. 1, 924, Adj, 1903"	922.450	Bull. 569
Nebraska City Junction, 2 miles west of, 40 feet south of crossing, 30 feet east of center of road; iron post stamped "923, Adj, 1903"	922.291	Bull. 569
Neils	1290	CRI&P
Nemaha	1322,G1318	CM&StP
Neoga	996	WRR
Neola	1096,G1100	CRI&P
Neola, crossing, CM&StP	1086	CRI&P
Neola, in first concrete bridge abutment west of town (CRI &P Ry bridge 483), on SE. side, 5 feet below level of track; aluminum tablet	1,088.890	Bull. 569
Neola, at Main Street crossing of CM&StP Ry, 20 feet west of street, 10 feet south of track, iron post	1,095.820	Bull. 569
Neola, in front of CRI&P Ry station; top of rail	1,098.7	Bull. 569
Neola	1093,G1098	CM&StP

STATION	ELEVATION FEET	AUTHORITY
Neola, crossing CRI&P	1090,G1093	CM&StP
Neola	G1111	Weather Bur.
Nepas	802	CRI&P
Nevada	990	CRI&P
Nevada, crossing under C&NW	954	CRI&P
Nevada	1003,G1001	C&NW
Nevada, T. 83 N., R. 23 W., SE. cor. sec. 4, 3.5 miles west of Nevada, 4.5 miles east of Ames, NW. cor. crossroads; iron post stamped "967"	965.858	Bull. 569
Nevada, T. 84 N., R. 23 W., NE. cor. sec. 28, SW. cor. crossroads, 7 feet south of corner fence post; iron post stamped "986"	985.177	Bull. 569
Nevada, T. 84 N., R. 23 W., SW. cor. sec. 27, NE. cor. crossroads; copper nail in base of telephone pole at fence corner, marked "1000.8"	999.81	Bull. 569
Nevada, 1 mile north by 3.5 miles west of, T. 84 N., R. 23 W., SE. cor. sec. 33, on east-west township line between Milford and Grant townships, 60 feet NW. of center of crossroads; copper nail in base of telephone pole, marked "990.9"	989.91	Bull. 569
Nevada, top of north rail of C&NW Ry crossing	978.1	Bull. 569
Nevinville, Adams Co.	1300	IaGS
New Albin	651,G646	CM&StP
New Albin schoolhouse, 22 feet NE. of NE. cor.; iron post stamped "652 DBQ"	652.977	Bull. 569
New Albin, 100 meters above lower end of Island 135, on ridge, 100 meters above lower end of timber, 50 meters back from shore, 200 meters below point opposite warehouse at Tippets Landing; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 209/3):		
Copper bolt	622.09	Bull. 569
Cap on pipe	626.05	
New Albin, 75 meters east from east bank of Lost Slough, in low ground, in small bunch of willows; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 209/4):		
Copper bolt	618.49	Bull. 569
Cap on pipe	622.45	
New Albin, opposite CM&StP Ry station; base of rail (U.S.C.E.b.m.)	648.53	Bull. 569
New Albin, top of city corner stone on west side of CM&StP Ry track, 2 blocks north of station and just north of grain elevator (U.S.C.E.t.b.m. 29, R. B.)	650.12	Bull. 569
New Albin, top of pipe monument on State line between Iowa and Minnesota (U.S.C.E.t.b.m. 30, R. B.)	648.74	Bull. 569
New Albin, top of city corner stone which is on Iowa-Minnesota State line, 35 meters west of pipe monument, 8 meters east of east right-of-way fence of CM&StP Ry (U.S.C.E.t.b.m. 31, R. B.)	648.06	Bull. 569
Newbern, Marion Co., T. 74 N., R. 21 W., about 0.25 mile north of quarter corner on west side of sec. 33, at angle to south in road east, 16 feet north of telephone pole, in top of wooden peg; copper nail	936.73	Bull. 569
Newbern, T. 73 N., R. 21 W., at NE. cor. sec. 5 at SW. cor. crossroads, 2 feet east of corner post, in top of osage stump; copper nail	1,007.58	Bull. 569
Newbern, T. 74 N., R. 21 W., about 250 feet east of SW. cor. sec. 34, opposite T road south, 80 feet NE. of bridge over Long Branch creek; iron post stamped "Iowa, 904, 1913"	904.215	Bull. 569
Newbern, T. 73 N., R. 21 W., at SW. cor. sec. 3 in NE. angle crossroads, 28 feet north by 24 feet east of cor.		

STATION	ELEVATION FEET	AUTHORITY
secs. 3, 4, 9 and 10, in SW. cor. churchyard, in sandstone rock; bottom of chiseled square	999.22	Bull. 569
New Boston	643.5	AT&SF
New Boston, east line CB&Q overhead bridge, base of rail	662.9	AT&SF
New Boston, square cut in NE. cor. bottom step NW. abutment CB&Q bridge	664.95	AT&SF
New Boston, CB&Q track at crossing	G685	CB&Q
New Boston	697.2,G697	CB&Q
New Boston, Ill., 1 mile below, on right bank, 25 meters from shore, 7.3 meters 94° 30' to 8-inch locust tree, 6.4 meters 341° to 15-inch elm, 8.8 meters 281° to 30-inch elm tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 133/3):		
Copper bolt	532.19	Bull. 569
Cap on pipe	536.12	
New Boston, Ill., 1 mile below, on right bank, on back edge of slough 892.4 meters back of preceding bench mark, 7.5 meters 279° 30' to 12-inch black-oak tree, 9.7 meters 28° 30' to 12-inch elm tree, 9.9 meters 205° 30' to 8-inch ash tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 133/4):		
Copper bolt	529.51	Bull. 569
Cap on pipe	533.53	
Newburg	1036,G1029	M&StL
Newcom, M.P. 440	1200,G1202	IC
Newell	1265,G1264	IC
Newhall	872,G869	CM&StP
New Hampton	1164,G1159	CM&StP
New Hampton, crossing CGW	1160,G1168	CM&StP
New Hampton	1150.7,G1159	CGW
New Hampton, crossing CM&StP	1159.6	CGW
New Hartford	893,G895	IC
New Liberty	797,G797	CRI&P
New London	765.47,G768	CB&Q
New Market	1198	CB&Q
Newport	730,G723	M&StL
New Providence hill	1130	IaGS
New Sharon	870,G859	M&StL
Newton	935	M&StL
Newton	942,G944	CRI&P
New Virginia	1026	CB&Q
New Virginia, South river at CB&Q bridge north of	914	IaGS
Nichols, Burlington line	634,G638	CRI&P
Nichols, Muscatine line	628	CRI&P
Niles	1097	FtDDM&S
Nira	736	CRI&P
Nixon, Dallas county	893.56	DM&CI
Noble	656	CB&Q
Nobleton, B.M. top of monument M.P. 345	931.56	CRI&P
Nobleton, B.M. top of monument M.P. 346	943.41	CRI&P
Nobleton, B.M. top of monument M.P. 347	944.92	CRI&P
Nobleton, B.M. top of monument M.P. 348	962.48	CRI&P
Nobleton, top of rail, center of depot	983.7	CRI&P
Nobleton, B.M. top of monument M.P. 349	956.00	CRI&P
Nobleton, B.M. top of monument M.P. 350	934.29	CRI&P
Nobleton, 4 miles south, 1 mile west of, T. 78 N., R. 22 W., 530 feet west of quarter corner on north side sec. 3, and 40 feet south of road, on concrete post; bronze tablet stamped "Prim. Trav. Sta. No. 26-L.S.-1924-Iowa" marked "895.8"	895.828	USGS
Nobleton, reference mark, 57 feet west and 7 feet north		

NOBLETON-NORTH BUENA VISTA

495

STATION	ELEVATION FEET	AUTHORITY
of "L.S. No. 26", in root on north side of 30-inch maple tree; copper nail and washer	893.22	USGS
Nobleton, T. 78 N., R. 22 W., 440 feet east of cor. secs. 2 and 3, on north side of, T road south, on west end of south railing of concrete highway bridge over Camp creek; chiseled square, marked "825.2"	825.20	USGS
Nobleton, T. 79 N., Rs. 21 and 22 W., near corner, on south side of secs. 31 and 36, 25 feet north and 30 feet west of T road north, top of east end of concrete foundation of gasoline pump; chiseled square, marked "901.9"	901.92	USGS
Nobleton, T. 78 N., R. 22 W., at NE. cor. sec. 1, 30 feet south and 20 feet west of crossroads, 5 feet south of fence corner, top of concrete wall; chiseled square, marked "925.7"	925.71	USGS
Nodaway	1084,G1084	CB&Q
Noels	634	CRI&P
Noels, crossing CM&StP	633	CRI&P
Noels, crossing CRI&P, union station.....	645,G636	CM&StP
Nora Springs or Nora Junction, union station with CM&StP and crossing	1064,G1062	CRI&P
Nora Springs	1058,G1063	CM&StP
Nora Springs Junction, union station with CRI&P.....	1064	CM&StP
Nordness	1031,G1035	CRI&P
Nordness, intersection of wagon roads.....	1031	USGS
Nordness, 0.5 mile south of, T. 97 N., R. 8 W., NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ sec. 15, 3 rods north of crossing and road intersection, 2 feet east of right of way of CRI&P Ry; iron post stamped "1059 DBQ"	1,058.982	Bul. 569
Norman	1278,G1278	M&StL
Norris	870,G864	CRI&P
North Bellevue, see Bellevue, North		
Northboro	1050.8,G1047	CB&Q
Northboro, Iowa-Mo. state line	1020.5	CB&Q
North Buena Vista, Clayton Co., T. 91 N., R. 1 W., south side sec. 32, junction of John Richmond's road with main wagon road; iron post stamped "1181 DBQ".....	1,181.159	Bul. 569
North Buena Vista, 0.5 mile below, on right of way of CM&StP Ry, 25 meters below lower end of railroad bridge 194, 7 meters from center of track toward bluffs; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 187/3):		
Copper bolt	624.80	Bul. 569
Cap on pipe	628.75	
North Buena Vista, opposite CM&StP Ry station; base of rail (U.S.C.E.b.m.)	625.32	Bul. 569
North Buena Vista, 2.6 miles above, on line of CM&StP Ry track, 16 meters below center of bridge 204K, at fence on bluff side, 11 meters from center of track; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 188/4):		
Copper bolt	617.11	Bul. 569
Cap on pipe	621.11	
North Buena Vista, 2 miles below, 1,575 feet below section post 11-12, 1,411 feet below bridge 188K, 775 feet above Dry Hollow Bridge 186K, on line of CM&StP Ry, 10 feet south from center, on ledge of rock marked "U□S"; highest point in square (U.S.C.E.t.b.m. 267)	627.696	Bul. 569
North Buena Vista, 0.8 mile below, 1,840 feet below milepost 94-67, 590 feet below bridge 194, on bluff side of track, 15 feet from center, on embedded boulder, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 265)	628.161	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
North Buena Vista, SE. cor. R. & E. Meuth's general store, 6 inches from south face and 4.3 feet above ground, in wall marked the same as p.b.m. 247, that is "U.S.⊙P. B.M."; copper bolt (U.S.C.E.p.b.m. 255).....	627.519	Bull. 569
North Buena Vista, 82 feet above station and 35 feet above road crossing, on bluff side of track, 9 feet from center, about 2.5 feet above grade, on hard ledge of rock, marked "U□S"; being highest point in square (U.S.C. E.t.b.m. 264)	627.197	Bull. 569
North Buena Vista, 1 mile above, opposite foot of Island 196, 2,986 feet above milepost 93, 15 feet toward the bluff from center of CM&StP Ry track, on upper one of three large, prominent pieces of rock lying but a few feet from each other, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 262)	625.684	Bull. 569
North Buena Vista, 2.6 miles above, 53 feet below center of bridge 204K, on right of way of CM&StP Ry, at fence on bluff side, 36 feet from center of track; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 253 and 254):		
Copper bolt	617.115	Bull. 569
Cap on pipe	621.114	
North Buena Vista	626,G626	CM&StP
North English	784,G789	CM&StP
North Liberty, top of rail on south line of sec. 1, Tp. 80, R. 7, 567 feet west of S. ¼ cor. sec. 1.....	801.80	CR&IC
North Liberty, bench mark, top of water table on east side of center pier in south wall of substation.....	773.50	CR&IC
North Liberty, top of rail on south line sec. 12, Tp. 80, R. 7, SW. cor. of SE. ¼ of SE. ¼ of sec. 12.....	769.10	CR&IC
North Liberty, top of rail on south line sec. 13, Tp. 80, R. 7, on SW. cor. of SE. ¼ of SE. ¼ of sec. 13.....	761.30	CR&IC
North McGregor, changed to Marquette		
North Number 3	977	ISU
Northwood	1236	M&StL
Northwood	G1222	CRI&P
Northwood	G1222	Weather Bur.
Norwalk	919.16	CB&Q
Norwalk, North River at CB&Q bridge south of.....	806	IaGS
Norway	796,G792	C&NW
Norwich	1141,G1142	CB&Q
Norwood, Lucas Co., T. 73 N., R. 22 W., at quarter corner between secs. 17 and 18, at center of crossroads, on top of section stone; chiseled square.....	1,006.87	Bull. 569
Norwood, T. 73 N., R. 22 W., at quarter corner on west side of sec. 18, at NE. angle of crossroads, at east end of culvert, in top plank: copper nail	994.67	Bull. 569
Norwood, T. 73 N., R. 23 W., 0.25 mile north of SW. cor. sec. 13, at NE. angle of T road east, in root of 8-inch elm tree: copper nail	1,034.10	Bull. 569
Norwood, 0.5 mile east of. T. 73 N., R. 23 W., at quarter corner on south side of sec. 14, opposite center of T road south, at SE. cor. school yard, 2 feet south of corner post; iron post stamped "Iowa, 1037, 1913"	1,037.519	Bull. 569
Norwood, south end of concrete walk at church	1,040.60	Bull. 569
Norwood, 1 mile north of, at SW. cor. crossroads, in churchyard, at south side, east end of concrete walk, painted square	1,032.85	Bull. 569
Norwood, T. 73 N., R. 23 W., at NE. cor. sec. 10, in SW. angle of crossroads, opposite mile board, "Lucas 10, Indianola 19, Des Moines 35," 4 feet south of telephone		

NORWOOD-OELWEIN

497

STATION	ELEVATION FEET	AUTHORITY
pole; iron post stamped "Iowa, 1023, 1013" (moved, 1917, 18 ft. SW. of former location at same elevation)	1,023.127	Bull. 569
Norwood, Tps. 73 and 74 N., R. 23 W., at cor. secs. 2, 3, 34, and 35, on line between Lucas and Warren counties, at center of T road east, in top of section stone; bottom of square cut	1,001.44	Bull. 569
Norwood, T. 73 N., R. 23 W., at quarter corner between secs. 23 and 26, at center of crossroads, on section stone; chiseled circle	1,014.08	Bull. 569
Norwood, T. 73 N., R. 23 W., at center of sec. 35, opposite T road west, 4 feet north of osage post, on line with east-west fence on east side of road; iron post stamped "Iowa, 1030, 1913"	1,029.841	Bull. 569
Norwood, T. 72 N., R. 23 W., north center of sec. 2, on west side of road, 16 feet south of east-west fence line, in west end of plank drain; copper nail	1,036.18	Bull. 569
Nugent	791,6783	M&StL
Numa	1026,61037	CRI&P
Nuttings	580.20	CD&M
Nutting Farms	574	DRI&NW
Oakdale, top of rail on south line sec. 30, Tp. 80, R. 6, 700 feet east of SW. cor. sec. 30	782.40	CR&IC
Oakdale, top of rail on south line sec. 24, Tp. 80, R. 7, on SW. cor. of SE. ¼ of SE. ¼ of sec. 24	793.40	CR&IC
Oakdale, bench mark, SW. cor. of concrete waiting platform	815.56	CR&IC
Oak Grove	998	M&StL
Oakland	1102,61106	CRI&P
Oakland Mills	591.6,6595	CB&Q
Oakley	995,6993	CB&Q
Oakley, T. 73 N., R. 21 W., 0.25 mile east of NW. cor. sec. 20, at SW. cor. T road south, 250 feet west of school-house, at base of corner post; top of stone	967.06	Bull. 569
Oakley, T. 73 N., R. 21 W., at quarter corner on north side of sec. 19, at NE. cor. road forks, on top of concrete wing wall of culvert; painted square	885.53	Bull. 569
Oakley, T. 73 N., R. 22 W., at quarter corner on north side of sec. 24, at SE. angle of T road south, 6 feet east of corner post; iron post stamped "Iowa, 933, 1913"	933.123	Bull. 569
Oakley, T. 73 N., R. 22 W., near quarter corner on north side of sec. 23, at SE. cor. T road east, at extreme NW. cor. Juergen's yard, in root of maple tree; copper nail	962.12	Bull. 569
Oakley, T. 73 N., R. 22 W., about 0.1 mile north of SW. cor. sec. 14, at T road east, on bridge over Whitebreast creek, near SE. cor. bridge floor; top of bolt	838.10	Bull. 569
Oakley, T. 73 N., R. 22 W., about 0.2 mile north of SW. cor. sec. 15, at SE. cor. crossroads, south end of small plank culvert, in top of; copper nail	967.47	Bull. 569
Oakley, T. 73 N., R. 22 W., at quarter corner on east side of sec. 17, in SW. angle at turn in road, just inside of fence, 3 feet SW. of corner post; iron post stamped "Iowa, 963, 1913"	962.892	Bull. 569
Oaks	964	ISU
Oakton	650	CM&StP
Oakville	550,6543	M&StL
Oasis	802,6800	CRI&P
Ocheyedan	1555,61551	CRI&P
Ocheyedan Mound, Osceola county	1670	IaGS
Odebolt	1361,61361	C&NW
Oelwein	1041.8,61039	CGW
Oelwein, crossing CRI&P	1049.0,61047	CGW
Oelwein	1053,61049	CRI&P

STATION	ELEVATION FEET	AUTHORITY
Oelwein, north wall of post office, in coping stone; aluminum tablet stamped "1044 DBQ"	1,045.347	Bull. 569
Oelwein, 5 miles east of, center Scott Tp.	1143	IaGS
Ogden	1099,G1100	M&StL
Ogden, crossing C&NW	1099,G1103	M&StL
Ogden	1097,G1094	C&NW
Ogden, crossing M&StL	1097	C&NW
Ogden, 3 miles south by 2 miles east of, at Marcy Center school, NW. cor. sec. 22, Marcy Tp., in corner of school lot; iron post stamped "Prim. Trav. Sta. No. 14, 1093"	1,092.28	Bull. 569
Ogden, 4 miles south by 2 miles east of, at road crossing, NE. cor. sec. 28, Marcy Tp.; spike in base of telephone pole	1,075.12	Bull. 569
Ogden, 5 miles south by 2 miles east of, at road crossing, SW. cor. sec. 27, Marcy Tp.; spike in base of telephone pole	1,085.24	Bull. 569
Ogden, 6 miles south by 2 miles east of, at road crossing, SE. cor. sec. 33, Marcy Tp.; iron post stamped "1088"	1,087.114	Bull. 569
Ogden, 7 miles south by 2 miles east of, at road crossing, SW. cor. sec. 3, Peoples Tp.; spike in base of telephone pole	1,108.50	Bull. 569
Ogden, 8 miles south by 2 miles east of, at road crossing, SE. cor. sec. 9, Peoples Tp.; spike in base of telephone pole	1,090.17	Bull. 569
Ogden, 9 miles south by 2 miles east of, at road crossing near church, NE. cor. sec. 21, Peoples Tp.; iron post stamped "1072"	1,071.035	Bull. 569
Ogden, 10 miles south by 2 miles east of, at road crossing, SE. cor. sec. 21, Peoples Tp.; spike in base of telephone pole	1,021.78	Bull. 569
Ogden, T. 84 N., R. 27 W., west center of NW. ¼ sec. 15, NE. cor. crossroads; chiseled square in top of stone, marked "1111.7"	1,110.79	Bull. 569
Ogden, T. 84 N., R. 27 W., 0.2 mile north of center of sec. 22, SE. cor. road forks east, 15 feet west of east fence line, 50 feet south of center of road forks; 8-penny nail about 1 foot above ground in south side of oak tree, marked "930.626"	929.73	Bull. 569
Ogden, T. 84 N., R. 27 W., near east center of SE. ¼ sec. 21, west side of road, top of hill, 200 feet south of bend in road to south, SE. cor. yard to house; spike in east side of trunk of hickory tree 1 foot in diameter, 1 foot above ground and marked "1088.2"	1,087.28	Bull. 569
Ogden, 1.5 miles north by 1.8 miles east of, T. 84 N., R. 27 W., south center of SE. ¼ sec. 21, center of road forks south; chiseled square on top of corner stone, marked "1088.5"	1,087.56	Bull. 569
Ogden, 0.5 mile north by 2 miles east of, T. 84 N., R. 27 W., SW. cor. sec. 27, on east side of north-south road at T road west, near telephone pole; iron post stamped "1064"	1,063.191	Bull. 569
Ogden, T. 84 N., R. 27 W., SE. cor. sec. 33 (near), SW. cor. crossroads; chiseled square on top of west end of concrete drain under road south, marked "1081"	1,080.10	Bull. 569
Ogden, 1.5 miles south by 2 miles east of, T. 83 N., R. 27 W., SE. cor. sec. 4, in NW. cor. T road north, SE. cor. schoolhouse yard; iron post stamped "1082"	1,081.348	Bull. 569
Olaf	1235,G1227	M&StL
Olds	737,G731	M&StL
Olin	755,G757	CM&StP
Olivet	803,G817	CRI&P

OLIVET-OMAHA

499

STATION	ELEVATION FEET	AUTHORITY
Olivet, T. 75 N., R. 17 W., 0.25 mile north of quarter corner on south side of sec. 12, at railway crossing; top of rail	810.53	Bull. 569
Olivet, T. 75 N., R. 17 W., near quarter corner on east side of sec. 11, railway crossing; top of rail	817.51	Bull. 569
Ollie	789,6782	M&StL
Olmitz, 2.5 miles north by 3.5 miles east of, T. 73 N., Rs. 19 and 20 W., 18 feet west of the corner of secs. 18, 19, 13, and 24, respectively, on line between Lucas and Monroe counties, in timber west of ravine, at corner of abandoned elbow road; iron post stamped "Iowa 842, 1913"	842.197	Bull. 569
Olmitz, T. 73 N., R. 20 W., sec. 23, 0.25 mile north of quarter corner east side of, in SW. angle T road west, 16 inches west of corner post, in peg; copper nail	791.34	Bull. 569
Olmitz, T. 73 N., R. 20 W., sec. 22, 0.25 mile north by 0.25 mile east of center of, in SW. angle T road south, 4 feet west of corner post; iron post stamped "Iowa 986, 1913"; 0.5 mile north by 0.5 mile east of Tipperary, "Prim. Trav. Sta. No. 13"	986.636	Bull. 569
Olmitz, T. 73 N., R. 20 W., sec. 22, 0.25 mile north of quarter corner on west side of, 120 feet east of center of crossroads, in NW. cor. bridge floor; top of bolthead painted white	912.44	Bull. 569
Olmitz, T. 73 N., R. 20 W., sec. 20, NE. of center, at crossroads, 1 foot north of H. M. Taylor's mail box and mile board "Chariton 12, Belinda 3 miles," in top of peg; copper nail	957.14	Bull. 569
Olmitz, T. 73 N., R. 20 W., 0.25 mile north of quarter corner on east side of sec. 30, in SW. angle of crossroads, 3 feet east of corner post, in top of peg; copper nail	984.43	Bull. 569
Olmitz, T. 73 N., R. 20 W., NW. cor. sec. 32, at crossroads, in NE. cor. bridge floor; copper nail in plank	919.31	Bull. 569
Olmitz, T. 73 N., R. 20 W., about 0.35 mile east of center of sec. 32, in NE. angle of T road at road forks, 430 feet north of bridge over North Cedar creek, 3 feet SE. of mail box, in top of peg; copper nail	839.52	Bull. 569
Olmitz, T. 72 N., R. 20 W., near quarter corner on east side of sec. 5, in NE. angle of road forks, 4 feet north of pasture gate (Baker's ranch); iron post stamped "Iowa 997, 1913"	996.704	Bull. 569
Olmitz, T. 72 N., R. 20 W., near SE. cor. sec. 5, at T road south, 25 feet east by 15 feet north of center of road junction, in root of 8-inch hickory tree; copper nail	1,012.93	Bull. 569
Olmitz, T. 72 N., R. 20 W., in SW. cor. sec. 9, in NE. angle of T road north, top of concrete wing wall of culvert; bottom of chiseled square	989.95	Bull. 569
Olmitz, T. 72 N., R. 20 W., at SE. cor. sec. 7, on north side of road forks, 60 feet west of steel highway bridge over creek, 30 feet north of road junction; iron post stamped "Iowa 880, 1913"	880.422	Bull. 569
Omaha, Nebr., in SE. cor. post-office building at Fifteenth and Dodge Sts.; top of small projection on top surface of third course of stone above sidewalk (U.S.C.E. city b.m.)	1,040.969	Bull. 569
Omaha, Nebr., on upper surface of water table of post-office building, cor. Fifteenth and Dodge Sts., 5.71 feet east of SW. cor. building; copper bolt in stone (U.S.C.E. p.b.m. 344)	1,039.932	Bull. 569
Omaha, Nebr., in top of pedestal block supporting first iron post on north side and west of cylindrical piers at west		

STATION	ELEVATION FEET	AUTHORITY
end of Omaha and Council Bluffs wagon bridge; top of copper bolt in stone (U.S.C.E.p.b.m. 345)	981.478	Bull. 569
Omaha, Nebr., 59 feet south of south cylindrical pier next to river, 137 feet southeast of south cylindrical pier next to approach abutment at west end of UP Ry bridge over Missouri river, 39 feet east of east switch track of CB&Q Ry; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 346 equals gage b.m.):		
Copper bolt	971.645	Bull. 569
Cap on pipe	975.612	
Omaha, Nebr., near, 3,976 feet east of east portal of UP Ry bridge over Missouri river, midway between two tracks of UP Ry; cross cut on top of stone post (U.S.C.E.t.b.m. 804)	1,005.933	Bull. 569
Omaha, East Junction	983	IC
Omaha, South Junction	980	IC
O'Malley	936.15	DM&CI
Onawa	1,052,G1052	IC
Onawa, crossing C&NW	1,052,G1052	IC
Onawa	1,051,G1051	C&NW
Onawa, in NE. ¼ sec. 4, T. 83 N., R. 46 W., on north side of road along south side of quarter, 0.25 mile west of SE. cor. of quarter; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 135/2):		
Copper bolt	1,051.58	Bull. 569
Cap on pipe	1,055.65	
Onawa, T. 84 N., R. 46 W., 760 feet west of cor. secs. 25, 26, 35 and 36, on south side of road, on premises of Oscar Tuttle; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 135/3):		
Copper bolt	1,049.00	Bull. 569
Cap on pipe	1,053.05	
Onawa, 4 miles south of, 44 feet east of railway, on line with south side of E. S. Cody's farmhouse, 259 feet east of same; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E. p.b.m. 375):		
Copper bolt	1,042.268	Bull. 569
Cap on pipe	1,046.291	
Onawa, 2.2 miles south of, 1,585 feet south of milepost 37, 1,056 feet south of east-west road crossing, 45 feet east of railway; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 376):		
Copper bolt	1,044.512	Bull. 569
Cap on pipe	1,048.535	
Onawa, at Iowa Ave. entrance of courthouse, 1.12 feet from face of sill, 0.43 foot from west jamb; copper bolt in west end of stone doorsill (U.S.C.E.p.b.m. 377).....	1,052.436	Bull. 569
Onawa, in NW. cor. German Lutheran churchyard, corner Granite and Maple Sts., 3 feet from alley fence, 3 feet from SW. cor. of a stable; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 378 equals 134/3):		
Copper bolt	1,047.662	Bull. 569
Cap on pipe	1,051.727	
Onawa, 2.2 miles north of, 810 feet north of milepost 41, 180 feet north of north end of railway bridge 40, 44 feet east of C&NW track; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 379):		
Copper bolt	1,048.252	Bull. 569
Cap on pipe	1,052.252	
Onawa Junction, new	1186	IC
Onawa Junction, old location	1218,G1213	IC

STATION	ELEVATION FEET	AUTHORITY
Oneida	1047	CM&StP
Oneida, crossing CGW	1047,G1048	CM&StP
Oneida	1050.2,G1049	CGW
Oneida, crossing CM&StP	1051,G1051	CGW
Oneida, crossing M&O	1047,G1048	CM&StP
Onslow	918,G907	C&NW
Ontario	1002,G1001	C&NW
Ontario, south edge of, T. 84 N., R. 24 W., SW. cor. sec. 32, in NE. corner of road forks at road north; copper nail in root of willow tree, marked "998.9"	997.89	Bull. 569
Ontario, just east of station, at C&NW Ry crossing; top of south rail	1,000.6	Bull. 569
Ontario, 0.5 mile north of, T. 84 N., R. 24 W., west center of sec. 32, east side of north-south road at T road west; copper nail in base of butternut tree, marked "992.96"	991.99	Bull. 569
Ontario, highway bridge over Onion creek, spike head in NW. cor. flooring	933.49	Bull. 569
Ontario, T. 84 N., R. 24 W., near NW. cor. sec. 29, north end of tile drain under private road east, on east side of north-south road; painted square on top of, marked "986.8"	985.79	Bull. 569
Ontario, T. 84 N., R. 24 W., east center of sec. 19, SW. cor. road at T road south, in base of 3-foot oak tree; copper nail, marked "953.0"	951.98	Bull. 569
Ontario, T. 84 N., R. 24 W., center of sec. 19, center of T road north at schoolhouse; painted square cut in top of stone corner, marked "994.2"	993.18	Bull. 569
Oralabor	965	FtDDM&S
Oralabor	966,G970	C&NW
Oran	1043.6	CGW
Orange City	1411,G1412	C&NW
Orchard	1093,G1090	IC
Orient	1346,G1344	CB&Q
Orient, SE. ¼ sec. 16, T. 74 N., R. 30 W.	1312	IaGS
Orient, SE. ¼ sec. 1, T. 74 N., R. 30 W.	1079	IaGS
Orillia	969.4,G964	CGW
Orleans	1415	CRI&P
Orrton, M.P. 487	1019,G1014	IC
Orson	1036	C&NW
Ortonville	1040,G1041	CM&StP
Ortonville, 30 feet SE. of quarter corner north side of sec. 35, T. 79 N., R. 27 W., 4 feet south of corner fence post; iron post stamped "1037"	1,035.985	Bull. 569
Osage	1171.8,G1169	CGW
Osage, crossing IC	G1168	CGW
Osage	1172	IC
Osage, crossing CGW	1172	IC
Osage	G1184	Weather Bur.
Osborne, Clayton county	751,G750	CM&StP
Osborne, at CM&StP Ry crossing; top of rail	753.0	Bull. 569
Osceola, main line	1137,G1137	CB&Q
Osceola, Des Moines line	1141.7	CB&Q
Osceola	G1132	Weather Bur.
Osceola, base of Hertha limestone NW. cor. sec. 6, T. 72 N., R. 25 W.	1012	IaGS
Osgood	1235	CRI&P
Oskaloosa—Subgrade of track opposite center of depot....	825.5	CRI&P
Oskaloosa, crossing CB&Q	823	CRI&P
Oskaloosa, crossing M&StL	803	CRI&P
Oskaloosa	832.5	CB&Q
Oskaloosa, crossing CRI&P	824	CB&Q
Oskaloosa, crossing M&StL	836	CB&Q

STATION	ELEVATION FEET	AUTHORITY
Oskaloosa	845,G838	M&StL
Oskaloosa, crossing over CRI&P	840	M&StL
Oskaloosa, crossing CRI&P track	819	M&StL
Oskaloosa, crossing CB&Q	849	M&StL
Oskaloosa	G843	Weather Bur.
Ossian	1266	CM&StP
Ossian, crossing CRI&P	1255,G1260	CM&StP
Ossian	1267,G1271	CRI&P
Ossian, crossing CM&StP	1256	CRI&P
Ossian, sec. 11, T. 96 N., R. 8 W., at Catholic Church, east side of north-south road, north side of east-west road; iron post stamped "1263 DBQ"	1,263.219	Bull. 569
Osterdock	636,G635	CM&StP
Otero	780	CRI&P
Otho	1131,G1132	M&StL
Otis	721	C&NW
Otley, B.M. top of monument M.P. 323	879.74	CRI&P
Otley, B.M. top of monument M.P. 324	887.98	CRI&P
Otley, B.M. top of monument M.P. 325	896.54	CRI&P
Otley, B.M. top of monument M.P. 326	896.53	CRI&P
Otley, top of rail, center of depot	896.2,G893	CRI&P
Otley, B.M. top of monument M.P. 327	906.12	CRI&P
Otley, B.M. top of monument M.P. 328	892.38	CRI&P
Otley, T. 77 N., R. 19 W., SW. cor. sec. 14, T corner; corner stone in center of road	887.55	Bull. 569
Otley, T. 76 N., R. 19 W., SE. cor. sec. 13, in north root of large cottonwood tree at end of road; 40-penny nail	902.02	Bull. 569
Otley, T. 77 N., R. 18 W., 0.5 mile north of SE. cor. sec. 18, south side of east and west road, in north root of 10-inch soft-maple tree; 40-penny nail	873.02	Bull. 569
Otley, T. 77 N., R. 18 W., 0.5 mile north of NE. cor. sec. 17, on east side of north and south road, in SW. root of soft-maple tree 30 inches in diameter, T corner; 40-penny nail	853.82	Bull. 569
Otley, T. 77 N., R. 18 W., SE. cor. sec. 17, in SE. cor. Bethel Church yard, 35 feet SE. of front entrance of church; iron post stamped "860 Iowa"	858.727	Bull. 569
Otley, T. 77 N., R. 19 W., 0.5 mile south of NW. cor. sec. 9, at T road corner, east of north and south road, near residence of Arie Vriezelaar, in line with center of east and west road, 3 feet west of fence; iron post stamped "905 Iowa"	903.700	Bull. 569
Otley, south side of main street, T. 77 N., R. 19 W., 0.38 mile west of NE. cor. sec. 22, at T road near east edge of village, 15 feet north of fence line, 425 feet east of railroad; iron post stamped "884 Iowa"	882.641	Bull. 569
Otley, in front of CRI&P Ry station; top of rail	896.0	Bull. 569
Otley, T. 77 N., R. 19 W., 0.25 mile north of SW. cor. sec. 25, south of Pella-Otley road, 24 feet east and 20 feet south of center of crossroads, 2 feet north of fence; iron post stamped "883 Iowa"	881.652	Bull. 569
Oto	1092,G1095	IC
Otranto	1169,G1172	CM&StP
Otter Creek, Jackson Co.	1025	USGS
Otter Creek, middle Otter Creek Tp.	800	USGS
Otter Creek, NE. cor. Otter Creek Tp.	1080	USGS
Otter Creek, middle north side sec. 4, Otter Creek Tp.	1050	USGS
Ottosen	1165	CRI&P
Ottumwa	643,G649	CB&Q
Ottumwa	648,G648	CM&StP
Ottumwa, crossing CB&Q	G650	CM&StP
Ottumwa, crossing Wabash	648,G651	CM&StP

OTTUMWA-PACIFIC JUNCTION

503

STATION	ELEVATION FEET	AUTHORITY
Ottumwa, crossing CRI&P	G650	CM&StP
Ottumwa	G649	Weather Bur.
Ottumwa, NW. cor. topmost stone on east end of north abutment of Vine St. highway bridge (U.S.C.E.b.m. 48)	644.66	Bull. 569
Ottumwa, above, on top and 0.5 foot from point of south end of concrete pier under east end of first girder from west end of CB&Q bridge, pier is first one east of west abutment (U.S.C.E.b.m. 79)	653.67	Bull. 569
Ottumwa, in top of west tube of second pier south of north or left bank, Blackhawk highway bridge (U.S.C.E.b.m. 80)	649.15	Bull. 569
Ottumwa, bottom of upstream end of third cross beam from south end of Market St. bridge (U.S.C.E.b.m. 82)	643.32	Bull. 569
Ottumwa, top of west side of second pier south of north or left bank of river, CM&StP bridge (U.S.C.E.b.m. 81)....	645.82	Bull. 569
Ottumwa, bottom of downstream or east girder in south span of Wabash RR bridge (U.S.C.E.b.m. 83).....	646.75	Bull. 569
Ottumwa, bottom of east side of first transverse beam south of fourth tubular pier from north end of Vine St. highway bridge (U.S.C.E.b.m. 84).....	643.53	Bull. 569
Ottumwa, NW. cor. west wing of north abutment of Vine St. highway bridge (U.S.C.E.b.m. 85)	644.54	Bull. 569
Ottumwa, B.M. top of monument M.P. 74 (U.S.C.E.b.m. 47)	642.53	CRI&P
Ottumwa, B.M. top of watertable SW. cor. Leisy Brewing Co.	649.86	CRI&P
Ottumwa, top of rail, center Union Depot	645.2	CRI&P
Ottumwa, B.M. top of monument M.P. 77.....	650.81	CRI&P
Ottumwa, B.M. top of monument M.P. 78.....	648.90	CRI&P
Ottumwa, B.M. top of monument M.P. 79.....	650.31	CRI&P
Ottumwa, B.M. top of monument M.P. 80.....	654.29	CRI&P
Ottumwa, East	647	CB&Q
Ottumwa, South	640	WRR
Ottumwa Junction	645	CM&StP
Ottumwa Junction, crossing CB&Q and CRI&P	647	CM&StP
Owasa	1097	C&NW
Owego	1070,G1073	CM&StP
Oxford	736,G739	CRI&P
Oxford Junction, main line	722	CM&StP
Oxford Junction, Monticello line	727,G727	CM&StP
Oxford Mills, M.P. 24	725,G713	CM&StP
Oyens	1272,G1267	IC
Ozark, Jackson Co.	728	USGS
Pacific Junction	956,G957	CB&Q
Pacific Junction, 1.5 miles southwest of, on land owned by Charles Kroon, 32 feet east by 51 feet south of NW. cor. NE. ¼ NE. ¼ sec. 32, T. 72 N., R. 42 W.; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E. p.b.m. 336 equals 117/3):		
Copper bolt	949.519	Bull. 569
Cap on pipe	953.538	
Pacific Junction, 4,455 feet north of railway crossing at, 1,151 feet south of railway bridge over old channel of Keg creek, 43 feet east of railway; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E. p.b.m. 337):		
Copper bolt	954.883	Bull. 569
Cap on pipe	958.896	
Pacific Junction, T. 72 N., R. 43 W., 40 feet south by 128 feet east of NW. cor. sec. 31, on south side of east-west road, in dooryard of Mrs. Lizzie Smith; copper bolt in		

STATION	ELEVATION FEET	AUTHORITY
tile surmounted by iron pipe (U.S.C.E.b.m. 117/2):		
Copper bolt	951.94	Bull. 569
Cap on pipe	955.99	
Pacific Junction, T. 72 N., R. 44 W., 1,010 feet south of NE. cor. sec. 12, on land owned by Alvin Lincoln, 1.25 miles from river, on west side of north-south road; cop- per bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 118/2):		
Copper bolt	952.93	Bull. 569
Cap on pipe	956.99	
Packard	958,G953	CRI&P
Packwood	801.8	CB&Q
Page Center	1202.5,G1193	CB&Q
Palisades, top of rail, center line of overhead bridge on east line sec. 2, Tp. 82, R. 6, 345 feet north of NE. cor. of SE. ¼ of SE. ¼ sec. 2	776.91	CR&IC
Palisades, top of rail on east line sec. 12, Tp. 82, R. 6, 670 feet south of NE. cor. sec. 12	786.21	CR&IC
Palmer	1246,G1244	CRI&P
Palo	747,G751	CRI&P
Palsville	1243.2	CGW
Panama	1248,G1251	CM&StP
Panora	1055,G1058	CM&StP
Paralta	827,G829	CM&StP
Paralta, junction switch	G828	CM&StP
Paris	929,G944	CRI&P
Parkersburg	949,G951	IC
Parkersburg, crossing C&NW	G960	IC
Parkersburg	947	C&NW
Parkersburg, crossing over IC	960	C&NW
Parnell	854,G859	CM&StP
Paton	1106,G1101	M&StL
Pattee	1002.99	DM&CI
Patterson	873,G879	CRI&P
Patterson, Middle river at	827	IaGS
Paullina	1405,G1408	C&NW
Payne	928.7	CB&Q
Payne, T. 67 N., R. 42 W., near cor. secs. 7, 8, 17 and 18, at NW. cor. inclosed pasture about 600 feet S. 6¾° (mag.) E. from house owned by Moses Payne; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 110/3):		
Copper bolt	903.86	Bull. 569
Cap on pipe	907.93	
Pekay Junction	707,G699	M&StL
Pekin	808	CB&Q
Pella, B.M. top of monument M.P. 314	820.49	CRI&P
Pella, B.M. top of monument M.P. 315	860.63	CRI&P
Pella, B.M. top of monument M.P. 316	865.54	CRI&P
Pella, B.M. top of monument M.P. 317	874.89	CRI&P
Pella, top of rail, center of depot, Bul. 569, elev.=878.0.878.5,G877		CRI&P
Pella, B.M. NW. cor. water table of depot	879.80	CRI&P
Pella, B.M. top of monument M.P. 319	878.98	CRI&P
Pella, B.M. top of monument M.P. 320	880.61	CRI&P
Pella, B.M. top of monument M.P. 321	873.51	CRI&P
Pella, B.M. top of monument M.P. 322	875.54	CRI&P
Pella, T. 76 N., R. 17 W., 0.5 mile south of NW. cor. sec. 18, on east side of highway, 70 feet north of CRI&P Ry track, 12 feet east of center of highway; iron post stamped "856 Iowa"	854.548	Bull. 569
Pella, T. 76 N., R. 18 W., near NE. cor. sec. 14, center of roadway, railway crossing, south rail	870.7	Bull. 569

STATION	ELEVATION	AUTHORITY
	FEET	
Pella, T. 77 N., R. 18 W., 0.25 mile south of NE. cor. sec. 14, 170 feet east of T corner, in north root of large cotton wood tree; 40-penny nail	806.50	Bull. 569
Pella, T. 77 N., R. 18 W., 0.25 mile west of NE. cor. sec. 13, west side of north and south road, opposite stone house, in east root of maple tree 20 inches in diameter; 40-penny nail	757.88	Bull. 569
Pella, T. 77 N., R. 18 W., 0.3 mile east by 0.2 mile south of NW. cor. sec. 22, T corner, in telephone post; three 40-penny nails	865.33	Bull. 569
Pella, T. 77 N., R. 18 W., 0.5 mile south by 0.3 mile west of NE. cor. sec. 23, west side of north and south road, 100 feet NW. of T corner, 24 feet NE. of large oak tree, 5 feet east of north and south fence; iron post.....	835.085	Bull. 569
Pella, opposite CRI&P Ry station; top of rail	878.0	Bull. 569
Pella, SE. cor. Central College campus; iron post stamped "878 Iowa"	876.843	Bull. 569
Pella, T. 76 N., R. 18 W., 0.5 mile south of SE. cor. sec. 9, in telephone post; three 40-penny nails	853.92	Bull. 569
Pella, T. 76 N., R. 18 W., 0.3 mile west of SE. cor. sec. 9, T corner, on highest point of large rock near corner fence post; painted square	815.10	Bull. 569
Peoria, Mahaska Co., T. 77 N., R. 17 W., 0.3 mile south of sec. 7, on projecting knob of fence post, T corner; painted square	751.64	Bull. 569
Peoria, T. 77 N., R. 17 W., 0.3 mile north of SE. cor. sec. 8, on south side of east and west road, on bank, 18 feet east of corner fence post; iron post stamped "806 Iowa"	804.856	Bull. 569
Peoria, T. 77 N., R. 17 W., 0.3 mile north by 0.2 mile west of SE. cor. sec. 9, in base of corner fence post; three 40-penny nails	843.72	Bull. 569
Peoria, T. 77 N., R. 17 W., 0.3 mile east of SW. cor. sec. 10, on stone 15 feet NW. of intersection of roads; painted square	820.35	Bull. 569
Peoria, T. 77 N., R. 17 W., SE. cor. sec. 10, in corner fence post; three 40-penny nails	857.35	Bull. 569
Peoria, T. 77 N., R. 17 W., 0.5 mile north by 0.3 mile east of SW. cor. sec. 14, in root of hickory tree; 40-penny nail	863.22	Bull. 569
Peoria, T. 77 N., R. 17 W., 0.5 mile north of SE. cor. sec. 14, on north side of east and west road, 60 feet NW. of intersection of roads, 3 feet south of east and west fence; iron post stamped "875 Iowa"	873.856	Bull. 569
Peoria, T. 77 N., R. 17 W., 0.3 mile south by 0.2 mile west of NE. cor. sec. 23, in corner fence post; three 40-penny nails	854.24	Bull. 569
Peoria, T. 77 N., R. 17 W., 0.5 mile west of NE. cor. sec. 25, in fence post at corner, T corner; three 40-penny nails	857.79	Bull. 569
Peoria, T. 77 N., R. 17 W., 0.5 mile east of SW. cor. sec. 25, in corner fence post, T corner; three 40-penny nails	798.68	Bull. 569
Peoria, T. 77 N., R. 17 W., 0.5 mile south by 0.3 mile east of NW. cor. sec. 36, 15 feet east of center of north and south road, 50 feet north of east and west road, 18 feet north of corner fence post, 3 feet west of north and south fence; iron post stamped "742 Iowa"	740.216	Bull. 569
Peoria, T. 77 N., R. 17 W., 0.3 mile west of SE. cor. sec. 36, at intersection of roads, in south root of 30-inch elm tree; three 40-penny nails	844.29	Bull. 569
Peosta	1036.61036	IC
Peosta, 25 feet NW. of IC RR station, sec. 9, T. 88 N., R.		

STATION	ELEVATION FEET	AUTHORITY
1 E., 50 feet north of main track, beside wagon road; iron post stamped "1051"	1,041.585	Bull. 569
Percival	938,G934	CB&Q
Percival, 3 miles south of station, 13 feet north of farm gate, 627 feet north of road crossing, 45 feet east of railroad; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 328):		
Copper bolt	920.162	Bull. 569
Cap on pipe	924.181	
Percival, 784 feet north of center of station, 46 feet east of tracks; copper bolt in bench-mark stone (U.S.C.E. p.b.m. 329):		
Copper bolt	926.192	Bull. 569
Cap on pipe	930.221	
Percival, T. 68 N., R. 44 W., in NE. $\frac{1}{4}$ sec. 1, 665 feet south of north line of the quarter, 500 feet east of west line of the quarter, 610 feet south of house of Paul Heinlin, on left bank, on west side of north-south road; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 112 $\frac{1}{2}$):		
Copper bolt	925.43	Bull. 569
Cap on pipe	929.50	
Percival, T. 69 N., R. 44 W., 667 feet west of NE. cor. NW. $\frac{1}{4}$ sec. 30, in yard of Delos Williams, 75 feet south of east-west road; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 113 $\frac{1}{2}$):		
Copper bolt	928.50	Bull. 569
Cap on pipe	932.57	
Percival, T. 69 N., R. 43 W., in NE. cor. sec. 30, in door- yard of F. E. Wadhams; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 113 $\frac{1}{3}$):		
Copper bolt	928.93	Bull. 569
Cap on pipe	933.00	
Percy	750	WRR
Percy, 1.5 miles west of, 100 feet west of road, in south part of W. C. Wilson's yard, 1 foot north of Wabash RR fence at crossing south to highway bridge over Des Moines river, in top of concrete post, bronze tablet stamped "Prim. Trav. Sta. 24 LS 1904 IA (reset 1924)	772.989	USGS
Percy, 2 miles below, in root of twin 8-inch hackberry tree on fence line, 15 ⁴ feet from bank of river, 15 feet east of small house owned by fishing club on land of J. Gould; 20d. nail in bench cut (U.S.C.E.b.m. 60).....	741.44	Bull. 569
Percy, T. 77 N., R. 21 W., 0.25 mile west of NE. cor. sec. 13, T road corner, 15 feet west and 60 feet south of center of crossroads, 1 foot east of fence; iron post stamped "825 Iowa"	823.338	Bull. 569
Percy, see also Bennington		
Perkins	1458	GN
Perkins, crossing over CM&StP	1452	GN
Perkins, CM&StP track	1427	GN
Perkins	1427	CM&StP
Perkins, crossing under GN	1427,G1431	CM&StP
Perkins, crossing, GN track	1455,G1455	CM&StP
Perlee	673,G679	CRI&P
Perry	966,G961	M&StL
Perry, crossing CM&StP	G961	M&StL
Perry	949.37	DM&CI
Perry, crossing M&StL	962.80	DM&CI
Perry	965,G967	CM&StP
Perry, crossing M&StL	959	CM&StP
Perry, South	947.84	DM&CI

PERSHING-PILOT MOUND

507

STATION	ELEVATION FEET	AUTHORITY
Pershing	956	CRI&P
Persia	1166,G1167	CM&StP
Peru	944.9,G939	CGW
Petersburg	1033.4	CGW
Petersburg, T. 90 N., R. 3 W., quarter corner east side of sec. 28, southeast corner of schoolhouse yard; iron post stamped "1090 DBQ"	1,091.140	Bull. 569
Peterson	1236,G1238	C&NW
Petersville	715	C&NW
Pickering	971,G984	CM&StP
Pickering, crossing under M&StL	G984	CM&StP
Pickering, crossing, M&StL track	G1006	CM&StP
Pickering	1018	M&StL
Pierson	1268,G1268	C&NW
Pilot Grove	643	CB&Q
Pilot Knob, Hancock county	1450	IaGS
Pilot Mound, Boone county	1109,G1109	M&StL
Pilot Mound, 1 mile east by 1.2 miles north of, T. 85 N., R. 27 W., east center of SE. $\frac{1}{4}$ sec. 9, NW. cor. cross- roads; copper nail in base of corner fence post, marked "1159.1"	1,158.17	Bull.569
Pilot Mound, 1 mile east of, T. 86 N., R. 27 W., SW. cor. sec. 15, NE. cor. road forks north, at fence corner; iron post stamped "1121"	1,120.316	Bull.569
Pilot Mound, 4 miles south by 1 mile east of, T. 86 N., R. 27 W., NW. cor. sec. 10, SE. cor. road forks south, NW. cor. schoolhouse yard; iron post stamped "1119"	1,118.017	Bull.569
Pilot Mound, 4 miles north of, T. 86 N., R. 27 W., NE. cor. sec. 32, 60 feet SW. of center of crossroads, on west side of road; copper nail in root of 3-foot cotton- wood tree, marked "1133.9"	1,132.95	Bull.569
Pilot Mound, 2.8 miles north of, T. 85 N., R. 27 W., north center of SW. $\frac{1}{4}$ sec. 4, SE. cor. crossroads; copper nail in base of telephone pole, marked "1140.0"	1,139.09	Bull.569
Pilot Mound, 1.5 miles northeast of, T. 85 N., R. 27 W., near center of SW. $\frac{1}{4}$ sec. 9, SE. cor. road forks east, south end of drain-under road to east, 50 feet east of center of road forks; chiseled square on top of stone, marked "1140.7"	1,139.74	Bull.569
Pilot Mound, northeast edge of, T. 85 N., R. 27 W., SW. cor. sec. 16, NE. cor. crossroads; copper nail in base of telephone pole, marked "1110.3"	1,109.32	Bull.569
Pilot Mound, T. 85 N., R. 27 W., 0.2 mile north of SW. cor. sec. 21, bend in road to SE., north side of mound, east side of road, 15 feet north of fence corner; nail in top of stake in ground at fence post, marked "1124.9"	1,123.94	Bull.569
Pilot Mound, 1 mile south of, T. 85 N., R. 27 W., 0.1 mile east of SW. cor. sec. 21, in center of road forks at T road north; chiseled square on top of stone, marked "1127.7"	1,126.77	Bull.569
Pilot Mound, 2.2 miles south of, T. 85 N., R. 27 W., north center of NW. $\frac{1}{4}$ sec. 33, SE. cor. crossroads; chiseled square on top of stone on south side of east road, marked "1122.6"	1,121.67	Bull.569
Pilot Mound, T. 84 N., R. 27 W., north center of NW. $\frac{1}{4}$ sec. 4, on line between townships Pilot Mound and Yell, SW. cor. road forks at T road west; copper nail in top of south end of plank drain under road west, marked "1101.5"	1,100.60	Bull.569
Pilot Mound, T. 84 N., R. 27 W., south center of SW. $\frac{1}{4}$ sec. 4, NW. cor. road forks north; copper nail in base of telephone pole, marked "1110.0"	1,109.09	Bull.569

STATION	ELEVATION FEET	AUTHORITY
Pilot Mound (the hill)	1220	IaGS
Pinney (Union Park), top of rail on south line sec. 5, Tp. 82, R. 7, 2075 feet west of SE. cor. sec. 5.....	755.80	CR&IC
Pioneer	1190,G1170	M&StL
Pioneer, T. 90 N., R. 29 W., 250 feet north of quarter cor. between secs. 3 and 10, in SE. cor. of Mary L. Schuster's yard, in root of cottonwood tree (15 inches diameter); nail in washer T.B.M. "1,148.5"	1,148.22	USGS
Pioneer, T. 90 N., R. 29 W., center of sec. 10, 20 feet NE. of crossroads; iron post stamped "Iowa 1919, Prim. Trav. Sta. No. 9, 1,134"	1,133.441	USGS
Piper	1193	FtDDM&S
Pisgah	1060	C&NW
Pittsburg highway bridge, Van Buren Co., on top stone at angle in abutment, on south end of east abutment; cross mark (U.S.C.E.b.m. 31)	593.36	Bull. 569
Plainfield	944,G942	IC
Plano	1025,G1030	CB&Q
Plato	704,G703	CRI&P
Pleasant Creek	600,G603	CM&StP
Pleasanton	1088	CB&Q
Pleasant Prairie	778.87	CD&M
Pleasant Valley	590.31	CD&M
Pleasant Valley	G582	DRI&NW
Pleasant Valley, DRI&NW station.....	589	CB&Q
Pleasant Valley, DRI&NW station	592	CM&StP
Pleasantville	925.2,G926	CB&Q
Pleasantville, 0.75 mile SE. of, 230 feet NW. of road crossing, in top of east end of railroad culvert; Prim. Trav. Sta. No. 3; aluminum tablet stamped "882 Adj."	880.347	Bull. 569
Pleasantville, in front of station; top of rail	926.4	Bull. 569
Pleasantville, T. 76 N., R. 21 W., 0.5 mile south of NW. cor. sec. 14, at NE. angle crossroads, on stone; painted cross	915.76	Bull. 569
Pleasantville, T. 76 N., R. 20 W., center of sec. 18, north of east and west road, 25 feet west of corner fence post, 1 foot south of fence; iron post stamped "913 Iowa".....	911.782	Bull. 569
Pleasantville, T. 76 N., R. 20 W., 0.5 mile south of NE. cor. sec. 18, in center of road, in root of white-elm tree 32 inches in diameter; nail	907.98	Bull. 569
Plessis	1522,G1520	CRI&P
Plover	1210,G1190	M&StL
Plum Creek	1177	C&NW
Plymouth	1125,G1128	CM&StP
Plymouth Junction	1125	CM&StP
Plymouth Junction, crossing CRI&P	1125	CM&StP
Plymouth Junction	1127,G1126	CRI&P
Plymouth Junction, crossing CM&StP	1127,G1126	CRI&P
Pocahontas	1227,G1222	CRI&P
Polk City	852	C&NW
Polk City, T. 80 N., R. 24 W., NE. $\frac{1}{4}$ SW. $\frac{1}{4}$ sec. 18, 150 feet west of road fork, Corydon Bridge; iron post stamped "850 Adj 1903"	848.913	Bull. 569
Polk City, Corydon Bridge, 1 mile west of, about center of sec. 14, T. 80 N., R. 25 W., 40 feet west of center of road, in A. L. Frazer's yard; iron post stamped "950 Adj 1903"	948.972	Bull. 569
Polk City, T. 81 N., Rs. 24 and 25 W., between secs. 1 and 6; spike in telephone pole, marked "U.S.B.M. 879"	878.22	Bull. 569
Polk City, in front of C&NW Ry station, top of rail	850.6	Bull. 569
Polk City, T. 80 N., R. 25 W., near NW. cor. sec. 12, north		

STATION	ELEVATION FEET	AUTHORITY
side of road at three corners; spike in telephone pole, marked "U.S.B.M. 906"	904.43	Bull. 569
Polk City, in NW. cor. front face of Polk City Savings Bank; aluminum tablet stamped "890"	888.624	Bull. 569
Polk City, T. 81 N., R. 25 W., SE. cor. NW. ¼ sec. 36, at three corners, road to west; top of rock marked "U.S. B.M. 916"	914.41	Bull. 569
Polk City, T. 81 N., R. 25 W., 450 feet north of NW. cor. sec. 25, on west side of road; spike in telephone pole, marked "U.S.B.M. 931"	931.14	Bull. 569
Polk City, T. 81 N., R. 25 W., NE. cor. sec. 23; iron post stamped "956"	954.557	Bull. 569
Polk City Junction	951	C&NW
Pomeroy	1243, G1241	IC
Popejoy	1155	CRI&P
Port Allen	608, G612	CRI&P
Portland	1077, G1082	CM&StP
Port Louisa, Mississippi river, low water	G526	Miss. Riv. Com.
Port Louisa, Mississippi river, high water	G542	Miss. Riv. Com.
Port Louisa, on top of SE. cor. stone foundation of tall chimney of old sawmill (mill now torn down) (U.S.C.E. p.b.m. 24)	545.429	Bull. 569
Port Louisa landing, Louisa Co., 2.5 miles below, 842 meters back of bench mark 135/2, 16.6 meters 300° to 18-inch elm tree, 14.6 meters 201° to 15-inch elm tree, 2.2 meters 82° to 9-inch elm tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 135/1):		
Copper bolt	532.01	Bull. 569
Cap on pipe	536.02	
Port Louisa landing, 2.5 miles below, 10 meters from river shore, 7.6 meters 73° to 18-inch elm tree, 11.6 meters 191° to 30-inch cottonwood tree, 13.2 meters 316° to 10-inch black-oak tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 135/2):		
Copper bolt	533.93	Bull. 569
Cap on pipe	537.96	
Port Louisa, Turkey Island, on, 8 meters from east shore, 13 meters 333° to 8-inch willow, 15 meters 76° to 18-inch maple tree, 10 meters 137° to 10-inch willow tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 135/3):		
Copper bolt	532.44	Bull. 569
Cap on pipe	536.45	
Port Louisa landing, 2.5 miles below, on main shore, 10 meters from river bank, 18 meters 301° to 36-inch elm tree, 8.5 meters 126° to 48-inch elm tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 135/4):		
Copper bolt	533.78	Bull. 569
Cap on pipe	537.79	
Port Louisa, in woods opposite, 279 meters from river, 11 meters west of slough, 45 meters above junction with another slough; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 136/1):		
Copper bolt	533.44	Bull. 569
Cap on pipe	537.46	
Port Louisa, 35 meters from shore in small open timber opposite, directly opposite foot of small towhead, 8.7 meters 18° to 30-inch elm tree, 4 meters 137° to 8-inch triple elm, 4 meters 200° to 12-inch elm tree; copper		

STATION	ELEVATION FEET	AUTHORITY
bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 136/2):		
Copper bolt	534.10	Bull. 569
Cap on pipe	538.11	
Port Louisa, in open spot at corner of roads on line of road running back from Port Louisa to the bluffs, on point where old house once stood, east of bridge over Muscatine Slough, 23 meters south of fence and 19 meters west of another fence; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 136/3):		
Copper bolt	537.03	Bull. 569
Cap on pipe	541.03	
Port Louisa, on line of wire fence on south side of road running back from Port Louisa, 135 feet west of fence corner at bend in road; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 136/4):		
Copper bolt	536.18	Bull. 569
Cap on pipe	540.24	
Port Louisa, on clearing on Island 346, 0.25 mile above foot of island, 25 meters from bank of river, 70 meters from bank of Illinois Slough; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 137/2):		
Copper bolt	535.83	Bull. 569
Cap on pipe	539.85	
Port Louisa, 3 miles above, 40 meters from river bank, 18 meters east of wagon road, 5.4 meters 29° to 18-inch cottonwood, 21.6 meters 319° to 30-inch elm, 12.7 meters 242° to 15-inch locust, 5 meters from bank is a sycamore (48 inches in diameter) nearly in line with bench mark and elm tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 137/3):		
Copper bolt	538.11	Bull. 569
Cap on pipe	542.14	
Portsmouth	1197,G1200	CM&StP
Postville	1195,G1192	CRI&P
Postville	1194,G1198	CM&StP
Postville, T. 95 N., R. 6 W., NE. cor. sec. 16, in SE. cor. school yard; iron post stamped "1075 DBQ".....	1,075.526	Bull. 569
Postville, in front face of Commercial House; aluminum tablet stamped "1195 DBQ"	1,194.516	Bull. 569
Postville, in front of CM&StP Ry station; top of rail.....	1,197.3	Bull. 569
Postville Junction	1058,G1062	CRI&P
Potter	857,G855	CM&StP
Potters Siding	1049.2	CGW
Prairie City, B.M. top of monument M.P. 339.....	925.37	CRI&P
Prairie City, B.M. top of monument M.P. 340.....	927.23	CRI&P
Prairie City, top of rail, center of depot	924.3,G930	CRI&P
Prairie City, B.M. top of monument M.P. 341.....	921.22	CRI&P
Prairie City, B.M. top of monument M.P. 342.....	920.59	CRI&P
Prairie City, B.M. top of monument M.P. 343.....	930.06	CRI&P
Prairie City, B.M. top of monument M.P. 344.....	935.19	CRI&P
Prairie City, T. 78 N., R. 21 W., at north cor. secs. 5 and 6, 30 feet south and 30 feet east of T road south, near cemetery, on concrete post; bronze tablet stamped "Prim. Trav. Sta. No. 25-L.S.-1924, Ia.", marked "932.4"	932.466	USGS
Prairie City, reference mark, 69 feet west of "L.S. No. 25", in SW. angle of T road south, top of concrete post; iron rod	933.02	USGS
Prairie City, T. 79 N., R. 21 W., at south corner of secs. 33 and 34, 32 feet north and 20 feet east of T road north,		

PRAIRIE CITY

511

STATION	ELEVATION FEET	AUTHORITY
1 foot NE. of telephone pole; top of 0.5-inch gas pipe, marked "908.0"	908.08	USGS
Prairie City, T. 79 N., R. 21 W., at SE. cor. sec. 34 in NW. angle of T road north, top of concrete culvert under highway; chiseled square, marked "883.1"	883.14	USGS
Prairie City, CRI&P Ry, at crossing of road between secs. 3 and 35, Tps. 78 and 79 N., R. 21 W.; top of east rail	921.0	USGS
Prairie City, T. 79 N., R. 21 W., at SE. cor. sec. 35, 60 feet west and 30 feet north of T road north, in root on south side of 4-foot cottonwood tree; copper nail and washer, marked "924.4"	924.48	USGS
Prairie City, T. 79 N., R. 21 W., SW. cor. sec. 25, in SW. cor. Valley School grounds, 4 feet north and 8 feet east of large willow tree, on concrete post; bronze tablet stamped "Prim. Trav. Sta. No. 21-L.S.-1924-Ia." marked "847.3"	847.365	USGS
Prairie City, reference mark, 16 feet west and 8 feet north of "L.S. No. 21", in root on north side of 2-foot maple tree; copper nail and washer	846.96	USGS
Prairie City, T. 79 N., R. 21 W., near cor. secs. 23, 24, 25 and 26, 270 feet north and 25 feet west of crossroads, in root on north side of 2-foot maple tree; copper nail and washer, marked "872.7"	872.76	USGS
Prairie City, T. 78 N., R. 21 W., at cor. secs. 1 and 2, on north side of Prairie City, 3 blocks north and 1 block east of city square, 1 block west of junction of Colfax road with State Highway No. 2 (Federal Highway No. 63), 25 feet north and 20 feet east of street intersection, in root on SW. side of 3.5-foot maple tree; copper nail and washer, marked "929.4"	929.45	USGS
Prairie City, CRI&P Ry, at road crossing, 1 block east of city square; top of north rail	925.7	USGS
Prairie City, at SE. limits of, 750 feet south of CRI&P Ry, west side of north and south road, 130 feet north of T road east, 40 feet south of street west; top of end of tile; chiseled square, marked "911.5"	911.57	USGS
Prairie City, 1 mile south of, T. 78 N., R. 21 W., at corner of secs. 1, 2, 11 and 12, in NE. angle of crossroads, top of concrete wall at fence corner; chiseled square, marked "928.0"	928.04	USGS
Prairie City, 2 miles south of, T. 78 N., R. 21 W., at cor. secs. 11, 12, 13 and 14, 30 feet north and 30 feet east of crossroads, on concrete post; bronze tablet stamped "Prim. Trav. Sta. No. 22-L.S.-1924-Ia.", marked "885.0"	885.037	USGS
Prairie City, reference mark, 65 feet south of "L.S. No. 22", in root of south side of forked maple tree; copper nail and washer	888.63	USGS
Prairie City, 3 miles south of, T. 78 N., R. 21 W., 430 feet south of cor. secs. 13, 14, 23 and 24, 580 feet south of L. Roovaart's house, on west side of road, top of heading of concrete culvert; chiseled square, marked "846.7"	846.73	USGS
Prairie City, 4 miles south of, T. 78 N., R. 21 W., near cor. secs. 23, 24, 25 and 26, 70 feet east and 20 feet south of crossroads, in root on west side of 2-foot elm tree; copper nail and washer, marked "862.4"	862.46	USGS
Prairie City, 5 miles south of, T. 78 N., R. 21 W., at cor. secs. 25, 26, 35 and 36, 40 feet south and 20 feet east of crossroads, on concrete post; bronze tablet stamped "Prim. Trav. Sta. No. 23-L.S.-1924-Ia."	913.070	USGS
Prairie City, reference mark, 62 feet west and 8 feet south		

STATION	ELEVATION FEET	AUTHORITY
of L.S. No. 23, top of concrete curb around churchyard; chiseled square	913.78	USGS
Prairiesburg, Linn Co., T. 86 N., R. 5 W., NW. cor. sec. 10, opposite side of road from Stromburg's residence; iron post stamped "1013"	1,004.245	Bull. 569
Prairie View	906.04	DM&CI
Preparation	1084	C&NW
Prescott	1153,G1153	CB&Q
Preston	659,G660	CM&StP
Primghar	1504,G1498	IC
Princeton	603.18	CD&M
Princeton	G597	DRI&NW
Princeton, DRI&NW station	606	CM&StP
Princeton, DRI&NW station	603.9	CB&Q
Princeton, 1.5 miles below, on property of Adam McCoy, 1 meter from SE. cor., at junction of wagon roads, one running along river and the other on line between secs. 14 and 15, T. 79, R. 5 E., 30 meters from bank of river; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 155/3):		
Copper bolt	589.29	Bull. 569
Cap on pipe	593.32	
Princeton, 1 mile below, in NE. cor. footplate on NE. cor. iron bridge over Bud creek; bolt with battered top (U. S.C.E.t.b.m. 11 R. B).....	580.27	Bull. 569
Princeton, cut in stone culvert near river near center of town (U.S.C.E. high-water mark of June 16, 1880).....	580.95	Bull. 569
Princeton, 1 mile above, on bluff wagon road, 2 meters north of south road fence, 150 meters west of where road turns from river and runs west, 130 meters east of north-south road; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 156/3):		
Copper bolt	587.04	Bull. 569
Cap on pipe	591.07	
Princeton, 1.5 miles NW. of, 1 meter north of south fence on bluff wagon road, at dividing line between Mary and Chas. Pinneo, 100 meters toward river from brick house belonging to Pinneo, at east end of picket fence, copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 156/4):		
Copper bolt	587.00	Bull. 569
Cap on pipe	591.02	
Prole	979	CB&Q
Promise City	1052,G1065	CB&Q
Pulaski	838,G833	CB&Q
Purdy	924	CRI&P
Putledge	809	CRI&P
Quandahl, Allamakee Co., T. 99 N., R. 6 W., about 0.2 mile north of SE. cor. sec. 9, in NW. cor. school yard; iron post stamped "731 DBQ"	729.578	Bull. 569
Quarry	874	C&NW
Quilhart	940	CRI&P
Quimby	1190,G1190	IC
Quincy, Adams Co.	1260	JaGS
Racine	1144	CRI&P
Radcliffe	1189,G1194	C&NW
Radcliffe	1152	CRI&P
Radcliffe, crossing over C&NW	1158	CRI&P
Rake	1167,G1154	CRI&P
Raleigh	1440,G1441	M&StL
Ralston	1123	C&NW
Randall, in front of CRI&P Ry station; top of rail.....	1,103.6	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
Randalia, southeast cor. sec. 16, T. 93 N., R. 9 W.; iron post stamped "1128 DBQ"	1,129.082	Bull. 569
Randalia	1103	CRI&P
Randall	1024	C&NW
Randall, 5 miles west of, T. 86 N., R. 24 W., SW. cor. sec. 19, on line between Ellsworth and Clear Lake Tps., NE. cor. crossroads; copper nail in top of corner fence post, marked "1046.7"	1,045.48	Bull. 569
Randall, 4 miles west by 2 miles south of, T. 86 N., R. 24 W., SE. cor. sec. 31, NW. cor. crossroads; copper nail in top of post at end of drain under north road, marked "1019.7"	1,018.70	Bull. 569
Randall, 4 miles west by 0.1 mile south of, T. 86 N., R. 24 W., SE. cor. sec. 30, NW. cor. crossroads, 15 feet north of NW. fence corner; on road side of 1-foot soft-maple tree; copper nail in root, marked "1041.7"	1,040.63	Bull. 569
Randall, 4 miles west of, T. 86 N., R. 24 W., SE. cor. sec. 19, NW. cor. crossroads; iron post stamped "1056"	1,055.205	Bull. 569
Randall, 3 miles west of, T. 86 N., R. 24 W., NW. cor. sec. 28, SE. cor. crossroads, SW. cor. plank bridge floor, 60 feet east of center of crossroads; copper nail in top, marked "1036.0"	1,034.95	Bull. 569
Randall, 2 miles west of, T. 86 N., R. 24 W., NE. cor. sec. 28, SW. cor. crossroads, NW. cor. bridge over creek; copper nail in top of west end of north plank bridge seat marked "1029.5"	1,029.45	Bull. 569
Randall, 1 mile west of, T. 86 N., R. 24 W., near SE. cor. sec. 22, NE. cor. bridge crossing stream; copper nail in floor, marked "1018.1"	1,017.04	Bull. 569
Randall, 0.5 mile west of, SE. cor. SW. ¼ sec. 23, T. 86 N., R. 24 W., NW. cor. road forks; chiseled square cut in top of north end of concrete drain, marked "1022.8"	1,021.69	Bull. 569
Randall, T. 86 N., R. 24 W., near NE. cor. sec. 26, at north edge of town, in NW. cor. schoolhouse yard; iron post stamped "1019"	1,017.895	Bull. 569
Randall, 2 miles south of, T. 86 N., R. 24 W., SW. cor. sec. 36, NE. cor. C&NW Ry crossing east-west county-line road; spike in post of cattle guard, marked "1018.7"	1,017.74	Bull. 569
Randall, T. 86 N., R. 24 W., east center of sec. 35, south side of road at bend to east, east side of railroad; spike in post of cattle guard, marked "1014.1"	1,013.20	Bull. 569
Randall, 1 mile south of, T. 86 N., R. 24 W., south center of SE. ¼ sec. 26, NW. cor. crossroads; copper nail in base of telephone pole, marked "1017.4"	1,016.47	Bull. 569
Randall, 4 miles east of, T. 86 N., R. 34 W., SW. cor. sec. 22, NE. cor. crossroads; at fence corner; iron post, stamped "1093"	1,091.423	Bull. 569
Randall, 3 miles east of, T. 86 N., R. 23 W., NE. cor. sec. 29, SW. cor. crossroads, at fence corner; chiseled square cut in top of large stone, marked "1046.8"	1,045.58	Bull. 569
Randall, 2 miles east of, T. 86 N., R. 23 W., SE. cor. sec. 19, NW. cor. crossroads; chiseled square on top of large rock, marked "1031.2"	1,029.92	Bull. 569
Randall, 1 mile east of, SW. cor. sec. 19, T. 86 N., R. 23 W., on township line between Scott and Ellsworth Tps., NE. cor. crossroads; chiseled square on top of stone at west end of drain under road, marked "1002.97"	1,001.75	Bull. 569
Randick	856	CRI&P
Randolph	971.6,G970	CB&Q
Rands	1183,G1185	CM&StP
Rathbun	867,G871	CM&StP
Raymond	884	IC

STATION	ELEVATION FEET	AUTHORITY
Readlyn	1030.5	CGW
Reasnor	759	CRI&P
Rector	725	CRI&P
Rector, T. 75 N., R. 19 W., NE. cor. sec. 3, 18 feet east of center of north and south road, in angle of fence; iron post stamped "849 Iowa"	847.507	Bull. 569
Rector, opposite signboard (CRI&P Ry); top of rail	810.4	Bull. 569
Redding	1138,G1130	CB&Q
Reddy	798.7	CGW
Redfield	956,G958	CM&StP
Red Oak	1077,G1077	CB&Q
Red Rock, Marion Co., top of round bolthead between two hexagonal nuts on extreme east side of north shore pier of highway bridge at (U.S.C.E.b.m. 62)	733.64	Bull. 569
Red Rock, on top of downstream end of outcropping ledge of red sandstone about 1 mile above highway bridge at Red Rock, river makes a sharp bend when it strikes this ledge, from which it is presumed the locality takes its name; square cut (U.S.C.E.b.m. 61)	722.24	Bull. 569
Reeve	1181	CRI&P
Reinbeck	932,G926	CRI&P
Reinbeck, crossing CGW	930	CRI&P
Reinbeck	924.9,G925	CGW
Reinbeck, crossing CRI&P	929.0,G929	CGW
Reinbeck	G926	Weather Bur.
Reinicker, M.P. 349	1197	IC
Relay (CB&Q Transfer, Centerville)	931	ISU
Rembrandt	1332,G1333	M&StL
Rcmsen	1326,G1324	IC
Renwick	1156	C&NW
Rhodes	1011,G1011	CM&StP
Riceville	1232.7,G1229	CGW
Richards	1191,G1193	IC
Richland	774,G768	M&StL
Richland	664,G674	CM&StP
Richland, crossing over M&StL	711	CM&StP
Ricketts	1303	C&NW
Rider	977,G979	CM&StP
Rider, T. 79 N., R. 25 W., SE. cor. SE. ¼ sec. 21, 20 feet west of junction with T road south, in field, 20 feet from large tree at corner; iron post stamped "956 Prim. Trav. Sta. No. 2"	954.389	Bull. 569
Ridgeway	1211,G1209	CM&StP
Ridgeway, McIntosh schoolhouse, 1.25 miles west of, 1.25 miles east of Madison Church, east of entrance to cemetery; iron post stamped "1194 DBQ"	1,193.625	Bull. 569
Ridley	1181,G1191	CM&StP
Riggs	773	CM&StP
Rinard	1163.8,G1170	CGW
Rinard, crossing FtDDM&S	1163.7	CGW
Rinard	1171	FtDDM&S
Ringsted	1272	C&NW
Rippey	1068,G1064	M&StL
Ritter	1431.4	CStPM&O
River Junction	641	CRI&P
Riverside	631,G641	CRI&P
River Sioux	1038,G1040	C&NW
River Sioux, 2.5 miles south of, 3,553 feet north of mile-post 20, 51 feet east of tracks; copper bolt in bench-		

STATION	ELEVATION FEET	AUTHORITY
mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 368):		
Copper bolt	1,025.851	Bull. 569
Cap on pipe	1,029.857	
River Sioux, 1,260 feet south of station, 541 feet south of milepost 23, 45 feet east of tracks; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 369 equals 131/3):		
Copper bolt	1,031.986	Bull. 569
Cap on pipe	1,035.982	
River Sioux, 2.2 miles north of station, 1,634 feet north of milepost 25, 47 feet east of tracks; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 370):		
Copper bolt	1,028.922	Bull. 569
Cap on pipe	1,032.928	
River Sioux, 4.5 miles north of, at west right of way fence of C&NW Ry, 608 feet north of south line of Monona county; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 132/4):		
Copper bolt	1,027.88	Bull. 569
Cap on pipe	1,031.94	
Riverton	922,G926	CB&Q
Rizerville	975	ISU
Roberts, B.M. pole No. 1947	1129.81	FtDDM&S
Roberts, T. 88 N., R. 29 W., quarter cor. south side sec. 24, at second class road crossing, 25 feet west of track, 10 feet north of road, 2 feet east of fence; iron post stamped "Iowa 1919 1,128"	1,128.186	USGS
Roberts, T. 88 N., R. 29 W., quarter cor., south side of sec. 13, at Roberts crossing, 120 feet north of railway crossing, 5 feet west of track, in base of power transmission pole, marked "1,127.2"; spike	1,127.29	USGS
Roberts, T. 88 N., R. 29 W., quarter cor. south side of sec. 12, at railway crossing, 60 feet west of track, on north side of road, in root of 2.5 foot cottonwood tree marked "1,123.3"; copper nail and washer	1,123.39	USGS
Roberts, T. 88 N., R. 29 W., near quarter cor., east side of sec. 12, at overhead road crossing, 40 feet east of bridge, 6 feet east of track, in base of telephone pole, marked "1,085"; spike	1,085.06	USGS
Robertson	1179,G1175	CRI&P
Robins	854,G858	IC
Robins, 3 miles south of. crossing under CM&StP.....	790	IC
Robins, crossing under CM&StP	790	IC
Robins, center of depot, subgrade.....	834.73	WCF&N
Robins, 3 miles south, near Louisa, crossing under CM&StP	788.50	WCF&N
Rochester	690	CB&Q
Rochester, bridge over Des Moines river	691	CB&Q
Rochester, bottom Des Moines river	661	CB&Q
Rochester, rock under Des Moines river	646	CB&Q
Rockaway	620,G621	CM&StP
Rockdale, nail in S. end IC bridge No. 8.....	G619	USGS
Rockdale Mill	617	IC
Rock Falls	1109,G1104	CRI&P
Rockford	1022,G1021	CRI&P
Rockingham, 15 meters from river, 0.5 meter east of fence on Davenport wagon road, 136 meters NE. of Homann's south line; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 148/3):		
Copper bolt	555.02	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
Cap on pipe	559.00	
Rock Island, Ill.	570	CRI&P
Rock Rapids	1361.6	CStPM&O
Rock Rapids, crossing IC.....	1381.6	CStPM&O
Rock Rapids, crossing CRI&P	1361.6	CStPM&O
Rock Rapids, state line	1391.3	CStPM&O
Rock Rapids	1350,G1345	CRI&P
Rock Rapids, crossing CStPM&O	1350,G1345	CRI&P
Rock Rapids	1349,G1349	IC
Rock Rapids, crossing CRI&P	1349	IC
Rock Rapids, crossing CStPM&O	1367	IC
Rock Rapids	G1358	Weather Bur.
Rock Rapids, 2 miles east of	1415	IaGS
Rock Valley, Ia. & Dak. line	1249,G1255	CM&StP
Rock Valley, junction with Rock Valley line	1247	CM&StP
Rock Valley, 3 miles east of.....	1323	IaGS
Rockwell	1138,G1130	M&StL
Rockwell City	1221	FtDDM&S
Rockwell City	1228,G1230	CM&StP
Rockwell City, crossing IC	1221,G1222	CM&StP
Rockwell City, crossing FtDDM&S	1221	CM&StP
Rockwell City	1220,G1223	IC
Rockwell City, crossing CM&StP and FtDDM&S	1219	IC
Rodman	1199,G1193	CRI&P
Rodney	1085,G1088	CM&StP
Rodney, crossing IC	1074	CM&StP
Roelyn	1159.1,G1165	CGW
Rogers	926	IC
Roland	1033,G1028	M&StL
Roland, 1 mile south by 1 mile west of, T. 85 N., R. 23 W., SE. cor. sec. 21, on west side of road at T road east, at fence line, at foot of telephone pole, 50 feet NW. of road forks, 35 feet north of east-west section line; iron post stamped "995"	993.096	Bull. 569
Roland, 1 mile west of, T. 85 N., R. 23 W., NW. cor. sec. 22, SE. cor. crossroads; copper nail in base of electric- light line pole, marked "1022.1"	1,020.73	Bull. 569
Roland, 1 mile west of, top of south rail at M&StL RR crossing	1,024.0	Bull. 569
Roland, 1.5 miles north by 1 mile west of, T. 85 N., R. 23 W., east center sec. 9, SW. cor. crossroads; iron post stamped "1029"	1,027.347	Bull. 569
Roland, T. 85 N., R. 23 W., west center of SW. ¼ sec. 3, SE. cor. concrete bridge over Long Dick creek; chiseled square cut in base of concrete railing, marked "1013.2"	1,011.85	Bull. 569
Roland, 3 miles north by 1 mile west of, T. 86 N., R. 23 W., SE. cor. sec. 33, county line between Hamilton and Story counties, NW. cor. crossroads; chiseled square on top of north guard of concrete culvert under road west, marked "1024.9"	1,023.61	Bull. 569
Roland, 4 miles north by 1 mile west of, T. 86 N., R. 23 W., SW. cor. sec. 27, NE. cor. crossroads; painted square on top of north end of tile drain under road east, marked "1056.96"	1,055.67	Bull. 569
Roland, T. 85 N., R. 23 W., SE. cor. sec. 29, 3.5 feet west of T road south, NW. cor. bridge over Bear creek; cop- per nail in plank flooring, marked "964.65"	963.69	Bull. 569
Roland, 1 mile west by 2 miles south of, T. 85 N., R. 23 W., SE. cor. sec. 28, NW. cor. crossroads, 28 feet west of SE. cor. schoolhouse yard, inside of fence; copper nail in root on west side of 18-inch box-elder tree, marked "1026.6"	1,025.682	Bull. 569

ROLAND-BUNNELLS

517

STATION	ELEVATION FEET	AUTHORITY
Roland, 1 mile west by 3 miles south of, Tps. 84 and 85 N., R. 23 W., cor. secs. 3, 4, 33, and 34, at road crossing; chiseled square on top of corner stone in center of road, marked "1038.9"	1,037.92	Bull. 569
Roland, 4 miles south by 1 mile west of, T. 84 N., R. 23 W., SE. cor. sec. 3, NE. cor. crossroads; iron post stamped "1025"	1,023.906	Bull. 569
Roland, T. 84 N., R. 23 W., SW. cor. sec. 10, NE. cor. crossroads; copper nail in top of north end of plank drain under road to east, marked "1013.0"	1,012.08	Bull. 569
Roland, T. 84 N., R. 23 W., NE. cor. sec. 21, SW. cor. crossroads, 20 feet north of SW. fence corner; chiseled square in top of large rock on bank of ditch, marked "992.2"	991.28	Bull. 569
Rolfe	1185	C&NW
Rolfe, crossing M&StL	1186	C&NW
Rolfe	1181	M&StL
Rome	628,G626	CB&Q
Roscoe	774,G763	CB&Q
Rosebrook	920	ISU
Rosedale, Hamilton Co., 2 miles north by 1 mile west of, T. 86 N., R. 25 W., SW. cor. sec. 23, NE. cor. crossroads, SW. cor. yard to residence, inside of fence corner; copper nail in root of 2-foot cottonwood tree facing fence corner, marked "1089.8"	1,088.66	Bull. 569
Rosedale, 2 miles north of, T. 86 N., R. 25 W., near SW. cor. sec. 24, 160 feet east of crossroads, east side of north end of drain under road to east; copper nail in top of cedar post marked "1052.5"	1,051.31	Bull. 569
Rose Hill	808,G822	CRI&P
Rose Hill, South Skunk river west of	718	IaGS
Ross	1354,G1353	C&NW
Rosseau, Marion Co., 0.38 mile north and 0.06 mile west of SW. cor. sec. 9, T. 76 N., R. 19 W., east of north and south road, 85 feet south of residence of J. P. Amos; iron post stamped "763 Iowa"	761.153	Bull. 569
Rosseau, T. 76 N., R. 19 W., 0.25 mile north of SW. cor. sec. 9, in west root of oak tree 24 inches in diameter; 40-penny nail	764.87	Bull. 569
Rossie	1413,G1409	CRI&P
Rossie, crossing M&StL	1368	CRI&P
Ross Junction	786	WRR
Rossville	939	CM&StP
Rowan	1212	CRI&P
Rowan, crossing CGW	1205	CRI&P
Rowan	1200.9,G1203	CGW
Rowan, crossing CRI&P	G1203	CGW
Rowena, S. Dakota	1406	IC
Rowley	981,G990	CRI&P
Rounds Park	G951	WCF&N
Royal	1417,G1414	CRI&P
Rubio	635,G638	CM&StP
Rubio, crossing Skunk river	632,G637	CM&StP
Rudd	1112,G1117	CM&StP
Runnells, T. 78 N., R. 22 W., near quarter corner on south side of sec. 33, 407 feet south of Wabash RR, at crossing of highway at curve in highway, 60 feet north of center line of highway east, 15 feet west of center line of highway north from curve, in top of concrete post; bronze tablet marked "762.4"	762.384	USGS
Runnells, reference mark, 54 feet S. 45° E. of B.M., top of SW. heading of concrete culvert; chiseled square	763.66	USGS

STATION	ELEVATION FEET	AUTHORITY
Runnells, T. 78 N., R. 22 W., 300 feet west of quarter corner on south side of sec. 34, 420 feet west of road junction, 300 feet west and 220 feet south of Wabash RR, at road crossing, in root on NE. side of 30-inch elm tree; copper nail and washer, marked "759.1"	759.04	USGS
Runnells	772	WRR
Runnells, 1 mile above, in top of south pier of highway bridge across Des Moines river; aluminum tablet (U.S. C.E.b.m. 58 equals U. S. Geological Survey primary traverse station mark No. 1)	764.64	Bull. 569
Russell	1034.8,G1037	CB&Q
Russell, 1 mile north by 1 mile west of, T. 72 N., R. 20 W., at NW. cor. sec. 31, in SE. angle of crossroads, 2 feet east of corner post; iron post stamped "Iowa 1036, 1913"	1,036.227	Bull. 569
Russell, 1 mile north of, T. 72 N., R. 20 W., SW. cor. sec. 29, in NE. angle of crossroads, 3 feet east of mile board "Albia 23," in root of elm stump; copper nail	1,027.82	Bull. 569
Russell, T. 72 N., R. 20 W., SW. cor. sec. 28, in NE. angle of T road north, east end of plank culvert, in top of plank; copper nail	1,023.67	Bull. 569
Russell, T. 72 N., R. 20 W., at SW. cor. sec. 27, in NE. angle of T road north, private road south, 140 feet east of Victory School, 5 feet east of fence corner; iron post stamped "Iowa 1023, 1913"	1,022.940	Bull. 569
Russell, T. 72 N., R. 20 W., at cor. sec. 26, 27, 34, and 35, at center of crossroads, on section stone; chiseled square	983.81	Bull. 569
Ruthven	1428,G1434	CM&StP
Ruthven, crossing M&StL	1425,G1431	CM&StP
Ruthven	1432	M&StL
Rutland	1122,G1128	C&NW
Rutledge, Marion line	832,G834	CM&StP
Rutledge, Muscatine line	831,G834	CM&StP
Ryan	1013	IC
Ryan, west side of sec. 18, T. 87 N., R. 5 W., east side of road crossing IC RR. about 50 feet north of railroad; iron post stamped "1020"	1,000.789	Bull. 569
Sabula	605,G603	CM&StP
Sabula, crossing Mississippi river	607,G606	CM&StP
Sabula, 0.5 mile below, in heavy timber, 0.5 mile below Sabula bridge, 235 meters east of east bank of chute behind Savanna Island, 50 meters back of dry slough; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 166/1):		
Copper bolt	577.92	Bull. 569
Cap on pipe	581.83	
Sabula, 0.5 mile below bridge at, on sand ridge back of willow bar, 50 meters from bank, ridge lies between two small dry sloughs; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 166/2):		
Copper bolt	581.33	Bull. 569
Cap on pipe	585.29	
Sabula, 0.8 mile below, in bunch of elms on Island 269, 200 meters below its head, 150 meters from river bank in line with cleared strip 50 meters wide running back from river, 100 meters from levee; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 166/3):		
Copper bolt	580.69	Bull. 569
Cap on pipe	584.72	
Sabula, in front of CM&StP Ry passenger station; base of rail	603.84	Bull. 569

SABULA-SANDUSKY

519

STATION	ELEVATION FEET	AUTHORITY
Sabula railroad bridge, cut on top of south end of second pier from right bank (U.S.C.E.t.b.m. 27 R. B).....	598.07	Bull. 569
Sabula bridge, gage on pier west of draw pier (U.S.C.E.), zero of gage	571.98	
Sabula Junction	595	CM&StP
Sac City	1201,G1196	CM&StP
Sac City	G1278	Weather Bur.
Sac City	1274,G1274	C&NW
Sac Junction	1230	C&NW
Sageville, Dubuque Co., T. 90 N., R. 2 E., sec. 34, on west end of north abutment of bridge over Maquoketa river, in stone; bronze tablet stamped "621 DBQ".....	622.600	Bull. 569
St. Ansgar	1175,G1175	IC
St. Anthony	1003,G997	M&StL
St. Benedict	1272,G1264	M&StL
St. Charles	1067	CB&Q
St. Charles	G1070	Weather Bur.
St. Donatus, Jackson Co., near center sec. 7, T. 87 N., R. 4 E., iron post stamped "674"	666.028	Bull. 569
St. Donatus	G674	USGS
St. Francisville, Mo., three miles south of Sand Prairie, Ia. Aluminum tablet on H. C. Campbell's residence	G542	USGS
St. Francisville, Mo., Des Moines river, water surface	G497	USGS
St. Lucas, Fayette Co.	1060	IaGS
St. Marys	1036	CB&Q
St. Olaf	841,G845	CM&StP
Salem	715.4,G717	CB&Q
Salix	1082,G1084	C&NW
Salix, 2.5 miles south of, 240 feet south of farm crossing, 46 feet east of railway; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 387):		
Copper bolt	1,071.825	Bull. 569
Cap on pipe	1,075.851	
Salix, 1,270 feet south of station, 144 feet north of south headblock at Salix siding, 46 feet east of railway; copper bolt in bench-mark stone surmounted by iron pipe (U. S.C.E.p.b.m. 388 equals 140/3):		
Copper bolt	1,078.718	Bull. 569
Cap on pipe	1,082.721	
Salix, 2.8 miles north of, 623 feet north of road crossing, 361 feet north of C. W. Wheeler's house, 47 feet east of railway, south side of old river bed; copper bolt in bench-bark stone surmounted by iron pipe (U.S.C.E. p.b.m. 389):		
Copper bolt	1,085.552	Bull. 569
Cap on pipe	1,089.558	
Samoa	595,G597	CM&StP
Sanborn	1547,G1552	CM&StP
Sand Prairie, B.M. top of monument M.P. 14.....	544.87	CRI&P
Sand Prairie, top of rail, depot	556.2	CRI&P
Sand Prairie, B.M. top of monument M.P. 15.....	552.29	CRI&P
Sand Spring	902,G902	CM&StP
Sand Spring, T. 86 N., R. 3 W., NW. ¼ sec. 9, between railroad tracks, 500 feet north of switch; iron post stamped "849"	840.097	Bull. 569
Sandusky	532	CB&Q
Sandusky, Des Moines Rapids canal, 1 mile above middle lock of, between railroad track and osage hedge, 18.25 meters west of center of track, 4.5 meters east of hedge, 44.75 meters south of center of culvert 39A, 80 meters below large ice house standing between canal and railroad, 15.5 meters north of gateway leading up bluff to		

STATION	ELEVATION FEET	AUTHORITY
vineyard and wine cellar, 45 meters west of canal, 30 meters above point opposite figure 35 painted on west slope of canal wall; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 112/2):		
Copper bolt	519.04	Bull. 569
Cap on pipe	523.07	
Sandusky, 1 mile above, on SW. cor. west end of south abutment of culvert 36A of CB&Q RR (U.S.C.E. 32 R. B)	511.78	Bull. 569
Sandusky, Des Moines Rapids canal, 1 mile below guard lock at upper end of, on side of bluff between railroad and public road, 13 meters west of center of track, at point 140.7 meters north of small box culvert, 15 meters east of center of road at point 58 meters south of blazed maple tree by roadside where it ascends to pass over point of hill, 25 meters west of canal, nearly opposite figures 68 painted on west slope of canal wall; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 113/3):		
Copper bolt	525.14	Bull. 569
Cap on pipe	529.15	
Sandyville, Warren Co., 300 feet south of main crossroads, west side of road at fence behind hitching rack, limestone rock 8 by 8 by 32 inches, set 30 inches in ground; aluminum tablet stamped "941 Adj"	940.721	Bull. 569
Santiago	841.4	CGW
Santiago, T. 80 N., R. 22 W., near cor. secs. 13, 14, 23 and 24, 650 feet east and 125 feet south of T road east, in root on NW. side of 2-foot cottonwood tree; copper nail and washer, marked "802.9" on tree	803.06	USGS
Santiago, Skunk river, surface of water underneath highway bridge on May 26, 1926, at 4 p.m.	795.92	USGS
Santiago, T. 80 N., R. 22 W., near quarter corner between secs. 23 and 24, top of NE. tube pier (concrete filled) of highway bridge over Skunk river; chiseled square, marked "805.7"	805.90	USGS
Santiago, T. 80 N., R. 22 W., at quarter corner between secs. 25 and 26, 20 feet south and 35 feet west of T road west, 225 feet SE. of A. Schneider's house, on concrete post; bronze tablet stamped "Prim. Trav. Sta. No. 17-L.S.-1924-Ia.", marked "862.6"	862.786	USGS
Santiago, reference mark is 43 feet N. 30° W. of "L.S. No. 17", in root on NE. side of 2-foot locust tree; copper nail and washer	862.90	USGS
Santiago, CGW RR at crossing in; top of rail	845.7	USGS
Santiago, T. 80 N., R. 22 W., about 0.25 mile west of center sec. 26, 140 feet west and 17 feet south of T road north, in root on north side of 15-inch elm tree; copper nail and washer, marked "883.0"	883.17	USGS
Santiago, T. 80 N., R. 22 W., 0.25 mile west of center of sec. 27, in NE. angle of T road east, top of concrete culvert heading; chiseled square, marked "911.2"	911.41	USGS
Santiago, T. 80 N., R. 22 W., 0.25 mile west of center of sec. 22, 30 feet east and 30 feet south of elbow in road from south to west, in root on north side of 30-inch forked maple tree; copper nail and washer, marked "911.4"	911.64	USGS
Santiago, 2 miles west, 1 mile north of, T. 80 N., R. 22 W., at cor. secs. 15, 16, 21 and 22, 225 feet west of elbow, west and south, 80 feet north and 60 feet west of schoolhouse, on concrete post; bronze tablet stamped "Prim. Trav. Sta. No. 16-L.S. 1924-Ia."	846.857	USGS
Santiago, reference mark is 223 feet west of "L.S. 16"		

SANTIAGO-SELMA

521

STATION	ELEVATION FEET	AUTHORITY
on top of north heading of concrete culvert; chiseled square	838.45	USGS
Santiago, 2 miles west, 2 miles north of, T. 80 N., R. 22 W., at center of NE. ¼ of sec. 16, 40 feet north and 20 feet west of road corner, south and west, in root on west side of 15-inch pine tree; copper nail and washer, marked "850.8"	851.05	USGS
Santiago, 3 miles west, 2 miles north of, T. 80 N., R. 22 W., at corner secs. 8, 9, 16 and 17, 45 feet north and 20 feet west of crossroads, in root on SE. side of 4-foot cottonwood tree; copper nail and washer, marked "903.8"	904.13	USGS
Sargents Bluff	1093, G1095	C&NW
Sargents Bluff, crossing CM&StP	1087	C&NW
Sargents Bluff, 2.8 miles south of, 1,900 feet south of milepost 66, 656 feet north of road crossing, 1,352 feet north of Louis Godferson's house, 46 feet east of railway; copper bolt in bench-mark stone (U.S.C.E.p.b.m. 390):		
Copper bolt	1,085.257	Bull 569
Cap on pipe	1,089.273	
Sargents Bluff, in lot 1, block 2, 10 feet from SW. cor. E. T. Berry's house, 52 feet from NW. cor. Tenth and Walnut Sts.; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 391 equals 142/3):		
Copper bolt	1,090.273	Bull 569
Cap on pipe	1,094.263	
Sargents Bluff, 3 miles north of, 47 feet east of railway, 1,476 feet south of road crossing, 2 feet west of east right of way fence; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 392):		
Copper bolt	1,093.039	Bull 569
Cap on pipe	1,097.055	
Sargents Bluff, T. 87 N., R. 48 W., 680 feet north of SW. cor. sec. 12, at east side of section-line road, on premises of E. R. Allen; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 141/2):		
Copper bolt	1,087.84	Bull. 569
Cap on pipe	1,091.90	
Sattre, Winneshiek Co., T. 99 N., R. 7 W., sec. 15, 1 rod east of NE. cor. intersection of Locust and Sattre roads; iron post stamped "1159 DBQ"	1,158.943	Bull. 569
Savanna, Ill.	596	CM&StP
Sawyer	708	CB&Q
Saylor	960, G961	C&NW
Scarville	1246	C&NW
Schaller	1395, G1393	C&NW
Schleswig	1493	C&NW
Schleswig, hills in SE. ¼ sec. 24, T. 85 N., R. 40 W.	1535	IaGS
Scotch Grove	876, G876	CM&StP
Scranton	1179, G1177	C&NW
Searsboro	817, G806	M&StL
Secor	950	C&NW
Sedan, Shenandoah line	830	CB&Q
Sedan, Fort Madison line	830, G831	CB&Q
Sedan, crossing Shenandoah line CB&Q	830, G831	CB&Q
Sedan, junction I&StL	831	CB&Q
Selection	971	W&B
Selection	980	ISU
Selma, top of upstream side of second tube pier west of east end of highway bridge (U.S.C.E.p.b.m. 89)	613.28	Bull. 569
Selma, B.M. top of monument M.P. 57	611.03	C&I&P

STATION	ELEVATION FEET	AUTHORITY
Selma, B.M. top of monument M.P. 58.....	613.11	CRI&P
Selma, top of rail, center of depot (U.S.C.E.b.m. 41).....	615.8	CRI&P
Selma, B.M. top of monument M.P. 60.....	615.29	CRI&P
Selma, B.M. top of monument M.P. 61.....	617.12	CRI&P
Seney	1227.8,G1227	CStPM&O
Sewal	1102,G1106	CM&StP
Sexton	1213,G1218	CM&StP
Seymour	1066,G1075	CRI&P
Seymour, crossing CM&StP	1059	CRI&P
Seymour	1070,G1074	CM&StP
Seymour, crossing CRI&P	1066,G1069	CM&StP
Seymour	G1079	Weather Bur.
Shady Oak, crossing Des Moines river	1023.65	FtDDM&S
Shady Oak, about 3 miles south by 1 mile east of Fort Dodge, at FtDDM&S Ry crossing over Des Moines river, 200 feet south of north end of bridge, 6.5 feet below level of track, in west concrete abutment; bronze tablet stamped "Iowa 1919 1018"	1,017.860	USGS
Shady Oak, 1.02 miles north of, 60 feet north of hollow coming in from west, 4 feet west of track, in base of power transmission pole, marked "1,050"; spike	1,050.14	USGS
Shady Oak, T. 86 N., R. 28 W., near quarter cor., north side of sec. 33, at highway and interurban railway crossing, 30 feet south of crossing, 5 feet east of track, in top of sawed off telephone pole standing 2 feet above ground marked "1,103"; copper bolt	1,103.05	USGS
Shaffton, DRI&NW station	599	CM&StP
Shaffton	600.25	CD&M
Shaffton, crossing CRI&P	601.81	CD&M
Shaffton	G588	DRI&NW
Shaffton, DRI&NW station	595	CB&Q
Shaffton, 200 meters above mouth of Wapsipinicon river, 10 meters from river bank opposite foot of Adams Island, 20 meters north of a shanty, 8 meters 219° 30' to 20-inch white-oak tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 157/3):		
Copper bolt	575.64	Bull. 569
Cap on pipe	579.64	
Shaffton, opposite, 3 miles below Albany, 15 meters from river bank, opposite point midway between Island 295 and first towhead below, 2.5 meters 121° 30' to 15-inch elm, 58 meters 326° 30' to 18-inch elm tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 158/3):		
Copper bolt	574.66	Bull. 569
Cap on pipe	578.68	
Shaffton, see also Folletts, which is adjacent		
Shambaugh	983,G973	CB&Q
Shannon City	1146.9,G1144	CGW
Sharon	845	CRI&P
Sharpsburg	1273,G1270	CB&Q
Shawondasse Club station, 6 miles below Dubuque, on line CM&StP Ry, 76 feet below south end of platform and 86 feet above boundary fence between Paul Eiffer's and Frank Noel's lands, on west side of track, 47.1 feet from center; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 286 and 287):		
Copper bolt	602.771	Bull. 569
Cap on pipe	606.771	
Sheffield	1079	CRI&P
Sheffield	1084,G1076	M&StL
Shelby	1292,G1295	CRI&P

SHELBY-SHIPLEY

523

STATION	ELEVATION FEET	AUTHORITY
Shelby, 3 miles west of, in NE. stone abutment of CRI&P Ry bridge 475; aluminum tablet.....	1,289.328	Bull. 569
Shelby, in front of CRI&P Ry station; top of rail	1,296	Bull. 569
Shelby, 160 feet west of CRI&P Ry track, opposite a point 150 feet north of station, near corner of park; iron post	1,294.654	Bull. 569
Sheldahl	1035,G1038	C&NW
Sheldahl, T. 81 N., R. 25 W., NW. cor. sec. 13; spike in telephone pole, marked "U.S.B.M. 960"	958.48	Bull. 569
Sheldahl, T. 81 N., R. 25 W., NW. cor. sec. 12; spike in fence post, marked "U.S.B.M. 1001"	999.52	Bull. 569
Sheldahl, T. 82 N., R. 25 W., SE. cor. sec. 35; iron post stamped "1008"	1,007.114	Bull. 569
Sheldahl, T. 82 N., R. 25 W., SW. cor. sec. 25; spike in base of telephone pole marked "U.S.B.M. 1024"	1,022.33	Bull. 569
Sheldon	1418,G1421	IC
Sheldon, crossing CM&StP	1420	IC
Sheldon, crossing CStPM&O	1416	IC
Sheldon	1409,G1415	CM&StP
Sheldon, crossing CStPM&O	1409,G1415	CM&StP
Sheldon, crossing IC	1415,G1421	CM&StP
Sheldon, crossing CM&StP, union station	1414.1	CStPM&O
Sheldon, crossing IC	1413.7	CStPM&O
Sheldon, 1 mile west of	1475	IaGS
Shell Rock	910.9,G910	CGW
Shell Rock, crossing CRI&P	932.5	CGW
Shell Rock	925,G921	CRI&P
Shellsburg	776,G774	CRI&P
Shenandoah	981	WRR
Shenandoah, crossing CB&Q	976	WRR
Shenandoah, Red Oak-Hamburg line	978.4,G974	CB&Q
Shenandoah, junction Red Oak and Shenandoah line.....	971.15	CB&Q
Shenandoah, crossing Wabash	973	CB&Q
Shepard	1167.8,G1164	CGW
Sherman	1133	CRI&P
Sherrill, 3 miles north and 1 mile west of, T. 91 N., R. 1 E., in fraction of Jefferson Tp., near SE. cor. sec. 35, in field; iron post	897.778	Bull. 569
Sherwood	1232,G1233	IC
Shipley	962	CRI&P
Shipley, T. 83 N., R. 24 W., center of east side of sec. 25; spike in telephone pole, marked "U.S.B.M. 932"	930.28	Bull. 569
Shipley, T. 83 N., R. 23 W., 0.25 mile east of west end of south border of sec. 19, iron post stamped "870".....	869.015	Bull. 569
Shipley, T. 83 N., R. 23 W., 0.25 mile east of SW. cor. sec. 20, NE. cor. crossroads; spike in telephone pole, marked "U.S.B.M. 888"	886.92	Bull. 569
Shipley, T. 83 N., R. 23 W., SW. cor. sec. 21; spike in telephone pole, marked "U.S.B.M. 921"	919.81	Bull. 569
Shipley, T. 83 N., R. 23 W., NE. cor. NW. $\frac{1}{4}$ sec. 27; iron post stamped "958"	957.011	Bull. 569
Shipley, T. 83 N., R. 23 W., NW. cor. NE. $\frac{1}{4}$ sec. 34; spike in telephone pole, marked "U.S.B.M. 972"	970.36	Bull. 569
Shipley, T. 83 N., R. 23 W., SW. cor. SE. $\frac{1}{4}$ sec. 34; spike in telephone pole, marked "U.S.B.M. 1010"	1,008.33	Bull. 569
Shipley, T. 83 N., R. 23 W., NE. cor. NW. $\frac{1}{4}$ sec. 27, 0.2 mile west of Shipley, SW. cor. crossroads; iron post stamped "958"	957.011	Bull. 569
Shipley, T. 83 N., R. 23 W., cor. secs. 21, 22, 27 and 28, 0.8 mile west of Shipley, center of forks at T road north; chiseled square on top of corner stone, marked "961.1"	960.11	Bull. 569
Shipley, T. 83 N., R. 23 W., SE. cor. sec. 16, NW. cor.		

STATION	ELEVATION FEET	AUTHORITY
crossroads; copper nail in top of corner fence post, marked "988.5"	987.45	Bull. 569
Shipley, T. 83 N., R. 23 W., NW. cor. sec. 15, SE. cor. crossroads; copper nail in top of corner fence post, marked "968.2"	967.15	Bull. 569
Shopton	521.3	AT&SF
Shopton, top of T-rail marker M.P. 235	521.41	AT&SF
Showman, South Skunk river near	657	IaGS
Sibley	1516.0	CStPM&O
Sibley, crossing CRI&P	1506.4	CStPM&O
Sibley, 1 mile south of state line, also 3600 feet south of state line, about 1 mile south of Bigelow, Minn., track level	1653.6	CStPM&O
Sibley, 3500 feet south of state line, upland level	1659	CStPM&O
Sibley	1508,G1502	CRI&P
Sibley, crossing CStPM&O	1508,G1502	CRI&P
Sibley, center Wilson Tp.	1670	IaGS
Sibley	G1512	Weather Bur.
Sidney	1052,G1049	CB&Q
Sidney, public square	1156	IaGS
Sidney, Nishnabotna bottoms east of	915	IaGS
Sigourney	752	CRI&P
Sigourney, crossing CM&StP	751	CRI&P
Sigourney	785,G790	CM&StP
Sigourney, under crossing CRI&P	G763	CM&StP
Sigourney, under crossing, CM&StP tracks	785	CM&StP
Sigourney, Bridge creek east of	693	IaGS
Sigourney, Bridge creek north of	713	IaGS
Sigourney, German creek east of	688	IaGS
Sigourney, divide between Bridge and German creeks	808	IaGS
Sigourney, South, North Skunk river	658	City levels
Silver City	1046	WRR
Sinclair	917,G921	IC
Sinclair, crossing under C&NW	934	IC
Sioux Center	1447	GN
Sioux City, 22d St. Tel. office	1111.88	CStPM&O
Sioux City	1103,G1104	CM&StP
Sioux City	1106	IC
Sioux City, east main track, depot	1103	GN
Sioux City	1101,G1103	C&NW
Sioux City, crossing GN	1104	C&NW
Sioux City, crossing IC	1102	C&NW
Sioux City, Missouri river, extreme low water, 1882	G1076	Mo. River Com.
Sioux City, Missouri river, extreme high water, 1881	G1099	Mo. River Com.
Sioux City	G1135	Weather Bur.
Sioux City, 558 feet south of Missouri river bridge, 148 feet north of railroad bridge 60, 20 feet east of rail- way; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 393):		
Copper bolt	1,098.038	Bull. 569
Cap on pipe	1,102.058	
Sioux City, in NW. cor. east pier of Missouri river bridge, 2 feet above ground, in seventeenth course of masonry below coping course; copper bolt (U.S.C.E.p.b.m. 394)..	1,105.670	Bull. 569
Sioux City, 103 feet west of west side of eastern or shore pier of Missouri river bridge, almost vertically under north truss of east span and 69 feet west of railway; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 395, gage bench mark):		
Cap on pipe	1,094.076	Bull. 569
Sioux City, in SW. cor. courthouse yard, 72 feet from SW. cor. courthouse, 135 feet from SE. cor. of same; copper		

STATION	ELEVATION FEET	AUTHORITY
bolt in bench-mark stone (U.S.C.E.p.b.m. 396 equals 143/3):		
Copper bolt	1,106.218	Bull. 569
Cap on pipe	1,110.237	
Sioux City, 39 feet north of NE. cor. Fifth and Pierce Sts.; top of ring bolt in sidewalk stone (U.S.C.E.t.b.m. 996)	1,108.512	Bull. 569
Sioux City, 3.5 miles above, 0.25 mile north of electric railway power house at Riverside Park, 121 feet north of north headblock, at foot of bluff, 52 feet east of railway, copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 397):		
Copper bolt	1,100.296	Bull. 569
Cap on pipe	1,104.312	
Sioux City, 6 miles above, 515 feet south of south end of railway bridge over Big Sioux river, 3 feet east of west right-of-way fence; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 398):		
Copper bolt	1,102.875	Bull. 569
Cap on pipe	1,106.884	
Sioux City, 6 miles above, on land of Mrs. Rose Pacquette, 50 feet west of CM&StP Ry track, 190 feet south of south end of railway bridge over Big Sioux river, 5 feet west of right-of-way fence; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 399):		
Copper bolt	1,098.367	Bull. 569
Cap ¹ on pipe	1,102.373	
Sioux City, head of Bacon Hollow	1398	City Engineer
Sioux City, top of Prospect Hill	1281	City Engineer
Sioux City, top of sandstone, Prospect Hill	1097	City Engineer
Sioux Falls, S. Dakota	1396,G1396	IC
Sioux Falls, East, S. Dakota	1320,G1323	IC
Sioux Rapids	1263,G1272	C&NW
Sioux Rapids, crossing under M&StL	1278	C&NW
Sioux Rapids	1309,G1308	M&StL
Sioux Rapids, crossing over C&NW	1296	M&StL
Sioux Rapids, crossing, C&NW tracks.....	1266	M&StL
Slater	1042	C&NW
Slater, union station with C&NW	1041,G1040	CM&StP
Slater, T. 82 N., R. 25 W., south cor. between secs. 26 and 27; spike in telephone pole, marked "U.S.B.M. 1008".....	1,007.00	Bull. 569
Slater, T. 82 N., R. 25 W., NW. cor. sec. 25; spike in fence post, marked "U.S.B.M. 1040"	1,038.63	Bull. 569
Slater, T. 82 N., R. 25 W., SE. cor. sec. 14; iron post stamped "1049"	1,047.809	Bull. 569
Slater, T. 82 N., R. 25 W., NE. cor. sec. 14; spike in telephone pole, marked "U.S.B.M. 1044"	1,042.59	Bull. 569
Slater, T. 82 N., R. 25 W., SW. cor. sec. 1; spike in fence post, marked "U.S.B.M. 1040"	1,037.60	CRI&P
Slifer	1148,G1157	CRI&P
Sloan	1074,G1076	C&NW
Sloan, T. 85 N., R. 47 W., 1,068 feet north of west quarter post of sec. 22, opposite Omaha Mission, on east side of section-line road, in dooryard of George Nelson; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 138/2):		
Copper bolt	1,066.95	Bull. 569
Cap on pipe	1,071.02	
Sloan, T. 86 N., R. 47 W., 1,670 feet south of NE. cor. sec. 26, on west side of north-south road; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 139/2):		
Copper bolt	1,071.28	Bull. 569
Cap on pipe	1,075.35	

¹ In 1905 Cap reported stolen

STATION	ELEVATION FEET	AUTHORITY
Sloan, 3 miles south of, 1,345 feet south of milepost 52, 47 feet west of railway; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 383 equals 138/3):		
Copper bolt	1,062.826	Bull. 569
Cap on pipe	1,066.888	
Sloan, 1,335 feet south of, 47 feet west of railway, 3 feet south of south side of east-west public road; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 384):		
Copper bolt	1,068.075	Bull. 569
Cap on pipe	1,072.078	
Sloan, on corner of Fourth and Evans Sts.; cross cut on NE. cor. of stone doorsill of State bank (U.S.C.E.p.b.m. 385)	1,076.622	Bull. 569
Sloan, 5,256 feet north of station, 879 feet south of milepost 56, 49 feet west of railway; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 386 equals 139/3):		
Copper bolt	1,069.624	Bull. 569
Cap on pipe	1,073.630	
Smithland	1078,G1080	IC
Smithland, crossing CM&StP	1074,G1080	IC
Smiths, Jackson Co.	611,G607	CM&StP
Smiths, 1.2 miles below, behind Bellevue slough, on CM&StP Ry, 148 feet below stone culvert about in center of short, heavy fill, at lower end of long curve, 60 feet east of center of track, several feet outside of right of way, 1,902 feet above bridge 50, on 10-inch oak tree; spike in root (U.S.C.E.t.b.m. 323)	608.798	Bull. 569
Smiths, 0.8 mile above, on opposite side of track from t.b.m. 321, at head of Bellevue slough, 110 feet above bridge 56, 55 feet below lower line of A. M. Brown's house, 12 feet below cattle guard, on river side of track, 16 feet from center, on small bench of ground between cattle guard and gate leading down to river; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 298 and 299):		
Copper bolt	602.147	Bull. 569
Cap on pipe	606.130	
Smiths, above, at point of bluff at head of Bellevue slough, at lower end of cut, in front of house owned by A. M. Brown, 15 feet below path running to this house, 125 feet above bridge 56, at upper side of cattle guard, 12 feet west of center of track, on natural ledge of rock, marked "U.□S."; highest point in square (U.S.C.E.t.b.m. 321)	607.607	Bull. 569
Smiths Siding, Monona Co., stock pen	1315	CM&StP
Sneffs	651,G646	CM&StP
Snodgrass Siding	818	CB&Q
Sny Magill	628,G627	CM&StP
Sny Magill station, 1,214 feet below lower switch block of, 50 feet below milepost 70 from LaCrosse, just east of west right of way fence, 30 feet from center of track, behind islands 176 and 178 on line of CM&StP Ry; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 239 and 240):		
Copper bolt	624.539	Bull. 569
Cap on pipe	628.532	
Sny Magill, at head of Island 176, 482 feet above milepost 68 from La Crosse, on south abutment of bridge 378K of CM&StP Ry, at its east end, on third course of		

SNY MAGILL-SPECHTS FERRY

527

STATION	ELEVATION FEET	AUTHORITY
stone from top, 3 feet west from east end of stone and 3 inches back from north face, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 232)	624.822	Bull. 569
Sny Magill, on Island 176, 25 meters back from bank of river, 100 meters above head of Wyalusing Slough, which is opposite Wyalusing, Wis.; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 195/3):		
Copper bolt	612.73	Bull. 569
Cap on pipe	616.68	
Sny Magill, opposite Wyalusing, Wis., on side of bluff, 1 meter east of perpendicular rock cliff, 25 meters west of center of CM&StP Ry track, 40 meters above log house, on path leading from log house to spring, 300 meters above railroad bridge 364 over Sny Magill creek; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 195/4):		
Copper bolt	649.08	Bull. 569
Cap on pipe	653.03	
Solberg	1209.9	CGW
Soldier	1133	C&NW
Solomon	1141	WRB
Solon	789,G794	CRI&P
Somers	1151.9,G1157	CGW
Somers, crossing CRI&P	1151.0,G1156	CGW
Somers	1158	CRI&P
Somers, crossing CGW	1156	CRI&P
Somers, crossing IC	1181	CRI&P
South Amana	880,G882	CM&StP
South Amana	745,G746	CRI&P
South English	832,G840	CRI&P
South Number 3	977	ISU
Spaulding	1349.6,G1348	CB&Q
Spechts Ferry	613,G613	CM&StP
Spechts Ferry, 3.1 miles below, 2.2 miles above Little Maquoketa river, on line of CM&StP Ry, 912 feet below milepost 108-53, and opposite lower end of bridge 128 over Leisures Creek, 49 feet east from center of track, on right of way, in corner of fence formed by main fence and wing fence to bridge 128, in slope of bluff; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 269 and 270):		
Copper bolt	618.092	Bull. 569
Cap on pipe	622.119	
Spechts Ferry, 1.5 miles below, at Parsons bar, on extreme point of bluff, between rock quarry where t.b.m. 280 is located and railroad bridge 134, 25.5 feet south from center of track; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 267 and 268):		
Copper bolt	609.572	Bull. 569
Cap on pipe	613.585	
Spechts Ferry, 1.5 miles below, at Parsons bar, in cove or borrow pit at lower end, and base of heavy sidehill cut, 300 feet more or less above bridge 134, where railroad leaves river bank and enters woods, on natural ledge of hard rock, 50 feet from track center, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 280)	618.565	Bull. 569
Spechts Ferry, 0.3 mile below CM&StP Ry station at, 0.5 mile above milepost 106-55, 82 feet below large bare ledge of rock inclining at an angle of about 45° with horizon, on bluff side of track, 10 feet from center, on natural ledge of rock, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 279)	617.899	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
Spechts Ferry, 354 feet below center of CM&StP station, 164 feet below bridge 140, 174 feet below lower side of stone milk house, 1 foot above fence forming west side of railroad cattle pen, on bluff side of track, 37.4 feet from center; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 265 and 266):		
Copper bolt	611.409	Bull. 569
Cap on pipe	615.409	
Spechts Ferry, at NE. cor. Specht's house, on water table, but a few inches above corner, marked "B⊙M"; highest point on front segment of circle (U.S.C.E. old U.S. b.m. a)	615.927	Bull. 569
Spechts Ferry, on upper stone doorstep to Specht's stone house, downstream end, front edge, marked "⊙"; highest point in upper portion of circle (U.S.C.E. old p.b.m. 30)	615.452	Bull. 569
Spechts Ferry, on right bank of Island 213, 0.8 mile below its head, 15 meters back from bank of river on high ground, opposite rock quarry on right bank; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 183/2):		
Copper bolt	598.90	Bull. 569
Cap on pipe	602.87	
Spechts Ferry, 1.5 miles below, 0.5 meter west of east right-of-way fence of CM&StP Ry, between tenth and eleventh telegraph poles, below signboard which reads "Slow to 6 miles an hour," 55 meters above wagon road crossing at rock quarry, 175 meters above railroad bridge 138K; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 183/3):		
Copper bolt	613.35	Bull. 569
Cap on pipe	617.3	
Spechts Ferry, in front of CM&StP Ry station; base of rail (U.S.C.E.)	613.80	Bull. 569
Spechts Ferry, Mississippi river, low water	G590	Miss. Riv. Com.
Spechts Ferry, Mississippi river, high water	G611	Miss. Riv. Com.
Spechts Ferry, T. 91 N., R. 1 E., in fraction of Jefferson Tp., near SE. cor. sec. 35, in field; iron post.....	897.778	Bull. 569
Spencer	1314,G1315	M&StL
Spencer, crossing CM&StP	1305,G1315	M&StL
Spencer, Ia. & Dak. line	1314,G1319	CM&StP
Spencer, Des Moines line	1318,G1319	CM&StP
Spencer, crossing M&StL	1318	CM&StP
Spencer, junction with Ia. & Dak. Div.	1318	CM&StP
Spencer	G1319	Weather Bur.
Sperry, union station with CRI&P	751	CB&Q
Sperry	753,G757	CRI&P
Spirit Lake	1465,G1457	CRI&P
Spirit Lake	1468	CM&StP
Spirit Lake	G1458	Weather Bur.
Spragueville	633	CM&StP
Springdale	1117	IC
Spring Grove	553	CB&Q
Spring Hill	810,G817	CRI&P
Springville	845,G846	CM&StP
Stacyville	1203,G1208	IC
Stacyville Jct., South switch	1189,G1189	IC
Stacyville Jct., North switch	1178	IC
Stanhope	1119,G1122	C&NW
Stanhope, T. 86 N., R. 26 W., NW. cor. sec. 36, SE. cor. crossroads, at foot of corner fence post; chiseled square on top of stone, marked "1061.4"	1,060.47	Bull.569
Stanhope, 1 mile west by 4.5 miles south of, T. 86 N., R.		

STANHOPE-STORY CITY

529

STATION	ELEVATION FEET	AUTHORITY
25 W., NW. cor. sec. 31, on north-south township line between Marion and Clear Lake townships, south of Stanhope, SE. cor. crossroads, at fence corner; iron post stamped "1033"	1,031.596	Bull.569
Stanhope, T. 86 N., R. 25 W., 0.1 mile east of south center of sec. 30, NE. cor. of T road north, in corner fence post; copper nail marked "1030.5"	1,029.63	Bull.569
Stanhope, 3.5 miles south of, T. 86 N., R. 25 W., SW. cor. sec. 20, NE. cor. T road north, in base of corner fence post; copper nail, marked "1046.0"	1,045.17	Bull.569
Stanhope, 3.5 miles south by 1 mile east of, T. 86 N., R. 25 W., cor. secs. 20, 21, 28 and 29, in center of T road south at forks; chiseled square on top of corner stone, marked "1062.5"	1,061.71	Bull.569
Stanley	1106.7	G1106 CGW
Stanley, T. 91 N., R. 8 W., NE. cor. sec. 21, at crossroads; iron post stamped "1143 DBQ"	1,144.385	Bull.569
Stanton	1170	G1172 CB&Q
Stanwood	845	G847 C&NW
Stark	832	C&NW
Stark	821.5	CB&Q
Stark, crossing C&NW	821	CB&Q
State Center	1077	M&StL
State Center	1070	C&NW
Steamboat Rock	983	G978 M&StL
Steen, Minn.	1485	G1485 IC
Stennett	1055.14	G1052 CB&Q
Steuben, platform	872	G871 CB&Q
Stilson	1204	G1207 M&StL
Stimsons, abandoned	1207	G1205 CM&StP
Stockport	747	CB&Q
Stockton, main line	717	G720 CRI&P
Stockton, crossing Bennett line	711	CRI&P
Stockton, Bennett line	729	CRI&P
Stone City	815	G815 CM&StP
Stonega	1167	IC
Storm Lake	1435	G1436 IC
Storm Lake, connection M&StL	1440	IC
Storm Lake, crossing over CM&StP	1442	G1437 IC
Storm Lake	1430	G1427 CM&StP
Storm Lake, crossing M&StL	1435	G1430 CM&StP
Storm Lake, crossing under IC	1417	CM&StP
Storm Lake	1432	G1433 M&StL
Storm Lake, crossing CM&StP	1421	M&StL
Storm Lake, crossing IC	1425	M&StL
Storms	932.11	DM&CI
Story City	1014	G1011 M&StL
Story City	1016	C&NW
Story City, 1 mile east of, T. 85 N., R. 23 W., center of sec. 7, at center of T road south; chiseled square in top of corner stone, marked "998.0"	997.06	Bull. 569
Story City, 2.5 miles east of, T. 85 N., R. 23 W., east center of sec. 8, SW. cor. crossroads; copper nail in base of telephone pole, marked "1009.8"	1,008.87	Bull. 569
Story City, 3.5 miles south of, T. 85 N., R. 24 W., SE. cor. sec. 26, NW. cor. crossroads, 50 feet west of fence corner; copper nail in base of willow stump, marked "959.1"	958.10	Bull. 569
Story City, 3.5 miles south by 0.5 mile east of, T. 85 N., Rs. 23 and 24 W., cor. secs. 25, 36, 30 and 31; in center of crossroads; chiseled square on top of stone corner mark, marked "968.6"	967.65	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
Story City, T. 85 N., R. 23 W., near south center of sec. 30, in NW. cor. flooring of steel highway bridge over Skunk river; painted spike head marked "944.5"	943.53	Bull. 569
Story City, T. 85 N., R. 23 W., SE. cor. sec. 30, NW. cor. forks at road north, 10 feet west of NW. fence corner, 40 feet NW. of section corner stone; iron post stamped "973"	971.796	Bull. 569
Story City, 1.5 miles south by 4.5 miles west of, T. 85 N., R. 24 W., SW. cor. sec. 17, NE. cor. crossroads; copper nail in top of fence anchor post, marked "1068.3"	1,067.32	Bull. 569
Story City, 0.5 mile south by 4.5 miles west of, T. 85 N., R. 24 W., SE. cor. sec. 7, NW. cor. crossroads, at fence corner; iron post stamped "1047"	1,045.580	Bull. 569
Story City, 0.5 mile north by 4.5 miles west of, T. 85 N., R. 24 W., SE. cor. sec. 6, NW. cor. crossroads; copper nail in top of west end of plank drain under road north, marked "1018.5"	1,017.52	Bull. 569
Story City, 2.5 miles south of, T. 85 N., R. 24 W., SE. cor. sec. 23, NW. cor. road forks, copper nail in base of willow tree at fence corner, marked "1088.6." (This marking is probably an error)	987.66	Bull. 569
Story City, 1.5 miles south of, T. 85 N., R. 24 W., SW. cor. sec. 13, NE. cor. crossroads, copper nail in top of east end, south side of plank drain under road north, marked "999.9"	998.89	Bull. 569
Story City, SW. edge of, T. 85 N., R. 24 W., NW. cor. sec. 13, SE. cor. crossroads; copper nail in base of telephone pole, marked "1012.7"	1,011.69	Bull. 569
Story City, street crossing at east edge of, near center of sec. 12, T. 85 N., R. 24 W., at road leading north on half-section line, NE. cor. street intersection; chiseled square in top of concrete crosswalk at gutter crossing, marked "1001.4"	1,000.47	Bull. 569
Story City, NE. part of, near center of sec. 12, T. 85 N., R. 24 W., 1 block north of Main St., at SW. cor. high-school building; iron post stamped "1000"	998.864	Bull. 569
Story City, T. 85 N., R. 24 W., SW. cor. sec. 1, road crossing C&NW Ry, NE. cor. intersection; top of bolthead at SE. cor. bridge No. 2205", marked "1019.3"	1,018.35	Bull. 569
Story City, T. 85 N., R. 24 W., east center of sec. 2, SW. cor. crossing; top of bolthead at north end of guard-rail of railroad bridge 2205, marked "1024.9"	1,024.01	Bull. 569
Stout	1025	C&NW
Stowes Ranch station	874.55	DM&CI
Strahan	1128	WRR
Stratford	1113, G1116	C&NW
Stratford, 1.5 miles south by 2 miles west of, T. 86 N., R. 27 W., north center of sec. 23, inside of fence corner, SE. cor. crossroads; iron post stamped "1111"	1,110.058	Bull. 569
Stratford, T. 86 N., R. 27 W., near north center of NW. ¼ sec. 22, SW. cor. road forks at T road south; copper nail in corner fence post, marked "1106.9"	1,105.93	Bull. 569
Stratford, T. 86 N., R. 27 W., near north center of sec. 21, east end of south side of steel highway bridge over Des Moines river; painted bolthead in top of southeast circular pier, marked "920.5"	919.55	Bull. 569
Stratford, 2.5 miles east by 3 miles south of, T. 86 N., R. 26 W., NW. cor. sec. 34, SE. cor. crossroads, at fence corner; iron post stamped "1084"	1,082.577	Bull. 569
Stratford, T. 86 N., R. 26 W., SE. cor. sec. 27, NW. cor. crossroads; painted square on top of west end of tile drain under road north, marked "1045.4"	1,044.45	Bull. 569

STRATFORD-SWAN

531

STATION	ELEVATION FEET	AUTHORITY
Stratford, 1.5 miles east by 3 miles south of, T. 86 N., R. 26 W., cor. secs. 28, 29, 32 and 33, center of crossroads; chiseled square on top of stone, marked "1076.0"	1,075.00	Bull. 569
Stratford, 2.5 miles south by 1.5 miles east of, T. 86 N., R. 26 W., NE. cor. sec. 29, 60 feet south of road forks west; painted square on top of west end of tile drain under road to south, marked "1074.3"	1,073.26	Bull. 569
Stratford, 2.5 miles south of, T. 86 N., R. 26 W., north center of sec. 30, south side of road, 55 feet west of center of road at forks north, at fence corner; iron post stamped "1121"	1,120.101	Bull. 569
Stratford, T. 86 N., R. 27 W., 0.1 mile west of south center of sec. 24, 280 feet east of house on north side of road; chiseled square on top of stone at north end of drain under road, marked "1124.9"	1,123.94	Bull. 569
Stratford, T. 86 N., R. 27 W., south center of sec. 23, at T road east, west side of road; copper nail in base of corner fence post, marked "1128.1"	1,127.10	Bull. 569
Strawberry Point	1213	CM&StP
Strawberry Point, T. 91 N., R. 6 W., quarter corner north side sec. 21; iron post stamped "1221 DBQ"	1,222.344	Bull. 569
Strawberry Point, in front of CM&StP Ry station; top of rail	1,217.2	Bull. 569
Strawberry Point, T. 91 N., R. 7 W., NE. cor. sec. 21, in school yard; iron post stamped "114 DBQ"	1,114.811	Bull. 569
Struble	1261	GN
Stuart	1205,G1207	CRI&P
Stuart	G1216	Weather Bur.
Stuart, in NW. cor. station grass plat, 300 feet west of station, 60 feet north of track, 1 foot east of sidewalk; iron post	1,210.150	Bull. 569
Stuart, in front of CRI&P Ry station; top of rail	1,208.0	Bull. 569
Stuart, in stone water table of high school, about 6 feet east of entrance; aluminum tablet	1,206.045	Bull. 569
Stulta	770,G774	CM&StP
Sugar Creek—Base rail bridge 71 (1-155 ft. T.L.T) north end	511.2	CRI&P
Sugar Creek, top of monument M.P. 5	501.38	CRI&P
Sugar Creek, top of monument M.P. 6	504.81	CRI&P
Sugar Creek, top of monument M.P. 7	512.72	CRI&P
Sugar Creek, top of monument M.P. 9	513.84	CRI&P
Sully	929	M&StL
Sulphur Springs	1311,G1311	IC
Summerset	788,G794	CRI&P
Summerset, Middle river near	775	IaGS
Summerset Junction	786,G791	CRI&P
Summit, Fremont Co.	1048	WRR
Summit, Guthrie Co.	1148	CM&StP
Summit, Muscatine Co.	713,G718	CRI&P
Summit, Story Co.	1056	IaGS
Summit, Gary Moraine near	1075	IaGS
Summitville	674.2,G674	CB&Q
Sumner	1063.6,G1063	CGW
Sunbury	765	CRI&P
Sunnyside	1104	CRI&P
Superior	1501	CRI&P
Sutherland	1427,G1424	C&NW
Sutherland, crossing IC	1473	C&NW
Swaledale	1148.6	CGW
Swan, 100 feet south of, 55 feet west of track, 5 feet south of sidewalk, in corner of grass plot; iron post stamped "772 Adj"	771.050	Bull.569

STATION	ELEVATION FEET	AUTHORITY
Swan, in front of CB&Q RR station; top of rail	763.3	Bull.569
Swan	758.9,G762	CB&Q
Swan, South river, RR bridge west of	761.88	CB&Q
Swan, South river, level of, at RR bridge	735	IaGS
Swanwood	919	FtDDM&S
Swanwood	960	CRI&P
Swanwood Junction	923	CRI&P
Swea City	1187,G1174	CRI&P
Sweetland	741.07	CD&M
Sweetland, Muscatine Co., T. 77 N., R. 1 W., near center of south line NW. ¼ sec. 2, on telegraph road, south end of east steel floor beam of bridge over Pine creek; paint- ed square, marked "637.65"	637.77	Bull.569
Sweetland, T. 77 N., R. 1 W., about quarter corner be- tween secs. 2 and 3; T road south, marked "665.6".....	666	Bull.569
Sweetland, T. 77 N., R. 1 W., near NW. cor. SW. ¼ sec. 3, on south side of road, 30 feet west of telegraph pole 485, 10 feet east of north-south fence line, in base of brace post; copper nail marked "748.26".....	748.39	Bull.569
Sweetland, T. 77 N., R. 1 W., NE. cor. NW. ¼ sec. 9, SW. cor. crossroads, 5 feet west of fence corner, 1 foot north of fence; iron post stamped "752"	752.651	Bull.569
Sweetland, T. 77 N., R. 1 W., SW. cor. SE. ¼ sec. 9, NE. cor. crossroads, on north concrete head wall of drain; chiseled square marked "741.84".....	742.00	Bull.569
Sweetland, T. 77 N., R. 1 W., NE. cor. NW. ¼ sec. 21, SW. cor. crossroads, west end of cast-iron drainpipe; painted square, marked "723.31"	723.48	Bull.569
Sweetland, T. 77 N., R. 1 W., about center of SW. ¼ sec. 21, south tree of row of four maple trees on north side of walk leading to Mr. Sabbath's residence; in root of tree; copper nail marked "731.63"	731.81	Bull.569
Swisher, top of rail on south line sec. 32, Tp. 82, R. 7, at SW. cor. sec. 32	843.00	CR&IC
Swisher, bench mark, notch cut in top of water table on SW. cor. of substation	799.13	CR&IC
Swisher, top of rail at same location as above.....	797.80	CR&IC
Swisher, top of rail on south line sec. 8, Tp. 81, R. 7, 1750 feet east of SW. cor. sec. 8.....	765.90	CR&IC
Tabor, top of rail	1249.72	T&N
Tabor	1240	IaGS
Taintor	884	M&StL
Talmage	1076.5,G1072	CGW
Tama	819,G820	C&NW
Tama, crossing CM&StP	819	C&NW
Tama	822,G819	CM&StP
Tama, crossing C&NW main line	819,G816	CM&StP
Tara, union station with M&StL	1146,G1153	IC
Tara, crossing M&StL	1150,G1153	IC
Tara	1147	M&StL
Tara, 2.5 miles north of, T. 89 N., R. 29 W., near center of sec. 8. at road crossing, 100 ft. SE. of crossing, 60 ft. S. of bridge, on W. side of small creek; copper nail and washer. in root of 8-inch oak tree, marked "1,088.9"....	1,088.82	USGS
Tara, 2.5 miles north of, east rail at crossing (line fol- lows highways E. 1.89 miles from this point)	1,093.15	USGS
Tara, T. 89 N., R. 29 W., center of sec. 9, 25 ft. S. of road center, on fence line, in base of telephone pole, marked "1,114.1"; spike	1,113.97	USGS
Tara, T. 89 N., R. 29 W., center of sec. 10. T. road N. 50 ft. NE. of road fork; iron post stamped "IOWA 1919 1,109"	1,108.456	USGS

TARA-TIPPERARY

533

STATION	ELEVATION FEET	AUTHORITY
Tara, T. 89 N., R. 29 W., center of sec. 27, at T road south, 40 ft. NW. of road forks, in base of gate post, marked "1,127.8"; spike	1,127.61	USGS
Tara, T. 89 N., R. 29 W., quarter corner, west side of sec. 27, 250 feet north of T road east, 25 feet NW. of railway crossing, in base of railway sign post, marked 1,119.5"; spike	1,119.46	USGS
Taylor	892.95	DM&CI
Teeds Grove	683,G685	CM&StP
Templeton	1431	CM&StP
Tennant	1271.4	CGW
Terril	1415,G1417	M&StL
Thayer	1101,G1104	CB&Q
Thompson	1272,G1259	CRI&P
Thor	1150,G1152	C&NW
Thor, T. 91 N., R. 27 W., at cor. secs. 25, 26, 35 and 36, in top of concrete step to west entrance to Fairview schoolhouse; chiseled square painted "1,133.3"	1,133.23	USGS
Thor, T. 91 N., R. 27 W., at cor. secs. 23, 24, 25 and 26, in south wingwall to west abutment of steel bridge over large ditch; chiseled square painted "1,122.1"	1,122.05	USGS
Thor, T. 91 N., R. 27 W., near cor. secs. 13, 14, 23 and 24, 49.9 feet due south of the below iron post, in east end of concrete culvert	1,136.58	USGS
Thor, 3 miles east of, T. 91 N., R. 27 W., at cor. secs. 13, 14, 23 and 24, in SW. cor. schoolyard at crossroads; iron post stamped "Iowa 1921"	1,134.223	USGS
Thor, T. 91 N., R. 27 W., center sec. 14, 60 feet east by 20 feet north of junction of T road north, in root of soft maple tree (14 inches in diameter); copper nail and washer marked "U.S.G.S.B.M." T.B.M. 1,141.4	1,141.36	USGS
Thor, T. 91 N., R. 27 W., 0.3 mile north of quarter cor. between secs. 11 and 14, on east side of road, in NW. cor. willow grove, in root of willow tree (12 inches in diameter); copper nail and washer marked "U.S.G.S.B.M." T.B.M. 1,134.2	1,134.20	USGS
Thor, T. 91 N., R. 27 W., quarter cor. between secs. 2 and 11, 250 feet east of center of crossroads, in south wingwall of west abutment of steel bridge over large ditch; chiseled square, T.B.M. 1,130.9	1,130.90	USGS
Thor, T. 92 N., R. 27 W., at south quarter cor. sec. 35, 570 feet east of junction of T road south, near SW. cor. of Mr. Henry Harvey's yard, in root of willow tree (14 inches in diameter); nail in washer marked "U.S.G.S.B.M." T.B.M. 1,148.6	1,148.62	USGS
Thornburg	869,G878	CRI&P
Thornburg Junction	859	CRI&P
Thornton	1191.3,G1192	CGW
Thorpe	1046.0,G1046	CGW
Thorpe, T. 90 N., R. 5 W., SW. cor. sec. 21; iron post stamped "1016 DBQ"	1,017.270	Bull.569
Thrall	1141,G1144	C&NW
Ticonic	1090,G1089	IC
Tiffin	684,G687	CRI&P
Tileville, abandoned	G1072	CRI&P
Tilton	823	C&NW
Tingley	1252,G1251	CB&Q
Tioga	808	C&NW
Tipperary, 0.5 mile north by 0.5 mile east of, T. 73 N., R. 20 W., sec. 22, 0.25 mile north by 0.25 mile east of center of, in SW. angle T road south, 4 feet west of corner		

STATION	ELEVATION FEET	AUTHORITY
post; iron post stamped "Iowa 986, 1913"; Prim. Trav. Sta. 13	986.636	Bull.569
Tipton	806,G807	CRI&P
Titonka	1162	CRI&P
Titus	765,G769	CM&StP
Toddville	771,G780	CRI&P
Toeterville	1200,G1209	IC
Togo	1103.6	CB&Q
Toledo	848,G852	C&NW
Toledo	G856	Weather Bur.
Toronto	732,G720	CM&StP
Tower 307	808	CB&Q
Tracy, Des Moines line	715.5,G717	CB&Q
Tracy, Oskaloosa line	710	CB&Q
Tracy, crossing Wabash	710	CB&Q
Tracy, RR bridge over Walnut creek south of	702.34	CB&Q
Tracy, bed of Walnut creek at RR bridge south of.....	680	IaGS
Tracy	729	WRR
Tracy, hexagonal bolthead on downstream side of east or left bank pier of Bellefontaine highway bridge over Des Moines river (U.S.C.E.b.m. 69)	694.48	Bull 569
Tracy, below, 2 feet from point of north end of east pier of CB&Q RR bridge (U.S.C.E.b.m. 70)	689.42	Bull 569
Tracy, T. 75 N., R. 18 W., 0.25 mile north of SW. cor. sec. 30, on north side of road near SW. cor. Vigilance School grounds; iron post stamped "886 Iowa"	884.979	Bull 569
Tracy, T. 75 N., R. 18 W., center of sec. 29, T corner, on highest point of rock at intersection; painted square....	836.60	Bull 569
Tracy, T. 75 N., R. 18 W., 0.25 mile east of quarter corner on west side of sec. 27; iron post stamped "849 Iowa"	847.652	Bull 569
Tracy, T. 75 N., R. 18 W., 0.5 mile north of SE. cor. sec. 26, T corner, at side of road; stone	757.70	Bull 569
Tracy, 2 blocks south of CB&Q RR station, north side of street, 3 feet south of fence, 60 feet east of CB&Q RR track; iron post stamped "730 Iowa" (Junction point)	728.302	Bull 569
Tracy, 0.5 mile east of, railroad crossing; north rail	694.94	Bull 569
Tracy, 3.5 miles east of, east of wagon road, railroad crossing; top of south rail	704.62	Bull 569
Tracy, Tps. 74 and 75 N., R. 17 W., cor. secs. 5, 6, 31 and 32, in SW. angle of roads at T road south, 25 feet west by 1 foot north of fence corner, in top of concrete post; bronze tablet stamped "E.B. No. 9 1924 Iowa", painted "U.S.B.M. 810.8"	810.724	USGS
Tracy, reference mark, 30 feet east by 1 foot north of tablet, in top center on east end of concrete retaining wall to metal culvert under road; chiseled square	809.06	USGS
Tracy, T. 75 N., R. 17 W., near center of sec. 31, 3 feet south of SW. cor. steel bridge over Cedar creek, in top of stone retaining wall; chiseled square, painted "U.S. B.M. 697.0"	696.93	USGS
Tracy, about 1 mile east of, at road crossing CB&Q RR; top of north rail	695.0	USGS
Tracy, about 1 mile east of, in NW. angle of roads, at T road west, 5 feet north by 1 foot east of corner fence post, driven in ground; top of 0.75-inch gas pipe, paint- ed "U.S.B.M. 691.0"	690.97	USGS
Tracy, on downstream side of east (left bank) pier of Bellefontaine highway bridge over Des Moines river, 0.2 feet above surface of pier; top of hexagonal bolthead, marked with chiseled cross (U.S.C.E.B.M. 69=696.16, see Bull. 569, p. 118)	694.482	USGS
Tracy, reference mark is 157 feet S. 70° E. of B.M., on		

TRACY-TURKEY RIVER JUNCTION

535

STATION	ELEVATION FEET	AUTHORITY
east bank of river, in root on NE. side of 3-foot elm tree; copper nail and washer	686.73	USGS
Tracy, T. 75 N., R. 17 W., in SW. ¼ SE. ¼ sec. 20, 50 feet west and 20 feet north of angle in road, in bench on south side of 1-foot maple tree; copper nail and washer	685.35	USGS
Traer	921,G916	CRI&P
Traer, crossing C&NW	915	CRI&P
Traer	891	C&NW
Traer, crossing CRI&P	891	C&NW
Trask	998,G1001	CM&StP
Trask, crossing under ISU	937,G941	CM&StP
Trask, ISU track	G965	CM&StP
Trask	1010	ISU
Tripoli	1015.5	CGW
Troy	881,G878	CB&Q
Truax	714	C&NW
Truesdale	1359,G1360	M&StL
Truro	1077	CB&Q
Tuckers	972.71	DM&CI
Turin	1048	C&NW
Turkey River	622,G623	CM&StP
Turkey River Junction, opposite CM&StP Ry station; base of rail (U.S.C.E.b.m.)	621.66	Bull. 569
Turkey River Junction, on Island 189, 400 meters above its foot, 75 meters from right bank of Cassville slough, 100 meters below mouth of small slough which empties into Cassville slough, on small clearing on ridge; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 189/2):		
Copper bolt	605.01	Bull. 569
Cap on pipe	608.97	
Turkey River Junction, opposite a point 0.5 mile above foot of Island 189, on right bank of Guttenberg channel, 50 meters below head of small slough and 10 meters back from bank of river; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 189/3):		
Copper bolt	603.73	Bull. 569
Cap on pipe	607.68	
Turkey River station, 0.5 mile above, on right of way of CM&StP Ry, 0.5 meter from north fence, 8.5 rail lengths above a sign "Turkey River Stop Junction"; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 189/4):		
Copper bolt	607.00	Bull. 569
Cap on pipe	610.97	
Turkey River Junction, on Island 189, on high ridge 80 meters from left bank of Guttenberg Channel, 25 meters above patch of trees and willows along river bank; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 190/3):		
Copper bolt	608.37	Bull. 569
Cap on pipe	612.31	
Turkey River Junction, 1,689 feet below station, 1,660 feet above milepost 90, 50 feet above very large and prominent boulder on west side of track, 328 feet above farmhouse at point of woods on river side of track, 15 feet west of center, on ledge of rock, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 258)	623.119	Bull. 569
Turkey River Junction, 1,148 feet above station, at upper end of CM&StP Ry bridge 212, over Turkey river, on west end of pier, carrying also t.b.m. 257, 14 inches east		

STATION	ELEVATION FEET	AUTHORITY
from extreme point of rounding capstone; copper bolt marked "U.S. ⊙ P.B.M." (U.S.C.E.p.b.m. 252).....	616.498	Bull. 569
Turkey River Junction, on line of CM&StP Ry, on upper stone pier of bridge 212, on west side of track, 9 feet from west end of pier and 7 inches back from its north face; highest point in square, marked "U□S" (U.S.C.E.t.b.m. 257).....	616.485	Bull. 569
Turkey River Junction, 1,552 feet above bridge 212, on line of CM&StP Ry, 118 feet above cattle guard, 249 feet below sign "Turkey River Junction, stop," 13 feet west of center of track, 23 feet below t.b.m. 257, 2 feet above grade of ties, in ledge of rock, marked "U.S. ⊙ P.B.M."; copper bolt (U.S.C.E.p.b.m. 251).....	626.403	Bull. 569
Turkey River Junction, 738 feet above switch, 1,575 feet above CM&StP Ry bridge 212 over Turkey river, 8 feet west from center of track, 2 feet above grade of track, on natural ledge of rock, marked "U□S" on its face; highest point in square (U.S.C.E.t.b.m. 256).....	624.681	Bull. 569
Turkey River Junction, on north side of river, 1.8 miles above point of bluff at CM&StP Ry, 331 feet below milepost 87 (from LaCrosse), 12 feet west of center of track, on ledge of rock, marked "U□S"; highest point in square (U.S.C.E.t.b.m. 254).....	630.694	Bull. 569
Turkey River Junction	623,G622	CM&StP
Turner	906,G908	CRI&P
Turners Park, top of rail on south line sec. 8, Tp. 82 N., R. 7, 1350 feet west of SE. cor. sec. 8.....	777.90	CR&IC
Turnout	754,G756	CRI&P
Tuskego	1172,G1175	CB&Q
Twin Springs	740.0	CGW
Tyrells Spur	1206	CRI&P
Tyrone	825	CB&Q
Tyrone, T. 72 N., Rs. 18 and 19 W., north sixteenth corner between secs. 25 and 30, 165 feet N. and 1 foot W. of old position at NE. cor. of intersection of T road east; iron post marked "Prim. Trav. Sta. No. 8 Iowa 1914", stamped "E.b. No. 1 1924 Iowa." As reset 1926 by C. V. Bair	974.050	USGS
Tyrone, reference mark, 40 feet west of P.B.M., on west side of road, 8 inches east of corner fence post; 1-inch gas pipe projecting 3 inches above ground, painted "984.0"	983.98	USGS
Tyrone, T. 72 N., R. 18 W., about 0.2 mile SW. of NE. cor. sec. 30, at right angle bend in SE. angle of road, 5 feet east of corner fence post; gas pipe projecting 3 inches above ground, painted "U.S. 983.7"	983.65	USGS
Tyrone, T. 72 N., R. 18 W., near center of NE. ¼ sec. 29, north side of road, in south root of 48-inch cottonwood tree; copper nail and washer, painted "U.S. 980.2"....	980.17	USGS
Tyrone, concrete bridge near above location, north rail of, painted circle "936.2".....	936.2	USGS
Tyrone, T. 72 N., R. 18 W., about 0.38 mile east of NW. cor. sec. 28, north side of road, east side of driveway to house, in south base of 28-inch cottonwood tree; copper nail and washer, tree is painted "976.9".....	976.84	USGS
Udell	985,G996	CRI&P
Udell	997	WRR
Udell, crossing over CRI&P	1007	WRR
Uhls Crossing	933.25	DM&CI
Ulmer	1268,G1252	IC
Underwood	1073,G1078	CRI&P
Underwood	1061,G1065	CM&StP

UNDERWOOD-VAN METER

537

STATION	ELEVATION FEET	AUTHORITY
Underwood, 50 feet west of track, 15 feet south of first road crossing track south of station, 50 feet SW. of telegraph pole 483-21; iron post	1,073.973	Bull. 569
Underwood, in first concrete culvert south of station, 20 feet east of CRI&P Ry track, near telegraph pole 483-24 "G"; aluminum tablet	1,072.536	Bull. 569
Underwood; in front of CRI&P station; top of rail	1,077.4	Bull. 569
Union	940,G933	M&StL
Union, 3 miles south of, river level at Hardin-Marshall Co. line	910	IaGS
Unionville	925,G936	CRI&P
Urbana, M.P. 36, subgrade	901.25	WCF&N
Ute	1202,G1205	CM&StP
Ute, crossing C&NW	1173	CM&StP
Ute	1166	C&NW
Vail	1257,G1260	C&NW
Valdora	1047	CM&StP
Valeria	859.3,G855	CGW
Valeria, T. 80 N., R. 21 W., at quarter corner between secs. 14 and 23, 20 feet east of T road west, on concrete post; bronze tablet stamped "Prim. Trav. Sta. No. 19-L.S.-1924-Ia.", marked "862.3"	862.454	USGS
Valeria, reference mark is 158 feet S. 20° W. of L.S. No. 19, top of west heading of concrete culvert; chiseled square	860.52	USGS
Valeria, T. 80 N., R. 21 W., near corner of secs. 15, 16, 21 and 22, 370 feet east of crossroads, top of east end of north heading of concrete bridge; chiseled square marked "887.7"	887.89	USGS
Valeria, T. 80 N., R. 21 W., near corner of secs. 16, 17, 20 and 21, 55 feet south and 25 feet east of T road south, in root on north side of 2-foot maple tree; copper nail and washer, marked "951.6"	951.76	USGS
Valeria, T. 80 N., R. 21 W., at cor. secs. 17, 18, 19 and 20, 730 feet west and 115 feet north of station at Valeria, 25 feet south and 25 feet east of T road north, 1.5 feet south of wire fence, on concrete post; bronze tablet stamped "W.R.B. No. 1" marked "877.0"	877.147	USGS
Valeria, reference mark is 635 feet east of "W.R.B. No. 1", top of east end of south railing of concrete culvert; chiseled square	857.98	USGS
Valeria, T. 80 N., Rs. 21 and 22 W., at cor. secs. 13, 18, 19 and 24, in NE. angle of crossroads, top of east end of iron tube; painted square, marked "803.4"	803.53	USGS
Valley Junction, CRI&P station	818	M&StL
Valley Junction	811,G814	CRI&P
Valley Junction, 150 feet north of track, opposite point 180 feet east of station, in fence corner; iron post	811.271	Bull. 569
Valley Junction, in front of CRI&P station; top of rail....	812.9	Bull. 569
Valley Junction, 1 mile east of, 70 feet south of track, 100 feet west of right-of-way gate; iron post.....	805.924	Bull. 569
Valley Junction, in foundation of public school, 1 foot west of entrance door; aluminum tablet stamped "821 Adj 1903"	819.615	Bull. 569
Vancleve	1059,G1045	M&StL
Van Horne	946,G943	CM&StP
Van Meter, 60 feet north of track opposite west end of station, in grass plat, opposite a point about halfway between station and water tank, 20 feet north of road, near Main Street crossing; iron post	872.406	Bull. 569
Van Meter, in front of CRI&P Ry station; top of rail.....	873.5	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
Van Meter, 1.25 miles east of, in SW. abutment of bridge 358; aluminum tablet	861.901	Bull. 569
Van Meter, T. 78 N., R. 27 W., NW. cor. sec. 10, 20 feet west of, 4 feet north of corner fence post by roadside; iron post stamped "983"	981.357	Bull. 569
Van Meter	870,G874	CRI&P
Van Wert, Des Moines line	1166	CB&Q
Van Wert, Shenandoah line	1158,G1155	CB&Q
Van Wert, crossing Des Moines line	G1157	CB&Q
Varina	1258,G1261	CM&StP
Ventura	1256,G1263	CM&StP
Veo	750	CB&Q
Verdi	665	CRI&P
Vernon	670	CRI&P
Victor	802,G805	CRI&P
Victoria (milk platform)	1117.2	CGW
Viele	542,G541	CB&Q
Viele, 1 mile south of, in top of west end of south abutment of CB&Q RR bridge over Panther creek; copper bolt marked "U.S.P.B.M." (U.S.C.E.p.b.m. 4).....	543.293	Bull. 569
Viele, 0.5 mile below, in NE. cornerstone of middle pier of CB&Q RR bridge over Sugar creek; copper bolt marked "U.S.P.B.M." (U.S.C.E.p.b.m. 5).....	537.361	Bull. 569
Viele, 0.5 mile north of, in top of stone abutment of CB&Q RR bridge over Little Devil creek; copper bolt marked "U.S.P.B.M." (U.S.C.E.p.b.m. 6).....	542.318	Bull. 569
Village Creek, Allamakee Co., T. 93 N., R. 3 W., at quarter corner east side sec. 31, near NW. cor. fence post of cemetery; iron post stamped "1148 DBQ"	1,149.940	Bull. 569
Village Creek, near NW. cor. schoolhouse; iron post stamped "646 DBQ"	647.072	Bull. 569
Villisca	1050,G1050	CB&Q
Villisca	G1050	Weather Bur.
Vincennes, SW. ¼ sec. 22, T. 66 N., R. 6 W., in NW. cor. foundation of house of R. Sargent; aluminum tablet stamped "555A"; as accepted in 1926 by U.S.C.E. from Keokuk	555.597	Bull. 569
Vincent	1134.4,G1139	CGW
Vincent, 1.5 miles north by 1.5 miles west of. T. 90 N., R. 27 W., cor. secs. 8, 9, 16 and 17, 35 feet NE. of center of crossroads; iron post stamped "1,128 IOWA 1919" ..	1,128.065	USGS
Vincent, T. 90 N., R. 27 W., corner of secs. 9, 10, 15 and 16, at T road S., 35 ft. SE. of road fork, in base of corner fence post, marked "1,127.8"; spike	1,127.60	USGS
Vincent, 1.5 miles north of, T. 90 N., R. 27 W., quarter corner, S. side of sec. 10, 75 ft. NE. of crossroads; in root of large willow tree, marked "1,131.5"; copper nail and washer	1,131.30	USGS
Vincent, T. 90 N., R. 27 W., T road west, south center of sec. 11, 30 feet NW. of road fork, in base of corner fence post, marked "1.142.1"; spike	1,141.89	USGS
Vincent, T. 90 N., R. 27 W., at quarter cor. secs. 2 and 11, 60 feet south by 30 feet east of center of T road junction south, in root of soft maple tree (10 inches in diameter); copper nail and washer marked "U.S.G.S.B.M." ..	1,138.53	USGS
Vincent, T. 90 N., R. 27 W., near SW. cor. sec. 2, 201 feet due west of post (Prim. Trav. Sta. No. 13), in north fence line of east and west road, in root of cottonwood tree (24 inches in diameter); copper nail and washer marked "U.S.G.S.B.M."	1,133.45	USGS
Vincent, T. 90 N., R. 27 W., near cor. secs. 1, 2, 11 and 12,		

STATION	ELEVATION FEET	AUTHORITY
at school yard, NE. cor. of road intersection; iron post stamped "Prim. Trav. Sta. No. 13 1919"	1,131.649	USGS
Vincent, Tps. 90 and 91 N., R. 27 W., at cor. secs. 1, 2, 35 and 36, in SE. cor. of sec. 35, NW. cor. of crossroads, in concrete foundation supporting cor. of fence post; chiseled square "1,124.2"	1,124.23	USGS
Vining	861,G857	CM&StP
Vining	G810	Weather Bur.
Vinton	804,G810	CRI&P
Viola	873,G874	CM&StP
Volga City	795,G794	CM&StP
Volga City, at CM&StP crossing; top of rail	789.9	Bull. 569
Volga City, in SE. cor. school yard; iron post stamped "794 DBQ"	795.143	Bull. 569
Volga City, T. 93 N., R. 6 W., NE. ¼ sec. 21, SE. cor. school yard; iron post stamped "1147 DBQ"	1,148.733	Bull. 569
Volney, Allamakee Co., T. 96 N., R. 5 W., 700 feet east of quarter corner west side sec. 23, north side of Hickory Creek, 80 feet SW. of NW. cor. bridge 16, south side of road; iron post stamped "787 DBQ"	787.791	Bull. 569
Volney, T. 96 N., R. 4 W., south of quarter corner west sec. 8, on summit of hill north of Yellow river; iron post stamped "1099 DBQ"	1,100.680	Bull. 569
Voorhies	997	C&NW
Wabash Junction	881	CB&Q
Wadena, in front of CM&StP Ry station; top of rail.....	873.9	Bull. 569
Wadena, in front of CM&StP Ry station; iron post stamped "874 DBQ"	874.485	Bull. 569
Wadena	875	CM&StP
Wadleigh, M.P. 388	1170	IC
Wagner	956	FtDDM&S
Walcott	727,G730	CRI&P
Walford	801,G806	CM&StP
Walker	882,G890	CRI&P
Wallingford	1282	CRI&P
Wall Lake	1232,G1233	C&NW
Wall Lake	1231,G1232	IC
Walnut, 300 feet south of track opposite point on track 300 feet west of station, 5 feet SW. of second telegraph pole south of track; iron post	1,285.285	Bull. 569
Walnut, in front of CRI&P station; top of rail	1,294.8	Bull. 569
Walnut, 2.5 miles east of, in NW. abutment of bridge 449; aluminum tablet	1,286.181	Bull. 569
Walnut	1290,G1292	CRI&P
Waneta, changed to Max	1555	CM&StP
Wapello	583,G588	CRI&P
Wapello, 0.25 mile above Iowa City landing, 20 meters from west edge of swamp, 813 meters back of following-described bench mark, 9.3 meters 16° 30' to 15-inch ash tree, 6.9 meters 79° 30' to 15-inch willow, 6.7 meters 238° 30' to 12-inch birch tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 134/1):		
Copper bolt	529.49	Bull. 569
Cap on pipe	533.51	
Wapello, 0.25 mile above Iowa City landing, on ridge between wide sand bar and narrow slough running parallel to river, 10 meters from natural river bank. 14 meters 319° to 18-inch maple tree, 4.6 meters 63° 30' to 24-inch cottonwood, 11.2 meters 269° to 12-inch willow tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 134/2):		
Copper bolt	533.22	Bull. 569

STATION	ELEVATION FEET	AUTHORITY
Cap on pipe	537.22	
Wapello, 0.25 mile above Iowa City landing, 10 meters from bank just north of dry slough, 17.5 meters 43° to 12-inch black oak, 8.7 meters 297° to 15-inch black oak; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 134/3):		
Copper bolt	530.46	Bull. 569
Cap on pipe	534.46	
Wapello, 0.25 mile above Iowa City landing, on top of old embankment, apparently a railroad dump, 970 meters back of bench mark 134/3, on line with bench marks 134/2 and 134/3, 9.3 meters 283° to 15-inch cottonwood tree, 9 meters 38° 30' to 15-inch cottonwood, 2.6 meters 176° to 20-inch cottonwood tree; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 134/4):		
Copper bolt	540.05	Bull. 569
Cap on pipe	544.07	
Ware	1287,G1285	CRI&P
Warren	707,G707	CB&Q
Washburn	833,G827	CRI&P
Washington	755,G746	CB&Q
Washington	754,G765	CRI&P
Washington, crossing CM&StP	754	CRI&P
Washington	756	CM&StP
Washington, crossing CRI&P	753	CM&StP
Washington	G769	Weather Bur.
Washington Mills	799,G797	CM&StP
Washington Mills, sec. 1, T. 86 N., R. 1 E., south side of road crossing north line of CM&StP Ry, fence corner near William Cannon's gate, 20 feet SE. of cattle guard; iron post stamped "868"	858.444	Bull. 569
Washta	1158,G1157	IC
Wassonville mill	706	IaGS
Waterloo, East, track junction at Newell St., subgrade...	873.49	WCF&N
Waterloo, crossing under CGW, subgrade	847.2	WCF&N
Waterloo, crossing CGW, top of rail	868.37	WCF&N
Waterloo, crossing IC, subgrade	843.94	WCF&N
Waterloo, crossing IC, top of rail IC track	844.89	WCF&N
Waterloo, 4th and Mulberry Sts., top of rail	842.82	WCF&N
Waterloo	849,G852	IC
Waterloo, crossing CGW	847,G852	IC
Waterloo, crossing WCF&N	852	IC
Waterloo, crossing CRI&P	G852	IC
Waterloo, East Belt Junction	847	IC
Waterloo, West Belt Junction	853	IC
Waterloo, West	846.1	CGW
Waterloo, East	845.5,G845	CGW
Waterloo, Cedar river bridge	G848	CGW
Waterloo, East, crossing under IC, CGW track	848.4,G849	CGW
Waterloo, East, crossing IC track	G871	CGW
Waterloo, West, crossing CRI&P	846.6,G845	CGW
Waterloo	845,G841	CRI&P
Waterloo	G856	Weather Bur.
Waterville	833,G832	CM&StP
Watkins	814,G812	C&NW
Watson, Clayton Co., 0.2 mile NW. of cor. sec. 4, T. 95 N., R. 4 W., 13 feet north of corner fence post at intersec- tion of roads; iron post stamped "1179 DBQ"	1,179.987	Bull. 569
Waubeek, paha southwest of	1040	IaGS
Waucoma	1045,G1044	CM&StP
Waukee	1030,G1032	CM&StP
Waukee, crossing M&StL	1036,G1038	CM&StP

WAUKEE-WAUPETON

541

STATION	ELEVATION FEET	AUTHORITY
Waukee	G1039	Weather Bur.
Waukee	1043,G1033	M&StL
Waukee, 35 feet SE. of NW. cor. sec. 33, T. 79 N., R. 26 W., 4 feet south of corner fence post; iron post stamped "1035"	1,033.817	Bull. 569
Waukee, Pleasant View schoolhouse, T. 79 N., R. 26 W., 35 feet NE. of NW. cor. sec. 36, 8 feet east of corner fence post, in school yard; iron post stamped "1032"	1,030.227	Bull. 569
Waukon	1216,G1216	CM&StP
Waukon, T. 97 N., R. 5 W., quarter corner west side sec. 16, just off highway, NE. cor. crossroads; iron post stamped "1218 DBQ"	1,219.328	Bull. 569
Waukon, (Iron Hill), T. 98 N., R. 5 W., 1,300 feet NE. of center sec. 17, 15 feet SE. of NW. corner post of north fence line; iron post stamped "1320 DBQ"	1,321.049	Bull. 569
Waukon Junction	630,G629	CM&StP
Waukon Junction, Island 163, planted on, on high ground in bunch of cottonwoods, 30 meters back from east shore, 100 meters above a running slough opposite foot of Island 164, 25 meters north of small dry slough; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 200/3):		
Copper bolt	615.02	Bull. 569
Cap on pipe	618.98	
Waukon Junction, 1.25 miles above, at foot of bluffs, 0.5 mile above triangulation station "Painted Rocks," in corner of fences, 1 meter west of west right of way fence of CM&StP Ry, 15 meters north of road crossing, 30 meters below bridge 456; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 200/4):		
Copper bolt	633.30	Bull. 569
Cap on pipe	637.27	
Waupeton	624,G623	CM&StP
Waupeton, Island 204, about opposite foot of, on Island 203, on lower end of island, 20 meters from river bank; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 185/2):		
Copper bolt	602.31	Bull. 569
Cap on pipe	606.25	
Waupeton, Hurricane Island, opposite head of first towhead below foot of, on south side of CM&StP Ry track, 6.5 meters north of south right-of-way fence, on prominent high ridge running out from bluff, 6 meters from and 4.5 meters higher than railroad track; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 185/3 equals Δ (in circle) Rumpel):		
Copper bolt	637.29	Bull. 569
Cap on pipe	641.25	
Waupeton, 260 meters below, 187 meters below railroad bridge 172, on north face of bluff at point where it begins to curve to south, 11 meters south from center of CM&StP Ry track, 0.6 meter south from right-of-way fence; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 186/3 equals p.b.m. 258-259):		
Copper bolt	615.84	Bull. 569
Cap on pipe	619.83	
Waupeton, opposite CM&StP Ry station; base of rail (U. S.C.E.b.m.)	623.97	Bull. 569
Waupeton, 2.1 miles below, 1.2 miles below Cameron, on line of CM&StP Ry, 2,053 feet above milepost 100-61, 100 feet below very large and conspicuous piece of ledge covered with vines lying on bluff side of right of way, on		

STATION	ELEVATION FEET	AUTHORITY
bowlder marked "U□S"; highest point in square (U.S.C.E.t.b.m. 273)	626.449	Bull. 569
Waupeton, 853 feet below, 612 feet below bridge 172, on north face of bluff, at point where it begins to curve to south, 36 feet south from center of CM&StP Ry track, 2 feet south from south right-of-way fence; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 258 and 259):		
Copper bolt	615.842	Bull. 569
Cap on pipe	619.831	
Waupeton, 1,171 feet above station, 420 feet below milepost 97-64, 262 feet above bridge 174, on bluff side of track, 10 feet from center, on natural ledge of rock, about level with grade, marked "U□S" on its face; highest point in square (U.S.C.E.t.b.m. 270)	626.302	Bull. 569
Waupeton, 1.2 miles above, 593 feet below milepost 96-65, 377 feet above bridge 180K, just below prominent ledge of white rock on bluff side of track, 10 feet from center, also 146 meters below bridge 182, 2 feet above grade of track, on ledge of rock marked "U□S"; highest point in square (U.S.C.E.t.b.m. 269).....	629.438	Bull. 569
Waupeton, 1.5 miles above, 1,739 feet above milepost 96-65, 122 feet above bridge 186K over Dry Hollow, on bluff side of track, 16.5 feet from center, just outside of right of way fence; copper bolt in tile surmounted by iron pipe (U.S.C.E.p.b.m. 256 and 257):		
Copper bolt	623.781	Bull. 569
Cap on pipe	627.781	
Waverly	920.3	CGW
Waverly, IC crossing	935.5	CGW
Waverly	941,G936	IC
Waverly, crossing CRI&P	943	IC
Waverly, crossing CGW	938,G936	IC
Waverly	910	CRI&P
Waverly, crossing IC	925	CRI&P
Waverly, at Ellsworth St., top of rail	918.4	WCF&N
Waverly, city datum plane	812.86	
Waverly	G948	Weather Bur.
Waverly Junction	901	CRI&P
Waverly Junction	G917	CGW
Wayland	745,G738	M&StL
Wayland Crossing	633	CB&Q
Wayne	694	CB&Q
Wayside	1006	ISU
Webb	1368	CM&StP
Webb, crossing CRI&P	1378	CM&StP
Webster	848,G858	CRI&P
Webster, crossing CM&StP	846	CRI&P
Webster	854,G859	CM&StP
Webster, crossing CRI&P	853	CM&StP
Webster City	1050,G1047	IC
Webster City, crossing C&NW	1053,G1047	IC
Webster City	1044	FtDDM&S
Webster City	1043,G1044	C&NW
Webster City, crossing IC.....	1053	C&NW
Weed or Herring	1227	C&NW
Weldon	1146,G1146	CB&Q
Wellman	688,G698	CRI&P
Wellsburg	1068,G1058	CRI&P
Wellston	737	CM&StP
Welton	708,G701	CM&StP
Wescott	531	CB&Q

STATION	ELEVATION FEET	AUTHORITY
Wesley	1252,G1257	CM&StP
West Bend	1203,G1197	CRI&P
West Bend	G1197	Weather Bur.
Westboro, Mo.	986	CB&Q
West Branch	714,G718	CRI&P
West Chester	963	CRI&P
West Davenport, see Davenport, West		
Westfield, Black Hawk Co.	853	CRI&P
Westfield, Plymouth Co.	1137,G1133	CM&StP
Westfield, T. 91 N., R. 48 W., sec. 6, NW. cor.; iron post stamped "Ynktn 1314"	1,313.920	Bull. 569
Westfield, 15 meters west of railway, 21 meters north of road, 6.55 meters south of NE. cor. Hopkins elevator; 0.3 meter above ground, 0.1 meter north of south edge of jasper rock, at east edge; bottom of square hole (U.S.C.&G.S.b.m. V)	1,129.926	Bull. 569
Westfield, 1 kilometer north of, 13 meters west of railway, 12 meters south of road, 1 meter west of fence, 0.3 meter below rails; copper bolt in top of stone post lettered "U.S.B.M." (U.S.C.&G.S.b.m. U)	1,129.263	Bull. 569
Westfield, 1.6 kilometers south of, 14 meters east of railway, 15 meters west of road along track, 5 meters north of road, 1 meter south and west of fences, 0.6 meter below rails; copper bolt in top of stone post lettered "U.S.B.M." (U.S.C.&G.S.b.m. W)	1,121.937	Bull. 569
Westfield, 3.2 kilometers south of, 14 meters east of railway, 12 meters west of road along track, 6 meters north of road, 0.8 meter below rails; iron pipe (U.S.C.&G.S.b.m. X)	1,127.225	Bull. 569
Westfield, 4.2 kilometers south of, 1,017 meters east of bridge over Big Sioux river, 4 meters east of private road, 14 meters south of track, on jasper rock of quartzite, roughly squared for building purposes, about 1 by 0.5 by 3 meters, set 1 meter north of fence and 0.2 meter above rails; bottom of square hole (U.S.C.&G.S.b.m. Y)	1,116.369	Bull. 569
Westfield, 5.2 kilometers south of, at east end of railway bridge over Big Sioux river, on NE. pier of central four under old railway water tank, on extreme NW. cor. of stone, at upper level, 0.4 meter above ground; bottom of square hole (U.S.C.&G.S.b.m. Z)	1,118.088	Bull. 569
Westgate	1093.4,G1092	CGW
Westgate, B.M. on doorsill of schoolhouse	G1114	USGS
West Grove	942,G942	CB&Q
West Grove	943	WRR
West Keithsburg	548	M&StL
West Keithsburg, Mississippi river	531	M&StL
West Keithsburg, 500 meters below upper end of Benton Bay, 18 meters from shore, 9.1 meters 341° 30' to 10-inch locust, 1 meter 206° to 34-inch elm tree, 19.3 meters 73° to 20-inch elm tree, 18 meters 87° to 20-inch elm tree; copper bolt in tile surmounted by iron pipe (U.S.C.E. b.m. 130/2):		
Copper bolt	527.77	Bull. 569
Cap on pipe	531.79	
West Keithsburg, on lower end of Island 360, 20 meters from bank of main channel, 8.2 meters 94° to 30-inch elm tree; copper bolt in tile surmounted by iron pipe (U.S.C. E.b.m. 130/3):		
Copper bolt	524.70	Bull. 569
Cap on pipe	528.72	
West Liberty	665,G673	CRI&P
West Okoboji	1437	CRI&P

STATION	ELEVATION FEET	AUTHORITY
Weston, 3 miles west of, 0.25 mile south of milepost 491, in concrete culvert on east side of track; aluminum tablet	1,021.296	Bull. 569
Weston, in front of CRI&P Ry station; top of rail.....	1,036.4	Bull. 569
Weston, 100 feet north of CRI&P Ry station, 15 feet west of track; iron post	1,037.399	Bull. 569
Weston	1033,G1035	CRI&P
Weston	1033,G1037	CM&StP
West Point	754.8	CB&Q
West Side	1324,G1326	C&NW
West Union, corner of Main and Walnut Sts., south wall of building of public school, in coping stone; aluminum tablet stamped "1186 DBQ"	1,187.570	Bull. 569
West Union, in front of CM&StP Ry station; top of rail	1,104.6	Bull. 569
West Union, at junction of CM&StP Ry with CRI&P Ry	1,106.7	Bull. 569
West Union, in front of CRI&P Ry station; top of rail.....	1,105.9	Bull. 569
West Union, south meridian stone in county-fair grounds; aluminum tablet stamped "1111 DBQ"	1,112.163	Bull. 569
West Union	1107	CM&StP
West Union, crossing CRI&P	1108	CM&StP
West Union	1105	CRI&P
Wever	541,G540	CB&Q
What Cheer	741,G751	CRI&P
What Cheer	762	C&NW
Wheatland	683,G671	CM&StP
Wheatland, crossing C&NW	676,G664	CM&StP
Wheatland	680,G682	C&NW
Wheatland, crossing CM&StP	675	C&NW
Wheeler	1050,G1046	CM&StP
Wheelerwood	1157	C&NW
Wheeling, 0.75 mile east of, north side of road, 120 feet west of track at road crossing; iron post stamped "910 Adj"	908.872	Bull.569
Whitebreast	1042,G1043	CB&Q
White City, T. 74 N., R. 17 W., about 700 feet east of quarter corner between secs. 35 and 36, 15 feet south of C&NW Ry track, in top center on west end of culvert under railroad; bolthead, painted "U.S.B.M. 743.4".....	743.09	USGS
White City, T. 74 N., R. 17 W., near SE. cor. SW. ¼ sec. 25, 60 feet north of road crossing C&NW Ry, on west side of road, 1 foot east of fence, driven in ground; 0.75-inch gas pipe, painted "U.S.B.M. 728.9".....	728.55	USGS
White City, T. 74 N., R. 17 W., at quarter corner between secs. 25 and 26, 60 feet west by 25 feet south of center of roads, at T road north on top of high bank, in root on north side of a 1-foot elm tree; copper nail and washer, painted "U.S.B.M. 810.9".....	810.58	USGS
White City, T. 74 N., R. 17 W., near quarter corner between secs. 23 and 24, 35 feet north of bridge over Big Bluff creek, on west side of road, 6 feet east of fence, in root on west side of a 3-foot elm tree; copper nail and washer, painted "U.S.B.M. 712.2".....	711.83	USGS
White City, near corner of secs. 13, 14, 23 and 24, T. 74 N., R. 17 W., at road crossing C&NW Ry; top of north rail	721.03	USGS
White City, T. 74 N., R. 17 W., at cor. secs. 13, 14, 23 and 24, in NE. angle of crossroads, 7 feet north by 1 foot west of corner fence post in top of concrete post; bronze tablet stamped "E.B. No. 14 1924 Iowa", painted "U. S.B.M. 735.7"	735.392	USGS
White City, reference mark, 35 feet north of tablet on east side of road to north, 1 foot west of fence, in root on		

WHITE CITY-WHITING

545

STATION	ELEVATION FEET	AUTHORITY
NE. side of 6-inch box-elder tree; copper nail and washer	734.71	USGS
White City, T. 74 N., R. 17 W., center of sec. 13, in NE. angle of roads at T road north, in top center of concrete headwall to culvert under road; chiseled square, painted "U.S.B.M. 787.0"	786.66	USGS
White City, T. 74 N., R. 17 W., at quarter corner between secs. 12 and 13, in NW. angle of crossroads, 60 feet north by 15 feet east of fence corner, in root on east side of 3-foot oak tree; copper nail and washer, painted "U.S.B.M. 843.2"	842.84	USGS
White City, T. 74 N., R. 17 W., quarter corner between secs. 1 and 12, in NW. angle of roads at T road west, 6 feet east of fence corner, 1 foot south of west end of metal culvert under road, in top of a large stone; chiseled square, painted "U.S.B.M. 740.1"	739.69	USGS
White City, Riverside Church, at forks of road just north of Eveland bridge, in NE. cor. yard; iron post stamped "Prim. Trav. Sta. No. 9, 1908 E.B. No. 15 1924 Iowa", painted "U.S.B.M. 680.8" (Bul. 569, p. 117, U.S.C.E. B.M. 54=681.30)	680.422	USGS
White City, reference mark, 65 feet south by 12 feet west of P.B.M., in SE. cor. Riverside Church yard, in root on SW. side of 2-foot maple tree; copper nail and washer	682.31	USGS
White City, Eveland highway bridge, top of upstream end second pier from north or left bank, U.S.C.E. B.M. 72 (Engineers' elevation P. 117, Bul. 569=688.13).....	687.087	USGS
White Cloud	993	WRR
White Cloud, crossing CB&Q	992	WRR
White Cloud	973	IaGS
Whiting	1061,G1061	C&NW
Whiting, T. 84 N., R. 46 W., 990 feet north of SW. cor. sec. 7, opposite Blackbirds Hill, on east side of section-line road, 490 feet south of G. H. Brooks's house; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 137/2):		
Copper bolt	1,061.76	Bull. 569
Cap on pipe	1,065.81	
Whiting, T. 84 N., R. 46 W., 476 feet north of SE. cor. sec. 4, on west side of section-line road, on land owned by M. Crawford; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 137/3):		
Copper bolt	1,058.25	Bull. 569
Cap on pipe	1,062.32	
Whiting station, 2.8 miles south of, 958 feet south of milepost 44, 46 feet east of railway, 3 feet from east right-of-way fence, 6 feet south of south fence of road crossing; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 380):		
Copper bolt	1,051.186	Bull. 569
Cap on pipe	1,055.211	
Whiting station, 1,050 feet south of, 66 feet south of south headblock at Whiting, 46 feet east of railway; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 381):		
Copper bolt	1,057.058	Bull. 569
Cap on pipe	1,061.129	
Whiting station, 2.5 miles north of, 282 feet south of milepost 49, 46 feet east of railway, opposite Daley's dwell-		

STATION	ELEVATION FEET	AUTHORITY
ing; copper bolt in bench-mark stone surmounted by iron pipe (U.S.C.E.p.b.m. 382):		
Copper bolt	1,060.444	Bull. 569
Cap on pipe	1,064.460	
Whittemore	1201,G1206	CM&StP
Whitten	1040,G1041	C&NW
Wick	891	CB&Q
Wightman	1172.6,G1179	CGW
Wilke	1147,G1145	IC
Wilkins	617,G616	CM&StP
Wilkins, see also second entry under Massey		
Willett, M.P. 479	1067	IC
Willett, crossing over C&NW	1071	IC
Williams	1206,G1212	IC
Williamsburg	760,G765	CM&StP
Williamson, Adams Co.	1300	IaGS
Williamson, Lucas Co.	1022	CRI&P
Williamson, T. 73 N., R. 21 W., at center of sec. 23, at T road west, 4 feet west of NW. cor. Sam Brightwell's yard, in top of peg; copper nail	1,011.80	Bull. 569
Williamson, T. 72 N., R. 21 W., west of center of sec. 4, opposite road to east, on west side of north-south road, 1 foot north of telephone pole; in top of wooden peg; copper nail	875.17	Bull. 569
Williamson, T. 73 N., R. 21 W., north of quarter corner on south side of sec. 33, at jog in road about 0.2 mile north of township line, 1 foot east of telephone pole, in top of wooden peg; copper nail	993.12	Bull. 569
Williamson, T. 73 N., R. 21 W., at quarter corner on south side of sec. 28, opposite T road south, 40 feet NE. of intersection, 3 feet south of fence; iron post stamped "Iowa, 974 1913"	974.338	Bull. 569
Williamson, T. 73 N., R. 21 W., cor. secs. 27, 28, 33 and 34, near center of T road north, in root of 8-inch willow tree; copper nail	987.91	Bull. 569
Williamson, T. 73 N., R. 21 W., at SE. cor. sec. 21, in NW. angle of T road west, 1 foot east of end of hedge fence, in top of osage peg; copper nail	1,019.07	Bull. 569
Williamson, T. 73 N., R. 21 W., at cor. secs. 9, 10, 15 and 16, in center of crossroads, on section stone, chiseled circle	1,009.65	Bull. 569
Williamson, T. 73 N., R. 21 W., at SE. cor. sec. 16, in NW. angle T road west in SE. cor. school yard (Center School); iron post stamped "Iowa, 993, 1913"	993.558	Bull. 569
Williamson, T. 73 N., R. 21 W., at quarter corner between secs. 21 and 22, at T road east, in NW. cor. bridge floor, in plank; copper nail	957.97	Bull. 569
Williamson, T. 73 N., R. 21 W., at center of sec. 22, opposite T road south, on north side of east-west road, 2.5 feet south of wire gate, in top of peg; copper nail	1,009.29	Bull. 569
Williamson, T. 73 N., R. 21 W., about 0.15 mile west of SE. cor. sec. 17, at NW. cor. crossroads 33 feet west of center of crossroads, in top of charred maple stump; copper nail	,012.93	Bull. 569
Willit, Van Buren Co.	602,G601	CB&Q
Wilson	777	CRI&P
Wilton	676,G679	CRI&P
Wilton	G683	Weather Bur.
Winfield	704,G697	M&StL
Winfield, crossing CB&Q	682,G675	M&StL
Winfield	704,G698	CB&Q
Winkelmans	1056,G1058	CM&StP

WINSLOW-WOODWARD

547

STATION	ELEVATION FEET	AUTHORITY
Winslow	890,G884	CRI&P
Winterset	1117,G1118	CRI&P
Winterset	G1129	Weather Bur.
Winthrop	1038,G1042	IC
Wiota	1200,G1202	CRI&P
Wiota, 50 feet north of track, opposite point on track about 700 feet west of station; iron post	1,199.238	Bull. 569
Wiota, in front of CRI&P Ry station; top of rail	1,203.5	Bull. 569
Wiota, bed of Turkey creek at	1185	IaGS
Wise, crossing wagon road	986	IC
Witmer	795	CRI&P
Woden	1233	CRI&P
Wolf, B.M. spike in pole No. 646	1086.71	FtDDM&S
Wolf	1091	M&StL
Wolf, crossing FtDDM&S	1093	M&StL
Woodbine	1058,G1058	C&NW
Woodbine, crossing under IC	1044	C&NW
Woodbine	1071,G1069	IC
Woodburn	957,G961	CB&Q
Woodburn, upland south of	1100	IaGS
Woodburn, creek bed at	943	IaGS
Woodward	1060,G1065	CM&StP
Woodward, 1 mile south by 2 miles west of, at T road, north side of sec. 14, Beaver township; iron post stamped "910"	909.150	Bull. 569
Woodward, 2 miles west of, at road crossing; SE. cor. sec. 3, Beaver township; spike in base of telephone pole	950.81	Bull. 569
Woodward, 0.5 mile north by 2 miles west of, at T road, SE. cor. sec. 34, Peoples township; spike in base of fence post	1,007.94	Bull. 569
Woodward, 1 mile north by 2 miles west of, at road cross- ing, west side of sec. 35, Peoples township; spike in base of fence post	1,016.31	Bull. 569
Woodward, 1.5 miles north by 2 miles west of, at T road, SE. cor. of sec. 27, Peoples township; spike in base of fence post	1,038.34	Bull. 569
Woodward, 5 miles south of, at road crossing, SW. cor. sec. 31, Des Moines township; spike in base of fence post	983.61	Bull. 569
Woodward, 5 miles south by 1 mile west of, at road cross- ing, NW. cor. sec. 1, Sugar Grove township; spike in base of fence post	982.40	Bull. 569
Woodward, 5 miles south by 2 miles west of, at T road, NW. cor. sec. 2, Sugar Grove township; spike in base of fence post	954.08	Bull. 569
Woodward, 5 miles south by 3 miles west of, at road cross- ing, SE. cor. sec. 33, Beaver township; iron post stamped "955"	954.107	Bull. 569
Woodward, 4 miles south by 3 miles west of, at road cross- ing, SE. cor. sec. 28, Beaver township; spike in base of fence post	930.85	Bull. 569
Woodward, 3 miles west by 3 miles south of, at road cross- ing, NW. cor. sec. 27, Beaver township; spike in base of telephone pole	941.37	Bull. 569
Woodward, 2 miles south by 3 miles west of, at T road near school building, NW. cor. sec. 22, Beaver township; spike in base of telephone pole	961.13	Bull. 569
Woodward, 2.5 miles west by 3 miles north of, at road crossing; NW. cor. sec. 26, Peoples township; spike in base of telephone pole	1,071.49	Bull. 569
Woodward, 1.5 miles west by 2.5 miles north of, at T road, SW. cor. sec. 24, Peoples township; spike in base of fence post (map says 1067)	1,072.43	Bull. 569

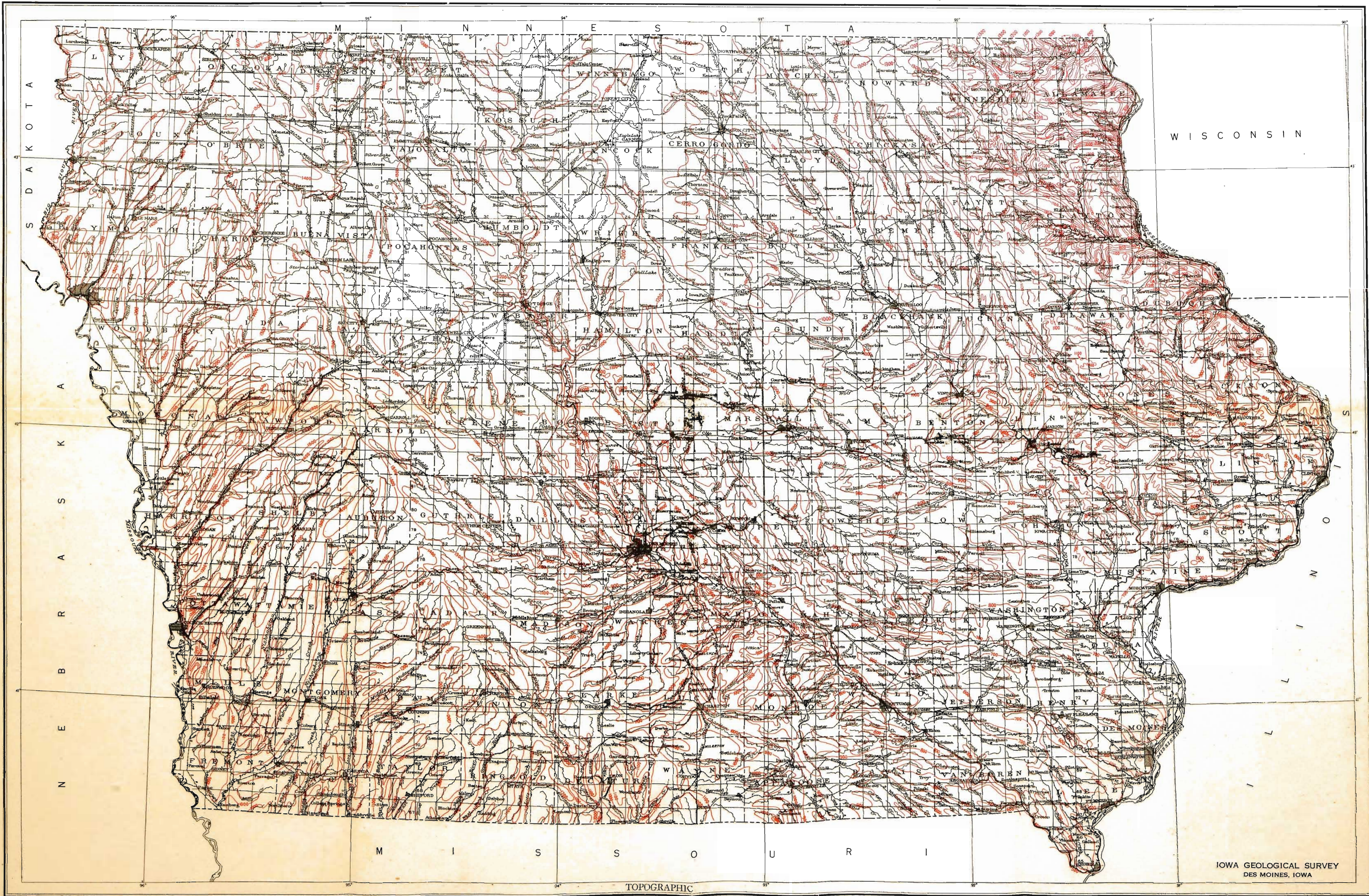
STATION	ELEVATION FEET	AUTHORITY
Woodward, 0.5 mile west by 2.0 miles north of, at road crossing, east center of sec. 25, Peoples township; spike in base of telephone pole	1,058.08	Bull. 569
Woodward, 2 miles north of, at T road, center of sec. 30, Cass township; iron post stamped "1038"	1,036.898	Bull. 569
Woodward, 2 miles north by 1 mile east of, at T road, center of sec. 29, Cass township; spike in base of telephone pole	1,023.94	Bull. 569
Woolson	745.62	CB&Q
Woolstock	1088,G1090	C&NW
Workman Crossing	947	ISU
Worthington	919,G920	CM&StP
Worthington, T. 87 N., R. 2 W., center sec. 16, at SE. cor. junction of wagon roads; iron post stamped "886"	877.897	Bull. 569
Worthington, T. 87 N., R. 3 W., cor. secs. 10, 11, 14 and 15; iron post stamped "952"	943.004	Bull. 569
Worthington, T. 88 N., R. 3 W., near center NE. $\frac{1}{4}$ sec. 36, 50 feet SE. of highway bridge over Maquoketa river; iron post stamped "903"	896.874	Bull. 569
Worthington, near north line of sec. 31, T. 88 N., R. 2 W., SW. cor. A St. and Fourth Ave.; iron post stamped "931"	921.206	Bull. 569
Wren, crossing IC	1145	GN
Wren, M.P. 497	1151	IC
Wren, crossing GN	1150	IC
Wren	1148.55	C&NW
Wren, junction switch with IC	1146.7	C&NW
Wright	846	C&NW
Wright	850,G843	M&StL
Wright, crossing C&NW	840	M&StL
Wyman	728	CB&Q
Wyoming	815,G813	CM&StP
Yale	1126,G1128	CM&StP
Yarmouth	814	CB&Q
Yellow River	630,G629	CM&StP
Yellow River, Island 166, planted on, 20 meters back from shore on high ground, 600 meters above head of Island 169; copper bolt in tile surmounted by iron pipe (U.S. C.E.b.m. 198/2):		
Copper bolt	616.07	Bull. 569
Cap on pipe	620.05	
Yellow River station, 300 meters above, on south side of bluff about 0.5 mile above Yellow river, opposite a point 5 meters above headblock of switch; 15 meters west of center of railroad track; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 198/3):		
Copper bolt	655.68	Bull. 569
Cap on pipe	659.65	
Yellow River, Island 166, on high ground at west edge of garden and 30 meters below small house at north end of cultivated field, 20 meters back from shore, 15 meters south of dead 4-foot cottonwood which branches into four prongs about 12 feet above ground, opposite mouth of Paint creek, 800 meters below Government light; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 199/2):		
Copper bolt	620.10	Bull. 569
Cap on pipe	624.06	
Yetter	1214	IC
Yoder	876	CRI&P
Yorkshire	1132,G1135	CM&StP
Yorktown	1038,G1033	CB&Q

YOUNG-ZWINGLE

549

STATION	ELEVATION FEET	AUTHORITY
Young, top of rail on south line of sec. 35, Tp. 81, R. 7, 750 feet west of S. ¼ cor. sec. 35.....	770.70	CR&IC
Zacharys	934	CRI&P
Zaneta	911	C&NW
Zearing	1060,G1053	M&StL
Zollicoffer Lake, 150 meters above railroad station at, in right of way of CM&StP Ry, 0.5 meter from fence, at foot of bald bluff, 25 meters above upper end of curve at station; copper bolt in tile surmounted by iron pipe (U.S.C.E.b.m. 182/3):		
Copper bolt	623.54	Bull. 569
Cap on pipe	626.13	
Zumwalt	1000	FtDDM&S
	[Established by Iowa State College Students]	
Zumwalt, pole A308, 1.3 feet above ground, in track side of; spike	1,021.40	Bull. 569
Zumwalt, T. 83 N., R. 24 W., spike in track side of pole A273, 1 foot above ground, pole is on south side of east- west road along north line of sec. 20.....	1,004.33	Bull. 569
Zumwalt station, spike in telephone pole 39 feet south of pole A253, 16 feet west of center line of track, 1 foot above ground	983.91	Bull. 569
Zumwalt, pole A225, 45 feet north of, on NE. cor. east head wall of 12-inch pipe; square cut	959.42	Bull. 569
Zumwalt, pole A195, 1 foot above ground, in track side of; spike	935.66	Bull. 569
Zwingle	893	CM&StP
Zwingle, sec. 2, T. 86 N., R. 2 E., road crossing CM&StP Ry, near west section line, 10 feet south of track; iron post stamped "921"	912.386	Bull. 569
Zwingle station, sec. 35, T. 87 N., R. 2 E., CM&StP Ry, west end of platform; iron post stamped "902"	893.977	Bull. 569





WISCONSIN

IOWA GEOLOGICAL SURVEY
DES MOINES, IOWA

TOPOGRAPHIC
MAP OF IOWA
Scale 1:50,000

CONTOUR INTERVAL: 100 FEET

1925

GEORGE F. KAY, DIRECTOR

Contour lines drawn by James H. Lees. Based on topographic maps of the U. S. Geological Survey and on profile charts of the railroad lines of Iowa.

Base compiled from U. S. Geological Survey atlas sheets, Land Office data, surveys by Mississippi and Missouri River commissions, county maps and other data. Used by permission of the U. S. Geological Survey.