

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

GEORGE OTIS SMITH, DIRECTOR

BULLETIN 476

RESULTS OF SPIRIT LEVELING
IN OHIO

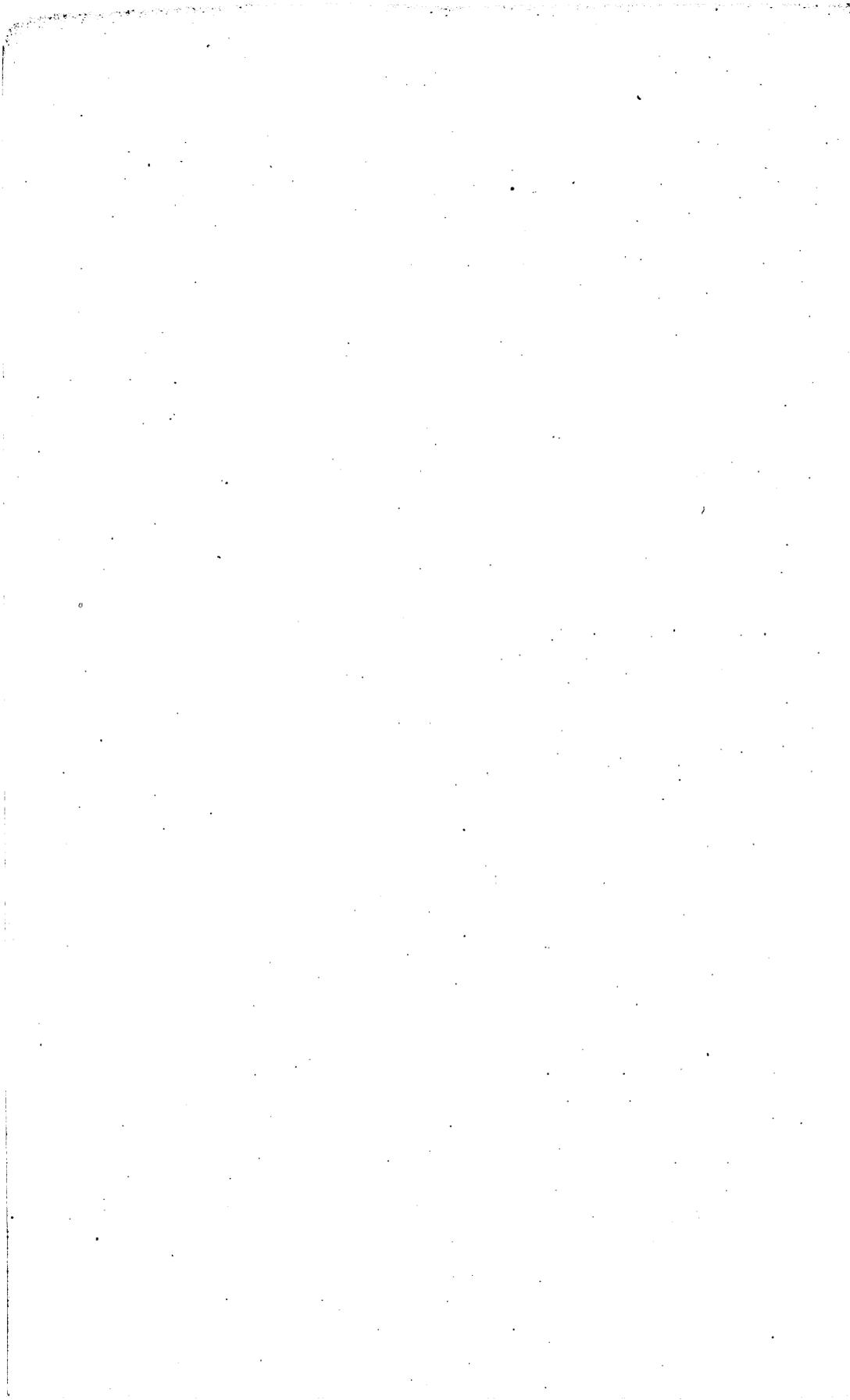
1909 AND 1910

R. B. MARSHALL, CHIEF GEOGRAPHER

WORK DONE IN COOPERATION WITH THE STATE OF OHIO



WASHINGTON
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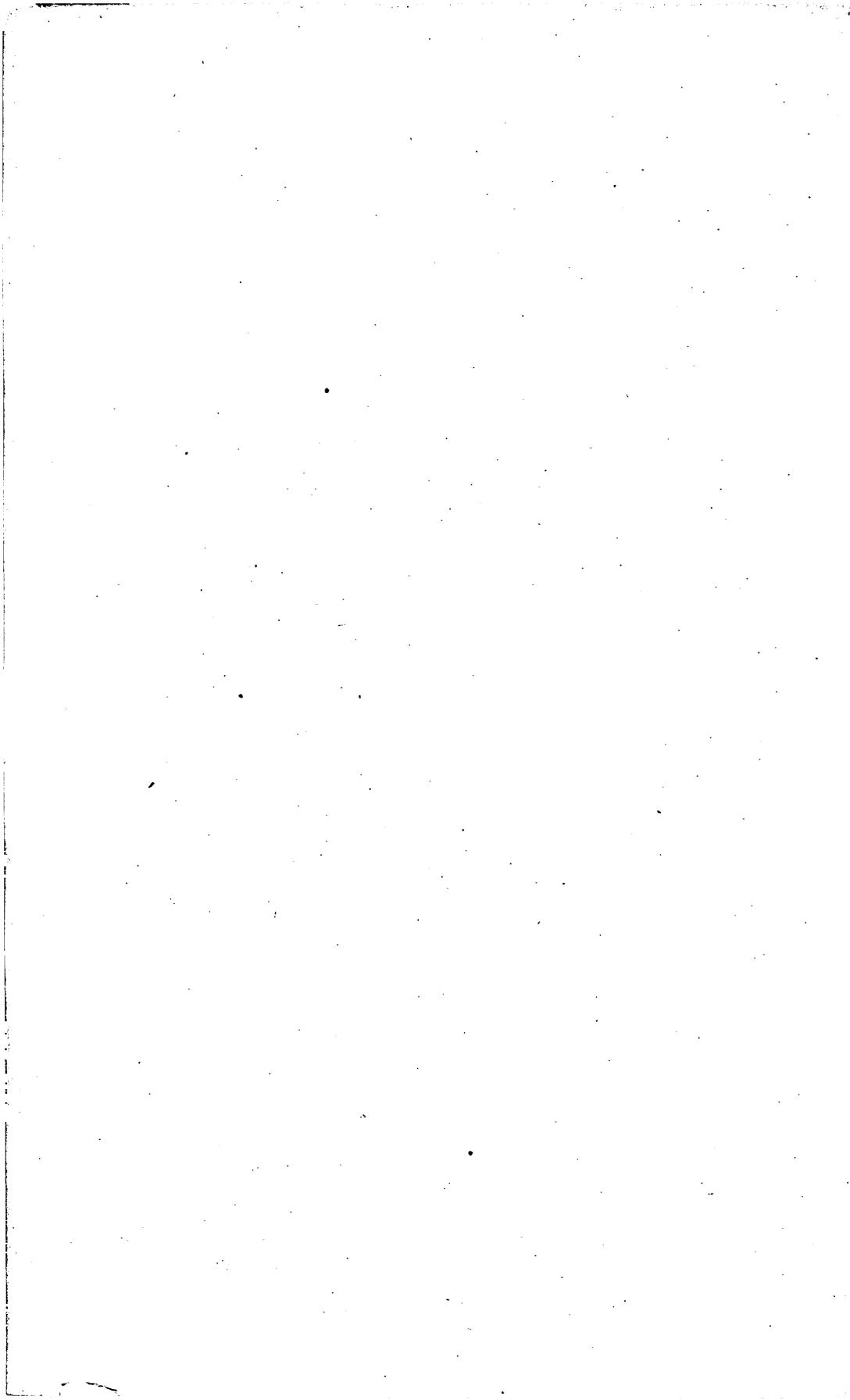


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GEOLOGICAL SURVEY BENCH MARKS.

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

RESULTS OF SPIRIT LEVELING IN OHIO, 1909 AND 1910.

R. B. MARSHALL, Chief Geographer.

INTRODUCTION.

Previous publication.—The following results of spirit leveling are supplemental to and accord with the elevations contained in Bulletin 411 and are in agreement with the 1907 adjustment of precise leveling. Corrections to Bulletin 411 should be noted as follows:

Page 29, Hiram; aluminum tablet in northwest corner of foundation of brick store building opposite Y. M. C. A.; the elevation of this mark has been changed and now is 1,269.617 feet above mean sea level.

Page 39, Zoar; bench mark is now 600 feet north of station, south side of track, in abutment of iron bridge 153-D over mill race, in coping stone; aluminum tablet stamped "893 STEUBENVILLE," elevation taken as 898.21 feet. The accuracy of this elevation is not known.

Page 55, Little Hocking; old bench mark on top of southwest abutment of pier of bridge over Little Hocking River has been destroyed. A new bench mark has been established in the northeast corner of the east pier of Baltimore & Ohio Southwestern Railroad water tank at Little Hocking River, the elevation of which is taken as 626.695 feet. The reliability of this elevation is not known.

Page 66, Madison; elevation of bench mark near south end of rock cut on curve should be 686.321 feet.

Page 66, Mabee; 4.5 miles west of, in center of foundation stone of Freedman Church; bronze tablet stamped "678 I." The elevation of this mark should be 679.856 feet.

Page 66, Harrison Township; copper bolt stamped "788 I" in sandstone ledge 8 feet east of center of road (in narrow ravine). The elevation of this mark should be 789.945 feet.

Page 68, Odell; 6 miles north of, aluminum tablet in south side of foundation of west end of spring house owned by Albert White. This bench mark is in the Cambridge quadrangle.

Page 83, Claylick; aluminum tablet in sandstone abutment of county bridge over canal. This tablet is reported to be stamped 799 instead of 790, as given in the bulletin.

Page 105, Africa; 0.25 mile west of, bronze tablet in top of south wing wall of iron bridge over Alum Creek. This mark has been destroyed.

Page 112, Grand Rapids; 2.8 miles north of, aluminum tablet in stone steps of schoolhouse at southwest corner of road crossing. Reported to have been destroyed.

Page 133, Miami-ville; aluminum tablet in east end of north abutment of Pennsylvania Railroad bridge over Little Miami River. This mark has been destroyed and a new one established. The description and elevation of the new mark are as follows: Miami-ville, road crossing at forks of road east end of town, 35 feet east of Pennsylvania Railroad, 20 feet south of center of road; iron post stamped "578," elevation 577.775 feet.

Personnel.—The field work of 1909 and 1910 was done under the supervision of W. H. Herron, geographer, under the general direction of R. B. Marshall, chief geographer. Credit is given to the different levelmen in the introduction to each list. The office work of computation, adjustment, and preparation of lists was done mainly by S. S. Gannett, geographer, and D. H. Baldwin, topographer, under the general direction of E. M. Douglas, geographer.

Classification.—The elevations are classified as precise or primary, according to the methods employed in their determination. For precise-level lines instruments and rods of the highest grade are used, each line is run both forward and backward, and every precaution is taken to guard against error. The allowable divergence between the forward and the backward lines in feet is represented by the formula $0.017\sqrt{D}$, in which D is the distance in miles between bench marks. For primary lines standard Y levels are used; lines are run in circuits or are closed on precise lines, with an allowable closing error in feet represented by $0.05\sqrt{D}$, in which D is the length of the circuit in miles, sufficient care being given to the work to maintain this standard. For levels of both classes careful office adjustments are made, the small outstanding errors being distributed over the lines.

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

The numbers stamped on the bench marks described in the following pages represent the elevations to the nearest foot as determined by the levelman. These numbers are stamped with $\frac{3}{16}$ -inch

steel dies on the tablets 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 winds and tides were eliminated. This level is not the elevation determined from the mean of the highest and the lowest tides, nor is it the half sum of the mean of all the high tides and the mean of all the low tides, which is called the half-tide level.

Mean sea level is the average height of the water, all stages of the tide being considered. It is determined from observations made by means of tidal gages placed at stations where local conditions, such as long, narrow bays, rivers, and like features, will not affect the height of the water. To obtain even approximately correct results these observations must extend over at least one lunar month, and if accuracy is desired they must extend over several years. At ocean stations the half-tide level and the mean sea level usually differ but little. It is assumed that there is no difference between the mean sea level as determined from observations in the Atlantic Ocean, the Gulf of Mexico, or the Pacific Ocean.

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

Topographic maps.—Maps of the following quadrangles, wholly or partly in Ohio, have been published by the United States Geological Survey up to May 1, 1911. They may be obtained, except as noted, for 5 cents each or \$3 a hundred on application to the Director of the Survey, at Washington, D. C.:

Akron.	Athens.
Alliance.	Belleville (W. Va.-Ohio).
Andover (Ohio-Pa.).	Bellevue.
Antrim.	Berea. ¹
Arlington.	Bidwell.
Ashland.	Blanchester.
Ashtabula.	Bluffton.
Athalia (Ohio-W. Va.).	Bowling Green.

¹ Cleveland and vicinity map includes parts of Cleveland, Euclid, and Berea sheets.

Bristolville. ¹	Logan.
Brookville.	London.
Cadiz.	McClure.
Cameron (W. Va.-Ohio-Pa.).	McConnellsville.
Canton.	Macksburg.
Chagrin Falls.	Marietta (Ohio-W. Va.).
Chardon.	Marion.
Chesterhill. ¹	Mason.
Chillicothe.	Massillon.
Cincinnati (Ohio-Ky.) double sheet. (10 cents). ²	Maumee Bay (Ohio-Mich.).
Clarington (Ohio-W. Va.).	Medina.
Cleveland. ³	Mentor.
Cleveland and vicinity. ³	Miamisburg.
Columbiana (Ohio-Pa.).	Mount Sterling.
Columbus Grove.	Napoleon.
Conesville.	Newark.
Conneaut (Ohio-Pa.).	New Lexington.
Continental.	New London.
Dayton. ¹	New Martinsville (W. Va.-Ohio.)
Defiance.	New Matamoras (Ohio-W. Va.).
Delaware.	Oak Harbor.
Deshler.	Oberlin.
Dublin.	Ottawa.
East Cincinnati (Ohio-Ky.). ²	Parkersburg (Ohio-W. Va.).
East Columbus.	Perry.
Elmore.	Philo.
Euclid. ³	Point Pleasant (W. Va.-Ohio).
Findlay.	Pomeroy (Ohio-W. Va.).
Flushing.	Put-in-Bay.
Fostoria.	Ravenna.
Frazeyburg.	Ravenswood (W. Va.-Ohio).
Fremont.	St. Clairsville.
Garrettsville.	St. Henry.
Glenwood (W. Va.-Ohio).	St. Marys (W. Va.-Ohio). ¹
Granville.	Salineville.
Greenville.	Sandusky.
Guyandot (W. Va.-Ohio). ⁴	Scio.
Hamilton.	South Charleston.
Huntington (W. Va.-Ohio-Ky.). ⁴	Springfield.
Ironton (Ohio-Ky.).	Steubenville (Ohio-W. Va.-Pa.).
Jefferson. ¹	Sycamore.
Keno (Ohio-W. Va.).	Thornville.
Kenova (Ky.-W. Va.-Ohio).	Thurston.
Kent.	Tiffin.
Kinsman (Ohio-Pa.).	Toledo (Ohio-Mich.).
Lancaster.	Upper Sandusky.
Lima.	Vermilion.
Lisbon.	Warren.
	Waverly.

¹ Shows wooded areas.

² Cincinnati double sheet includes East Cincinnati and West Cincinnati sheets.

³ Cleveland and vicinity map includes part of Cleveland, Euclid, and Berea sheets.

⁴ Guyandot sheet shows part of Huntington quadrangle on larger scale.

Wellington.	Wheeling (W. Va.-Ohio-Pa.).
Wellsville (Ohio-W. Va.-Pa.).	Wilkesville.
West Cincinnati (Ohio-Ky.). ¹	Woodsfield.
West Columbus.	Wooster.
Westerville.	Youngstown (Ohio-Pa.).
West Manchester.	Zaleski. ²
West Salem.	Zanesville.

PRIMARY LEVELING.

Brinkhaven, Canal Dover, Carrollton, Coshocton, Millersburg, Navarre, New Comerstown, Plimpton, Uhrichsville, and Wooster Quadrangles.

CARROLL, COLUMBIANA, COSHOCTON, HOLMES, KNOX, STARK, TUSCARAWAS, AND WAYNE COUNTIES.

The leveling was done in the Brinkhaven quadrangle in 1909 by S. R. Archer, and in 1910 by E. C. Bibbee; in the Canal Dover quadrangle in 1901 by J. B. Maguire and J. H. Wetzel, and in 1909 by S. R. Archer and C. B. Mincks; in the Carrollton quadrangle in 1900 by R. G. Defrees, and in 1909 by S. R. Archer and C. B. Mincks; in the Coshocton quadrangle in 1908 by C. H. Semper, and in 1909 by S. R. Archer; in the Millersburg quadrangle in 1909 by S. R. Archer, and in 1910 by E. C. Bibbee; in the Navarre quadrangle in 1910 by E. C. Bibbee; in the New Comerstown quadrangle in 1908 by C. H. Semper, in 1909 by S. R. Archer and C. B. Mincks, and in 1910 by E. C. Bibbee; in the Plimpton quadrangle in 1910 by E. C. Bibbee; in the Uhrichsville quadrangle in 1901 by J. H. Wetzel, in 1902 by B. J. Green, and in 1909 by C. B. Mincks; and in the Wooster quadrangle in 1910 by E. C. Bibbee.

BRINKHAVEN QUADRANGLE.

Point 2 miles southwest of Glenmont southwest and southeast along railroad to Warsaw.

Baddow Pass, 0.9 mile west of, on Cleveland, Akron & Columbus Ry., 400 feet west of T road west, at bridge 64 over wagon road, 20 feet north of road; iron post stamped "1050"-----	Feet. 1,049.861
Brinkhaven, 1.8 miles east of, 35 feet west of railroad crossing, on north end of stone culvert under railroad; chiseled square-----	962.12
Brinkhaven, 25 feet north of main track, on northeast corner of station platform, Cleveland, Akron & Columbus Ry.; chiseled square-----	874.25
Brinkhaven, in northeast corner of schoolhouse yard; iron post stamped "896"-----	896.313
Brinkhaven, 1.2 miles south of, on south abutment, east side of overhead bridge 21; Pennsylvania R. R. bench mark-----	883.727
Brinkhaven, 2.4 miles south of, on Pennsylvania R. R., on concrete on south end, west side of abutment; chiseled square-----	867.71
Wintergreen (Cavallo Station), 25 feet west of post office, 75 feet east of railroad, in northwest corner of C. H. Summon's front yard; iron post stamped "878"-----	878.190
Wintergreen, 1.8 miles south of, on large, flat, sandstone rock on west side of railroad at private crossing; chiseled square-----	859.14

¹ Cincinnati double sheet includes East Cincinnati and West Cincinnati sheets.

² Shows wooded areas.

	Feet.
Wintergreen, 2.5 miles south of, on south abutment, east side of iron railroad bridge 18 over Walhonding River; chiseled square-----	851.00
Wintergreen, 3.8 miles south of, 25 feet north of railroad crossing at T road south, on west end of small stone culvert under railroad; chiseled square-----	848.14
Walhonding, 1.1 miles north of, in northeast corner of T road, north on old towpath of canal, 1,000 feet southeast of bridge 17 on Pennsylvania R. R. over Walhonding River; iron post stamped "843"-----	842.646
Walhonding, 1.6 miles south of, 25 feet north of railroad, 25 feet south of public road at railroad crossing; iron post stamped "833"-----	832.554
Nellie (Mohawk Station), 3 feet east of front entrance on south side of schoolhouse; iron post stamped "817"-----	817.203

Warsaw northwest along highway to Glenmont.

Warsaw, 2 miles northwest of, on south end of east abutment on coping stone of bridge over Beaver River; chiseled square-----	817.72
Warsaw, 3.4 miles northwest of, 200 feet north of residence of Edward Frederick; on north end of abutment of small bridge; chiseled square-----	836.74
Warsaw, 4.2 miles northwest of, 150 feet southeast of T road south, in center of north end of concrete bridge; chiseled square-----	845.86
Princeton, 300 feet south of crossroads, 250 feet south of store, on stone abutment on west side of small bridge; chiseled square-----	860.65
Princeton, 1.2 miles northwest of, at southwest corner of crossroads, 500 feet southeast of residence of L. B. Blake; iron post stamped "900"-----	899.887
Stilwell, 690 feet east of store, on south side of road, at southeast corner of T road south; iron post stamped "889"-----	889.031
Stilwell, 1.4 miles north of, 15 feet west of public road, 65 feet north of T road east, on large sandstone rock; chiseled square-----	1,035.71

Warsaw south along Cleveland, Akron & Columbus Ry. to Cooperdale.

Warsaw Junction, 0.3 mile north of, railroad bridge over Walhonding River, in east wing of north abutment; aluminum tablet stamped "800"-----	800.362
Warsaw Junction, at railroad crossing; top of rail-----	800.7
Warsaw Junction, 10 feet north of center of crossing of Pennsylvania R. R. and Cleveland, Akron & Columbus Ry., in top of concrete interlocking signal tower foundation; chiseled square-----	799.36
Warsaw Junction, 2.2 miles south of, road crossing, 0.2 mile west of crossroads, east of railroad right of way line, south side of road; iron post stamped "824"-----	823.627
Tunnel Hill, 0.5 mile north of, 45 feet east of crossing, southeast corner of road forks, in corner of fence line and east line of railroad-right of way line; iron post stamped "860"-----	859.572
Tunnel Hill, 0.6 mile south of, 50 feet east of road crossing, in top of south wing of west abutment of steel bridge; chiseled square-----	813.12

CANAL DOVER QUADRANGLE.

Sherodsville northwest along Wheeling & Lake Erie R. R. to Zoar.

Sherodsville, 1,200 feet north of station, in northeast corner of bridge 166-A; iron bolt-----	915.74
Sherodsville, 2.4 miles north of, in southeast corner of bridge 165-A; iron bolt marked "905"-----	906.29

Sherodsville, 5 miles north of, in southeast corner of bridge 162-A; iron bolt-----	Feet. 897.39
New Cumberland, at road crossing; top of rail-----	895.3
New Cumberland, 1,700 feet east of station, on road leading from sta- tion to town, on northwest bridge seat of covered wagon bridge; copper tablet stamped "S93 STEUBENVILLE"-----	893.761
New Cumberland, 2.2 miles north of, northeast corner of bridge 159-A; iron bolt-----	889.19
Summerdale, at road crossing; top of rail-----	884.4
Summerdale, 0.5 mile north of, in southeast corner of bridge 157-C; iron bolt-----	884.53
Valley Junction, 0.3 mile west of, in southeast corner of bridge 156-A; iron bolt-----	886.58
Valley Junction, 2.2 miles north of, in northwest corner of bridge 154-A; iron bolt marked "S91"-----	892.45
Zoar, road crossing at mill; top of rail, marked "S97"-----	898.6
Zoar, in front of station; top of rail-----	892.4
Zoar, 600 feet north of station, south side of track, on coping stone of southeast abutment of iron bridge 153-D over mill race; alumi- num tablet stamped "S93 STEUBENVILLE"-----	898.21
Point 4 miles south of Navarre southeast along Wheeling & Lake Erie R. R. to Zoar.	
Bolivar, 2 miles north of west end of north abutment of bridge 148-A, on Wheeling & Lake Erie R. R. over canal; top-----	923.15
Bolivar, 0.5 mile north of, in northeast corner of south abutment of Wheeling & Lake Erie R. R. bridge 149-C over Ohio Canal; bronze tablet stamped "936"-----	935.318
Bolivar, in front of station; top of rail-----	947.7
Zoar Mill southeast to Zoar Station, thence southwest along Pennsylvania R. R. to point 1.3 miles southwest of Canal Dover.	
Zoar mill, in front of, at road crossing; top of rail-----	899.0
Zoar Station, 20 feet east of railroad at road crossing; iron post stamped "S89"-----	889.694
Zoar Station, 4 miles west of, 20 feet south of railroad, at road crossing; iron post stamped "S80"-----	880.420
Canal Dover, southwest corner of city hall; iron post stamped "S98"-----	898.120
Canal Dover, 0.4 mile west of, cross roads at Sugar Creek bridge, 50 feet northwest of bridge; iron post stamped "S74"-----	874.201
Canal Dover southeast to New Philadelphia.	
Canal Dover, 1 mile east of, telephone pole marked "72-1," section rail between tracks, Baltimore & Ohio R. R. Bench mark No. 38. (Precise line value 892.905 not accepted, dependence being placed on copper bolt at New Philadelphia.)-----	892.671
Zoar Station northeast along Pennsylvania R. R. to Waynesburg.	
Mineral City, in front of Pennsylvania R. R. station; top of rail-----	950.0
Mineral City, Pennsylvania R. R. and Baltimore & Ohio R. R. cross- ing, northwest corner of tracks, 50 feet northwest of center of crossing; iron post stamped "953"-----	953.175

Mineral City, 3 miles northeast of, crossing of private road to house on west side of railroad, 50 feet west of public road, in top of stone of retaining wall on west side of track at crossing; chiseled square.....	968. 89
Magnolia, 100 feet west of station, on north railroad right of way line, west of public road, 30 feet northwest of crossing, at foot of telegraph pole; iron post stamped "972".....	971. 796
Magnolia, in front of station; top of rail.....	973. 6
Milepost 13; center of steel post (Pennsylvania R. R. bench mark).....	1,000. 0
Waynesburg, at north edge of town, opposite Pennsylvania R. R. station, in southwest corner of St. Paul's Reformed Church lawn, 3 feet from northwest corner of dwelling house and 3 feet from sidewalk; iron post stamped "993".....	993. 644
Waynesburg, street crossing at station; top of high rail.....	982. 6
Waynesburg, center of town, in southwest corner of crossroads, on top of steel post; paint mark.....	1,002. 50
Mineral City north along Baltimore & Ohio R. R. to point 3 miles south of Canton.	
Mineral City, 150 feet northwest of Baltimore & Ohio R. R. station, at street crossing; top of rail.....	952. 7
Sandyville, in front of station; top of rail.....	938. 5
Sandyville, 160 feet north of station, 30 feet west of tracks, under northeast corner of water tank; iron post stamped "939".....	939. 037
East Sparta, 100 feet southwest of station, 40 feet south of lumber shed, north side of private road west to house, in fence corner; iron post stamped "959".....	958. 985
East Sparta, 2.3 miles north of, at northeast corner of road crossing, on east railroad right of way line, 30 feet north of public road, 30 feet east of railroad, 35 feet northwest of northwest corner of highway bridge over Nimischillen Creek; iron post stamped "965".....	964. 916
North Industry, 0.7 mile southeast of, 660 feet west of railroad crossing, northwest corner of bridge abutment of steel highway bridge over Nimischillen Creek; iron post stamped "981".....	981. 612
North Industry, in front of station; top of rail.....	1,000. 1
North Industry, northeast corner of concrete platform around station, 200 feet south of road crossing, in top of curbing; chiseled square.....	1,000. 91

CARROLLTON QUADRANGLE.

Waynesburg northeast along Pennsylvania R. R. to Bayard, thence east to point 2 miles east of East Rochester.	
Waynesburg, 0.6 mile northeast of station, at road crossing in south abutment of east wing of steel highway bridge over Sandy Creek, in top stone; chiseled square.....	973. 05
Malver, 0.3 mile west of Pennsylvania R. R. station, 150 feet north of road crossing, on west side of public road, at fence corner; iron post stamped "992".....	992. 474
Malvern, in front of Pennsylvania R. R. station; top of rail.....	998. 4
Oneida, Pennsylvania R. R. and Wheeling & Lake Erie R. R. crossing; top of rail.....	1,013. 7
Oneida, 75 feet northeast of Pennsylvania R. R. station, in west wing of south abutment of steel highway bridge over Sandy Creek; chiseled square.....	1,013. 56

Oneida, 0.6 mile northeast of railroad station, southeast corner of road crossing, 30 feet south of railroad; iron post stamped "1040"	Feet. 1, 040. 050
Minerva, Pennsylvania R. R. and Lake Erie, Alliance & Wheeling R. R. crossing; top of rail	1, 052. 0
Minerva, 100 feet east of Pennsylvania R. R. station, east side of street, 40 feet north of railroad, foot of telephone anchor pole at street crossing; iron post stamped "1053"	1, 052. 708
Bayard, 0.4 mile southwest of, 50 feet north of center of road forks at schoolhouse, east end of stone culvert, in top; chiseled square	1, 071. 20
Bayard, 0.4 mile southwest, T at road south, southwest corner of road forks, inside fence corner; iron post stamped "1079"	1, 079. 455
Bayard, 1 mile southeast of, Pennsylvania R. R. crossing, in base of warning post at northeast corner of crossing; spike	1, 094. 04
East Rochester, in front of Pennsylvania R. R. station; top of rail	1, 092. 0
East Rochester, 1.7 miles east of station, at southwest corner of road crossing, west side of public road, 50 feet south of railroad, 20 feet south of Pennsylvania R. R. right of way line, at fence line; iron post stamped "1095"	1, 094. 603

Sherodsville north and east along Wheeling & Lake Erie R. R. and highway to Carrollton triangulation station.

Atwood, 1.2 miles south of, 40 feet south and 10 feet east of road crossing, near telephone pole; iron post stamped "945"	945. 231
Dellroy, 200 feet east of station, 15 feet north of railroad; iron post stamped "926"	925. 781
Scott, 1.6 miles north of, 15 feet west of railroad, at railroad culvert 30-C; iron post stamped "953"	952. 699
Scott, 1.8 miles north of, in culvert 30-B; aluminum tablet stamped "Prim. Trav. 1906, 955"	954. 963
Deckman Duty brick plant, 0.8 mile north of, overhead railroad crossing, in stone abutment; cut mark, painted	1, 052. 06
Carrollton, courthouse, in front steps of south side, between pillars and walls of building; aluminum tablet	1, 130. 397
Carrollton, 2.6 miles east of, T road northeast of Washington Hall schoolhouse, on southeast abutment of iron bridge; chiseled square	1, 064. 82
Carrollton, 3.7 miles east of, on farm formerly owned by Mr. Campbell, now owned by George Ray, in marble slab at triangulation station; bronze tablet stamped "1377"	1, 376. 478

Oneida south along Wheeling & Lake Erie R. R. to Carrollton.

Oneida, 1.1 miles south of, 75 feet north of road crossing, top of east wing of south abutment of bridge 17-A; chiseled square	1, 018. 67
Oneida, 2.3 miles southeast of, northeast corner of road crossing, at fence corner; iron post stamped "1023"	1, 023. 672
Hibbetts, 2.2 miles southeast of, 40 feet northwest of the northwest corner of Stemples crossing, at fence corner of right of way line and north fence line of public road; iron post stamped "1051"	1, 051. 526
Carrollton, in front of Wheeling & Lake Erie R. R. station; top of rail	1, 131. 8
Carrollton, front entrance of courthouse, south side of steps, in top of stone base of marble columns, about 10 feet above pavement; aluminum tablet stamped "1130"	1, 130. 397

**Minerva along highways southeast to Specht, thence southwest to Stemples
Crossing on Wheeling & Lake Erie R. R.**

	Feet.
Minerva, in front of Lake Erie, Alliance & Wheeling R. R. station; top of rail.....	1, 046. 0
Minerva, 4.3 miles southeast of, 30 feet east of track, at road crossing, north side of public highway; iron post stamped "1049".....	1, 049. 413
Watheys, road crossing at, iron highway bridge, west side of railroad, in top of stone of south wing of east abutment; chiseled square.....	1, 050. 35
Watheys, 0.5 mile southeast of, 0.1 mile south of old Specht post office, at road crossing, north of railroad right of way line, west side of public highway, 40 feet north of track; iron post stamped "1049".....	1, 049. 603,
Specht, 2.2 miles southwest of, 0.25 mile west of Eckley, 3.2 miles east of Stemples crossing, northwest corner of crossroads, inside of fence line near maple tree 6 inches in diameter; iron post stamped "1199".....	1, 198. 773
Stemples crossing, 2.3 miles east of, T road southeast, at point 6 feet above level of road, north of road at forks, in top of stone; chiseled square.....	1, 144. 69
Stemples crossing, 1.1 miles east of, in northwest corner of crossroads, in top of stone culvert; chiseled square.....	1, 231. 12
Hibbetts, 2.2 miles southwest of, 3.6 miles northwest of Carrollton, northwest corner of Stemples crossing, at fence corner on west railroad right of way line, 40 feet northwest of crossing; iron post stamped "1051".....	1, 051. 526

Waynesburg southeast along highway to Dellroy.

Waynesburg, 2.1 miles southeast of, east of road, in top stone of culvert; chiseled square.....	1, 160. 83
Waynesburg, 2.5 miles southeast of, in southeast corner of crossroads, at fence corner; iron post stamped "1161".....	1, 161. 333
Waynesburg, 3.5 miles southeast of, at five-points, in center of south crossroads, in top of stone; chiseled square.....	1, 221. 40
Waynesburg, 3.5 miles southeast by 1.2 miles south of, T road east, in top of stone at southeast corner; chiseled square.....	1, 204. 90
Waynesburg, 3.5 miles southeast of, T road west, near house east of road at forks in southwest corner of yard, inside fence corner; iron post stamped "1193".....	1, 193. 790
Dellroy, 0.2 mile north of Wheeling & Lake Erie R. R. station, iron highway bridge, in top stone of approach to west wing of north abutment; chiseled square.....	926. 02
Dellroy, 200 feet east of Wheeling & Lake Erie R. R. station, 15 feet north of tracks, inside fence corner at northeast corner of crossing; iron post stamped "926".....	925. 781

COSHOCTON QUADRANGLE.

Coshocton east to West Lafayette.

Coshocton, in front of station; top of rail.....	777. 0
Coshocton, southeast corner of courthouse; aluminum tablet stamped "Prim.Trav.Sta.No. 57 777".....	776. 868

Coshocton, 3.2 miles east of, 900 feet west of milepost "P 119," in front face of concrete foundation of semaphore pole; aluminum tablet stamped "767" -----	Feet. 767. 632
Coshocton, 4 miles east of, crossing of Wheeling & Lake Erie R. R. and Pennsylvania R. R.; top of rail-----	769. 5

Chili north along highway to Charm.

Chili, 0.1 mile north of, 150 feet south of crossroads, in top of east wing of north abutment of steel highway bridge over White Eyes Creek; chiseled square -----	813. 64
Chili, 2.1 miles northwest of, 0.2 mile east and 0.3 mile south of section corner of secs. 14, 17, 13, and 18, Crawford Township, southwest corner at T road west; iron post stamped "857"-----	856. 689
New Bedford, 0.3 mile southwest of, southwest corner at T road southwest, in top of stone; chiseled square-----	1, 123. 42
New Bedford, south part of town, at road forks, in west end of stone culvert, at top; chiseled square-----	1, 136. 16
New Bedford, general store 400 feet east of crossroads, north side of Main Street, in southeast corner of stone foundation; aluminum tablet stamped "1155" -----	1, 154. 958
New Bedford, 0.1 mile north of, in southwest corner at T road west, county line between Holmes and Coshocton Counties, in top of stone step; chiseled square-----	1, 181. 94
New Bedford, 2.8 miles north of, northwest corner at T road west; iron post stamped "1194"-----	1, 193. 742
Charm, 1.5 miles southwest of, four corners at, northeast corner of north road forks, in top of stone; chiseled square-----	1, 208. 63

Coshocton northwest along Pennsylvania R. R. to Warsaw.

Coshocton, in southeast corner of courthouse; aluminum tablet stamped "Prim.Trav.Sta.No. 57 777"-----	776. 868
Roscoe, in center of crossroads, in top of foundation of well; chiseled square -----	774. 24
Coshocton, 3.7 miles northwest of, 116 feet north of railroad, in east wing of north abutment of swing bridge at road crossing; aluminum tablet stamped "776"-----	776. 400
Warsaw Junction, 2.4 miles east of, in top of south end of south wing of concrete dam in Wallhonding River; aluminum tablet stamped "787"-----	786. 869
Warsaw Junction, 1.4 miles east of, in top of west abutment, north wing, railroad bridge over highway; chiseled square-----	797. 28

Warsaw north along Cleveland, Akron & Columbus Ry. to Killbuck.

Warsaw Junction, 3 miles northeast of, 60 feet west of railroad, at road crossing, in northeast corner of yard of W. H. Darling's residence, at foot of telephone pole; iron post stamped "794"-----	793. 934
Warsaw Junction, 4 miles northeast of, in west wing of south abutment of railroad bridge over Killbuck River, in top stone; chiseled square -----	788. 27
Metham, in front of station; top of rail-----	794. 6
Metham, 0.1 mile north of station, northeast corner of road forks, 40 feet east of railroad, at railroad crossing; iron post stamped "793"-----	792. 720

	Feet.
Metham, 1.7 miles north of, east wing of north abutment of railroad bridge 121 over Killbuck River; chiseled square-----	794. 17
Blissfield, 175 feet west of station, south side of Main Street, 40 feet northeast of crossing, in northwest corner of yard; iron post stamped "Prim. Trav. Sta. No. 17 1907 796"-----	796. 106
Blissfield, 1.1 miles northeast of, in north wing of west abutment of railroad bridge 120 over Killbuck River, in top stone; chiseled square-----	796. 36
Helmick, in front of station; top of rail-----	797. 0
Layland, 1.2 miles south of, south end of switch to sand mill, west right of way line, 50 feet west of track, 580 feet south of sand mill; iron post stamped "795"-----	794. 622
Layland, in front of station; top of rail-----	798. 9
Layland, 1.3 miles north of, in east wing of south abutment of railroad bridge 118 over Killbuck River; chiseled square-----	804. 52
Layland, 2.1 miles north of, 0.8 mile south of Carpenter's switch, 0.8 mile north of railroad bridge over Killbuck River, east right of way line, 30 feet west of center of public road, 300 feet north of bend in public road to east; iron post stamped "804"-----	803. 497

Grade south along highways to Coshocton.

Clark (Bloomfield), 0.8 mile north of post office, southwest corner at second-class road west; iron post stamped "941"-----	941. 347
Clark, 0.3 mile north of, 200 feet south of T road east, in west wing of north abutment of small iron bridge; chiseled square-----	823. 93
Clark, 2.5 miles south of, west side of Coshocton and Millersburg road, northeast corner of yard on property line, residence of D. C. Miley; iron post stamped "1127"-----	1, 126. 571
Clark, 4.5 miles southwest of, 1.3 miles northwest of Mound, T road southwest, 25 feet south of center of road forks, in top of west end of plank drain; copper nail-----	1, 023. 79
Mound, northeast corner of crossroads, 25 feet southwest of west end of steel bridge over Mill Creek; iron post stamped "817"-----	816. 897
Mound, 2 miles south by 0.7 mile southeast of, southeast corner of road forks, 25 feet north of large maple tree, 60 feet northeast of small steel bridge over Little Mill Creek; iron post stamped "805"-----	805. 366
Keene, 1.6 miles southeast of, north side of road forks at T road south, inside fence line, 50 feet north of center of road forks; iron post stamped "770"-----	769. 637
Canal Lewisville, 2 miles north of, northeast corner at T road east, in top of stone; chiseled square-----	782. 43
Canal Lewisville, 175 feet south of crossroads, in east wing of west abutment of steel highway bridge over canal; aluminum tablet stamped "774"-----	774. 255
Coshocton, in northeast corner of courthouse; aluminum tablet stamped "Prim. Trav. Sta. No. 57 777"-----	776. 868

MILLERSBURG QUADRANGLE.

Killbuck west along railroad 1.2 miles.

Killbuck, 1.2 miles west of, on coping stone of stone culvert under railroad at railroad crossing; chiseled square-----	807. 12
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Mount Hope southwest along road to Millersburg, thence east to Walnut Creek.

Mount Hope, 1.6 miles east of, on large rock on south side of road; chiseled square painted "1124.7"-----	Feet. 1, 124. 63
Mount Hope, 15 feet southwest of southwest corner of Methodist Episcopal Church, 5 feet north of public road; iron post stamped "1285"-----	1, 285. 063
Benton, southwest corner of crossroads, 2 feet east of property line of E. R. Farver; iron post stamped "991"-----	990. 910
Benton, 1.8 miles west of, southwest side of T road north, on stone ledge; chiseled square painted "1192.7"-----	1, 192. 52
Benton, 2.7 miles west of, south side of road at T road north; chiseled square painted "1103.6"-----	1, 103. 47
Benton, 2.8 miles west of, southwest side of T road west, in front of residence of W. H. Gindesburger; iron post stamped "1128"-----	1, 128. 48
Millersburg, 1.5 miles east of, on west abutment, east side of bridge over Honey Run; chiseled square painted "879.204"-----	879. 070
Millersburg, curb in front of courthouse; chiseled square-----	900. 84
Millersburg, west side of courthouse, along wing wall of steps; iron post stamped "904," painted "904.3"-----	904. 164
Millersburg, 1.1 miles east of, east end of small rock culvert under wagon road at T road east; chiseled square-----	976. 640
Millersburg, 3.8 miles east of, southwest corner of crossroads at guidepost marked "Millersburg 4 miles, Berlin 3 miles, Benton 4 miles, Salbillo 2½ miles;" iron post stamped "1202"-----	1, 202. 162
Berlin, 1.6 miles west of, on top of large stone at T road south, opposite residence of Fred Mast; chiseled square painted "1062.8"-----	1, 062. 668
Berlin, in center of town, northwest corner of crossroads; iron post stamped "1292"-----	1, 292. 303
Walnut Creek, 2.5 miles west of, at southeast corner of T road south, in corner of field owned by E. M. Beachy; iron post stamped "1259"-----	1, 258. 716
Walnut Creek, 1.7 miles west of, on southwest corner of first step from bottom at schoolhouse at northeast corner of crossroads; chiseled square painted "1273.3"-----	1, 273. 134

Apple Creek southwest along railroad to point 1.1 miles south of Holmesville.

Apple Creek, 2.3 miles south of, southeast corner of crossroads, 100 feet east of railroad; at guidepost marked "Maysville 5 miles, Fredericksburg 2½ miles, Apple Creek 3½ miles;" iron post stamped "1034"-----	1, 033. 517
Fredericksburg, 1.1 miles north of, 100 feet north of railroad crossing, on south abutment, east side of bridge over Salt Creek, at milepost; chiseled square marked "H 50 C 94"-----	998. 18
Fredericksburg, east side of schoolhouse yard, in front of church; iron post stamped "974"-----	973. 874
Fredericksburg, 2.4 miles south of, 35 feet south of railroad at railroad crossing, on north end of bridge abutment on east side of Twin Bridge over Salt Creek; chiseled square-----	894. 87
Holmesville, 500 feet north of station, 25 feet north of railroad, near right of way at railroad crossing; iron post stamped "871"-----	870. 409

Millersburg northwest along railroad to Shreve.

Millersburg, 2.7 miles north of, 690 feet east of Cleveland, Akron & Columbus Ry. at T road east, west of public road, in corner of field opposite Alvin Slavock's residence; iron post stamped "832"-----	Feet. 831.688
Holmesville, in front of station; top of rail-----	833.6
Hard, 100 feet west of station, south side of public road; iron post stamped "837"-----	837.298
Hard, in front of station; top of rail-----	836.5
Kauke, 10 feet northwest of station, 10 feet south of road, on right of way at railroad crossing; iron post stamped "862"-----	861.808
Shreve, 2.6 miles east of, north side of bridge 124, on east abutment; chiseled square marked "G. B."-----	837.86
Shreve, 2.3 miles east of, on west abutment, north side of bridge 125; chiseled square painted "839.0"-----	838.98

Millersburg south along railroad 3 miles.

Millersburg, 2.6 miles south of, on west and north side of bridge approach at railroad crossing; chiseled square painted "813"-----	812.89
Millersburg, 3.1 miles south of, 3 miles east of Killbuck, at Hardy's switch, 280 feet east of fork of road, southeast corner of road; iron post stamped "811"-----	810.594

Killbuck north along railroad to Shreve.

Killbuck, 1.4 miles northwest of, at crossroads, on north end of stone culvert; chiseled square painted "844.1"-----	844.12
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Charm northeast along highways to point 3.1 miles southwest of Walnut Creek.

Charm, center of town, opposite post office, at southwest corner of yard on east side of road at T road east, 130 feet northwest of road forks; iron post stamped "1047"-----	1,046.628
Walnut Creek, 3.1 miles southwest of, 550 feet east of Shelter schoolhouse; iron post stamped "Prim.Trav.Sta.No.40, 1040"-----	1,040.015
Walnut Creek, 3.1 miles southwest of, about 600 feet east of Shelter schoolhouse, on south abutment, west side of bridge at T road north; chiseled square painted "1028.3"-----	1,028.24

Killbuck east along highway to Charm.

Killbuck, 450 feet west of station, steel bridge on main line Cleveland, Akron & Columbus Ry. over Killbuck River, in north wing of east abutment; aluminum tablet stamped "Prim.Trav.Sta.No.16, 1907, 807"-----	807.29
Killbuck, in front of Cleveland, Akron & Columbus Ry. station; top of rail-----	810.6
Killbuck, 3 miles east of, 280 feet south of Hardy's switch, southeast corner of forks of road; iron post stamped "811"-----	810.594
Grade, 0.25 mile west of, road forks at old post office, west side of road; iron post stamped "1162"-----	1,162.146
Salttillo, northeast corner of crossroads, inside fence line; iron post stamped "Prim. Trav. Sta. No. 24, 1907, 1217"-----	1,216.898
Charm, 1.25 miles northwest by 1.25 miles west of, four corners, southwest corner of north road forks, in top of stone; chiseled square-----	1,214.22

Charm, east part of town, T road southwest at schoolhouse, 90 feet northwest of road forks, in top of west wing of south abutment of small iron bridge; chiseled square.....	Feet. 1,030.51
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NAVARRE QUADRANGLE.

Wilmot northwest along highway to Kidron.

Wilmot, south side of Maple Street at T road west to Winesburg, 75 feet east of Methodist Episcopal Church; iron post stamped "1024"	1,023.496
Wilmot, 1.1 miles northwest of, on east abutment, south side of bridge over Little Sugar Creek at Y road; chiseled square.....	1,000.46
Wilmot, 2.4 miles northwest of, south of Mount Eaton Road at T road north; iron post stamped "1184"	1,184.168
Wilmot, 3.1 miles northwest of, on south abutment west side of bridge over creek; chiseled square.....	1,026.33
West Lebanon (Pem Station), 0.7 mile east of, on north abutment, east side of bridge 300 feet south of railroad; chiseled square.....	986.30
West Lebanon (Pem Station), north side of railroad, on right of way, 25 feet east of wagon road; iron post stamped "988"	988.126
West Lebanon, 1.1 miles west of, 50 feet north of railroad at railroad crossing; on south abutment, east side, of bridge over Little Sugar Creek; chiseled square.....	1,001.64
West Lebanon, 1.7 miles west of, on south abutment, west side of bridge over Little Sugar Creek, at railroad crossing; chiseled square.....	1,013.08
West Lebanon, 3.4 miles west of, 60 feet north of railroad at railroad crossing, on north abutment, east side of bridge over Little Sugar Creek, chiseled square.....	1,077.004
Kidron, center of town, southwest corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 38, 1104"	1,103.849
Canal Dover west along highway to Sugar Creek, thence north along railroad to Beach City.	
Canal Dover, 3.5 miles west of, north of road at T road south; iron post stamped "932"	932.005
Canal Dover, 6.4 miles west of, northwest corner of T road north; iron post stamped "1038"	1,037.508
Canal Dover, 7.2 miles west of, southwest corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 41, 1003"	1,002.574
Sugar Creek, 175 feet north of station, 15 feet east of public road; iron post stamped "992"	992.000
Sugar Creek, south end of station platform; top of east rail.....	990.7
Sugar Creek, 2.1 miles north of, west side of public road, 15 feet east of railroad crossing, on stone; chiseled mark painted "980.2"	980.03
Barrs Mills, 150 feet south of railroad crossing, on north abutment west side of railroad bridge; chiseled square.....	975.41
Barrs Mills, 490 feet north of railroad station at railroad crossing, 25 feet west of Wheeling & Lake Erie R. R. on railroad right of way; iron post stamped "969"	968.407
Barrs Mills, 1 mile north of, 9 feet east of railroad at whistle post; chiseled square on large rock, marked "Barrs Mills 1 mile" on whistle post.....	972.42

Dundee, in front of station, on Wheeling & Lake Erie R. R. right of way; iron post stamped "972"-----	Feet. 971.702
Dundee, 1.2 miles north of, on north abutment, west side of railroad bridge; chiseled square painted "959.9"-----	959.76
Dundee, 2.5 miles north of, 60 feet north of telephone pole 1810, on right of way of Wheeling & Lake Erie R. R., 60 feet west of railroad; iron post stamped "960"-----	959.836
Beach City, at northwest corner of schoolhouse; iron post stamped "1009"-----	1,008.838
Beach City, Baltimore & Ohio R. R. crossing, 75 feet north of station.	968.6

Beach City southwest along highway to Winesburg.

Wilmot, 0.5 mile southwest of, on north side of, under wagon road, stone-arch culvert 300 feet west of T road south; chiseled square.	1,018.87
Wilmot, 0.9 mile southwest of, south end of stone culvert under wagon road, on line between Stark and Holmes Counties; chiseled square painted "1019.3"-----	1,019.11
Wilmot, 2.8 miles southwest of, in northwest corner of lot owned by Christian Weiss, 25 feet northeast of house; iron post stamped "1039"-----	1,038.837
Winesburg, 1.4 miles east of, on north side of stone-arch culvert; chiseled square painted "1079.3"-----	1,079.16
Winesburg, in southwest corner of schoolhouse yard, 325 feet west of crossroads; iron post stamped "1311"-----	1,311.316
Winesburg, 2.5 miles southwest of, at southeast corner of crossroads, about 500 feet west of schoolhouse; iron post stamped "Prim. Trav. Sta. No. 39, 1186"-----	1,185.423

Winesburg southwest along highway to Charm.

Winesburg, 1.3 miles south of, east end of stone culvert; chiseled square painted "1026.3"-----	1,026.14
Walnut Creek, 2.8 miles north of, northwest corner of crossroads, at guidepost marked "Dundee 4½ miles, Berlin 4 miles, Trail 1 mile, Walnut Creek 3 miles;" iron post stamped "1156"-----	1,155.825
Walnut Creek, 1.6 miles north of, on north end of concrete culvert at T road east; chiseled square painted "1054.8"-----	1,054.68
Walnut Creek, southeast corner of crossroads, on curb opposite post office; chiseled square-----	1,190.375
Walnut Creek, in front of schoolhouse, west side of yard; iron post stamped "1198"-----	1,197.458
Walnut Creek, 0.6 mile south of, southwest corner of crossroads, on stone; chiseled square painted "996.5"-----	996.403

NEW COMERSTOWN QUADRANGLE.

West Lafayette east via New Comerstown to Bernice.

West Lafayette, in front of station; top of rail-----	802.0
West Lafayette, northwest corner of public school grounds, 120 feet south of Pennsylvania R. R.; iron post stamped "Prim. Trav. Sta. No. 58 809"-----	809.351
Isleta, in front of station; top of rail-----	792.1
Isleta, 265 feet east of station, 25 feet north of track, in railroad culvert; aluminum tablet stamped "791"-----	790.637

	Feet.
New Comerstown, in front of station; top of rail-----	802.9
New Comerstown, in front step of Fountain Hotel, northwest corner, 1 foot from sidewalk; aluminum tablet stamped "805"-----	805.191
New Comerstown, in foundation of high school building, 6 feet south of entrance from College Street; aluminum tablet stamped "809"-----	808.623
Bernice, 2 miles west of, in north abutment, east side of iron bridge over Dunlap Creek; aluminum table stamped "802"-----	803.178
Bernice, 0.6 mile west of, on west abutment, north side of iron bridge; chiseled square, painted "811.9"-----	812.88
New Comerstown north along Pennsylvania R. R. to Joyce (the error distrib- uted in this line is excessive).	
New Comerstown, 2.4 miles northeast of, about 0.1 mile east of road forks at road crossing, in top of south wing of east abutment of steel bridge; chiseled square-----	815.50
New Comerstown, 3 miles northeast of, 550 feet east of Pennsyl- vania R. R., west side of road, at T road east; iron post stamped "827"-----	826.953
Wolf, 2.6 miles north of, 30 feet east by 10 feet south of overhead railroad crossing; iron post stamped "890"-----	889.652
Stone Creek, 1.9 miles north of, at road crossing, in north abutment of bridge over stream; chiseled square-----	905.82
Stone Creek, 3.1 miles north of, 20 feet east of railroad, at private road crossing; iron post stamped "901"-----	900.880
West Lafayette north along Wheeling & Lake Erie R. R. to Chili.	
West Lafayette, east of Pennsylvania R. R. station, at center of road crossing; top of north rail of north track-----	802.4
West Lafayette, 1.4 miles north of, in top of west wing of north abut- ment of steel highway bridge over Tuscarawas River; chiseled square-----	778.73
West Lafayette, in front of Wheeling & Lake Erie R. R. station, at road crossing; top of rail-----	777
West Lafayette, 2.3 miles north of, on Wheeling & Lake Erie R. R. east right of way line, north side of road at road crossing, inside fence corner; iron post stamped "779"-----	779.269
Fresno, in front of station; top of rail-----	788.4
Fresno, 110 feet west of Wheeling & Lake Erie R. R., in southeast corner of schoolhouse grounds; iron post stamped "Prim.Trav. Sta.No. 27 1907 785"-----	784.999
Chili, south end of station platform, 35 feet east of track, 50 feet west of crossroads; iron post stamped "Prim.Trav.Sta.No. 26 1907 823"-----	822.757
Chili, 0.9 mile west of, southwest corner of crossroads, at foot of mail-box post, 15 feet west of fence corner; iron post stamped "993"-----	993.143
Sugar Creek southwest along railroad to New Bedford.	
Sugar Creek, 3.4 miles south of, 25 feet west of railroad, 10 feet south of wagon road; iron post stamped "998," painted "998.4"-----	998.226
Baltic, in yard at Bixler Hotel; iron post stamped "1041"-----	1,041.305
Baltic, 2.6 miles west of, at Y road; iron post stamped "1151"-----	1,150.916

Baltic southeast along highway to Stone Creek.

Fiat schoolhouse, in northwest corner of foundation; aluminum tablet stamped "1089"-----	Feet. 1,088.983
Baltic, 4 miles west of, on east side of small rock culvert; chiseled square painted "1048.8"-----	1,048.57
Baltic, 5.4 miles east of, on east end of stone arch culvert at T road; chiseled square painted "1068.2"-----	1,067.94
Baltic, 6 miles east of, about 500 feet east of William Thomas's residence; iron post stamped "1126"-----	1,126.132
Stone Creek, 3.5 miles west of, in northwest corner of Angel school-house yard; iron post stamped "970"-----	970.398
Stone Creek, in foundation at northwest corner of P. E. Buehler's store; aluminum tablet stamped "932"-----	931.648

PLIMPTON QUADRANGLE.

Killbuck north along railroad to Shreve.

Killbuck, 2.5 miles northwest of, 7 feet east of center of road, in center on large sandstone rock; chiseled square with cross painted "882.4"-----	882.43
Killbuck, 2.9 miles northwest of, 1.1 miles south of Welcome, on Killbuck-Shreve Road, at southwest corner of crossroads; iron post stamped "920"-----	920.071
Welcome, center of town, 15 feet east of crossroads, on northwest corner of bridge abutment; chiseled square painted "930.5"-----	930.45
Welcome, 0.9 mile north of, at guidepost marked "Paint Valley 2½ miles, Shreve 9 miles, Welcome 1 mile," at northwest corner of T road; iron post stamped "1001"-----	1,000.833
Welcome, 2.1 miles north of, in center of T road, on cornerstone rock; chiseled square painted "1102"-----	1,101.98
Shreve, 6.5 miles south of, at northwest corner of T road north; iron post stamped "1029"-----	1,028.521
Shreve, 6.4 miles south of, at northwest corner of T road at guidepost, marked "Shreve 4 miles, Paint Valley 3 miles, Nashville 5 miles, Holmesville 6 miles;" iron post stamped "Prim.Trav.Sta. No. 23, 1187"-----	1,187.003
Shreve, 3.4 miles south of, northwest corner of crossroads at guidepost marked "Holmesville 6, Welcome 8, Shreve 3½;" iron post stamped "1139"-----	1,138.697
Shreve, 1 mile south of, northwest corner of T road north, on rock; chiseled square-----	918.4
Shreve, under ticket-office window; southeast corner of water table--	917.06

Point 1.2 miles west of Killbuck west along railroad to point 2 miles southwest of Glenmont.

Killbuck, 3.1 miles east of, on Cleveland, Akron & Columbus Ry., 60 feet south of milepost marked "C 74 H 70," on northeast corner of stone culvert under railroad; chiseled square-----	825.49
Glenmont, 2 miles east of, 30 feet south of railroad, 25 feet west of wagon road, 1,000 feet east of milepost marked "C 73 H 71;" iron post stamped "836"-----	835.748

Glenmont, 40 feet north of center of main track, in northeast corner of grass plot; iron post stamped "Prim.Trav.Sta.No.17 S6S"-----	Feet. 868. 268
Glenmont, 2 miles west of, 25 feet north of railroad, at private crossing 200 feet south of T road north, on sandstone rock; chiseled square-----	988. 09

Glenmont south along highway toward Warsaw.

Glenmont, 0.6 mile south of, west of road on top of hill, on large stone at gatepost; chiseled square-----	1, 192. 47
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UHRICHSVILLE QUADRANGLE.

At Station 15 post office.

Station 15 post office, Pittsburg, Cincinnati, Chicago & St. Louis Ry. stone bridge 86, on northeast coping of northeast wing wall; aluminum tablet stamped "S6S STEUBENVILLE"-----	868. 622
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Tennett's tunnel north to Tippecanoe and east.

Tippecanoe, southwest corner of Daviess and Spencer Streets, north foundation wall of dwelling; bronze tablet stamped "S82 STEUBENVILLE"-----	881. 736
Tippecanoe, 0.8 mile east of, covered bridge over Brushy Fork, on south-wing wall of east abutment; chiseled square-----	869. 62

Joyce north along Pennsylvania R. R. to near Canal Dover (part of adjusted line New Comerstown to Canal Dover, the closure error of which was excessive).

Joyce, 1.1 miles north of, 25 feet west and 10 feet south of road crossing; iron post stamped "S73"-----	872. 644
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WOOSTER QUADRANGLE.

Kidron northwest along highway to point 1.9 miles north of Apple Creek.

Kidron, 2.2 miles west of, 25 feet south of railroad on west side of public road at crossing, on right of way; iron post stamped "1128"-----	1, 127. 471
Apple Creek, 1.9 miles north of, on Cleveland, Akron & Columbus Ry., 350 feet north of switch leading to Kidron, on southeast corner, east end of small concrete culvert under railroad at railroad crossing; chiseled cross-----	1, 089. 80

Apple Creek north along Cleveland, Akron & Columbus Ry. to Orrville.

Apple Creek, 300 feet south of station, at railroad crossing, in southeast corner of park; iron post stamped "1029"-----	1, 028. 294
Apple Creek, 1.9 miles north of, southeast corner, east end of small concrete culvert under railroad at railroad crossing, 350 feet north of switch to Kidron; chiseled cross-----	1, 089. 80
East Union, 1.2 miles south of, 895 feet south of milepost marked "C 102 H 92;" chiseled square on southeast corner east side of small stone culvert under railroad-----	1, 116. 032

East Union, 700 feet east of crossing of State Road, on southwest corner east abutment of highway bridge over creek; bronze tablet stamped "1074 CANTON"-----	Feet. 1, 075. 129
Orrville, in front entrance of town hall, in water table; aluminum tablet stamped "1066"-----	1, 064. 963

Jackson, Laurelville, and Oakhill Quadrangles.

HOCKING, JACKSON, AND VINTON COUNTIES.

The elevations in the following list were determined in 1910. The work in the Jackson quadrangle was done by C. E. Mills and C. B. Shaw and that in the Laurelville quadrangle by C. E. Mills, C. B. Shaw, and S. R. Archer. Previous work along the west border of the Laurelville quadrangle was done by H. W. Peabody in 1906 and along the east border of the Jackson quadrangle by E. L. McNair in 1897. The work in the Oakhill quadrangle was done by C. E. Mills in 1910.

LAURELVILLE QUADRANGLE.

Adelphia east via South Perry to Gibsonville, thence south to Mosley Chapel.

Adelphia, northeast corner of post-office building in water table; aluminum tablet stamped "838"-----	Feet. 857. 780
Laurelville, 2 miles northeast of, southeast corner of T road east; iron post stamped "772 OHIO"-----	772. 070
Laurelville, 2 miles northeast by 0.6 mile east of, 60 feet west of road forks, at T road northwest, in top of east abutment, south-wing wall, of small iron bridge; chiseled square-----	772. 70
South Perry, 0.8 mile west of, south side of road at T road north, in base of small maple tree; spike-----	784. 46
South Perry, 0.5 mile west of, south side of road, on east end of lower step of Baptist Church; painted square-----	794. 11
South Perry, west edge of town, top of east abutment, south wing, of iron bridge over Toad Run, west side of crossroads; painted square-----	794. 46
South Perry, southeast corner of Jesse Cave's residence; iron post stamped "804 OHIO."-----	804. 067
South Perry, 0.4 mile east of, north side of T road south, on top of stone; square-----	802. 29
South Perry, 1.4 miles east of, 60 feet west of T road west, on top of west-wing wall of east abutment to steel bridge; painted square-----	822. 31
South Perry, 2.8 miles northeast of, in front of Mound Crossing schoolhouse, 40 feet north of center of crossroads; iron post stamped "Prim. Trav. Sta. No. 8 848," 1906"-----	848. 182
Rock House, 0.4 mile south and east of, about 250 feet west of bend in road to northeast, in top of stone under fence on north side of road; chiseled square-----	1, 114. 26
Gibsonville, 1.3 miles west of, south side of road at T road north; spike in base of tree-----	1, 031. 27
Gibsonville, 1 mile west of, north side of road at T road south; spike in root of small elm tree-----	1, 133. 33
Gibsonville, northeast corner of Methodist Church; iron post stamped "1114 OHIO"-----	1, 113. 646

	Feet.
Gibsonville, 1.5 miles south of, in center of road forks a T road southeast, in top of stone; chiseled square.....	1, 075. 52
Gibsonville, 1.5 miles south by 0.8 mile southeast of, in front of Scheik's residence, in center of road, in top of stone; chiseled square	1, 071. 38
Gibsonville, 1.5 miles south by 1.6 miles southeast of, west of road south, 100 feet south of road forks and 30 feet south of southwest corner of steel highway bridge over Pine Creek; iron post stamped " 762 "	761. 419
Gibsonville, 1.5 miles south by 2.3 miles southeast of, spike in base of tree on east side of road at top of hill.....	1, 060. 14
Cedar Grove Church, 350 feet southwest of, southwest corner of T road south; iron post stamped " 897 ".....	897. 084
Wesley Chapel, about 1 mile east of, on south side of east abutment of small iron bridge; chiseled square.....	829. 78
South Bloomingville, 3.8 miles east of, 0.2 mile north of Wesley Chapel, west of road at forks; iron post stamped " 1066 ".....	1, 066. 013
Laurelville along Columbus & Southern Ry. to South Bloomingville, thence by public road to Wesley Chapel.	
Laurelville, northwest corner of public square, on top of concrete curbing at corner; painted square.....	739. 58
Laurelville, 2.3 miles southeast of, 400 feet southeast of Karshner schoolhouse, 500 feet east of railroad, northwest corner of private road west; iron post stamped " 733 ".....	733. 272
Haynes, southeast corner of T road northeast, 60 feet east of road forks; iron post stamped " 694 ".....	694. 020
Reeds, northwest corner of road crossing, 75 feet north of railroad, in southwest corner of yard; iron post stamped " 682 ".....	682. 076
South Bloomingville, road crossing at station; top of rail.....	690. 7
South Bloomingville, 1.6 miles northeast of, south side of road at T road north, painted square on root of stump of tree.....	1, 020. 51
South Bloomingville, 3.1 miles east of, in southeast corner of T road south; chisel mark on stone.....	1, 050. 23
Cox via Eagle Mills, Walnut Grove Church, Royal, Stella, and Hue to Wesley Chapel.	
Cox, 1 mile east of, south side of road at T road north, on stone; chiseled square.....	630. 71
Cox, 1.25 miles east by northeast, west end of culvert at northwest corner of road forks; chiseled square painted " 636.17 ".....	636. 11
Eagle Mills, 0.1 mile north of post office, southeast corner of road forks, inside of fence, south side of wooden bridge and about 10 feet from road; iron post stamped " 648 OHIO ".....	647. 945
Eagle Mills, 2.9 miles east by 1 mile west of, 3 feet north of telephone pole, about 50 feet south of creek, west of Vander school; iron post stamped " 678 OHIO ".....	677. 804
Vander school, 0.5 mile southeast of, Ural post office, at southwest corner of road forks, about 75 feet from intersection; spike in root of oak tree painted " 740.585 ".....	740. 47
Royal, 60 feet east of covered bridge, at road forks; iron post stamped " 726 "	725. 527
Royal, 3.4 miles northeast of, Low Gap, northwest corner of cross-roads; spike in root of oak tree painted " 994.052 ".....	993. 85

Stella, outside southeast corner of cemetery fence, about 10 feet north of telephone pole and 100 feet south of church at northwest corner of crossroads; iron post stamped "1056 OHIO"-----	Feet. 1,055.412
Milhon school, 0.8 mile northeast of Stella, at road forks, spike in root of large oak tree; painted "1071.833"-----	1,071.73
Stella, 2.6 miles northeast of, at northeast corner of road forks, spike in root of hickory tree; painted "1045.109"-----	1,045.00
Stella, 3.4 miles northeast of, about 0.8 mile southwest of Hue, at southwest corner of road forks, spike in root of tree; painted "1036.381"-----	1,036.29
Hue, about 0.8 mile west of, in northwest corner of H. S. Honnold's yard, outside fence at road forks; iron post stamped "Prim. Trav. Sta. 1906, 865 OHIO"-----	865.354

Stella to Creola.

Creola, Kirkendall's store and post office, 7 feet from east wall (front) of store in top stone of south foundation wall; bronze tablet stamped "760 OHIO"-----	760.159
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Allensville to Royal.

Allensville, 75 feet west of Darby's store, south of road, inside hitch rack; iron post stamped "682 OHIO"-----	681.426
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JACKSON QUADRANGLE.

Beecher along Baltimore & Ohio Southwestern R. R. to Hamden.

Beecher, 2.7 miles east of, north of Baltimore & Ohio Southwestern R. R. track, 20 feet north of and 75 feet west of bridge abutment, 50 feet east of road crossing, bridge 115-25; iron post stamped "611 OHIO"-----	610.596
Ray, 0.4 mile east of, about 20 feet north of railroad track, east side of road at forks; iron post stamped "622 OHIO"-----	621.503
Byer, in front of station; top of rail-----	615
Byer, 75 feet east of Cincinnati, Hamilton & Dayton Ry. station, 50 feet north of track, on east side of road at road crossing; iron post stamped "640 OHIO"-----	639.686
Byer, junction of Baltimore & Ohio Southwestern R. R. and Cincinnati, Hamilton & Dayton Ry.; top of north rail-----	644
Richland, 75 feet southwest of station, south side of track and 25 feet east of road; iron post stamped "701 OHIO"-----	701.011
Summit, 75 feet south of track, 20 feet west of road near fence corner at road crossing; iron post stamped "786 OHIO"-----	785.496
Hamden, in front of Baltimore & Ohio Southwestern R. R. station; top of rail-----	713
Hamden, 0.5 mile east of, on coping of Baltimore & Ohio Southwestern R. R. culvert; cut (Coast and Geodetic Survey bench mark III)-----	705.481

Byer north via Ox to Allensville.

Byer, 0.3 mile north of, top of stone at road intersection; paint mark "644.596"-----	644.47
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PRIMARY LEVELING.

27

Byer, 3.8 miles north of, 5 feet northwest of mail-box post, near walnut tree to southwest at northwest corner of road forks; iron post stamped "826 OHIO"-----	Feet. 825.925
Ox, 0.3 mile north of, southwest corner of road forks, on top of stone; paint mark "748.855"-----	748.72

Glade along Detroit, Toledo & Ironton Ry. to Jackson.

Glade, 435 feet south of station, east of road in wood lot; iron post stamped "Prim. Trav. Sta. No. 20, 687"-----	686.862
Glade, road crossing at station; top of rail-----	689.6
Cove, rear of post office, 25 feet west of railroad; iron post stamped "691"-----	690.581
Cove, 2.6 miles northeast of, Cochran switch, southeast side of track, 1 foot from right-of-way fence; iron post stamped "674"-----	674.269
Cove, 5.1 miles northeast of, northwest corner of Sunshine mine switch, 30 feet north of north main line of Detroit, Toledo & Ironton Ry., and 500 feet west of switch stand; iron post stamped "650"-----	650.284
Jackson, Detroit, Toledo & Ironton Ry. station, northeast corner of platform, on stone curbing; chiseled mark painted "649.63"-----	649.668
Jackson, northeast corner of crossing of Main and Portsmouth Streets, southwest corner of public square, southeast corner of county surveyor's office building; iron post stamped "700"-----	699.822

Jackson along Cincinnati, Hamilton & Dayton Ry. to Byer.

Jackson, crossing of Detroit, Toledo & Ironton Ry. and Hocking Valley Ry-----	648.60
Chapman, road crossing at station, north side of road, west side of railroad, in southeast corner of yard; iron post stamped "678"-----	677.717
Coalton, 500 feet east of Cincinnati, Hamilton & Dayton Ry. station, northeast corner of crossroads, at road crossing, near warning post; iron post stamped "702"-----	702.379
Coalton, in front of Cincinnati, Hamilton & Dayton Ry. station; top of rail-----	698.13
Coalton, 2.5 miles northwest of, road crossing at Glenn Hall, 15 feet north of road and 20 feet west of railroad, 3 feet from warning post; iron post stamped "667"-----	666.555
Coalton, 3.9 miles northwest of, 30 feet south of road crossing, west side of track; bolt head in north end of bridge No. 152; painted "653.4"-----	653.41

Sunshine mine switch north via Oakland Church and Leach to Ray.

Jackson, 2.9 miles west by 2.4 miles northwest of, road forks at Oakland Church and schoolhouse, northeast corner of forks, 5 feet from row of mail boxes; iron post stamped "835"-----	835.220
Leach, 1.3 miles southeast of, southeast corner of T road, south, 15 feet south of Chillicothe-Jackson pike, on stone; chisel mark-----	709.48
Leach, 0.8 mile southeast of, top, north end of west abutment of iron bridge over Salt Creek at T road northeast; chiseled cross painted "622.24"-----	622.36

Leach, 0.3 mile southeast of, 300 feet west of iron bridge over Salt Creek, in center of road forks, on stone; chisel mark painted "627.55"-----	Feet. 627.67
Leach, in front of George H. Greene's house, opposite store, 150 feet northwest of T road, east; iron post stamped "621"-----	620.898
Ivy, 2.5 miles south of Ray, 200 feet west of store at southeast corner of T road, north; iron post stamped "958 OHIO"-----	957.636

OAKHILL QUADRANGLE.

Edmunds switch along Baltimore & Ohio Southwestern R. R. to Keystone.

South Webster, in concrete curbing, east end of station platform, 10 feet west of road crossing; chiseled square-----	702.47
Bloom, 0.2 mile south of, 20 feet north of road and 15 feet east of railroad at road crossing; iron post stamped "633"-----	633.170
Eifort, on north end of concrete curbing of station platform; chiseled square painted "665.5"-----	665.50
Eifort, 1.1 miles northeast of, 60 feet north of milepost "H 31-P 25," 10 feet south of road, 10 feet west of railroad, at road crossing; iron post stamped "676"-----	675.857
Black Fork, center of concrete curbing of station platform; chiseled square-----	687.06
Black Fork, 10 feet north of northeast corner of station, 20 feet west of railroad; iron post stamped "687"-----	686.884
Oakhill, 35 feet west of railroad, 15 feet south of center of road, road crossing at Baltimore & Ohio Southwestern R. R. station; iron post stamped "707"-----	707.417
Clay, 40 feet south of railroad and 20 feet east of road at road crossing near station; iron post stamped "695"-----	694.964
Camba, 25 feet south of station, 20 feet east of track, under overhead highway bridge; iron post stamped "728"-----	728.538

Bainbridge, Georgetown, Greenup, Hillsboro, Manchester, Maysville, Otway, Peebles, Portsmouth, Scioto, Vanceburg, and West Union Quadrangles.

ADAMS, BROWN, PIKE, AND SCIOTO COUNTIES.

The elevations in the following list were determined in 1910, the field work being done by C. B. Shaw, J. W. Janssen, Howard Clark, and C. E. Mills. Results of additional work done in the Scioto quadrangle by E. L. McNair in 1897 and in the Scioto and Otway quadrangles by W. H. Monahan in 1906 have been published in Bulletin 411.

SCIOTO QUADRANGLE.

New Boston along Baltimore & Ohio Southwestern R. R. to Edmunds switch.

New Boston, 1 foot east of station sign post; iron post stamped "534"-----	Feet. 533.728
Sciotoville, about 360 feet north of Baltimore & Ohio Southwestern station, 30 feet west of track; iron post stamped "Prim. Trav. Sta. No. 26, 548"-----	547.899
Sciotoville, 30 feet east of southeast corner of station platform, 15 feet north of railroad; iron post stamped "545"-----	545.394

Sciotoville, 1 mile northeast of, in base of switch stand on east side of track at south end of switch; spike head-----	550. 04
Slocums, 0.8 mile northeast of, southwest corner of road crossing, near telegraph pole; iron post stamped "554"-----	554. 291
Gepharts, 400 feet southwest of station, 50 feet south of road crossing, 60 feet east of trestle; iron post stamped "671"-----	670. 806
Scioto Furnace, 10 feet from north end of concrete curbing of station platform; chiseled square-----	602. 98
Scioto Furnace, 0.7 mile northeast of, at Edmunds switch, trestle 374 over creek and road, in north end of east guard rail; bolthead----	605. 51
Edmunds switch, at sign post between switch and main line of Baltimore & Ohio Southwestern R. R.; iron post stamped "608"-----	607. 562

Portsmouth north along Norfolk & Western Ry. (Cincinnati division).

Portsmouth, 3.5 miles northwest of, north end of switch at Wharton Station, 50 feet west of railroad, 25 feet southwest of southwest corner of canal bridge, 15 feet south of private road east and 20 feet east of Portsmouth and Galena Pike; iron post stamped "529"-----	528. 775
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Davis, northeast along public roads via Scioto (Harrisonville) to Massie.

Davis, 1.1 miles north of, about 5 miles north of Portsmouth, west side of track in south abutment of iron bridge over Portsmouth and Chillicothe Pike; aluminum tablet stamped "559"-----	557. 869
Portsmouth, about 5 miles north by 0.6 mile east of, west side of Fort Hill, on stone, north side of road; chisel mark painted "798.1"-----	797. 94
Crone, 1.2 miles southwest of post office, on Portsmouth-Harrisonville Pike, at T road northwest, 0.25 mile east of Long Run Methodist Episcopal Church and 850 feet south of Long Run United Brethren Church, northwest corner of road forks; iron post stamped "747"-----	747. 108
Crone, 0.6 mile northeast of, T road northwest, 50 feet north of road forks, north abutment, west side of small wooden bridge over creek; chiseled square painted "684.4"-----	684. 31
Scioto (Harrisonville), 3.1 miles southwest of, on Portsmouth-Harrisonville Pike, northeast corner of road forks, at A. Oertal's farm; iron post stamped "685"-----	685. 150
Scioto (Harrisonville), in sandstone foundation under southwest corner of Knights of Pythias two-story building, west side of street; bronze tablet stamped "654 I"-----	656. 793
Scioto, 3.8 miles northeast of, on Jackson Pike, at southeast corner of T road southeast, about 0.2 mile west of White schoolhouse (district 10), Madison Township; iron post stamped "728"-----	727. 613
Scioto, 4.8 miles northeast of, T road southwest, in southwest corner of top of stone; chiseled cross-----	589. 90
Massie, near, 7.4 miles northeast of Scioto, 120 feet northwest of schoolhouse (district 12), east side of road, 75 feet higher than main road, in sandstone ledge of hillside; bronze tablet stamped "678 I"-----	679. 856

Bench marks near Lucasville.

Davis, 0.09 mile south of station, on southeast corner of south abutment of railroad bridge over highway, in stone; chiseled circular mark-----	564. 7
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Lucasville, about 600 feet north of Norfolk & Western Ry. station, at corner of flour mill; iron post stamped "Prim. Trav. Sta. No. 28, 1904, 559"-----	Feet. 558.629
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GREENUP QUADRANGLE.

Portsmouth north along Norfolk & Western Ry.

Portsmouth, southwest corner of stone step, south side of Norfolk & Western Ry. station; chiseled square-----	534.69
Portsmouth, 1.7 miles northwest of, 360 feet northwest of Vera Tower, on east end of south abutment of Norfolk & Western Ry. trestle approach to bridge over Scioto River; chiseled square-----	535.60

Portsmouth east along Baltimore & Ohio Southwestern R. R.

Portsmouth, Norfolk & Western Ry. and Baltimore & Ohio Southwestern R. R. crossing; top of rail-----	530.9
Portsmouth, northeast corner of Tracy Park; iron post stamped "Prim. Trav. Sta. No. 27, 1910, 532"-----	531.683
Portsmouth, east end of door sill of main entrance, north side of station building; chiseled square with cross on it (Norfolk & Western Ry. bench mark)-----	534.74

OTWAY QUADRANGLE.

Rushtown along Norfolk & Western Ry. to Rarden.

Rushtown, 600 feet north of station, northwest corner of road crossing, in front of George Russel's residence; iron post stamped "539"-----	539.265
McDermott, 120 feet east of station, 15 feet west of road at crossing; iron post stamped "575"-----	574.609
Arion, 35 feet south of railroad, opposite station, 15 feet east of road, 1 foot west of post-office building; iron post stamped "587"-----	587.091
Henley, road crossing at station, 30 feet north of railroad and 10 feet east of road; iron post stamped "574"-----	574.255
Otway, north side of station platform, 20 feet west of station; iron post stamped "586"-----	585.740
Young, 0.3 mile northwest of, about 150 feet west of road crossing, 5 feet south of highway; iron post stamped "598"-----	598.392
Rarden, 175 feet west of station, north of track, 75 feet west of creek, on north side of right of way line; iron post stamped "613"-----	612.755
Wakefield west along public roads via Camp and Ladd to Duke, thence south to Rarden.	

Wakefield, a little north of town, 2.2 miles south of Sargents, on west side of north abutment of railroad bridge over creek; aluminum tablet stamped "551"-----	550.931
Coopersville, 2.2 miles west of, northeast corner of T road north, 50 feet from center of road; iron post stamped "582"-----	581.627
Camp, 1.2 miles west of, southwest corner of crossroads, near fence corner, 50 feet west of road north; iron post stamped "Prim. Trav. Sta. No. 80, 1909, OHIO, 665"-----	665.194
Camp, 2.7 miles west of, top of stone on north side of road; chiseled cross painted "779.3"-----	779.26
Ladd, southwest corner of crossroads, 30 feet from center of roads; iron post stamped "1105"-----	1,104.770

Duke, 200 feet east of road forks in center of town, south side of road opposite schoolhouse; iron post stamped "1237"-----	Feet. 1, 237. 149
Duke, 3.2 miles southwest of, west of road on south side of large hill, in base of stump; spike painted "1107.5"-----	1, 107. 47
Duke, 3.8 miles southwest of, 2.7 miles northwest of Rarden, at foot of Wallace Hill, 250 feet northwest of Clark Foster's residence, 20 feet west of center of road; iron post stamped "705"-----	705. 190
Baptist Church on Pond Creek north along public road via Arlon and Crabtree to Camp.	
Pond Creek Baptist Church, first road crossing west of, T road at Pond Creek, about 20 feet south of road running east-west and 10 feet west of road running north-south; iron post stamped "725"-----	724. 772
Pond Creek, second road fork west of Baptist Church, in root of sycamore tree; spike marked "781.111"-----	781. 01
Arlon, 2.6 miles south of, road crossing at Flats school, on Galena-Portsmouth Pike, in corner of field belonging to Frank Johnley, south of road running east-west and east of road running north-south; iron post stamped "722"-----	721. 387
Arlon, 1.3 miles south of, east of road on summit of hill, 679 feet north of residence belonging to James Castor, in root of small black oak tree; spike painted "925.128"-----	924. 97
Arlon, 1 mile north of, at road crossing, about 30 feet west of road running north-south and 6 feet south of road running east-west, on stone; chiseled square painted "703.004"-----	702. 84
Arlon, 2.4 miles north of, on east side of road, 589 feet north of residence and about halfway down large hill, on rock; chisel mark painted "764.005"-----	763. 85
Crabtree post office, 0.9 mile north of, at Y road; iron post stamped "767"-----	767. 028
Sedan, 1 mile south of, west of road and about 20 feet north of mail box at lane, on small rock; chiseled square painted "824.490"-----	824. 39
Sedan, 0.4 mile west of, at T road, north side of road running east-west and about 15 feet west of road running north-south; iron post stamped "801"-----	800. 908

PORTSMOUTH QUADRANGLE.

Portsmouth along Ohio River to McGaw.

Portsmouth, southeast corner of post-office building, in first course of foundation, 1 foot above ground; chiseled square (U. S. Army Engineers' bench mark)-----	535. 129
Portsmouth, 3.2 miles southwest of, at northwest corner of T road north, about 100 feet west of stone arch bridge over Carys Run; iron post stamped "516"-----	516. 102
Dennis, northeast corner of road forks, near telephone pole and fence; iron post stamped "529"-----	529. 07
Pondrum, southwest corner of T road northwest, 40 feet west of center of T road; iron post stamped "Prim. Trav. Sta. No. 8, 1910, 522"-----	522. 461
Pondrum, 2.1 miles west of, north side of road, 40 feet from center of lane to south; iron post stamped "528"-----	527. 652
Pondrum, 6 miles west of, about 3 miles east of Buena Vista; on south side of road near telephone pole, at Elm Tree schoolhouse; iron post stamped "566"-----	566. 250

County infirmary at Alexandria north along road.

Alexandria, T road at Scioto County Infirmary; iron post stamped "516"-----	Feet. 516. 102
Carys Run schoolhouse, on stone abutment of culvert; chiseled square painted "608.451"-----	608. 42
Carys Run, about 200 feet south of residence of Charles L. Simon, east of highway; iron post stamped "692"-----	691. 657

Turkey Creek along road to Friendship.

Union Church, northeast corner of; iron post stamped "659"-----	658. 929
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Pink along road to McGaw.

Pink, 5 miles southeast of, road forks at mouth of Brushy Fork, east of road, 20 feet northwest of apple tree; iron post stamped "882"-----	882. 095
Pink, 6 miles southeast of, east of road on creek bank, driven in root of small sycamore tree 1 foot in diameter; head of spike painted "828.2"-----	828. 23
McGaw, 3.2 miles northwest of, west of road, on top of stone; chisel mark painted "718.0"-----	717. 98
McGaw, 3.2 miles northwest of, on upper Twin Creek, in front of Clay Cooper's residence, west of road, 20 feet north of lane; iron post stamped "721"-----	720. 726
McGaw, 1.1 miles north of, east of road, 150 feet north of bend in road, in front of John Hodge's residence, on large stone; chiseled cross painted "573.4"-----	573. 35

PEEBLES QUADRANGLE.

Rarden to point 2 miles west of Lawshe along Norfolk & Western Ry.

Rarden, 2.1 miles west of, milepost "C 80-P 27," side of track, on top of stone culvert; chiseled square painted "616.2"-----	616. 31
Jaybird (Mineral Springs station), southeast corner of road crossing at station, 5 feet southeast of warning post; iron post stamped "629"-----	629. 061
Peebles, 2.4 miles northeast of, 15 feet north of railroad, 10 feet east of road, at marle-bank switch road crossing; iron post stamped "760"-----	760. 315
Peebles, 500 feet east of station, 25 feet east of center of road and 10 feet north of railroad at road crossing; iron post stamped "813"-----	813. 480
Lawshe, 250 feet east of station, 75 feet west of road and 20 feet south of railroad at road crossing; iron post stamped "648"-----	648. 310

Jaybird via Mineral Springs, Wamsley, and Blue Creek to Pink.

Mineral Springs, 1.3 miles northeast of, south of road at bend, north side of hill near bottom, on top of stone; chisel mark painted "868.3"-----	868. 47
Mineral Springs, 1 mile northeast of, in northwest corner of road forks on top of hill, at private road northwest; iron post stamped "1127"-----	1, 127. 260
Mineral Springs, 300 feet north of Mineral Springs Hotel, 20 feet east of forks, south end of west stone abutment of bridge in top; chisel mark painted "758.780"-----	758. 95
Mineral Springs, 2.1 miles southeast of, southeast corner of T road south, 30 feet east of forks, south of road, opposite Antioch Church and school; iron post stamped "671"-----	671. 208

Mineral Springs, 2.6 miles southeast of, on stone south of road; chisel mark painted "640"-----	Feet. 640. 10
Wamsley, 1.3 miles southwest of, west of road, 20 feet north of McClellan Jones's store, 150 feet north of T road west; iron post stamped "619"-----	618. 934
Blue Creek, W. S. Newman's store, 15 feet north of road forks, east of road and at T road east; iron post stamped "641"-----	641. 679
Pink, 75 feet east of stone, north of road, in fence corner; iron post stamped "899 Prim. Trav. Sta. No. 10, 1910"-----	898. 683
Pink, 0.2 mile east of, 50 feet northwest of Kidder's store, in southwest corner of forks, on stone; chiseled mark painted "874.8"-----	875. 00

Wamsley via Cedar Mills to West Union.

Cedar Mills, T road, Peebles and Wamsley pikes, north side of road, opposite fork; iron post stamped "564"-----	564. 509
Cedar Mills, 2.3 miles west of, northeast corner of T road, east, in root of hackberry tree; nail head painted "535.600"-----	536. 03
Cedar Mills, 3.6 miles west of, at road crossing, in root of red oak at northeast corner; nail head painted "606.828"-----	607. 33
Cedar Mills, 5.3 miles west of, opposite Blue Creek Pike, near telephone pole; iron post stamped "905"-----	905. 590

Peebles via Fawcett and Cedar Mills to Tulip.

Peebles, 2.7 miles southeast of, 0.25 mile north of school building, on northwest corner of stone abutment of culvert at T road; chiseled circle-----	827. 18
Peebles, 3.1 miles southeast of, east of pike and about 0.25 mile south of school building, on rock at T road, east side of pike; chiseled circle-----	825. 80
Fawcett, 2.3 miles north of, 40 feet south of pike at T road, on northwest corner of stone abutment of building; chiseled circle-----	804. 17
Fawcett, about 30 feet west of store, near telephone pole at road crossing; iron post stamped "837"-----	836. 870
Cedar Mills, 1 mile north of, on east side of highway, in front of Cedar school building, in root of large white oak tree; spike-----	787. 08
Cedar Mills, 3.6 miles south of, northeast corner of stone abutment of iron bridge on pike, west of Linx store; chiseled circle-----	716. 58
Tulip, 3.1 miles north of, west of highway at road forks, about 0.25 mile north of house, mark on limestone rock; chiseled circle-----	765. 58

Blue Creek to Tulip.

Blue Creek, 3.1 miles west of, southwest corner of roads, in base of sycamore tree; nail head-----	686. 24
Blue Creek, 5.9 miles west of, on high hill, junction with lane passing through farm to road leading to Tulip, in base of pignut tree at northwest corner; top of nail head-----	1, 150. 79

WEST UNION QUADRANGLE.

Mayhill via Tranquility and Unity to West Union and Beasleys Fork.

Mayhill, 1.7 miles southwest of, about 15 feet north of mail box at T road, in front of W. S. Moore's residence, on stone in pike; chiseled circle-----	1, 027. 24
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Tranquility, 2.4 miles north of, south end of stone culvert at road crossing; chisel mark-----	Feet. 914. 37
Tranquility, west end of culvert about 50 feet north of store; iron post stamped "770"-----	770. 218
Tranquility, 1.8 miles south of, in middle of highway at T road, on limestone; chisel mark (circle)-----	817. 34
Lawshe, 3.1 miles west of, road crossing under Norfolk & Western Ry., 50 feet south of railroad and 10 feet west of road; iron post stamped "672"-----	671. 689
Lawshe, 2.9 miles west of, bridge 203S, at milepost P 42-C 65, south end of west abutment, 2½ feet below track; chiseled square (Norfolk & Western bench mark)-----	671. 65
Unity, northeast corner of crossroads, 30 feet northeast of center of crossroads; iron post stamped "958"-----	958. 684
West Union, 3 miles northwest of, on Unity Pike, 30 feet northeast of center of road forks; iron post stamped "836"-----	836. 171
West Union, southeast corner of Main Street (Wamsley Pike) and East Street (Wrightsville Pike); iron post stamped "956"-----	956. 505
West Union, 2.4 miles south of, on Wrightsville Pike, 30 feet south of small iron bridge over Beasleys Fork, southeast corner of road forks, 1 foot from retaining wall, at T road east; iron post stamped "Prim. Trav. Sta. No. 14, 1910 648"-----	648. 878

Emerald south to Decatur and Maddox, thence northeast to West Union.

Emerald, 2.5 miles southwest of, in middle of highway at road crossing, about 0.25 mile south of Wilson school building, on limestone rock; chisel mark (circle)-----	1, 023. 11
Emerald, 4.2 miles southwest of, at T road, north of highway in front of Louis Julia's residence; spike in root of wild cherry tree.	1, 021. 55
Emerald, 5.7 miles southwest of, 20 feet north of Norfolk & Western Ry. track and 15 feet west of highway at railroad crossing; iron post stamped "1054"-----	1, 054. 032
Emerald, 7.3 miles southwest of, at T road, in front of J. L. Watson's residence, about 3 miles northeast of Carlisle, on limestone rock near mail box; chiseled circular mark-----	975. 70
Emerald, 7.8 miles southwest of, at T road, at base of small white oak tree standing in middle of road forks near old cemetery, on rock; chiseled circle-----	1, 017. 84
Emerald, 12.5 miles south of, on west side of pike at Y road, about 0.25 mile north of Baird school, on limestone rock; chiseled circular mark-----	912. 87
Emerald, 13 miles south of, at Baird school on Russellville Pike, about 2.5 miles east of Russellville, in corner of schoolhouse lot; iron post stamped "Prim. Trav. Sta. No. 22, 947"-----	946. 984
Decatur, 4.2 miles northwest of, 2 miles east of Russelville, in coping at northeast corner of covered bridge over Eagle Creek; bolthead.	814. 22
Decatur, at street crossing, in middle of village; iron post stamped "924"-----	924. 320
Decatur, 1.7 miles south of, on Decatur and Aberdeen Pike, in coping at northwest corner of covered bridge over Eagle Creek at road forks west of old mill; bolthead-----	653. 38
Maddox, 1.4 miles north of, east end of stone culvert near road forks at Suck Run school building; chiseled circular mark-----	731. 79

Maddox, about 60 feet east of store on south side of pike; iron post stamped "963"-----	Feet. 963. 110
Bentonville, about 60 feet east of road crossing, in center of town, west of pike, back of telephone pole; iron post stamped "914"-----	914. 544
Bentonville, 1.3 miles northeast of, 200 feet east of Riffle's residence at North Liberty Pike, at base of telephone pole, on limestone rock; chiseled circular mark-----	882. 13

GEORGETOWN QUADRANGLE.

Sardinia via Biehn, Russellville, and Red Oak, to Ripley.

Sardinia, about 3 miles east of, 0.8 mile east of Five Points or Biehn post office, Norfolk & Western Ry. milepost "C 50+2467 ft.", on southwest corner of cover stone, south end of stone box culvert; cross cut-----	998. 964
Sardinia, 2.5 miles east of, at Five Points (Biehn post office), crossroads at; iron post stamped "1000"-----	1, 000. 984
Carlisle, about 1.5 miles northwest of, on Arnheim Pike, in northwest corner of T road north; iron post stamped "1045"-----	1, 046. 252
Russellville, east side of public square, 2 feet north of jail and voting house, 35 feet west of Ripley Pike; iron post stamped "975"-----	975. 473
Russellville, 2.8 miles south of, northeast corner of crossroads, 25 feet from center of crossroads; iron post stamped "927"-----	928. 002
Ripley, 2.9 miles northeast of, southeast corner of T road east, 10 feet north of east end of small wooden bridge; iron post stamped "602"-----	603. 039
Ripley, 2 miles north of, T road west at schoolhouse, northwest corner of road forks, on large stone; chiseled cross marked "543.7"-----	544. 75
Ripley, 1.3 miles north of, in center of road forks, on top of stone; chiseled cross marked "536.0"-----	537. 02

MAYSVILLE QUADRANGLE.

Ripley along Ohio River to Aberdeen.

Ripley, southwest corner of Main and Second Streets, 8 feet west of corner; chiseled square; curbing marked "505.439"-----	506. 42
Ripley, 40 feet west of west end of steel bridge over Red Oak Creek, on East Second Street, 15 feet south of center of road; iron post stamped "501"-----	501. 917
Ripley, 6 miles southeast of, 20 feet east from center of road forks, on Threemile Creek; iron post stamped "514"-----	515. 119
Aberdeen, 0.5 mile north of, on Maysville and Zanesville Pike, at fork of road, 100 feet east of large steel bridge over Fishing Gut Creek, northwest corner of road forks; iron post stamped "Prim. Trav. Sta. No. 20, 1910, 521"-----	522. 055
Maysville, Ky., southwest corner of Court and Second streets, Pearce & Wallingford building, occupied by State National Bank of Maysville, on water table on northwest corner about 4.5 feet above sidewalk; chiseled square marked "U.S. B.M." (This bench mark is on checked spur line from Aberdeen)-----	524. 493

MANCHESTER QUADRANGLE.

Aberdeen via Manchester to Wrightsville.

Aberdeen, 4.4 miles east of, 160 feet east of small iron bridge over Little Threemile Creek, in northwest corner of crossroads, on top of stone; chiseled cross marked "511.55"-----	512. 56
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Aberdeen, 5.8 miles east of, on Manchester Pike, 35 feet southeast of center of forks, southeast corner of T road south to Ohio River; iron post stamped "554"-----	Fect. 555. 044
Manchester, 4.2 miles west of, 10 feet south of forks, on south side of road at T road north up hollow; iron post stamped "Prim. Trav. Sta. No. 19, 1910 513"-----	514. 127
Manchester, southwest corner of Manchester and Bentonville Pike and Second Street, in northeast corner of fence around pump, opposite Presbyterian cemetery; iron post stamped "510"-----	511. 226
Manchester, 0.7 mile east of, on Manchester and Rome Pike, 150 feet west of bend to northeast in road, 2 feet east of telephone pole south of road; iron post stamped "519"-----	519. 499
Wrightsville, southeast corner of crossing of Manchester and Rome and Wrightsville and West Union pikes; iron post stamped "Prim. Trav. Sta. No. 17, 1910 533"-----	533. 370

Beasleys Fork to Wrightsville.

Beasleys Fork post office, at road forks, 200 feet east of large iron bridge over Beasleys Fork, 50 feet west of store and 35 feet southwest of center of road forks; iron post stamped "584"-----	584. 471
Wrightsville, 0.60 mile west of, on Kentucky bank of Ohio River, 60 feet west of Gilpins Run, 25 feet south of Ohio River, in base of 6-inch willow tree; log screw-----	473. 91

VANCEBURG QUADRANGLE.

Tulip to Rome (Stout post office).

Tulip, 0.5 mile south of, on west side of highway at T road, in front of Lasty Spire's residence, on limestone rock; chiseled circle-----	784. 03
Tulip, 0.7 mile south of, at T road; iron post stamped "808"-----	808. 155
Tulip, 1.8 miles south of, west of highway at road forks, foot of Rodgers Hill, on stone; chiseled circle-----	798. 76
Rome, 3.1 miles north of, west of road, in front of school building, district 2, Green Township, Adams County, in root of large elm tree; spike-----	564. 88
Rome, 0.8 mile north of, west end of stone culvert under pike at road forks in front of W. Tracy's residence; chiseled circular mark-----	513. 75

Bench mark near Buena Vista.

Buena Vista, 0.5 mile east of; at northwest corner of crossroads, 30 feet west of center of crossroads; iron post stamped "Prim. Trav. Sta. No. 9, 1910 OHIO 515"-----	515. 087
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Wrightsville via Rome to Buena Vista.

Wrightsville, 3.6 miles east of, 0.5 mile northwest of large steel bridge over Ohio Brush Creek, northeast corner of road forks; iron post stamped "544"-----	544. 810
Rome, crossing of Main and Second streets, 50 feet southeast of center of crossroads; iron post stamped "Prim. Trav. Sta. No. 16, 1910, 524"-----	524. 737
Rome, 4.8 miles east of, near T road north and private road south, center of road fork made by road north; iron post stamped "579"-----	580. 21
Sandy Springs, opposite Vanceburg, Ky., in southeast corner of T road south to Ohio River; spike in root of hickory tree-----	575. 61

Buena Vista, 1 mile west of, on north wing of east abutment at north-east corner of small iron bridge over Rock Run; chiseled cross_____ Feet.
513. 60

Tulip to Beasleys Fork.

Tulip, 2.8 miles southwest of, at Wagners Ripples, south of highway at Y road in front of old mill; spike in root of large sycamore tree. 516. 61

Beasleys Fork, 4.3 miles east of, southwest corner of stone abutment of iron bridge over Black Run, about 400 feet east of road forks; chiseled circle _____ 509. 93

Beasleys Fork, 3 miles east of, Cedar College, at road forks; iron post stamped "550" _____ 550. 678

Sandy Springs to Vanceburg (checked spur line).

Vanceburg, Ky., on south side of soldiers' monument in courthouse yard; chiseled square (U. S. Army engineer's elevation 528.242) _ 527. 742

BAINBRIDGE QUADRANGLE.

Duke via Poplar Grove to Mayhill.

Duke, 2.3 miles northwest of, north of highway opposite lane leading to W. V. Tompson's residence, on stone marking corner of Scioto and Pike Counties; chiseled circle _____ 1, 239. 91

Duke, 3.3 miles northwest of, at road crossing, 30 feet west of store belonging to Thomas Grooms; iron post stamped "1227" _____ 1, 227. 178

Poplar Grove, 5.9 miles northwest of Duke, 40 feet north of store; iron post stamped "1135" _____ 1, 134. 652

Poplar Grove, 5 miles west of, east of highway about 50 feet south of east-west road; iron post stamped "781" _____ 781. 000

Louden, 2.7 miles east of, north side of pike at T road, about 500 feet west of Anders school building, spike in root of large oak tree _____ 772. 87

Louden, about 20 feet from northwest corner of store on north side of pike near telephone pole; iron post stamped "782" _____ 782. 310

Louden, 1.6 miles west of, on stone abutment at southeast corner of iron bridge over Flat Run; chiseled circle _____ 729. 61

HILLSBORO QUADRANGLE.

Mayhill to Emerald.

Mayhill, at road crossing; iron post stamped "Prim.Trav.Sta.No. 82, OHIO 1909" _____ 1, 013. 396

Mayhill, 0.3 mile south of, east of pike, at road forks; nail in root of poplar tree _____ 1, 014. 84

Mayhill, 0.8 mile west of, on north side of highway at road crossing, about 40 feet north of large oak tree, on limestone rock; chiseled circle _____ 846. 93

Mayhill, 3.4 miles west of; spike in root of large oak tree at road forks _____ 940. 61

Mayhill, 5.4 miles west of, at Buck Run, east of highway at T road, about 100 feet south of H. N. Barrackman's house; iron post stamped "932" _____ 932. 427

Emerald, 4.3 miles east of, at T road, in middle of highway, on limestone rock; chiseled circle _____ 949. 01

Emerald, 2.8 miles northeast of, 10 feet south of highway east-west and 40 feet west of highway north-south, at road crossing, 300 feet north of Highland County line, on limestone rock; chiseled circle. 980. 15

Emerald, 0.6 mile east of, east of highway where road turns squarely to north; iron post stamped "Prim. Trav. Sta. No. 85 977"----- Feet.
976.950

**Continental, Covington, Delphos, Lima, Loramie, Sidney, Spencerville, and Troy
Quadrangles.**

ALLEN, AUGLAIZE, DARKE, MIAMI, PUTNAM, SHELBY, AND VAN WERT COUNTIES.

The elevations in the following list are based upon the Coast and Geodetic Survey precise level line from Cincinnati to Toledo.

The leveling was done in 1909 by H. B. Hoel.

DELPHOS QUADRANGLE.

Rimer along Northern Ohio Ry. to Delphos, thence north to Muntanna along Toledo, St. Louis & Western R. R.

Rushmore, southeast corner of yard of Herbert Thurston, 40 feet north of railroad crossing; iron post stamped "760"----- Feet.
759.511

Rushmore, 2.4 miles west of, at railroad crossing, in right of way, 40 feet west of road, 40 feet north of railroad; iron post stamped "765"-----
764.464

Fort Jennings, 0.7 mile south of, at railroad crossing, 30 feet east of crossing, on right of way; iron post stamped "755"-----
754.423

Fort Jennings, railroad crossing at station; top of rail, painted "753.83"-----
753.6

Douglass, 0.8 mile south of, at railroad crossing, 30 feet east of Toledo, St. Louis & Western R. R. track, 30 feet north of road, on right of way; iron post stamped "746"-----
745.266

Douglass, railroad crossing at station; top of rail, painted "744.52"-----
744.2

Muntanna station, at railroad crossing, 40 feet west of, 35 feet north of highway, on right of way; iron post stamped "729"-----
728.839

Delphos west 3 miles along Pennsylvania R. R., thence north along highway to Roselms.

Delphos, in northeast corner of yard of tower house at crossing of Pennsylvania R. R. and Toledo, St. Louis & Western R. R.; iron post stamped "780"-----
779.645

Delphos, near; railroad bench mark (Pennsylvania R. R. levels, adjustment of 1903, give elevation as 781.355)-----
781.299

Delphos, 3.2 miles west of, 30 feet west of road, 10 feet south of railroad, on right of way; iron post stamped "777"-----
776.388

Seamersville, 3 miles south of, in southwest corner of northeast field at crossroads; iron post stamped "763"-----
762.836

Seamersville, in southwest corner of yard of John Dunlap at crossroads; iron post stamped "745"-----
745.134

Roselms, 3 miles south of, at crossroads, in southwest corner of yard of Elm Grove schoolhouse, subdistrict 1, Jackson township; iron post stamped "733 OHIO"-----
733.107

Middlepoint west 2 miles along Pennsylvania R. R., thence north to point 3 miles south of Grove Hill along highway.

Middlepoint, west end of plank at railroad crossing at station; top of such rail, painted "782.3"-----
782.0

Middlepoint, 0.5 mile west of, at railroad crossing, on right of way, 50 feet west of road, 10 feet south of railroad; iron post stamped "785"-----
784.754

Van Wert County Infirmary, 0.25 mile west of, southeast corner of crossroads; iron post stamped "777 Prim. Trav. Sta. No. 11"-----	Feet. 777. 213
Middlepoint, 2.5 miles west by 5 miles north of, northeast corner of crossroads; iron post stamped "752"-----	751. 575
Grove Hill, 3 miles south by 1 mile west of, northeast corner of crossroads; iron post stamped "736"-----	735. 653

Delphos south along Cincinnati, Hamilton & Dayton Ry. to Southworth.

Delphos, 2.9 miles south of, at railroad crossing, 30 feet south of highway and 30 feet west of railroad, on right of way; iron post stamped "791"-----	790. 414
Southworth post office, north end of plank at railroad crossing; top of east rail, painted "814.89"-----	814. 7
Southworth post office, 0.4 mile south of, northwest corner, north side of T road west, 50 feet west of canal, inside fence; iron post stamped "813"-----	813. 118

Middlepoint south along highway to point 2.5 miles south of Venedocia.

Middlepoint, 0.5 mile west by 2.8 miles south of, at northwest corner of T road; iron post stamped "791"-----	790. 708
Venedocia, 1 mile south of, at southeast corner of T road east; iron post stamped "804"-----	803. 998

Venedocia east to Southworth.

Landeck, 2 miles south by 0.5 mile west of, southeast corner of crossroads; iron post stamped "813"-----	812. 318
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SPENCERVILLE QUADRANGLE.

Spencerville east along Erie R. R. to Kempton.

Spencerville, intersection of Cincinnati, Hamilton & Dayton R. R. and Erie R. R., 30 feet west of the former and 80 feet north of the latter, on right of way; iron post stamped "827"-----	827. 127
Conant post office, 30 feet west of road, 60 feet south of railroad, at railroad crossing, on right of way; iron post stamped "828"-----	828. 034

Spencerville west 6.6 miles along Erie R. R., thence south to St. Marys.

Spencerville, in front of station; top of rail-----	828. 0
Spencerville, 3 miles west of, 50 feet north of railroad, near crossing, 40 feet west of road, on right of way; iron post stamped "824"---	823. 366
Converse, at west end of plank at railroad crossing; top of north rail, painted "827.40"-----	827. 0
Venedocia, 3.5 miles south of, 60 feet north of Erie R. R., at crossing, 35 feet west of road, on right of way; iron post stamped "816"-----	816. 126
Kossuth, 3 miles north by 4.5 miles west of, southwest corner of crossroads on county line; iron post stamped "843"-----	842. 423
Mendon, 3.8 miles east of, southeast corner of crossroads; iron post stamped "829"-----	828. 508
St. Marys, 2 miles west by 6.5 miles north of, southeast corner of crossroads; iron post stamped "833"-----	832. 551
St. Marys, 3.5 miles west by 3.5 miles north of, northeast corner of crossroads; iron post stamped "852"-----	851. 897

St. Marys, 3 miles west of, 30 feet west of highway and 10 feet south of railroad, near crossing, on right of way; iron post stamped "903"-----	Feet. 902.765
St. Marys, in front of Lake Erie & Western R. R. station; top of rail-----	870.2
St. Marys, 315 feet east of Lake Erie & Western R. R. station, 115 feet west of street, 28.4 feet south of south rail of main track, at railroad crossing of Wayne Street, on right of way; iron post stamped "871"-----	870.988
Spencerville south via Kossuth to St. Marys, thence east to point 2 miles beyond Moulton.	
Kossuth, 1.1 miles northwest of, west side of north-south road, at T road east; iron post stamped "842"-----	841.576
St. Marys, 6 miles north of, east side of north-south road, at T road west; iron post stamped "828"-----	827.676
St. Marys, 3 miles north of, at southwest corner of crossroads; iron post stamped "859"-----	858.975
Moulton, 1.1 miles west of, 15 feet south of railroad at crossing, 40 feet west of road, on right of way; iron post stamped "906"-----	905.447
Moulton, 2 miles east of, 30 feet north of railroad at crossing, 30 feet east of highway, on right of way; iron post stamped "882"-----	882.108

Point 4 miles southeast of Moulton via Moulton to Conant.

Moulton, in front of station; top of rail-----	896.7
Moulton, 2.25 miles north of, northwest corner of crossroads; iron post stamped "873"-----	873.430
Moulton, 5.25 miles north of, southeast corner of T road south; iron post stamped "848"-----	848.107
Conant, 3.5 miles south of, southeast corner of T road east; iron post stamped "834"-----	833.887

LORAMIE QUADRANGLE.

Point 2.5 miles south of St. Marys south via Minster and Loramie to Huffman schoolhouse.

New Bremen, southeast corner of Zion (Reformed) Church, midway between steps leading to south and west door of church; iron post stamped "941"-----	941.103
Minster, in yard in rear of Sommer Hotel, 15 feet south of south face of building and 4 feet west of sidewalk, inside fence; iron post stamped "968"-----	967.718
Loramie, at north end of west abutment of iron bridge over canal and 60 feet southeast of V. Gaier's store; iron post stamped "959"-----	958.894
Newport, 1.5 miles north of, on east side of north-south road, at T road west, 100 feet northwest of brick schoolhouse, district 4; iron post stamped "1006"-----	1,005.782
Newport, 1.25 miles south of, at southeast corner of diagonal road southeast; iron post stamped "953"-----	953.066

Point 5 miles west of Swanders west via Loramie to Yorkshire.

Loramie, 0.5 mile south by 4.5 miles east of, 50 feet south of and in front of residence of John Roman; iron post stamped "1000"-----	1,000.204
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Loramie, 0.5 mile south by 2 miles east of, at southeast corner of crossroads; iron post stamped "972"-----	Feet. 972. 299
Loramie, 3 miles west of, at Darke-Shelby County line, northeast corner of crossroads; iron post stamped "955"-----	955. 110

Bench mark 3 miles east of New Knoxville.

New Knoxville, 3 miles east by 1 mile south of, on Shelby-Auglaize County line, at southwest corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 6 928"-----	928. 344
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North Houston along Cleveland, Cincinnati, Chicago & St. Louis Ry. to Hardin.

Houston, in front of station; top of rail-----	962. 1
Dawson, at station, in southwest corner of yard of residence of E. J. Griffis, 15 feet north of railroad and 40 feet west of station, at railroad crossing; iron post stamped "943"-----	943. 161
Hardin Station, 1.5 miles east of, 30 feet south of railroad and 25 feet west of road, at railroad crossing, on right of way; iron post stamped "989"-----	988. 874

Point 2 miles south of Kettlersville west to Minster.

Minster, 1 mile north by 4 miles east of, north side of east-west road at T road south; iron post stamped "974"-----	974. 450
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Point 2 miles northwest of Chickasaw east along highway to Botkins.

Chickasaw, 2 miles north by 0.8 mile east of, in concrete bridge seat at northwest corner of small iron bridge; aluminum tablet stamped "899 ADJ 1905"-----	898. 712
New Bremen, 3 miles north of, sec. 34, T. 6 S., R. 4 E., on traction line, at southeast corner of crossroads, in west face at northwest corner of brick schoolhouse; aluminum tablet stamped "902 ADJ 1905"-----	901. 558
New Knoxville, 2 miles southwest of, north of center of sec. 36, T. 6 S., R. 4 E., in north face of northeast corner of Berghorn schoolhouse (subdistrict 2); aluminum tablet stamped "918 ADJ 1905"-----	917. 560
Botkins, 5 miles west of, southeast corner of sec. 33, T. 6 S., R. 5 E., at northwest corner of diagonal road to northwest, east side at southeast corner of schoolhouse, in stone under window; aluminum tablet stamped "944 ADJ 1905"-----	943. 731
Botkins, 3 miles west of, at southwest corner of sec. 36, T. 6 S., R. 5 E., northeast corner of T road north, at southeast corner of schoolhouse, east face, in stone under window; aluminum tablet stamped "965 ADJ 1905"-----	964. 303

Chickasaw south along Cincinnati, Hamilton & Dayton Ry. to Yorkshire.

Chickasaw, southwest corner of sec. 11, T. 7 S., R. 3 E., in southeast corner of store and dwelling of H. Gast, south face, in water table; aluminum tablet stamped "947 ADJ 1905"-----	946. 731
Maria Stein, northwest corner of sec. 26, T. 7 S., R. 3 E., west face, about 10 feet from northwest corner, of Myers & Patty's grain elevator; aluminum tablet stamped "974 ADJ 1905"-----	973. 710
Yorkshire, northeast corner of sec. 13, T. 12 N., R. 3 E., at southwest corner of T road south, in north face at northwest corner of small brick store building; aluminum tablet stamped "988 ADJ 1905"-----	987. 208

TROY QUADRANGLE.

Troy southwest 1.5 miles.

Troy, 1.8 miles southwest of, extreme southeast corner of section 30, Concord Township, Miami County, northwest corner of crossroads; iron post stamped "SSS"-----	Feet. 888. 128
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Lockington north along highway to Newburn.

Newburn, at northeast corner of T road east; iron post stamped "960"-----	960. 337
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SIDNEY QUADRANGLE.

Point 4 miles east of New Knoxville south along highway to Hardin, thence to Sidney.

Kettlersville, 1 mile east of, southwest corner of T road south; iron post stamped "979"-----	978. 843
McCartyville, 1 mile east of, northwest corner of crossroads; iron post stamped "980"-----	980. 106
Hardin, 4 miles north of village, northwest corner of crossroads; iron post stamped "990"-----	990. 428
Hardin, 1 mile north of village, northwest corner of crossroads; iron post stamped "960"-----	959. 422
Hardin, 2 miles east of station, southwest corner of T road east, 60 feet north of railroad crossing; iron post stamped "1015"-----	1, 015. 219
Spafford, in front of power house; top of rail-----	1, 028. 2

Swanders southwest 5 miles.

Swanders, in front of station; top of rail-----	1, 018. 3
Swanders, 1 mile south by 2 miles west of, at southwest corner of crossroads; iron post stamped "1028"-----	1, 028. 009

COVINGTON QUADRANGLE.

Versailles northeast along Cleveland, Cincinnati, Chicago & St. Louis Ry. to point 1 mile east of Russia.

Versailles, east edge of sec. 24, T. 11 N., R. 3 E., west part of town, southwest corner of Cleveland, Cincinnati, Chicago & St. Louis Ry. bridge over Indian Creek, in back wall; aluminum tablet stamped "969 ADJ 1905"-----	968. 659
Versailles, northwest corner of tower house, at intersection of Cleve- land, Cincinnati, Chicago & St. Louis Ry. and Cincinnati, Hamil- ton & Dayton Ry., inside painted ring on concrete base of bell crank of interlock switch; chiseled square painted "980.66"-----	980. 46
Versailles, 3 miles east of, 40 feet south of railroad and 25 feet west of public road, near railroad crossing, at Darke-Shelby County line, on right of way; iron post stamped "978"-----	977. 917
Russia, 1.5 miles east of, at railroad crossing, southwest corner of school yard at Huffman schoolhouse, 60 feet north of railroad and 25 feet east of road; iron post stamped "969"-----	969. 204
Versailles along Cincinnati, Hamilton & Dayton Ry. to Covington, thence via Pittsburg, Cincinnati, Chicago & St. Louis Ry. to Piqua.	
Rloomer post office, 25 feet east of road, 20 feet north of railroad, near crossing, at southwest corner of yard of residence of W. W. Sands, on right of way; iron post stamped "1021"-----	1, 021. 042

Abe, at south end of plank at railroad crossing; top of west rail painted "975.88"-----	Feet. 975.6
Abe, 0.5 mile south of, at railroad crossing, 10 feet west of railroad, 25 feet north of public highway; iron post stamped "965"-----	964.385
Covington, in public school yard, on corner of Pearl and Maple Streets, 15 feet south of west entrance to school building; iron post stamped "933"-----	932.755
Covington, 3 miles east of, 30 feet north of railroad at crossing, 30 feet west of public highway, on right of way; iron post stamped "972"-----	971.807

Bloomer north along highway to county line, thence east to Lockington.

Bloomer, 0.6 mile north by 3 miles east of, northeast corner of crossroads; iron post stamped "981"-----	980.863
Bloomer, 0.6 mile north by 6 miles east of, 25 feet north of east-west road, at T road south, in southeast corner of field; iron post stamped "984"-----	983.729
Lockington, 0.5 mile south by 1 mile west of, at southwest corner of crossroads, on large rock, inside painted ring; chiseled square, painted "910.5S"-----	910.26
Lockington, 0.3 mile west of, on east side of north-south road, at T road east; iron post stamped "884"-----	883.848

Covington west along Pennsylvania R. R. via Bradford to Oakland.

Bradford, 50 feet west of telegraph office, 25 feet north of Logansport division railroad track in railroad yard; iron post stamped "992"-----	991.849
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Bradford south along highway to Laura.

Bradford, 2.5 miles south of, southwest corner of Newberry Township, Miama County, southwest corner of yard of schoolhouse 14; iron post stamped "982"-----	981.703
Painter Creek, 2 miles east by 1 mile north of, northwest corner of crossroads, 50 feet east of residence of J. E. Hollacher, southwest border of sec. 16, T. 8 N., R. 4 E.; iron post stamped "996"-----	996.089
Painter Creek, 2 miles east by 1 mile south of, at northwest corner of T road north, center of S. W. $\frac{1}{4}$ sec. 28, T. 8 N., R. 4 E.; iron post stamped "1005"-----	1,005.416

Covington south along Cincinnati, Hamilton & Dayton Ry. to Ludlow Falls.

Covington, 2.5 miles south of, near railroad crossing, 20 feet east of public highway, 30 feet south of railroad; iron post stamped "925"-----	924.541
Pleasant Hill, in front of station; top of east rail-----	907.4
Pleasant Hill, 1 mile south of, at railroad crossing; 20 feet west of railroad, 30 feet south of highway, on right of way; iron post stamped "880"-----	879.794
Ludlow, 50 feet northeast of Cleveland, Cincinnati, Chicago & St. Louis R. R. station, on south side of Ludlow Creek, in south face of pier of electric railroad overhead bridge, 3.5 feet from west edge; aluminum tablet stamped "S93 ADJ 1905"-----	892.609

Covington southeast 4.5 miles along Troy Pike, thence south to Fenner Pike, thence east to point 3.5 miles west of Troy.

Covington, 4 miles southeast of, on north side of diagonal road at T road west; iron post stamped "958"-----	Feet. 958.094
Pleasant Hill, 3 miles east by 0.5 mile south of, at southeast corner of crossroads; iron post stamped "947"-----	946.588

LIMA QUADRANGLE.

At Wapakoneta.

Wapakoneta, in front of Toledo & Ohio Central Ry. station; top of rail-----	895.6
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CONTINENTAL QUADRANGLE.

At Cloverdale.

Cloverdale, intersection of Toledo, St. Louis & Western R. R. and Cincinnati, Hamilton & Dayton Ry., in front of station; top of rail painted "724"-----	723.6
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APPENDIX.

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

Akron, Alliance, Athens, Blanchester, Batavia, Bowling Green, Columbus Grove, Dayton, Deshler, East Cincinnati, Findlay, Fostoria, Greenfield, Hamilton, Jackson, Lima, Lisbon, McClure, Mason, Massillon, Medina, Miamisburg, Navarre, New London, Norwalk, Ottawa, Parkersburg, Roxabell, Siam, Sidney, Tiffin, Toledo, Troy, Warren, Waynesville, Wellington, West Cincinnati, Wooster, Uhrichsville, and Youngstown Quadrangles.

ALLEN, ASHLAND, ATHENS, AUGLAIZE, BUTLER, CLINTON, CLERMONT, HAMILTON, HENRY, HIGHLAND, HURON, JACKSON, LUCAS, MAHONING, MEDINA, MIAMI, MONTGOMERY, PUTNAM, ROSS, SENECA, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, WARREN, WASHINGTON, WAYNE, AND WOOD COUNTIES.

The following descriptions and elevations are taken from reports of the Coast and Geodetic Survey, and are republished by permission of the superintendent of that bureau. The bench marks were established by the Coast and Geodetic Survey and by the Baltimore & Ohio Railroad Co. from precise levels, and were included in the 1907 adjustment by the Coast and Geodetic Survey. The elevations are likely to be changed only slightly by any future adjustment. For the line from Warwick to Uhrichsville, along the Baltimore & Ohio Railroad, a modified adjustment has been adopted by the United States Geological Survey, as explained on page 17, Bulletin 411. The present accepted elevation of the bench mark at Uhrichsville is 0.25 foot lower than that obtained by the Coast and Geodetic Survey adjustment.

ALLIANCE QUADRANGLE.

Alliance northeast along Pennsylvania R. R. to Snodes.

	Feet.
Alliance, Stark County, about 1.5 miles east of, on Pennsylvania R. R. right of way, east abutment of bridge 66, on the northwest corner; square cut (C. & G. S. b. m. Bridge 66)-----	1,096.030
Alliance, West Main Street, southeast corner of Knights of Pythias Hall, in south face of base stone, one-third meter above cement walk; red metal disk (C. & G. S. b. m. Q6)-----	1,102.991
Alliance, northeast corner of Freedom and Main streets, southwest corner of the Lewis Block, about 2 inches from north wall; iron bolt, anchored to foundation and extending slightly above the level of cement walk (C. & G. S. b. m. City)-----	1,105.124

Alliance, southeast corner of Freedom and Court Streets, in front face of city hall, about one-third meter from south side, on horizontal surface of water table; chiseled square, marked "U.S." (C. & G. S. b. m. R6)-----	Feet. 1, 119. 212
Alliance, north side of Pennsylvania R. R. station, on northwest corner of iron sill of lunch-room door; chiseled square (C. & G. S. b. m. Lunchroom)-----	1, 087.490
Alliance, 1.5 miles east of, on Pennsylvania R. R. right of way, northwest corner of east abutment of bridge 65; chiseled square, marked "U. S." (C. & G. S. b. m. Bridge 65, 1906)-----	1, 055. 009
Alliance, 1.7 miles east of, on Pennsylvania R. R. right of way; northeast corner of the east back wall of bridge 64; chiseled square (C. & G. S. b. m. Bridge 64, 1906)-----	1, 062. 428
Sebring, Mahoning County, about 0.5 mile west of, on Pennsylvania R. R. right of way, northwest corner of east abutment of open culvert; large square in outline, marked "B.M." (C. & G. S. b. m. West Culvert)-----	1, 109. 031
Sebring, 0.5 mile west of, on Pennsylvania R. R. right of way, northwest corner of east abutment of box culvert; chiseled square marked "B. M." (C. & G. S. b. m. East Culvert)-----	1, 106. 040
Snodes, 1 mile south of, on Pennsylvania R. R. right of way at milepost 22, in middle of east coping of concrete culvert; chiseled square, marked "U. S." (C. & G. S. b. m. S6)-----	1, 090. 454

LISBON QUADRANGLE.

Bench marks near Berlin Center, Mahoning County.

Berlin Center, about 2.5 miles south of, on Pennsylvania R. R. right of way, five telegraph poles north of milepost 20; middle of west end of north concrete abutment of bridge 26 (C. & G. S. b. m. T6)-----	1, 089. 090
Berlin Center, about 2 miles south of, 17 telegraph poles south of milepost 24, at southwest corner of Western Reserve line crossing, 15 meters west of track; red metal cap on iron post (C. & G. S. b. m. U6)-----	1, 084. 868

WARREN QUADRANGLE.

Berlin Center northeast along Pennsylvania R. R. to point near Miles.

Berlin Center, Mahoning County, 70 meters north of Pennsylvania R. R. station, 15 meters east of tracks, base of the southwest support of railroad water tank; chiseled square (C. & G. S. b. m. V6)-----	1, 106. 152
Ellsworth, about 90 meters south of Pennsylvania R. R. station, in northwest corner of large stone step of public school building; chiseled square marked "U.S.B.M." (C. & G. S. b. m. W6)-----	1, 120. 666
Rosemont, southeast corner of Pennsylvania R. R. station, on curbing of platform, 5 centimeters from building; chiseled square (C. & G. S. b. m. X6)-----	1, 071. 456
Rosemont, 100 meters west of Pennsylvania R. R. station, on public highway, in middle of the north coping of the stone culvert; chiseled square marked "U.S.B.M." (C. & G. S. b. m. Y6)-----	1, 080. 878
Rosemont, about 0.3 mile west of station, at public road crossing, in northwest corner of public school grounds; red metal cap on iron post (C. & G. S. b. m. Z6)-----	1, 065. 557

North Jackson, about 0.25 mile east of Pennsylvania R. R. station, in southwest corner of east abutment of highway bridge; red metal disk (C. & G. S. b. m. A7)-----	Feet. 1, 014. 652
North Jackson, 45 meters southeast of station at corner of fence, 40 meters east of railroad crossing; red metal cap on iron post (C. & G. S. b. m. B7)-----	1, 024. 622
North Jackson, 1.4 miles north of, on Pennsylvania R. R. right of way, one telegraph pole from milepost 7, in middle of east coping of concrete arch bridge 10; chiseled square marked "U.S." (C. & G. S. b. m. C7)-----	1, 001. 462
Lordstown, Trumbull County, northwest corner of road crossing, four telegraph poles north of milepost 5, in corner of fence, on land belonging to Ada Horn; red metal cap on iron post (C. & G. S. b. m. D7)-----	949. 010
Lordstown, about 0.8 mile north of, on Pennsylvania R. R. right of way, at milepost 4, on west end of north abutment to bridge 6; chiseled square (C. & G. S. b. m. E7)-----	919. 845
Niles, 2 miles southwest of, near Boenna Crossing, on Baltimore & Ohio R. R. right of way, 328 feet east of Pennsylvania R. R. track, on lower step of the undergrade crossing bridge 423; red metal disk (C. & G. S. b. m. F7)-----	899. 342

YOUNGSTOWN QUADRANGLE.

Point near Niles, Trumbull County, southeast to Struthers, Mahoning County.	
Niles, about 1.5 miles southeast of, 2.8 miles east of Boenna Crossing, at southeast corner of road crossing, 49 feet from Baltimore & Ohio R. R. tracks, in corner of fence, on land owned by John Dove; red metal cap on iron post (C. & G. S. b. m. G7)-----	816. 968
Girard, about 0.5 mile west of, on Baltimore & Ohio R. R. right of way, culvert at telegraph pole S1/28½, in middle of south coping; chiseled square marked "U.S.B.M." (C. & G. S. b. m. H7)-----	817. 327
Youngstown, Mahoning County, about 3.5 miles northwest of new Baltimore & Ohio R. R. station, at telegraph pole 79/28½, west end of large cut, on side of hill, 82 feet south of Baltimore & Ohio R. R. tracks, set in clay at an offset in the right-of-way fence; red metal cap on iron post (C. & G. S. b. m. I7)-----	883. 860
Youngstown, 1 mile west of new Baltimore & Ohio R. R. station, on Baltimore & Ohio R. R. right of way, north end of the top step of east abutment of bridge 410; chiseled square marked "U.S.B.M." (C. & G. S. b. m. J7)-----	865. 312
Youngstown, 1 mile west of, at telegraph pole 76/23, on old line east of river, section of rail set vertically in ground beneath the semaphore bridge; top (B. & O. b. m. 381)-----	842. 094
Youngstown, 200 feet east of old Baltimore & Ohio R. R. passenger station, on the old line east of river, in second course of masonry at west end of the retaining wall; copper bolt (B. & O. b. m. 380)-----	843. 707
Youngstown, near Lake Shore & Michigan Southern Ry. station, northwest corner of foundation of west beam supporting the overhead highway bridge, between Baltimore & Ohio R. R. and Pittsburg & Lake Erie R. R. tracks; seat cut (C. & G. S. b. m. Railroad)-----	847. 118
Hazelton, on Baltimore & Ohio R. R. right of way, at Andrews Bros. crossing, top course of north wing wall of east abutment to bridge 24; aluminum tablet stamped "S37 ADJ"-----	836. 450

Struthers, 1 mile west of, on Baltimore & Ohio R. R. right of way and south of tracks, on west abutment of bridge 22, in concrete flume; copper bolt (B. & O. b. m. 377)-----	Feet. 847. 135
Struthers, north end of highway bridge over Pittsburg & Lake Erie R. R. tracks, in southwest corner of the bridge seat; copper bolt (B. & O. b. m. 376)-----	844. 766

AKRON QUADRANGLE.**Akron southwest to Barberton.**

Akron, Summit County, 600 feet east of Union Station, in east end of retaining wall on north side of tracks; copper bolt (B. & O. b. m. 441)-----	1, 009. 189
Akron, 1 mile southwest of Union Station, in southwest end of north-west coping of culvert along Cleveland, Akron & Columbus Ry. tracks; copper bolt (B. & O. b. m. 442)-----	993. 911
Akron, 3.5 miles southwest of, on Cleveland, Akron & Columbus Ry. bridge over old canal; copper bolt (B. & O. b. m. 443)-----	976. 936
Barberton station; southeast corner of stone doorsill at entrance to ladies' waiting room (B. & O. b. m. 444)-----	968. 109

MASSILLON QUADRANGLE.**Barberton southwest to Clinton, thence northwest to Easton.**

Barberton, Summit County, 0.8 mile south of, set in southwest abutment, north side of bridge 18, Cleveland, Akron & Columbus Ry.; copper bolt (B. & O. b. m. 445)-----	965. 236
Barberton, 2.5 miles west of, 0.6 mile south of milepost H 22, in east end of small culvert; copper bolt (B. & O. b. m. 446)-----	971. 514
Turkeyfoot Junction, near, 300 feet south of milepost H 24, set in west end of small Cleveland, Akron & Columbus Ry. culvert; copper bolt (B. & O. b. m. 447)-----	968. 526
Messenger, about 2 miles east of Warwick; northeast corner of south pier of water tank (Pennsylvania R. R. b. m.)-----	960. 423
Clinton, 0.25 mile northeast of, 0.8 mile southwest of Clinton coaling station, in northwest end of small Cleveland, Akron & Columbus Ry. culvert; copper bolt (B. & O. b. m. 448)-----	945. 687
Warwick, 0.25 mile northeast of, in southeast corner of small Cleveland, Akron & Columbus Ry. culvert; copper bolt (B. & O. b. m. 449)-----	958. 332
Warwick, 0.8 mile northwest of, in northeast corner of old part of Culvert; copper bolt (B. & O. b. m. 450)-----	958. 619
Warwick, about 1.5 miles northwest of, 500 feet west of milepost 59, on east-bound track, in west end of north coping of culvert; copper bolt (B. & O. b. m. 451)-----	947. 379
Easton, Wayne County, 2.8 miles southeast of, 100 feet east of milepost 58, on east-bound track, set in west end of north coping of culvert; copper bolt (B. & O. b. m. 452)-----	948. 009
Easton, 1.8 miles southeast of, opposite milepost 57; section of rail set vertically in ground (B. & O. b. m. 453)-----	954. 326
Easton, 0.7 mile southeast of, opposite milepost 56; section of rail set vertically in ground (B. & O. b. m. 454)-----	958. 992
Easton, 300 feet northwest of station, in north wing of wall of south-east abutment of bridge, on west-bound track; copper bolt (B. & O. b. m. 455)-----	960. 638

Easton, 1.25 miles northwest of, at milepost 54; section of rail set vertically in ground (B. & O. b. m. 456)-----	Feet. 955.414
Warwick south along Baltimore & Ohio R. R. to point 2.5 miles south of Massillon.	
Warwick, Summit County, 0.5 mile south of, between tracks on mud wall of south abutment of bridge; chiseled point (B. & O. b. m. 1)-----	952.372
Warwick, 1.8 miles southeast of, at milepost 107; section of rail set vertically in ground (B. & O. b. m. 2)-----	948.759
Warwick, 2.8 miles southeast of, at milepost 106; section of rail set vertically in ground (B. & O. b. m. 3)-----	949.890
Canal Fulton, Stark County, 500 feet southeast of station at, between east-bound track and siding at milepost 105; rail section (B. & O. b. m. 4)-----	947.220
Canal Fulton, 1 mile southeast of, at milepost 104; section of rail set vertically in ground (B. & O. b. m. 5)-----	948.400
Canal Fulton, 2 miles southeast of, at milepost 103; section of rail set vertically in ground (B. & O. b. m. 6)-----	944.570
Pauls, about 1 mile northwest of, at milepost 102; section of rail set vertically in ground (B. & O. b. m. 7)-----	939.088
Crystal Spring, about 1 mile west of, near Pauls, near Coxeys white sand works, on northwest end of retaining wall on northeast side of tracks at milepost 101; chiseled point (B. & O. b. m. 8)-----	942.460
Crystal Spring, about 0.25 mile west of, at milepost 100; section of rail set vertically in ground (B. & O. b. m. 9)-----	940.405
Crystal Spring, about 0.8 mile southeast of, at milepost 99; section of rail set vertically in ground (B. & O. b. m. 10)-----	948.340
Massillon, about 2 miles north of, 250 feet east of milepost 98, in south end of west coping of box culvert on west-bound tracks; square cut (B. & O. b. m. 11)-----	933.461
Massillon, about 1 mile north of, at milepost 97; section of rail set vertically in ground (B. & O. b. m. 12)-----	934.109
Massillon, 300 feet east of bridge 4; cut on northeast corner coping Pennsylvania R. R. arch bridge (Pennsylvania R. R. b. m.)-----	942.276
Massillon, 0.25 mile northwest of, in north end of mud wall of east abutment of bridge at telegraph pole 96/10; copper bolt (B. & O. b. m. 13)-----	941.359
Massillon, on north end of east back wall of Pennsylvania R. R. bridge 5; cut (Pennsylvania R. R. b. m.)-----	939.281
Massillon, 0.5 mile southeast of, set in north end of west abutment of highway bridge over river; copper bolt (B. & O. b. m. 14)-----	935.289
Massillon, about 1.5 miles south of, at telegraph pole 94/4, set in southeast pedestal of water tank at Columbia; copper bolt (B. & O. b. m. 15)-----	933.357
Massillon, about 2.5 miles south of, set in northeast end of northwest coping of culvert for pipe drain at telegraph pole 93/7; copper bolt (B. & O. b. m. 16)-----	927.529

WOOSTER QUADRANGLE.

Point near Rittman northwest to point near Creston.

Rittman, Wayne County, 0.5 mile east of, at milepost 53; section of rail set vertically in ground (B. & O. b. m. 457)-----	957.103
Rittman, 0.5 mile southwest of, at milepost 52; section of rail set vertically in ground (B. & O. b. m. 458)-----	961.853

	Feet.
Rittman, 1.5 miles west of, 500 feet west of milepost 51; in north-west abutment in northeast side of bridge 94; copper bolt (B. & O. b. m. 459)-----	969. 213
Rittman, 2.5 miles west of, at milepost 50; section of rail set vertically in ground (B. & O. b. m. 460)-----	969. 904
Sterling, 1 mile east of, in bridge seat at south end of east abutment of Erie R. R. bridge; bronze tablet stamped "964 CANTON"; probably moved in laying double track (B. & O. b. m. 460A)-----	963. 678
Sterling, 0.25 mile east of, north side of tracks opposite milepost 49; vertical rail section (B. & O. b. m. 461)-----	970. 465
Sterling, 0.8 mile northwest of, at milepost 48; section of rail set vertically in ground (B. & O. b. m. 462)-----	975. 020
Sterling, 0.8 mile southeast of, at milepost 47; section of rail set vertically in ground (B. & O. b. m. 463)-----	982. 544
Creston, 0.25 mile northwest of, at milepost 46; section of rail set vertically in ground (B. & O. b. m. 464)-----	987. 325
Creston, 1.25 miles northwest of; at milepost 45; section of rail set vertically in ground (B. & O. b. m. 465)-----	974. 241

MEDINA QUADRANGLE.

Point near Creston northwest to point near Lodi.

Creston, Wayne County, 2.25 miles northwest of, at milepost 44; section of rail set vertically in ground (B. & O. b. m. 466)-----	961. 908
Creston, 3.25 miles northwest of, at milepost 43; section of rail set vertically in ground (B. & O. b. m. 467)-----	966. 755
Lodi, Medina County, 3 miles southeast of, at milepost 42; section of rail set vertically in ground (B. & O. b. m. 468)-----	970. 242
Lodi, 2.5 miles southeast of, set in north end of small culvert at telegraph pole 34/17; copper bolt (B. & O. b. m. 469)-----	952. 182
Lodi, 1 mile southeast of, at milepost 40; section of rail set vertically in ground (B. & O. b. m. 470)-----	931. 890
Lodi, 800 feet east of, in unstable ground; section of rail set vertically in ground (B. & O. b. m. 471)-----	913. 791
Lodi, 1 mile southwest of, at milepost 38; section of rail set vertically in ground (B. & O. b. m. 472)-----	913. 794

WELLINGTON QUADRANGLE.

Point 2 miles southwest of Lodi west to point 1.5 miles west of Sullivan.

Lodi, Medina County, 2 miles southwest of, in northwest end of small culvert at telegraph pole 38/25½; copper bolt (B. & O. b. m. 473)---	914. 365
Lodi, 3 miles southwest of, on bridge 118, at telegraph pole 39/24½; copper bolt (B. & O. b. m. 474)-----	943. 523
Lodi, 4 miles west of, in north corner of west abutment on bridge 120, telegraph pole 40/27; copper bolt (B. & O. b. m. 475)-----	991. 217
Homer, 1.8 miles east of, in south end of small culvert at telegraph pole 41/18; copper bolt (B. & O. b. m. 476)-----	1, 011. 129
Homer, 0.25 mile east of, at milepost 33; section of rail set vertically in ground (B. & O. b. m. 477)-----	1, 074. 159
Newtons, 500 feet west of, at telegraph pole 44/10; section of rail set vertically in ground (B. & O. b. m. 478)-----	1, 095. 284

	Feet.
Newtons, 1 mile west of, in south end of small culvert at telegraph pole 45/10; copper bolt (B. & O. b. m. 479)-----	1,094.515
Newtons, 1.8 miles west of, set in north end of small culvert at milepost 30; copper bolt (B. & O. b. m. 480)-----	1,101.007
Sullivan, Ashland County, 1.5 miles east of, at milepost 29; section of rail set vertically in ground (B. & O. b. m. 481)-----	1,119.297
Sullivan, at southwest corner of schoolhouse, in vertical surface of water table; bronze tablet stamped "1136 Canton ADJ 1903"-----	1,137.443
Sullivan, about 300 feet east of station, on culvert at telegraph pole 48/14, in the west end of north coping; copper bolt (B. & O. b. m. 482)-----	1,122.261
Sullivan, about 1.5 miles west of, at milepost 26; section of rail set vertically in ground (B. & O. b. m. 483)-----	1,126.851

NEW LONDON QUADRANGLE.

Nova west along Baltimore & Ohio R. R. to point about 0.8 mile east of Greenwich.

Nova, Ashland County, about 1.5 miles east of, on culvert at telegraph pole 51/14, in the west end of south coping; copper bolt (B. & O. b. m. 484)-----	1,134.659
Nova, about 0.5 mile east of, north end of small culvert at telegraph pole 52/15; copper bolt (B. & O. b. m. 485)-----	1,123.337
Nova, about 325 feet east of station on a small culvert, at top of beveled surface; northeast corner of north coping (B. & O. b. m. 485A)-----	1,111.050
Nova, T. 1 N., R. 19 W., in foundation wall of the United Brethren Church, on south face of southeast corner; aluminum tablet stamped "1127 ADJ 1903"-----	1,127.315
Nova, about 0.6 mile west of, culvert at telegraph pole 53/17½, in west end of north coping; copper bolt (B. & O. b. m. 486)-----	1,103.946
Nova, about 2 miles northwest of, large arch bridge at telegraph pole 55/1½, in east end of north coping; copper bolt (B. & O. b. m. 487)-----	1,071.539
Hereford, about 1.9 miles east of, small culvert at telegraph pole 56/6, in west end of south coping; copper bolt (B. & O. b. m. 488)-----	1,050.135
Hereford, about 0.9 mile east of, bridge at telegraph pole 57/5, in south end of east abutment; copper bolt (B. & O. b. m. 489)-----	1,037.597
Hereford, near, on north side of east abutment of a steel girder bridge, about 800 feet west of station; copper bolt (B. & O. b. m. 490)-----	1,014.894
Hereford, about 1.5 miles west of, on large arch bridge, in east end of north coping; copper bolt (B. & O. b. m. 491)-----	988.458
Ramey, about 0.25 mile west of, on large arch bridge at telegraph pole 60/18, in east end of north coping; copper bolt (B. & O. b. m. 492)-----	1,000.707
Greenwich, Huron County, about 2.8 miles east of, on arch culvert at telegraph pole 61/21½, in east end of north coping; copper bolt (B. & O. b. m. 493)-----	1,028.983
Greenwich, about 1.8 miles east of, on arch culvert at telegraph pole 62/21½, in west end of north coping; copper bolt (B. & O. b. m. 494)-----	1,042.458
Greenwich, about 0.8 mile east of, on arch culvert at telegraph pole 62/23½, in east end of north coping; copper bolt (B. & O. b. m. 495)-----	1,038.959

NORWALK QUADRANGLE.

Point 1 mile west of Greenwich west to point 1 mile east of Chicago Junction (bench marks established by Baltimore & Ohio R. R. adjusted by Coast and Geodetic Survey).

Greenwich, Huron County, 0.25 mile west of, in south end of east abutment of bridge for undergrade street crossing; copper bolt (B. & O. b. m. 496)-----	Feet. 1, 029. 623
Greenwich, 1 mile west of, in east end of north coping of large arch at telegraph pole 65/17½; copper bolt (B. & O. b. m. 497)-----	1, 009. 423
Greenwich, 1.6 miles west of, 20 feet north of tracks, by telegraph pole 65/5; vertical rail section (B. & O. b. m. 498)-----	1, 017. 477
Greenwich, 2.8 miles west of, in east end of north coping of small culvert at telegraph pole 67/7½; copper bolt (B. & O. b. m. 499)----	1, 035. 688
Boughtonville, 1.5 miles east of, in east pedestal of highway bridge at telegraph pole 69/10, south of tracks; copper bolt (B. & O. b. m. 500)-----	1, 020. 131
Boughtonville, 300 feet east of, in west end of south coping of arch bridge; copper bolt (B. & O. b. m. 501)-----	988. 324
Boughtonville, 0.8 mile west of, in east end of south coping of culvert at telegraph pole 70/18; copper bolt (B. & O. b. m. 502)-----	964. 390
Boughtonville, about 1.8 miles west of, at telegraph pole 71/18, in south end of east abutment of an undergrade crossing bridge; copper bolt (B. & O. b. m. 503)-----	953. 727
Chicago Junction, about 3 miles east of, 700 feet east of milepost 3; originally a copper bolt set in the south end of east abutment of an undergrade crossing bridge. In 1905 it was found that the copper bolt had been removed and the top surface of the stone close to the hole on the south side was used as the bench mark (B. & O. b. m. 504)-----	935. 483
Chicago Junction, 2 miles east of, opposite milepost 2; section of rail set vertically in ground (B. & O. b. m. 505)-----	937. 995
Chicago Junction, about 1 mile east of, 500 feet west of milepost 1, set in the east end of south coping of a culvert; copper bolt (B. & O. b. m. 506)-----	928. 175

SIAM QUADRANGLE.

Chicago Junction west along Baltimore & Ohio R. R. to point 1 mile west of Scipio siding.

Chicago Junction, Huron County, 600 feet east of Baltimore & Ohio R. R. crossing; section of rail set vertically in ground (B. & O. b. m. 507)-----	914. 793
Chicago Junction, corner of Washington and First streets; cross cut in top surface of east end of top step of St. Francis Xavier Church (C. & G. S. b. m. F5)-----	918. 142
Chicago Junction, corner of Myrtle Avenue and Pearl Street, at southwest corner of the Shiedley Hotel block, on the side facing Myrtle Avenue, in second course of brick above water table; copper bolt (C. & G. S. b. m. G5)-----	929. 666
Chicago Junction, about 656 feet south of Baltimore & Ohio R. R. tracks, on west side of Myrtle Avenue, in east end of sandstone sill of the Home Savings & Banking Co.'s building; red metal disk (C. & G. S. b. m. H5)-----	925. 867

Chicago Junction, about 2.5 miles west of, on Baltimore & Ohio R. R. right of way, at second telegraph pole west of milepost 269 (c), on a knoll 39 feet south of the track; red metal cap on iron post (C. & G. S. b. m. I5)-----	Feet. 912. 595
Chicago Junction, about 3 miles west of, on Baltimore & Ohio R. R. right of way, 3.5 telegraph poles east of milepost 268, and 16 feet north of track, in top surface of coping of a culvert; chiseled square marked "U.S.B.M." (C. & G. S. b. m. J5)-----	910. 939
Chicago Junction, about 5 miles west of, on Baltimore & Ohio R. R. right of way, 8 telegraph poles east of milepost 266, in center of top surface of the gray sandstone coping of a culvert; copper bolt (C. & G. S. b. m. K5)-----	922. 188
Siam, Seneca County, on Baltimore & Ohio R. R. right of way, 246 feet west of Pennsylvania R. R. crossing, about 6 feet south of track, in center of a concrete block, about 3 by 4 feet on the top surface, set level with the grade; red metal disk (C. & G. S. b. m. L5)-----	953. 179
Siam, on Baltimore & Ohio R. R. right of way, 1,230 feet west of Pennsylvania R. R. crossing, about 48 feet north of track, in corner of fence at a road crossing; red metal cap on iron post (C. & G. S. b. m. M5)-----	955. 386
Siam, about 3 miles west of, on Baltimore & Ohio R. R. right of way, in the north end of west abutment of an undergrade crossing bridge; chiseled square marked "U.S.B.M." (C. & G. S. b. m. N5)---	954. 714
Scipio siding, about 1 mile west of, on Baltimore & Ohio R. R. right of way, 3 telegraph poles east of signboard "1 mile to Scipio," in center of the top surface of the north end of a concrete culvert; copper bolt (C. & G. S. b. m. O5)-----	928. 730

TIFFIN. QUADRANGLE.

Republic west along Baltimore & Ohio R. R. to point 2.5 miles west of Tiffin.	
Republic, Seneca County, about 0.25 mile east of, on Baltimore & Ohio R. R. undergrade crossing bridge, over Marion State road, on the top surface of southernmost stone in the lower course; square cut in outline, marked "859 REPUBLIC"-----	860. 353
Republic, in southwest corner of town hall, on west side, in vertical face of water table; aluminum tablet stamped "883 COL."-----	884. 146
Republic, near, 12 telegraph poles west of milepost 255, on a knoll in Baltimore & Ohio R. R. right of way, 39 feet south of track; chiseled square on top of post lettered "U.S.B.M." (C. & G. S. b. m.)-	872. 279
Seneca, 0.5 mile west of signboard, on Baltimore & Ohio R. R. right of way, 547 feet south of track, at offset in right-of-way fence; red metal cap on iron post (C. & G. S. b. m. Q5)-----	822. 517
Tiffin, about 3 miles east of, on Baltimore & Ohio R. R. right of way, in center of south coping of stone arch bridge 58; copper bolt (C. & G. S. b. m. R5)-----	790. 612
Tiffin, about 1 mile east of, on Baltimore & Ohio R. R. right of way, 0.25 mile west of milepost 248 and 984 feet east of junction of Baltimore & Ohio and Pennsylvania R. Rs., in center of south girder (concrete) of bridge 61; red metal disk (C. & G. S. b. m. S5)-----	762. 468
Tiffin, at southwest corner of courthouse, west face, in window sill; tablet stamped "757 COL."-----	758. 242

Tiffin, on Munroe Street Bridge over Sandusky River, in east side of north abutment, about 2 feet from guard rail, on the second course of stone; copper bolt (C. & G. S. b. m. T5)-----	Feet. 741. 801
Tiffin, corner of Washington and Welmore Streets, at front entrance to Catholic church, cut in the east end of lower step; chiseled square marked "775 TIFFIN"-----	775. 296
Tiffin, about 2½ miles west of, on Baltimore & Ohio R. R. right of way, 1,312 feet west of milepost 245, in the north end of west abutment of a bridge over a creek; red metal disk (C. & G. S. b. m. U5)-----	761. 193
Fostoria, 2½ miles west of, at crossing, 164 feet north of Baltimore & Ohio R. R. tracks, in west end of south abutment of a small highway bridge over creek; copper bolt (C. & G. S. b. m. C6)-----	773. 584
Godsend, Hancock County, near, on Baltimore & Ohio R. R. right of way, 492 feet west of water tank, north end of west abutment of steel girder bridge over a small creek; copper bolt (C. & G. S. b. m. D6)-----	754. 453

FOSTORIA QUADRANGLE.

Bascom northwest along Baltimore & Ohio R. R. to point 2.5 miles west of Fostoria.

Bascom, Seneca County, about 2 miles east of, on Baltimore & Ohio R. R. right of way, 492 feet west of milepost 243, north end of west abutment of bridge 68 over Wolf Creek; chiseled square marked "U.S.B.M." (C. & G. S. b. m. V5)-----	764. 762
Bascom, about 1 mile east of, 296 feet west of milepost 242 and 82 feet south of Baltimore & Ohio R. R. tracks, on the farm of Joseph Leonard, disk at northeast corner of junction of roads; red metal cap on iron post (C. & G. S. b. m. W5)-----	778. 241
Bascom, near Crumm's store, at northwest corner of crossroads, in bottom of round hole in stone used for crossing; cross marked "776 BASCOM"-----	776. 527
Bascom, 0.2 mile south of, south of cemetery, in southwest abutment of an iron highway bridge over creek; aluminum tablet stamped "766 TOL."-----	767. 305
Bascom, about 2 miles west of, on Baltimore & Ohio R. R. right of way, road crossing, at milepost 239, 164 feet north of track, on top step of east side of a sandstone culvert; red metal disk (C. & G. S. b. m. X5)-----	768. 370
Fostoria, about 3 miles east of, on Baltimore & Ohio R. R. right of way, in north end of west abutment of a steel girder bridge over Raccoon Creek; chiseled square marked "U.S.B.M." (C. & G. S. b. m. Y5)-----	767. 703
Fostoria, about 2 miles east of, on Baltimore & Ohio R. R. right of way, on north side of track; copper bolt in center of the capstone of a culvert (C. & G. S. b. m. Z5)-----	768. 261
Fostoria, northwest corner of Jones and Main streets; top surface of check valve of the city water plug, marked "778 FOSTORIA"-----	779. 853
Fostoria, corner of Main and Center Streets, in southwest corner of First National Bank Building, east side of Center Street entrance, in vertical surface of the water table; red metal disk (C. & G. S. b. m. A6)-----	781. 072
Fostoria, at southeast corner of Tiffin and Union streets, 1 meter from curb, in top of stone post; chiseled square marked "U.S.B.M." (C. & G. S. b. m. B6)-----	782. 877

FINDLAY QUADRANGLE.

Bloomdale northwest along Baltimore & Ohio R. R. to point 0.5 mile west of North Baltimore.

T. 3 N., R. 12 E., sec. 31, 1.5 miles east of Bloomdale, in south end of east abutment of an iron highway bridge; aluminum tablet stamped "740 TOLEDO"-----	Feet. 740.625
Bloomdale, Wood County, 0.8 mile east of, at city limits, at northeast corner of road junction close to a rail fence; chiseled square on top of stone post lettered "U.S.B.M." (C. & G. S. b. m. E6)-----	742.974
Bloomdale, southwest corner of Main Street and Second Street north of Baltimore & Ohio R. R. tracks, in brick building used as hardware store, in the north end of stone sill; square cut in outline marked "749 BLOOMDALE"-----	749.771
Bloomdale, at corner of Garfield and Mulberry streets, main entrance of Trinity Methodist Episcopal Church, in top face of second step; red metal disk (C. & G. S. b. m. F6)-----	752.238
Bairdstown, on Randolph Avenue, 328 feet south of Baltimore & Ohio R. R. station, in the south doorstep of a double house belonging to E. Knodle; square cut (C. & G. S. b. m. H6)-----	739.553
Galatea, on Baltimore & Ohio R. R. right of way, 492 feet east of Toledo & Ohio Central Ry. crossing, on upper step of the northwest abutment of a large culvert; chiseled square marked "U.S.B.M." (C. & G. S. b. m. I6)-----	727.458
North Baltimore, west side of Main Street, 131 feet north of Baltimore & Ohio R. R. tracks, in north end of the sill of the south part of double store marked "A. J. Steele, 1900"; red metal disk (C. & G. S. b. m. J6)-----	734.018
North Baltimore, 0.5 mile south of, in southwest abutment of iron bridge over a creek; bronze tablet stamped "726 TOLEDO"-----	726.640
North Baltimore, 0.5 mile west of, at northeast corner of intersection of Broadway and street at city limits; red metal cap on iron post (C. & G. S. b. m. K6)-----	727.559

DESHLER QUADRANGLE.

North Baltimore west along Baltimore & Ohio R. R. to point 1 mile east of Deshler.

North Baltimore, Wood County, about 1.5 miles west of, at road crossing, in south end of a culvert, in center of the top; copper bolt marked "U.S.B.M." (C. & G. S. b. m. L6)-----	717.320
North Baltimore, about 2.5 miles west of, on Baltimore & Ohio R. R. right of way, at road crossing, in south end of concrete culvert; chiseled square marked "U.S.B.M." (C. & G. S. b. m. M6)-----	715.051
Hoytville, about 1 mile east of, at road crossing 164 feet south of Baltimore & Ohio R. R. tracks, 33 feet south of the junction of highway, on west end of north abutment of a small iron bridge; red metal disk (C. & G. S. b. m. N6)-----	707.577
Hoytville, about 1 mile west of, at road crossing, 33 feet south of Baltimore & Ohio R. R. tracks, on west end of small highway culvert, in middle stone, 3.2 inches from the west face; copper bolt (C. & G. S. b. m. O6)-----	709.289
Deshler, Henry County, about 1 mile east of, on Baltimore & Ohio R. R. right of way, at a road crossing, in north end of concrete culvert; red metal disk in center of top surface (C. & G. S. b. m. P6)---	711.569

Deshler southwest along Cincinnati, Hamilton & Dayton Ry. to Leipsic.

Deshler, Henry County, northeast corner of Maple and Keiser streets, in southeast corner of main building Presbyterian church, in water table, east face, about 1 foot north of south corner and 3 feet above ground; brass bolt marked with a horizontal line (C. & G. S. b. m. H1)-----	Feet. 713. 716
Deshler, north side of Main Street, about 175 feet east of Cincinnati, Hamilton & Dayton Ry. track, on bank building owned by A. W. Lee, on west end of base stone, under window west of entrance; chiseled square (C. & G. S. b. m. I1)-----	713. 140
Belmore, Putnam County, northeast corner of Defiance and Walnut streets, in east face of the foundation of the Starling Building, 18 feet north of south corner of building, 8 inches below bottom of baseboard, and 10 inches above ground, intersection of two approximately horizontal and vertical chisel cuts in brass bolt leaded horizontally and lettered "U. S. C. & G. S." (C. & G. S. b. m. J1)----	736. 700
Leipsic, north side of Railroad Street, about 126 feet east of Main Street, top of foundation, northeast corner of the Lampe Building, under the east end of the window, 11 inches west of corner buttress, 1 foot above sidewalk; chiseled square (C. & G. S. b. m. K1)-----	765. 964
Leipsic, on south side of Commercial Street, 129 feet east from east side of Main Street, on foundation at northeast corner of the Heffler House, 6 inches west of east face and 35 inches above the flagging of sidewalk; brass bolt marked with a horizontal line (C. & G. S. b. m. L1)-----	763. 703

NAVARE QUADRANGLE.

Point 4.25 miles south of Massillon south to point 2 miles northwest of Canal Dover.

Massillon, Stark County, about 4.25 miles south of, in north end of west coping of large concrete arch culvert near where old line is crossed by present line; copper bolt (B. & O. b. m. 17)-----	940. 066
Navarre, about 0.8 mile northeast of, in southwest end of southeast coping of large stone arch 450 feet southwest of first Wheeling & Lake Erie R. R. crossing; copper bolt (B. & O. b. m. 18)-----	980. 909
Navarre, 0.8 mile southwest of Navarre, at milepost 89; section of rail set vertically in ground (B. & O. b. m. 19)-----	1, 003. 488
Justus, 0.5 mile north of, 300 feet south of Wheeling & Lake Erie R. R. crossing, in north end of west coping of small culvert at telegraph pole 88/5; copper bolt (B. & O. b. m. 20)-----	1, 000. 364
Justus, 0.5 mile south of, in west end of south abutment of arch culvert near milepost 87; copper bolt (B. & O. b. m. 21)-----	976. 711
Justus, 1.5 miles south of, in west end of south abutment of arch culvert at telegraph pole 86; copper bolt (B. & O. b. m. 22)-----	974. 910
Beach City, 1 mile north of, in south end of west coping of stone culvert for traction line near railroad; copper bolt (B. & O. b. m. 23)-----	976. 079
Beach City, 800 feet north of station, in west end of south abutment of bridge over creek; copper bolt (B. & O. b. m. 24)-----	969. 456
Beach City, 0.8 mile southeast of, in southwest end of southeast abutment of bridge; copper bolt (B. & O. b. m. 25)-----	961. 937
Beach City, 2 miles southeast of, in southwest end of back wall, northwest abutment of bridge; copper bolt (B. & O. b. m. 26)----	944. 603

	Feet.
Strasburg, Tuscarawas County, 2 miles northwest of, at milepost 81; section of rail set vertically in ground (B. & O. b. m. 27)-----	929.665
Strasburg, 1 mile northwest of, at milepost 80; section of rail set vertically in ground (B. & O. b. m. 28)-----	924.741
Strasburg, at milepost 79; section of rail set vertically in ground (B. & O. b. m. 29)-----	914.099
Strasburg, about 0.8 miles southeast of, in southwest end of back wall of southeast abutment of bridge; copper bolt (B. & O. b. m. 30)---	912.671
Strasburg, about 1 mile southeast of, near milepost 78, in first course of masonry, southeast end of southwest abutment of trolley overhead bridge; copper bolt (B. & O. b. m. 31)-----	909.698
Strasburg, about 2 miles southeast of, 500 feet northwest of milepost 77, in southeast end of southwest coping of culvert; copper bolt (B. & O. b. m. 32)-----	901.593
Strasburg, 3 miles southeast of, in south end of west coping of culvert, telegraph pole 76/6; copper bolt (B. & O. b. m. 33)-----	897.046
Canal Dover, 2 miles northwest of, at milepost 75; section of rail set vertically in ground (B. & O. b. m. 34)-----	886.023

CANAL DOVER QUADRANGLE.

Bench marks established by Baltimore & Ohio R. R. near Canal Dover.

Canal Dover, Tuscarawas County, 1 mile northwest of, set in southwest end of bridge seat of southeast abutment of culvert at telegraph pole 74/4; copper bolt (B. & O. b. m. 35)-----	881.756
Canal Dover, 0.25 mile west of station, in east pedestal of water tank, at telegraph pole 73/11; copper bolt (B. & O. b. m. 36)-----	874.694
Canal Dover, 0.5 mile southeast of, in northeast end of mud wall of northwest abutment of Tuscarawas River Bridge; copper bolt (B. & O. b. m. no. 37)-----	884.847
Canal Dover, 1.25 miles southeast of, at telegraph pole 72/1; section of rail set vertically in ground (B. & O. b. m. 38)-----	892.905
Canal Dover, about 1.25 miles southeast of, 200 feet southeast of telegraph pole 72/1; section of rail set vertically in ground (B. & O. b. m. 38A)-----	893.008

UHRICHSVILLE QUADRANGLE.

New Philadelphia southeast to point 1 mile north of Uhrichsville.

New Philadelphia, Tuscarawas County, 1 mile northwest of, at milepost 71; section of rail set vertically in ground (B. & O. b. m. 39)---	888.193
New Philadelphia, at milepost 70; section of rail set vertically in ground (B. & O. b. m. 40)-----	878.525
New Philadelphia, about 0.5 mile southeast of, in northwest end of southwest coping of culvert; copper bolt (B. & O. b. m. 41)-----	866.580
New Philadelphia, about 2 miles southeast of, on northeast side of tracks at milepost 68; rail section (B. & O. b. m. 42)-----	859.046
New Philadelphia, about 3 miles southeast of, in southwest end of southeast abutment of bridge at telegraph pole 67/1; copper bolt (B. & O. b. m. 43)-----	855.963
Goshen, about 0.8 mile northwest of, in center of mud wall of southeast abutment of bridge at telegraph pole 66/18, northeast of present tracks; copper bolt (B. & O. b. m. 44)-----	855.682
Goshen, 0.5 mile southeast of, northeast side of tracks at telegraph pole 65/15; rail section (B. & O. b. m. 45)-----	850.456

Midvale, quarter mile west of, in south end of east abutment of bridge at telegraph pole 64/15; copper bolt (B. & O. b. m. 46)-----	Feet. 849. 848
Midvale, 0.5 mile southeast of, southwest of track in mud wall of southeast abutment of bridge at telegraph pole 63/20; copper bolt (B. & O. b. m. 47)-----	853. 141
Uhrichsville, about 1 mile north of, in west end of mud wall of south abutment of undergrade highway crossing bridge near milepost 62; copper bolt (B. & O. b. m. 48)-----	862. 029

PARKERSBURG QUADRANGLE.

Belpre west along Baltimore & Ohio Southwestern R. R. to Little Hocking.

Belpre, on wing wall of second pier from west end of Baltimore & Ohio Southwestern R. R. bridge across Ohio River; chiseled square marked B M (C. & G. S. b. m. XL)-----	621. 030
Little Hocking, southwest corner of abutment of railroad bridge over Little Hocking Creek, near its junction with Ohio River; chiseled square marked B M (C. & G. S. b. m. XLI)-----	623. 398

KENO QUADRANGLE.

Bench mark 0.5 mile east of Coolville.

Coolville, about 0.5 mile east of, on coping of abutment of a railroad bridge; chiseled square marked B M (C. & G. S. b. m. XLII)-----	633. 272
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CHESTER HILL QUADRANGLE.

Coolville west along Baltimore & Ohio Southwestern R. R. to Canaanville.

Coolville, Athens County, about 3.8 miles west of, on east abutment of small railroad bridge; chiseled square marked B M (C. & G. S. b. m. XLIII)-----	606. 153
Guysville, about 1 mile west of, on east abutment of Baltimore & Ohio R. R. bridge; chiseled square marked B M (C. & G. S. b. m. XLIV)-----	617. 345
Guysville, about 2.5 miles west of, on west abutment of railroad bridge over Little Hocking River; chiseled square marked "B M" (C. & G. S. b. m. XLV)-----	621. 889
Canaanville, about 492 feet east of Canaan Chapel, on west abutment of small bridge; chiseled square marked "B M" (C. & G. S. b. m. XLVI)-----	623. 767

ATHENS QUADRANGLE.

Stewart west along Baltimore & Ohio Southwestern R. R. to Athens.

Stewart, Athens County, about 0.8 mile west of, on west abutment of railroad bridge over Little Hocking River; chiseled square marked "B M" (C. & G. S. b. m. XLVII)-----	616. 420
Stewart, 1.2 miles east of, on top of wall of west abutment of railroad bridge; chiseled square marked "B M" (C. & G. S. b. m. XLVIII)-----	615. 347
Canaanville, about 1.5 miles west of, on coping of a railroad culvert; chiseled square marked "B M" (C. & G. S. b. m. XLIX)-----	630. 325

Athens, on south abutment (east side, fourth step from top) of road bridge over railroad and Hocking River; chiseled square marked "B M" (C. & G. S. b. m. L)-----	Feet. 649. 169
Athens, on top of pier of the railroad bridge over the Hocking River; chiseled square marked "B M" (C. & G. S. b. m. P)-----	656. 105

ZALESKI QUADRANGLE.

Athens west along Baltimore & Ohio Southwestern R. R. to Zaleski.

Moonville, on east abutment of railroad bridge over Raccoon Creek; chiseled square marked "B M" (C. & G. S. b. m. LI)-----	712. 160
Zaleski, 1 mile south of, on south abutment of railroad bridge over Raccoon Creek; chiseled square marked "B M" (C. & G. S. b. m. LII)-----	714. 304

JACKSON QUADRANGLE.

Hamden west along Baltimore & Ohio Southwestern R. R. to Londonderry.

Hamden, about 0.5 mile east of, on coping of a small drain or culvert; chiseled square marked "B M" (C. & G. S. b. m. LIII)-----	705. 481
Londonderry, about 1.5 miles east of, on east abutment of railroad bridge over Big Salt Creek; chiseled square marked "B M" (C. & G. S. b. m. LIV)-----	600. 638

CHILLICOTHE QUADRANGLE.

Schooleys Station west along Baltimore & Ohio Southwestern R. R. to Chillicothe.

Schooleys, 1.5 miles east of, on east abutment of railroad bridge over Walnut Creek; chiseled square marked "B M" (C. & G. S. b. m. LV)-----	657. 572
Chillicothe, on pedestal of lamp-post on the north side of steps of front entrance of the courthouse; chiseled square marked "B M" (C. & G. S. b. m. Q)-----	638. 001

ROXABELL QUADRANGLE.

Chillicothe west along Baltimore & Ohio Southwestern R. R. to Musselman.

Musselman, Ross County, about 1.25 miles east of, on west abutment of railroad bridge over branch of Paint Creek; chiseled square marked "B M" (C. & G. S. b. m. LVI)-----	699. 646
Musselman, about 0.25 mile west of, on east abutment of railroad bridge over branch of Paint Creek; chiseled square marked "B M" (C. & G. S. b. m. LVII)-----	712. 186

GREENFIELD QUADRANGLE.

Bench mark 1 mile east of Lyndon.

Lyndon, about 1 mile east of, on east abutment of railroad bridge; chiseled square marked "B M" (C. & G. S. b. m. LVIII)-----	911. 671
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BLANCHESTER QUADRANGLE.

Martinsville west along Baltimore & Ohio Southwestern R. R. to Clinton Valley.

Martinsville, on east abutment of railroad bridge; chiseled square marked "B M" (C. & G. S. b. m. LIX)-----	Feet. 1,056.609
Clinton Valley station, about 0.3 mile east of, on east abutment of railroad bridge; chiseled square marked "B M" (C. & G. S. b. m. LX)-----	990.047

BATAVIA QUADRANGLE.

Bench mark established 3.25 miles east of Loveland.

Loveland, about 3.25 miles east of, on west abutment of railroad bridge; chiseled square marked "B M" (C. & G. S. b. m. LXI)---	692.924
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EAST CINCINNATI QUADRANGLE.

Loveland southwest along Baltimore & Ohio Southwestern R. R. to Cincinnati.

Loveland, on east abutment of railroad bridge over Little Miami River; chiseled square marked "B M" (C. & G. S. b. m. R)-----	581.882
Remington, short distance west of, on pier of railroad bridge over Sycamore Creek; chiseled square marked "B M," reported destroyed in 1899 (C. & G. S. b. m. LXII)-----	590.861
Cincinnati, courthouse at, on south face of pillar at south side of main entrance on Main Street, 3 inches above flagging; copper bolt projecting 1.5 inches from masonry on west side; flat surface which surrounds the bench mark is inscribed, "B M No. 1 115' 25." (C. & G. S. b. m. T, or City b. m. No. 1)-----	546.537

Glendale south to St. Bernard.

Cincinnati, 12.3 miles north of, Cincinnati, Hamilton & Dayton Ry. bridge 8 over Mill Creek, south abutment, east end, first step below bridge seat course, 6 inches west of east face, 12 inches south of north face; chiseled square (C. & G. S. b. m. J4)-----	573.305
Lockland, Hamilton County, Collectors Lock, 10 feet north of north side of Lock Street on east wall of lock, on coping stone, 5.6 feet north of south gate, 4 inches east of west face of wall; chiseled square (C. & G. S. b. m. T4)-----	574.085
Renssalaer, about 1 mile north of Carthage, on Cincinnati, Hamilton & Dayton Ry., at intersection of Hamilton pike and Forest Avenue, on north abutment of viaduct, west end, first step below bridge seat course, on southwest quarter of stone, 6 inches from face and 8 inches from end of stone, 18.5 feet north of outside rail; chiseled square (C. & G. S. b. m. K4)-----	538.987
Carthage, southeast corner of Jackson and Fourth streets, west side of Christian Church building (1879), on water table at base of tower, 6 inches north of south angle of tower and 1.8 feet above ground; brass bolt marked with a horizontal line (C. & G. S. b. m. L4)-----	551.403

Carthage, 10 miles north of Cincinnati on line of Miami & Erie Canal, on south abutment of Fourth Street Bridge over canal, west end, 6.5 feet above towpath and 2.5 feet below floor of bridge on second step above retaining wall, on seventh step below coping, 2 inches from end and 6 inches from face of stone; chiseled square (C. & G. S. b. m. S4)-----	Feet. 551. 264
St. Bernard, about 8 miles north of Cincinnati, on Miami & Erie Canal and Baltimore & Ohio Southwestern R. R., on east face of west abutment of railroad bridge over canal, 4 feet above towpath, in eighth course of masonry from top, 5.75 feet north of prominent corner in southwest bridge-seat stone; horizontal groove in bottom of square cut three-eighths inch deep and 1 inch square, lettered "U. S. C. & G. S." (C. & G. S. b. m. R4)-----	548. 352

TOLEDO QUADRANGLE.

Alexis southwest along highways and Cincinnati, Hamilton & Dayton Ry. to Roachton.

Alexis, Lucas County, at intersection of Lake Shore & Michigan Southern Ry. and Ann Arbor R. R., west of Lake Shore & Michigan Southern Ry. track, northeast of Ann Arbor R. R. track, on west abutment, south side, of long culvert of very large stone, first step below coping at northwest corner, 5 inches from either face; chiseled square, marked "B M" (C. & G. S. b. m. U)-----	585. 481
Toledo, northern part of city near Maumee River, west side of Summit Avenue and north corner of Columbus Avenue, on frame building; copper nail on east side of sign (C. & G. S. b. m. Toledo City No. 165)-----	596. 419
Toledo, north bank of Maumee River, 348 feet above River Place, 4.38 feet south of south edge of flagging in River Park; stone triangulation monument set in ground. The point taken is the east point of the triangle cut in stone (C. & G. S. b. m. Park Δ)-----	601. 119
Toledo, north bank of the Maumee River, on north abutment of the Pennsylvania R. R. bridge, east side, on retaining wall, 15 inches west of the northwest corner of bridge-seat block and 3 feet above it; chiseled square, marked "B M" (C. & G. S. b. m. V)-----	589. 117
Toledo, northeast corner of Water and Madison streets, on southwest corner of traction company's power house, on top of sandstone water table just where brick begins, about 3 feet above sidewalk; marked by a chiseled square (C. & G. S. b. m. power house)-----	582. 703
Toledo, on United States custom office building, southeast corner of Madison and St. Clair Streets, 15 feet south of south side of entrance on St. Clair Street, on south face of pilaster angle, 6 inches east of west face and 4.9 feet above ground; brass bolt marked with horizontal line (C. & G. S. b. m. W)-----	603. 888
Toledo, northwest corner of customhouse building, cross cut on top of granite water table just where sandstone begins; outer quarter of cross (C. & G. S. b. m. post office)-----	602. 560
Toledo, southwest corner of Madison and Summit streets, on northeast corner of water table of Roberts's drug store; cross (C. & G. S. b. m. Toledo City No. 44)-----	596. 370
Toledo, on east abutment of Pennsylvania Railroad bridge over Maumee River, north of track, on coping stone, 9 inches north of north side of guard timber of track; highest point at northerly part of a cross (C. & G. S. b. m. Toledo City No. 296)-----	590. 352

Perrysburg, about 3 miles north of, on road to Toledo (on which electric railroad runs), 480 feet north of August Broke's house, in west face of culvert under road, 26 inches north of north spring of arch and 28 inches above top of arch (underside); brass bolt marked with a horizontal line (C. & G. S. b. m. X)-----	Feet. 603. 129
Perrysburg, 1.043 feet south of station, on west end of culvert, under Cincinnati, Hamilton & Dayton Ry. track, 32 inches north of spring line and 18 inches above it; brass bolt, 26 inches above ground, marked with a horizontal line (C. & G. S. b. m. Y)-----	615. 696
Roachton, Wood County, just north of north line of Middleburg Township, about 300 feet west of Cincinnati, Hamilton & Dayton Ry. track; in foundation of residence of W. C. Parrin, center of east side, in east face of bay window, 2.2 feet south of north angle and 1.8 feet above ground, in second brick below wooden water table; horizontal line in brass bolt leaded horizontally (C. & G. S. b. m. Z)-----	647. 595

BOWLING GREEN QUADRANGLE.

Hull Prairie southwest along Cincinnati, Hamilton & Dayton Ry. to Tontogany.	
Hull Prairie, Wood County, on Cincinnati, Hamilton & Dayton Ry., about 200 feet south of station, in southeast quarter of stone culvert on first step below bridge seat, 5 inches east of east end of bridge seat course; chiseled square 4.5 inches south of north face (C. & G. S. b. m. A1)-----	660. 514
Haskins, 820 feet west of Cincinnati, Hamilton & Dayton Ry. track on Sugar Street, south face of public school building, in water table 4 feet 10 inches above ground, 1 foot 9 inches east of east side of entrance; brass bolt marked with a horizontal line (C. & G. S. b. m. B1)-----	667. 702
Tontogany, southeast corner of Main and Broad streets, at west side of entrance to Waltz store, "1894" in northwest corner of iron plate under column; top of a surface seven-eighths inch square marked by a cut of a cold chisel (C. & G. S. b. m. C1)-----	669. 510

McCLURE QUADRANGLE.

Tontogany southwest along Cincinnati, Hamilton & Dayton Ry. to Custar.	
Weston, Wood County, very near south center of sec. 35, about 150 feet east of Cincinnati, Hamilton & Dayton Ry. track, on south side of Main Street, at east side of east entrance on northeast corner of iron pedestal; top of surface marked by a square cut with a cold chisel (C. & G. S. b. m. D1)-----	683. 611
Weston, in foundation of First Methodist Church, erected in 1895, in north face of foundation, 3 feet 10 inches west of west face of belfry tower, in second course of masonry below the water-table course, 2 feet above ground; brass bolt marked with horizontal line (C. & G. S. b. m. E1)-----	682. 705
Weston, about 100 feet east of Cincinnati, Hamilton & Dayton Ry. track, north side of Main Street, northwest corner of the Citizens' Bank building; top of corner stone just below brick (C. & G. S. b. m. Weston Village)-----	682. 029
Milton Center, east side of Railroad Street, at south side of east and west alley, in stone building of John Biverstock, on north end of base stone below window; chiseled square (C. & G. S. b. m. F1)-----	689. 824

Custar, northwest corner of Superior and Linn Streets, in north-east corner of foundation of public school building, 1 foot 10 inches west of east face and 3 feet 8 inches above ground; brass bolt marked with a horizontal line (C. & G. S. b. m. G1)----- Feet. 696.637

OTTAWA QUADRANGLE.

Leipsic southwest along Cincinnati, Hamilton & Dayton Ry. to Ottawa.

Ottawa Township, Putnam County, on line of Cincinnati, Hamilton & Dayton Ry., about 0.5 mile below G. W. Miller's residence and 492 feet north of milepost 50 T, on southeast quarter of stone culvert 54, on bridge seat course, 6 inches north of east end of stone above, and 2 feet 10 inches east of wing angle; chiseled square (C. & G. S. b. m. M1)----- 743.696

Ottawa, south side of Mainleron Street, about 170 feet west of railroad, on large stone step of foundation, 5 feet east of east side of east pillar of stairway entrance; chiseled square (C. & G. S. b. m. N1)----- 729.338

COLUMBUS GROVE QUADRANGLE.

Ottawa south along Cincinnati, Hamilton & Dayton Ry. to Lima.

Columbus Grove, about 3 miles north of, 110 feet above milepost 56, on the southwest quarter of abutment of Cincinnati, Hamilton & Dayton Ry. bridge 51, on second step below bridge seat course, about 6 inches from face and 6 inches from edge of stone; chiseled square (C. & G. S. b. m. O1)----- 746.442

Columbus Grove, north side of Sycamore Street, about 33 feet east of Cincinnati, Hamilton & Dayton Ry., on the A. H. Day Building, at the left side of east entrance (in 1899 occupied by post office), on southwest corner of iron plate under iron post; square cut with a cold chisel (C. & G. S. b. m. P1)----- 770.993

Columbus Grove, Theodore Kunneke Building, southwest corner of Sycamore and High Streets, in water table on the south side of Sycamore Street, about 24 feet west of east corner, at head of stair descending into basement; brass bolt marked with a horizontal line (C. & G. S. b. m. Q1)----- 775.919

Monroe, Allen County, 2.5 miles north of, on Cincinnati, Hamilton & Dayton Ry., 50 feet below public road crossing, on southeast quarter of culvert over Sycamore Run, southwest corner of second step; chiseled square (C. & G. S. b. m. R1)----- 790.435

West Cairo, 410 feet west of Cincinnati, Hamilton & Dayton Ry. track, south side of main cross street, on the northwest corner of foundation of dwelling of Charles Wallis, in north face near west angle of water table; brass bolt with horizontal line (C. & G. S. b. m. S1)----- 814.618

Bath township, midway between West Cairo and Lima, on Cincinnati, Hamilton & Dayton Ry., at east-west road on section line between sections 17 and 18, in front of Henry Boose's residence, in the northeast quarter of viaduct arch, under track, on south end of seventh step from top; chiseled square (C. & G. S. b. m. T1)----- 836.395

LIMA QUADRANGLE.

Lima south along Cincinnati, Hamilton & Dayton Ry. to Pushada township.

Lima, Allen County, Cincinnati, Hamilton & Dayton Ry. station, east side of building, in angle south of main structure, on west end of doorsill stone; chiseled square at time of leveling, entrance to train dispatcher's office (C. & G. S. b. m., U1)-----	Fect. 879.071
Lima, southeast corner of High and Elizabeth streets, northeast corner of post-office building, in water table, east face, 315 feet south of the north corner and 4.2 feet above the flagging; horizontal cut in center of a 1-inch square cut, one-fourth inch deep, marked "U.S.C.&G.S." (C. & G. S. b. m. V1)-----	877.449
Lima, southwest corner of High and Main streets; top of north fire-plug of city hydrant (C. & G. S. b. m., Lima City)-----	872.705
Cridersville, 1.2 miles north of, on Cincinnati, Hamilton & Dayton Ry., on northwest quarter of abutment of bridge 46, over Little Haw Creek, on west end of bridge-seat course, 9 inches north of south face; highest point on square with rounded corners 1.8 inches on a side and lettered "U.S.C.&G.S." (C. & G. S. b. m., W1)-----	868.942
Cridersville, Auglaize County, on Cincinnati, Hamilton & Dayton Ry., 66 feet west from main track and 45 feet north of north side of Main Street, in stone window sill of the Hover Bros.' block; brass bolt marked with horizontal line (C. & G. S. b. m., X1)-----	892.389
Wapakoneta, 0.25 mile north of, on Cincinnati, Hamilton & Dayton Ry., in northeast quarter of bridge 45 over Auglaize River, in bridge-seat course on east part of receding angle, 1.9 meters below top of retaining wall; chiseled square (C. & G. S. b. m., Y1)-----	866.109
Wapakoneta, east face of county courthouse building, 17 feet from northeast corner of north pillar between basement windows, 3 feet above ground and 16 inches south of the north edge of pillar; brass bolt marked with horizontal line (C. & G. S. b. m., Z1)-----	898.519
Pushada township, on Cincinnati, Hamilton & Dayton Ry., 2 miles south of Wapakoneta, on southeast quarter of bridge 44 over Pushada Creek, on bridge-seat course, 2 feet west of east end of shelf, 7 inches back from edge; elevated point circumscribed by square cut in stone lettered "U.S.C.&G.S." (C. & G. S. b. m., A2)---	915.911

SIDNEY QUADRANGLE.

Botkins south along Cincinnati, Hamilton & Dayton Ry. to Sidney.

Botkins, Shelby County, north side of main cross street one-fourth mile east of the Cincinnati, Hamilton & Dayton Ry., in top corner of stone foundation of public school building, in south face, 2.5 feet east of west corner, 2.3 feet above ground; brass bolt marked with horizontal line (C. & G. S. b. m. B2)-----	1,004.985
Anna, First Methodist Church building, corner of Pike and Second streets, on the east side of small buttress north of east door, 2.4 feet above ground and 0.49 foot south of north edge of buttress; brass bolt marked with horizontal line (C. & G. S. b. m. C2)----	1,030.388
Swanders, 0.5 mile north of, northeast quarter of stone culvert dated 1892 under Cincinnati, Hamilton & Dayton Ry. track, top of third step below coping, 5 inches from its south face and 5 inches from east face of next step above; chiseled square (C. & G. S. b. m. D2)-----	1,013.247

Franklin township, on Cincinnati, Hamilton & Dayton Ry., halfway between mileposts 101 and 102 from Cincinnati, lowest point of grade, southeast quarter of culvert, on second step, about 4.3 feet below coping; chiseled square (C. & G. S. b. m. E2)-----	Fect. 1,006.033
Sidney, on Cincinnati, Hamilton & Dayton Ry., at southwest quarter of bridge 40 over Cleveland, Cincinnati, Chicago & St. Louis Ry., on northwest corner of bridge seat course, 6 inches from north and west faces; chiseled square (C. & G. S. b. m. F2)-----	1,000.761
Sidney, northwest corner of courthouse square, 48 $\frac{1}{2}$ feet above city zero point. The mark was made by burying a sandstone 20 inches square and 2 feet high with another stone 2 feet high and 14 inches square at the bottom and 3 inches square at the top, set on top of the sandstone. Both stones were firmly embedded in the ground up to the top of the second stone, above which is 4 inches of cement in which a cross is cut (C. & G. S. b. m. Sidney City)---	957.060
Sidney, county courthouse, on west face of foundation of north vestibule 2 feet 1 inch south of north projecting edge of foundation and 3 feet 5 inches above ground; brass bolt marked with horizontal line (C. & G. S. b. m. G2)-----	962.675
Clinton township, 1.2 miles south of Sidney, on line of canal and Cincinnati, Hamilton & Dayton Ry., southwest quarter of bridge over canal, on northwest corner of large bridge seat stone 6 inches from each face; chiseled square (C. & G. S. b. m. H2)-----	961.836

TROY QUADRANGLE.

Sidney south along Cincinnati, Hamilton & Dayton Ry. to Troy.

Kirkwood, Shelby County, on schoolhouse (Pontiac School), on east face, center of second pilaster from south end, on water table, about 2 feet above ground; brass bolt, marked with horizontal line (C. & G. S. b. m. I2)-----	986.092
Springcreek township, Miami County, on line of Cincinnati, Hamilton & Dayton Ry., midway between Kirkwood and Piqua, on bridge over Bush Creek, east end of west abutment, bridge seat course, 6 inches from east and south faces; chiseled square (C. & G. S. b. m. J2)-----	934.258
Piqua, Cincinnati, Hamilton & Dayton Ry., culvert 26, over Albino Pike, northeast quarter, on center of east stone of bridge seat course; highest point circumscribed by a 1-inch square lettered "U. S. C. & G. S." (C. & G. S. b. m. K2)-----	898.948
Piqua, on Pennsylvania R. R., north end of east abutment of bridge over Miami River, top of bridge seat course, 14 inches north of truss and 8 inches back from face; highest point of 4-inch square on side (C. & G. S. b. m. Pennsylvania R. R.)-----	865.427
Piqua, southwest corner of crossing of Downing Street and Pittsburg, Chicago, Cincinnati & St. Louis Ry., northeast corner of malt house of J. G. Schmidlapp (1889), on water table, 3.9 feet above the sidewalk and 3.28 feet south of corner; brass bolt marked with a horizontal line (C. & G. S. b. m. L2)-----	876.864
Farrington, on Miami & Erie Canal, 3 miles south of Piqua, lock built by Isaac Van Ness (1835), on west side of tumble on northwest corner of coping stone, 6 inches from either face; chiseled square (C. & G. S. b. m. M2)-----	855.212

Concord Township, Miami & Erie Canal lock 2.5 miles north of Troy, east jaw of lock, east coping stone of wall, 6 inches from south face and 18 inches from east end of wall; chiseled square (C. & G. S. b. m. N2)-----	Feet. 844. 520
Troy, on Miami & Erie Canal, Troy lock, east jaw, on coping stone, west of east end of wall and 6 inches north of south face; chiseled square (S. & G. S. b. m. O2)-----	835. 440
Troy, southwest corner of courthouse, on south face, 2.46 feet from west corner and 3.9 feet above ground; brass bolt marked with a horizontal line (C. & G. S. b. m. P2)-----	841. 048
Troy, south side of Miami Street, northeast corner of first house west of Lutheran Church; top of water table (C. & G. S. b. m. Troy City)-----	837. 685
Troy, southern limit of town, intersection of Miami & Erie Canal and Cleveland, Cincinnati, Chicago & St. Louis Ry., on east abutment of railroad bridge over canal, on west face of abutment, 4.3 feet above ground and 7.2 feet north of south end of abutment; brass bolt marked with a horizontal line (C. & G. S. b. m. Q2)-----	831. 146
Concord township, 1.2 miles south of Troy, on Miami & Erie Canal, south end of lock, east side, 13 feet south of king post at beginning of curve on northwest corner of coping stone; surface circumscribed by square 1.2 inches on a side (C. & G. S. b. m. R2)-----	827. 278

DAYTON QUADRANGLE.

Troy south along Cincinnati, Hamilton & Dayton Ry. to Dayton.

Concord township, Miami County, 70 feet below lock, 2.5 miles south of Troy, southwest quarter of masonry of feeder lock, northwest corner of sixth step from top; chiseled square (C. & G. S. b. m. S2)-----	812. 835
Tippecanoe City, on Miami & Erie Canal, east side of Tippecanoe Lock, south end, on center coping stone of wing; chiseled square (C. & G. S. b. m. T2)-----	806. 931
Tippecanoe City, north side of Main Street, on first building east of canal, power house of Tippecanoe Electric Light & Water Co., southeast corner, south face, on water table, 5 inches below brick work and 7 inches north of corner; brass bolt, marked with a horizontal line (C. & G. S. b. m. U2)-----	801. 210
Van Buren township, on Miami & Erie Canal, 2.5 miles below Tippecanoe City, Picayune Lock, east jaw, on coping stone, 12 feet south of south king-pots and 6 inches east of edge of wall; chiseled square (C. & G. S. b. m. V2)-----	797. 227
Tadmor, Montgomery County, on Miami & Erie Canal, east abutment of steel bowstring girder bridge over canal, northwest corner, on north face, 1 foot east of corner and 3.5 feet above ground; brass bolt, marked with a horizontal line (C. & G. S. b. m. W2)-----	791. 027
Butler township, on Cincinnati, Hamilton & Dayton Ry., 2.4 miles below Tadmor, on bridge 8 over Poplar Creek, west side of north abutment, first step below bridge seat, 5 inches east of west face of stone and 7 inches north of south face; chiseled square (C. & G. S. b. m. X2)-----	773. 414
Harrison township, on line of the Cincinnati, Hamilton & Dayton Ry., about 1 mile north of Dayton city limits, on north abutment of bridge over Miami River, west side of abutment, 6 inches south of north edge and 17 inches east of west edge; chiseled square (C. & G. S. b. m. Y2)-----	754. 670

Dayton, Cincinnati, Hamilton & Dayton Ry. bridge 2 over Mad River, south abutment, east end, 22 inches west of east end of stone and 6 inches south of north face; chiseled square (C. & G. S. b. m. Z2)	Feet. 744.420
Dayton, northwest corner of Main and Sixth Streets (city work-house); point of pyramidal top of stone fence post 3.5 feet above side walk (C. & G. S. b. m. Dayton City)	743.731
Dayton, southwest corner of South Main and West Fifth streets, southeast corner of post office, east face, on water table, 3.9 feet above pavement and 1 foot north of corner; brass bolt, marked with a horizontal line (C. & G. S. b. m. A3)	743.435
Dayton, Cincinnati, Hamilton & Dayton Ry. bridge over Miami River one-third mile south of union station, west pier, north end, on nose of coping stone of pier, midway between sides and 20 inches back from point; chiseled square (C. & G. S. b. m. B3)	744.068

WAYNESVILLE QUADRANGLE.

Dayton south along Cincinnati, Hamilton & Dayton Ry. to Alexandria.

Dayton, 2.5 miles south of, in Van Buren township, on Cleveland, Cincinnati, Chicago & St. Louis Ry., viaduct bridge over highway, midway between Miami River bridge and canal bridge, on north abutment, southeast corner of bridge seat course, 9 inches from either face and 15 feet east of truss; chiseled square (C. & G. S. b. m. E4)	736.673
Dayton, 4 miles south of, on Cincinnati, Hamilton & Dayton Ry., southwest quarter of culvert 39, west end of bridge seat course, 8 inches east of west end and 5 inches south of west face; chiseled square (C. & G. S. b. m. C3)	728.376

MIAMISBURG QUADRANGLE.

Alexandria southwest along Cincinnati, Hamilton & Dayton Ry. and Cleveland, Cincinnati, Chicago & St. Louis Ry. to Middletown.

Alexandria, 0.7 mile south of, in Miami township, on line of Cleveland, Cincinnati, Chicago & St. Louis Ry., 300 feet north of street car power house, on pier of stone culvert over ditch, east end, 10 inches west of east face and 18 inches south of point; chiseled square (C. & G. S. b. m. D4)	722.157
Whitfield, 0.8 mile north of, in Montgomery County, on line of Cincinnati, Hamilton & Dayton Ry., north abutment of bridge 36 over Parthin Creek, east end, on wing wall bridge seat coping; 4.9 feet east from chord and 9 inches from retaining wall; chiseled square (C. & G. S. b. m. D3)	714.310
Carrollton, on Miami & Erie Canal, on tumble of lower Carrollton lock, west side, south end, on second step below coping, 4 inches north of south face and 6 inches west of east face of stone; chiseled square (C. & G. S. b. m. C4)	711.425
Miamisburg, on line of Cleveland, Cincinnati, Chicago & St. Louis Ry., in north end of town, 500 feet north of Enterprise Carriage Works, on bridge 250, over Sycamore Creek, north abutment, west end, on retaining wall, second step below coping, 14 inches east of west face and 6 inches north of south face; chiseled square (C. & G. S. b. m. B4)	707.776

Miamisburg, 0.2 mile north of station, on Cincinnati, Hamilton & Dayton Ry., east end of north abutment of bridge over Bear Creek on bridge seat course at east end of wing wall, 6 inches from south face and 12 inches from east face; highest point in rounded square, lettered U. S. C. & G. S. (C. & G. S. b. m. E3)-----	Feet. 699. 729
Miamisburg, on west abutment of road bridge over Miami River at Cincinnati, Hamilton & Dayton Ry. station, on south face of retaining wall, 7 feet west of angle in eighth course of masonry below the coping; brass bolt marked with horizontal line (C. & G. S. b. m. F3)-----	696. 984
Miamisburg, south end of village, about 8 feet east of center of Third Street, north side of Smith Street, 6.72 feet west of center of Cleveland, Cincinnati, Chicago & St. Louis track, 2.4 feet below top of rail on bridge seat course of masonry; chiseled square (C. & G. S. b. m. A4)-----	705. 123
Miamisburg, 2.2 miles south of, on Cincinnati, Hamilton & Dayton Ry., culvert 32, northeast quarter, fourth step below bridge seat course, 3 inches west of east face and 6 inches north of south face; chiseled square (C. & G. S. b. m. G3)-----	693. 755
Franklin, 2 miles north of, Cleveland, Cincinnati, Chicago & St. Louis Ry. culvert 223, over race from lock, south abutment, second stone from east end of bridge seat course, 7 inches south of north face and 6 inches west of east face; chiseled square (C. & G. S. b. m. Z3)-----	704. 111
Carlisle, 0.5 mile north of, Warren County, Cincinnati, Hamilton & Dayton Ry. culvert 31 over creek, north abutment, east end, on bridge seat course, 6 inches from east face, 12 inches north of south face; chiseled square (C. & G. S. b. m. H3)-----	692. 078
Franklin, plant of Franklin Water Works, northwest corner of Sixth Street at Cleveland, Cincinnati, Chicago & St. Louis Ry. crossing, southeast corner of water table; highest point of rounded square exactly in angle (C. & G. S. b. m. I3)-----	688. 965
Carlisle, 2.2 miles south of, Cincinnati, Hamilton & Dayton Ry. bridge 30 over Big Twin Creek, on south pier of two on east end, center of nose, 15 inches back from point; chiseled square (C. & G. S. b. m. J3)-----	677. 655
Franklin, 1 mile south of station, Miami County, Cleveland, Cincinnati, Chicago & St. Louis Ry. bridge 254 over Clear Creek, south abutment, west side on second course below top of retaining wall, 3 feet above bridge seat course, 5 inches from both west and north faces; chiseled square (C. & G. S. b. m. Y3)-----	684. 451
Poast Town, 0.5 mile south of, Butler County, Cincinnati, Hamilton & Dayton Ry. bridge 26 over Brown Run, on east end of wing wall, north abutment, first step below bridge seat course, southeast corner of stone; chiseled square (C. & G. S. b. m. K3)-----	658. 288
Middletown, 2.8 miles north of, Cleveland, Cincinnati, Chicago & St. Louis Ry. culvert 270, south abutment, east end of bridge seat course, 13 inches south of north face and 10 inches west of east face; chiseled square (C. & G. S. b. m. X3)-----	674. 697
Middletown, 400 feet north of station, in village of Keno, on Cincinnati, Hamilton & Dayton Ry., north abutment of culvert 21, east end, on first step below bridge seat course, 6 inches west of east face and 6 inches north of south face; chiseled square (C. & G. S. b. m. L3)-----	643. 037

Middletown, eastern part of city, about 493 feet west of Cleveland, Cincinnati; Chicago & St. Louis Ry. track, southwest corner of Third and Grimes streets, on east face of Kimball block, 12 inches south of north corner and 3.5 feet above flagging; brass bolt marked with a horizontal line (C. & G. S. b. m. M3)-----
 Feet. 666.502

MASON QUADRANGLE.

Middletown southwest along Cincinnati, Hamilton & Dayton Ry. to Rockdale.

Excello Mills, Butler County, on Miami & Erie Canal lock, west wall of tumble, north end, on end coping stone 6 inches from north face and 11 inches from east face; chiseled square (C. & G. S. b. m. W3)-----
 638.232

Trenton, 1 mile northeast of, Cincinnati, Hamilton & Dayton Ry. bridge over Hill Creek, on east end of pier, in center of nose, 18 inches back from point; chiseled square (C. & G. S. b. m. N3)-----
 633.008

Le Sourdsville, 328 feet southwest of, on line of Cincinnati, Hamilton & Dayton Ry., on north retaining wall, east end of aqueduct over canal, opposite north end of railway bridge over creek, on third stone from end, 16 inches from south face and 8 inches from east face; highest point in square lettered "U.S.C.&G.S." (C. & G. S. b. m. V3)-----
 624.938

Busenbark, 1 mile south of, 0.8 mile northeast of Overpeck, on line of the Cincinnati, Hamilton & Dayton Ry., on arch culvert about 66 feet south of milepost C. 31, on northeast corner of stone, about 6 inches from either face; chiseled square (C. & G. S. b. m. O3)-----
 635.355

Flockton southeast along Cincinnati, Hamilton & Dayton Ry. to Glendale.

Flockton, 1,000 feet west of, on culvert 34, west abutment, north end; highest point in square 2½ inches on a side (C. & G. S. b. m. Pennsylvania R. R. No. 23)-----
 605.650

Jones, 1.5 miles north of, on line of the Cincinnati, Hamilton & Dayton Ry., 4.5 miles south of Hamilton, on viaduct bridge 11, north abutment, east end, on second step below bridge-seat course, on southeast corner of stone, 6 inches from either face; chiseled square (C. & G. S. b. m. G4)-----
 638.992

Port Union, in culvert 32, north abutment, east end; highest point in square 2.5 inches on a side (C. & G. S. b. m. Pennsylvania R. R. No. 21)-----
 596.090

Crescentville, 1 mile north of, on culvert 30, north abutment, east end; highest point in square 2.5 inches on a side (C. & G. S. b. m. Pennsylvania R. R. No. 20)-----
 589.408

Crestvue, 0.2 mile south of, Cincinnati, Hamilton & Dayton Ry., stone culvert over Carmins Creek, southwest quarter, on end coping stone, 10 inches east of west face and 5 inches north of south face; chiseled square (C. & G. S. b. m. H4)-----
 646.878

Crescentville, 0.5 mile south of, on railroad culvert 29, on north abutment, east end; highest point in square 2.5 inches on a side (C. & G. S. b. m., Pennsylvania R. R., No. 19)-----
 579.163

Port Union, 2 miles south of, on bridge 27 over creek, east end of north abutment; highest point in square 2.5 inches on a side (C. & G. S. b. m. Pennsylvania R. R. No. 17)-----
 573.704

Glendale; 1 mile south of, Cincinnati, Hamilton & Dayton Ry., culvert 9, northwest quarter, first step below bridge-seat course, 5 inches east of west face and 10 inches north of south face; chiseled square (C. & G. S. b. m. I4)-----
 Feet. 607. 200

HAMILTON QUADRANGLE.

Rockdale south along Cincinnati, Hamilton & Dayton Ry. to Flockton.

Rockdale, 0.2 mile north of, on Cincinnati, Hamilton & Dayton Ry., west end of stone culvert covered by roadbed, on coping stone, 8 inches from south face and 6 inches from west face; chiseled square (C. & G. S. b. m. U3)----- 630. 346

Hamilton, 2.5 miles north of station, Cincinnati, Hamilton & Dayton Ry. bridge 16 over Miami River, on retaining wall at north end of bridge seat, 4 inches from south and east faces; chiseled square (C. & G. S. b. m. P3)----- 597. 651

Woodsdale, 0.25 mile north of, on Cincinnati, Hamilton & Dayton Ry., on south abutment of bridge over Campbells Creek, west end of bridge seat course, on large stone, 6 inches from north and west faces; highest point in circumscribed 1-inch square (C. & G. S. b. m. T3)----- 616. 951

Hamilton, Butler County, on Cincinnati, Hamilton & Dayton Ry., 0.9 mile north of Union Station, at three-arched stone bridge over Old River, on east side, north end, on second step below coping of wing wall, 5 inches from both east and south faces; highest point in circumscribed square (C. & G. S. b. m. Q3)----- 591. 098

Hamilton, on foundation of courthouse, northeast corner, in reentrant angle, 15 inches east of east pilaster of basement door and 3 inches north of wall, being north half of west edge of surface inclosed in 2.5-inch square lettered "Datum, city elevation 100¹" (C. & G. S. b. m. Hamilton city)----- 601. 631

Hamilton, south side of High Street, in east face of courthouse, at its northeast corner, 3.9 feet south of corner, which is cornerstone of building, on first stone south of cornerstone; brass bolt marked with horizontal line (C & G. S. b. m. R3)----- 605. 317

Hamilton, in southeast quarter of city, south face of Cincinnati, Hamilton & Dayton station, on water table 33.5 inches from southwest corner and 2 inches above brick paving; chiseled square (C. & G. S. b. m. S3)----- 596. 001

Hamilton, 2 miles south of, on east end of small stone culvert opposite telegraph pole 745, Pennsylvania R. R., being highest point on square 2.25 inches on a side (C. & G. S. b. m. telegraph pole No. 745)----- 610. 259

Hamilton, 2.2 miles south of, Cincinnati, Hamilton & Dayton R. R. culvert 13 (cattle pass), north side, east end, on fifth step below bridge seat course, 5 inches from south and east faces; chiseled square (C. & G. S. b. m. F4)----- 602. 340

Flockton, 2 miles north of, on culvert 35a, east side, north end; highest point of square (C. & G. S. b. m. Pennsylvania R. R. No. 24)----- 613. 166

WEST CINCINNATI QUADRANGLE.

Ivorydale south to Cincinnati, thence west to North Bend.

Ivorydale, suburb of Cincinnati, on Cincinnati, Hamilton & Dayton Ry., 100 feet south of station, on north abutment of bridge 4 over Mill Creek, west end of bridge-seat course, 6 inches north of obtuse angle of wing wall; chiseled square (C. & G. S. b. m. M4)-----	Feet. 499.485
Winston Springs, on Cleveland, Cincinnati, Chicago & St. Louis Ry., on north abutment of bridge over Mill Creek, west end, on coping stone. The original disk has been removed; the part taken as the bench mark is highest point of ring cut in stone (C. & G. S. b. m. U.S.G.S. No. 498)-----	497.974
Cincinnati, north part of city, on Miami & Erie Canal, 0.5 mile north of Clifton Springs, on Spring Grove, tumble of canal, on north wall, second step below bridge seat, 6.6 feet west of west side of wooden bridge, 5 inches from face of stone and 6 inches from end of stone; chiseled square (C. & G. S. b. m. Q4)-----	541.285
Cincinnati, north part of city, on Baltimore & Ohio R. R., on south abutment of bridge 3 over Spring Grove Avenue, east end, on first course below bridge-seat course, on top of first course of sandstone above limestone, on its northeast corner, 6 inches from either face; chiseled square (C. & G. S. b. m. N4)-----	500.969
Cincinnati, west part of city, Baltimore & Ohio R. R. viaduct 90 over Gist Street, north abutment, west end, on second step and second course below bridge-seat course, 5 feet 6 inches below top of rail, 16 feet west of rail, 6 inches from face of and 8 inches from end of stone; chiseled square (C. & G. S. b. m. O4)-----	491.656
Cincinnati, northeast corner of Richmond and Freeman streets, on extreme southwest corner of water table of building; chiseled square (C. & G. S. b. m. Cincinnati City)-----	504.316
Cincinnati, east end of Richmond Street, east side of Central Avenue, 4.7 feet south of prolongation of north curb line of Richmond Street, on southwest corner of four-story brick building owned by Mrs. Sarah Neare, on south end of doorstone, 6 inches from either face corner; square cut (C. & G. S. b. m. P4)-----	545.301
Cincinnati, courthouse, 5.37 feet directly above No. 1 or T; horizontal scratch on a silvered metal plate set flush with the masonry and covered by an iron plate, locked in place (C. & G. S. b. m. Reference mark to Cincinnati City No. 1)-----	545.349
Cincinnati, northeast corner of Fifth and Main streets, east side post-office building, north end of third window base from southeast corner, 8 inches south from pilaster base supporting columns, 8 inches back (west) from edge of stone; west of deep area way approached only through window of building or by aid of plank; brass bolt leaded vertically, marked with circle (C. & G. S. b. m. Y4)-----	553.078
Cincinnati, northeast corner of Front and Butler streets, on west end pier of Newport Bridge, beside Louisville & Nashville R. R. bridge, on third course above ground, 10 inches north of south face and 4.4 feet above pavement; brass bolt marked with a horizontal line (C. & G. S. b. m. Z4)-----	490.818

Cincinnati, north entrance to waterworks building on Front Street, 0.28 miles above Louisville & Nashville bridge, on west side of building, on iron doorsill, southwest end, 5 inches north of south jamb of door and 5 inches back from front edge of sill; center of cross cut diagonally across corrugations. This bench mark is said by city authorities and United States Gage Book to be at elevation corresponding to 60.389 on gage (C. & G. S. b. m. Gage B M)-----	Feet. 491. 633
Cincinnati, west part of city, on east abutment of lower road bridge at Eighth Street over Mill Creek, south side, 71 feet east of west end of this abutment and 15.5 feet west of east end, and 2.17 feet below coping; brass bolt marked with a horizontal line. An arrow cut on vertical face of coping points downward and toward the bench (C. & G. S. B. m. U4)-----	493. 987
Cincinnati, west part of city, on bank of Ohio River, between railroad tracks and Front Street, in vertical plane with west wall of first house (No. 2658) west of Lutheran Church "Deutsche Ves. Ev. Prot. Martini Kirche A. D. 1892," on coping of heavy retaining wall, called "Big Four wall," about 160 feet east of west end of wall; chiseled square (C. & G. S. b. m. V4)-----	504. 328
Cincinnati, west end of Cleveland, Cincinnati, Chicago & St. Louis Ry. retaining wall between Front Street and railroad tracks, 5.7 feet below top of coping and 6 inches north of south face of wall; center of indented point surrounded by triangle (C. & G. S. b. m. U.S.H.)-----	499. 589
Sedamsville, intersection of Delhi Avenue and street car tracks, on cement walk near wall at northeast corner of Hartman's saloon, 8 inches west of corner of water table and 2 inches out from wall; chisel mark later enlarged to square (C. & G. S. b. m. U.S.G.S.)-----	491. 676
Cincinnati, southwest quarter of city, on Liston Avenue, opposite No. 3538, south side station of Cleveland, Cincinnati, Chicago & St. Louis Ry., on northeast corner of building, north face, on first course of stone below water table, 3.9 feet above sidewalk, and 4 inches west of east corner; brass bolt marked with a horizontal line (C. & G. S. b. m. W4)-----	494. 482
St. Joseph, 8.5 miles west of Cincinnati, on Cleveland, Cincinnati, Chicago & St. Louis Ry., on north bank of Ohio River, 48 feet west of southwest corner of station and 56.25 feet south of south face of station, 4.8 feet south of south edge and 2.7 feet below top of retaining wall of Cleveland, Cincinnati, Chicago & St. Louis Ry., on east end of stone box culvert under road crossing culvert lying between Baltimore & Ohio Southwestern and Cleveland, Cincinnati, Chicago & St. Louis tracks and parallel with them; chiseled square on projecting part of south wall supporting covering stone (C. & G. S. b. m. X4)-----	485. 915
Delhi, 81 feet west of west side of Baltimore & Ohio station, stone supposed to be bench mark No. LXV of transcontinental line of 1879, nothing resembling bench identification mark was found, but a portion of the stone had been chipped off. The elevation of a low point in an irregular square was taken. Stone forms a foundation stone of Cleveland, Cincinnati, Chicago & St. Louis station platform and is below plank (C. & G. S. b. m. Canal stone)-----	487. 791

Delhi, 2 miles west of, on coping stone of double arch culvert, north side, over buttress between east arch over Muddy Creek and west arch over a railroad track, 85 feet east of west end of coping, 9 inches east of north face and 2.2 feet above top of rail; chiseled square (C. & G. S. b. m. B5)-----	Feet. 494.157
North Bend, Hamilton County, on line of Cleveland, Cincinnati, Chicago & St. Louis Ry., on viaduct bridge opposite Baltimore & Ohio Southwestern R. R. station, on east abutment, west face, 23.6 feet north of south end and 3.9 feet above ground; brass bolt marked with horizontal line (C. & G. S. b. m. C5)-----	491.765
Ohio-Indiana State line, on line of Baltimore & Ohio R. R., 2 miles east of Lawrenceburg; Ind., on railroad bridge over Miami River, east abutment, north side, 5 inches south of north face and 18 inches east of west end; chiseled square (C. & G. S. b. m. D5)---	482.633
Lawrenceburg, Dearborn County, on west side of Short Street, between Baltimore & Ohio Southwestern Ry. and High Street, on People's National Bank Building, north wall, 2.75 feet west of northeast corner and 3.9 feet above ground, in water table; brass bolt marked with a horizontal line (C. & G. S. b. m. E5)-----	483.941



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