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GEORGE OTIS SMITH, Director

Bulletin 671

SPIRIT LEVELING IN NEW YORK

1896-1905 AND 1912-1916

R. B. MARSHALL, CHIEF GEOGRAPHER

Work done in cooperation with the State



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CONTENTS.

	Page.
Introduction.....	5
Cooperation.....	5
Previous publication.....	5
Corrections.....	5
Personnel.....	6
Classification.....	6
Bench marks.....	6
Datum.....	7
Topographic maps.....	7
Precise and primary leveling.....	12
Index.....	199

ILLUSTRATION.

	Page.
PLATE I. Geological Survey bench marks.....	5





GEOLOGICAL SURVEY BENCH MARKS.

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

SPIRIT LEVELING IN NEW YORK, 1896-1905 AND 1912-1916.

R. B. MARSHALL, Chief Geographer.

INTRODUCTION.

Cooperation.—The State of New York contributed financially to the work during the years 1896 to 1905 and from 1912 to 1916, inclusive, being represented by the office of the State engineer and surveyor.

Previous publication.—The following results of spirit leveling are supplemental to and accord with the elevations contained in Bulletin 514, and are in agreement with the 1912 adjustment of precise leveling. Descriptions and elevations of bench marks in Bulletin 281 are reprinted in this volume with corrections and additions.

Bulletin 514 and this bulletin together contain practically all results of leveling in New York State by the United States Geological Survey, the Coast and Geodetic Survey, the U. S. Lake Survey, the New York State Survey, the Board of Deep Waterways, and by the Corps of Engineers, United States Army. These elevations are likely to be changed but little by any future adjustment.

Corrections.—The following corrections to Bulletin 514 should be noted:

Pages 13-17, Lyon Mountain and Dannemora quadrangles: Connection made in 1912 with Coast and Geodetic Survey bench mark at Plattsburg necessitated a readjustment of elevations, and the corrected results are published in this volume.

Pages 17-18, Massena and Potsdam quadrangles: As a result of additional connections, circuits were readjusted in November, 1916, and corrected elevations are published in this volume.

Page 25, Beaver Falls, 3 miles west of, etc.: Permission to move bench mark granted April 21, 1915. Croghan, 70 feet south of railroad, etc.: Bench mark has been reset in new steps, but no record of its elevation has been received.

Page 30, Morris, in northwest side of main entrance to high school, etc.: Elevation should be 1,158.077 feet.

Page 33, insert "South" before New Berlin, for bench mark stamped "1059 ALBANY."

Page 34, Meridale, arch bridge over Ouleout Creek, etc.: Bench mark reset November 29, 1915, at elevation 1,801.740 feet.

Page 36, Parksville, 3.5 miles southeast of, etc.: Bench mark settled, new elevation 1,684.554 feet. Ferndale, 1.0 mile southeast of, etc.: Wall in which bench mark was set has been partly overthrown, elevation doubtful.

Pages 42-43, New York City datums. (See p. 121, this volume.)

Page 125, Risby Lakes should be "Bisby Lakes."

Personnel.—The field work from 1896 to 1906, inclusive, was done under the direction of H. M. Wilson, geographer, and the later work under Frank Sutton, geographer. The work since January, 1908, was done under the general direction of R. B. Marshall, chief geographer. Credit is given in the headings of the several lists to the respective levelmen. The office work in preparation of lists was done mainly by S. S. Gannett, geographer, under the general direction of E. M. Douglas, geographer.

Classification.—The elevations are classified as precise or primary, according to the methods employed in their determination. The former are determined by lines of levels run either in both forward and backward directions or by simultaneous double-rodded lines, a high-grade instrument being used and special precautions being taken in observations and reduction to correct errors and make the line continuously good throughout. The latter or primary levels are determined with the Y level, the levels being run mostly in circuits of single lines. The allowable limit of error observed on the precise work already done by the Geological Survey in this State is represented in feet by $0.03 \sqrt{D}$ and that for the primary work by $0.05 \sqrt{D}$, in which D is the length of circuit in miles.

Bench marks.—The standard bench marks are in 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. It is split at the bottom and spread out to a width of 10 inches in order to give a firm bearing on the earth, and is set about 3 feet in the ground. A bronze or aluminum-bronze cap is riveted upon the top of the post. A third style of bench mark with abbreviated lettering (B and D, 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 $\frac{1}{8}$ 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). Another form used in 1896 and 1897 was a copper rod

4 inches long and 1 inch in diameter fastened into masonry or solid rock by driving it on a brass wedge placed in the bottom of a vertical hole, so that the top of the bolt was horizontal and thus formed the bench mark.

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 $\frac{1}{16}$ -inch steel dies on the tablets of 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 elevations determined by the United States Geological Survey and the United States Coast and Geodetic Survey are referred to mean sea level, which is the level that the sea would assume if the influence of winds and tides were eliminated. This level is not the elevation determined from the mean of the highest and the lowest tides, nor is it the half sum of the mean of all the high tides and the mean of all the low tides, which is called the half-tide level. Mean sea level is the average height of the water, all stages of the tide being considered. It is determined from hourly observations made by means of tidal gages placed at stations where local conditions, such as long, narrow bays, rivers, and like features, will not affect the height of the water. To obtain even approximately correct results these observations must extend over at least one lunar month, and if accuracy is desired they must extend over several years. At ocean stations the half-tide level and the mean sea level usually differ but little. It is assumed that there is no difference between the mean sea levels as determined from observations in the Atlantic Ocean, the Gulf of Mexico, and the Pacific Ocean.

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

Topographic maps.—Maps of the following quadrangles, wholly or partly in New York, have been published by the United States Geological Survey up to March 1, 1918. They may be obtained, unless

otherwise noted, at 10 cents each or \$3 for 50 on application to the Director of the Survey, at Washington, D. C.

Albany. ¹	Canton.
Albany and vicinity. ¹	Cape Vincent.
Albion.	Carmel (N. Y.-Conn.).
Alexandria Bay.	Carthage.
Amsterdam.	Castleton (Vt.-N. Y.).
Angelica. ²	Catatonk. ³
Antwerp.	Catskill.
Apalachin. ⁴	Cazenovia.
Attica.	Chateaugay.
Auburn.	Chautauqua.
Ausable. ⁴	Cherry Creek.
Babylon. ⁵	Chittenango.
Baldwinsville.	Churubusco.
Batavia.	Clayton.
Bath.	Clove (N. Y.-Conn.).
Berlin (N. Y.-Mass.-Vt.). ⁶	Clyde.
Berne.	Clymer.
Big Moose.	Cohoes. ¹
Binghamton.	Cooperstown.
Blue Mountain.	Copake (N. Y.-Mass.).
Bolton.	Corning.
Boonville.	Cornwall (Conn.-N. Y.). ¹⁰
Brier Hill.	Cortland.
Broadalbin.	Coxsackie.
Brockport.	Dannemora.
Brooklyn. ⁷	Delhi.
Buffalo. ⁸	Depew.
Caledonia.	Dryden. ⁹
Cambridge (N. Y.-Vt.). ⁸	Dunkirk.
Canada Lake. Name changed—see West Canada Lakes.	Durham.
Canajoharie.	Easthampton.
Canandaigua.	Eden.
Canaseraga.	Elizabethtown. ⁴
	Ellenville.

¹ Albany and vicinity map includes Albany, Cohoes, Schenectady, and Troy maps.

² Shows wooded areas.

³ Apalachin, Dryden, Harford, and Owego maps on scale of 1:62,500, have been reduced and form Catatonk map, on scale of 1:125,000.

⁴ Mount Marcy and vicinity map includes Ausable, Elizabethtown, Lake Placid, and Mount Marcy maps. Mount Marcy and vicinity forestry map uses the same base.

⁵ Babylon, Fire Island, Northport, and Setauket maps, on scale of 1:62,500, have been reduced and form Islip map, on scale of 1:125,000.

⁶ Berlin and Hoosick maps, on scale of 1:62,500, have been reduced and form parts of Taconic map, on scale of 1:125,000.

⁷ New York City and vicinity map includes Brooklyn, Harlem, Paterson, Staten Island, and parts of Hempstead, Oyster Bay, and Sandy Hook maps.

⁸ Niagara River and vicinity map includes parts of all maps bordering on Niagara River.

⁹ Cambridge, Fort Ann, and Pawlet maps, on scale of 1:62,500, have been reduced and form parts of Mettawee map, on scale of 1:125,000.

¹⁰ Cornwall map, on scale of 1:62,500, has been reduced and forms part of Litchfield map, on scale of 1:125,000.

Elmira (N. Y.-Pa). ¹	Kaaterskill.
Fire Island. ²	Kasoag. ³
Fonda.	Kinderhook.
Fort Ann (N. Y.-Vt.). ⁴	Lake Bonaparte.
Fulton. ⁴	Lake Placid. ¹⁰
Gaines (Pa.-N. Y.).	Lake Pleasant.
Gardiners Island.	Lassellsville.
Geneva.	Litchfield (Conn.-N. Y.). ¹¹
Genoa.	Little Falls.
Gilboa.	Lockport. ¹²
Glens Falls.	Long Lake.
Gloversville.	Loon Lake.
Goshen (N. Y.-N. J.).	Lowville.
Gouverneur.	Luzerne.
Greene.	Lyon Mountain.
Greenwood Lake (N. J.-N. Y.).	Macedon.
Grindstone.	McKeever.
Hamlin.	Malone.
Hammond.	Margaretville.
Hammondsport.	Massena.
Harford. ⁵	Medina.
Harlem (N. Y.-N. J.). ⁶	Mettawee (N. Y.-Vt.). ⁸
Hartwick.	Mexico.
Hempstead. ⁶	Milford (N. Y.-Pa.-N. J.)
Highmarket.	Millbrook (N. Y.-Conn.).
Hobart.	Moira.
Honeoye.	Montauk.
Hoosick (N. Y.-Vt.). ⁷	Monticello.
Housatonic (Mass.-N. Y.-Conn.). ⁸	Mooers.
Indian Lake.	Moravia.
Islip. ²	Moriches.
Ithaca. ¹	Morrisville.
Jamestown.	Mount Marcy. ¹⁰
* Mount Marcy and vicinity (20 cents). ¹⁰	

¹ Out of print.² Elmira, Ithaca, Watkins, and Waverly maps, on scale of 1:62,500, have been reduced and form Watkins Glen map, on scale of 1:125,000.³ Babylon, Fire Island, Northport, and Setauket maps, on scale of 1:62,500, have been reduced and form Islip map, on scale of 1:125,000.⁴ Cambridge, Fort Ann, and Pawlet maps, on scale of 1:62,500, have been reduced and form parts of Mettawee map, on scale of 1:125,000.⁵ Oswego special map includes parts of Oswego and Fulton maps.⁶ Apalachin, Dryden, Harford, and Owego maps, on scale of 1:62,500, have been reduced and form Catatonk map, on scale of 1:125,000.⁷ New York City and vicinity map includes Brooklyn, Harlem, Paterson, Staten Island, and parts of Hempstead, Oyster Bay, and Sandy Hook maps.⁸ Berlin and Hoosick maps, on scale of 1:62,500, have been reduced and form parts of Taconic map, on scale of 1:125,000.⁹ Pittsfield and Sheffield maps, on scale of 1:62,500, have been reduced and form parts of Housatonic map, on scale of 1:125,000.¹⁰ Shows wooded areas.¹¹ Mount Marcy and vicinity map includes Ausable, Elizabethtown, Lake Placid, and Mount Marcy maps. Mount Marcy and vicinity forestry map uses the same base.¹² Cornwall map, on scale of 1:62,500, has been reduced and forms part of Litchfield map, on scale of 1:125,000.¹³ Lockport, Niagara Falls, Olcott, Tonawanda, and Wilson maps, on scale of 1:62,500, have been reduced and form parts of Niagara map, on scale of 1:125,000.

10 SPIRIT LEVELING IN NEW YORK, 1896-1905, 1912-1916.

* Mount Marcy and vicinity forestry map (20 cents). ¹	Ontario Beach. ⁸
Naples.	Oriskany.
Navesink (N. J.-N. Y.). ²	Orwell.
Neversink.	Oswego. ⁹
New Berlin.	Oswego special. ¹⁰
New Brunswick (N. J.-N. Y.). ²	Ovid.
Newburg.	Owego. ¹⁰
Newcomb.	Oxford.
New London (Conn.-N. Y.).	Oyster Bay (N. Y.-Conn.). ¹¹
New York City and vicinity (N. Y.-N. J.) (25 cents). ³	Palmyra.
Niagara. ⁴	Paradox Lake.
Niagara Falls. ^{4,6}	Passaic (N. J.-N. Y.). ¹¹
* Niagara Falls and vicinity (10 cents). ^{5,6}	Paterson (N. J.-N. Y.). ^{3,11}
Niagara River and vicinity (10 cents). ⁴	Pawlet (Vt.-N. Y.). ¹²
Nineveh.	Penn Yan.
North Creek.	Phelps.
Northeast (Pa.-N. Y.).	Phoenicia.
Northport. ⁷	Piseco Lake.
Norwalk (Conn.-N. Y.).	Pitcher.
Norwich.	Pittsfield (Mass.-N. Y.). ¹³
Number Four.	Plainfield (N. J.-N. Y.).
Nunda.	Plattsburg (N. Y.-Vt.).
Oak Orchard.	Plattsburg Training Camp (20 cents).
Ogdensburg.	Portage.
Olcott. ⁴	Port Henry (N. Y.-Vt.).
Old Forge.	Port Jervis (N. Y.-N. J.-Pa.).
Olean.	Port Leyden.
Oneida.	Potsdam.
Oneonta.	Poughkeepsie.
	Pulaski.
	Pultneyville.
	Ramapo (N. Y.-N. J.).
	Raquette Lake.

* Out of print.

¹ Mount Marcy and vicinity map includes Ausable, Elizabethtown, Lake Placid, and Mount Marcy maps. Mount Marcy and vicinity forestry map uses the same base.

² New Brunswick and Sandy Hook maps, on scale of 1: 62,500, have been reduced and form parts of Navesink map, on scale of 1: 125,000.

³ New York City and vicinity map includes Brooklyn, Harlem, Paterson, Staten Island, and parts of Hempstead, Oyster Bay, and Sandy Hook maps.

⁴ Lockport, Niagara Falls, Olcott, Tonawanda, and Wilson maps, on scale of 1: 62,500, have been reduced and form parts of Niagara map, on scale of 1: 125,000.

⁵ Niagara Falls and vicinity map includes Niagara Falls, Tonawanda, and Wilson maps.

⁶ Niagara River and vicinity map includes parts of all maps bordering on Niagara River.

⁷ Babylon, Fire Island, Northport and Setauket maps, on scale of 1: 62,500, have been reduced and form Islip map, on scale of 1: 125,000.

⁸ Rochester special map includes parts of Rochester and Ontario Beach maps.

⁹ Oswego special map includes parts of Oswego and Fulton maps.

¹⁰ Apalachin, Dryden, Harford, and Owego maps, on scale of 1: 62,500, have been reduced and form Catatonk map, on scale of 1: 125,000.

¹¹ Paterson and Staten Island maps, on scale of 1: 62,500, have been reduced and form parts of Passaic map, on scale of 1: 125,000.

¹² Cambridge, Fort Ann, and Pawlet maps, on scale of 1: 62,500, have been reduced and form parts of Mettawee map, on scale of 1: 125,000.

¹³ Pittsfield and Sheffield maps, on scale of 1: 62,500, have been reduced and form parts of Housatonic map, on scale of 1: 125,000.

Red Mills.	Stamford (Conn.-N. Y.).
Remsen.	Staten Island (N. J.-N. Y.). ⁹
Rhinebeck.	Stonington (Conn.-R. I.-N. Y.).
Richfield Springs.	Stony Creek.
Richmondville.	Stony Island.
Ridgeway.	Syracuse.
Riverhead.	Taberg.
Rochester. ¹	Taconic (N. Y.-Mass.-Vt.). ¹⁰
Rochester special. ¹	Tarrytown (N. Y.-N. J.).
Rosendale.	Theresa.
Rouses Point (N. Y.-Vt.).	Thirteenth Lake.
Russell.	Ticonderoga (N. Y.-Vt.).
Sacketts Harbor.	Tonawanda. ^{10 11}
Sag Harbor.	Troy. ⁶
St. Regis.	Tully.
Salamanca.	Tupper Lake.
Sandy Hook (N. J.-N. Y.). ²	Utica.
Sangerfield. ⁴	Waddington.
Santanoni.	Warren (Pa.-N. Y.).
Saranac.	Watertown.
Saratoga.	Watkins. ¹²
Schenectady. ⁵	Watkins Glen. ¹³
Schoharie.	Waverly. ¹²
Schroon Lake.	Wayland.
Schunemunk.	Weedsport.
Schuylerville.	West Canada Lakes.
Setauket. ⁶	Westfield.
Sheffield (Mass.-Conn.-N. Y.). ⁷	West Point.
Shelter Island.	Whitehall (N. Y.-Vt.).
Silver Creek.	Willsboro (N. Y.-Vt.).
Skaneateles.	Wilmurt.
Slide Mountain.	Wilson. ^{9 11}
Sodus Bay.	Winfield.

¹ Rochester special map includes parts of Rochester and Ontario Beach maps.

² New York City and vicinity map includes Brooklyn, Harlem, Paterson, Staten Island, and parts of Hempstead, Oyster Bay, and Sandy Hook maps.

³ New Brunswick and Sandy Hook maps, on scale of 1:62,500, have been reduced and form parts of Navesink map, on scale of 1:125,000.

⁴ Shows wooded area.

⁵ Albany and vicinity map includes Albany, Cohoes, Schenectady, and Troy maps.

⁶ Babylon, Fire Island, Northport, and Setauket maps, on scale of 1:62,500, have been reduced and form Islip map, on scale of 1:125,000.

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⁸ Berlin and Hoosick maps, on scale of 1:62,500, have been reduced and form parts of Taconic map, on scale of 1:125,000.

⁹ Lockport, Niagara Falls, Olcott, Tonawanda, and Wilson maps, on scale of 1:62,500, have been reduced and form parts of Niagara map, on scale of 1:125,000.

¹⁰ Niagara River and vicinity map includes parts of all maps bordering on Niagara River.

¹¹ Niagara Falls and vicinity map includes Niagara Falls, Tonawanda, and Wilson maps.

¹² Elmira, Ithaca, Watkins, and Waverly maps, on scale of 1:62,500, have been reduced and form Watkins Glen map, on scale of 1:125,000.

PRECISE AND PRIMARY LEVELING.

ALBION QUADRANGLE.¹[Latitude $43^{\circ} 43' 15''$; longitude $78^{\circ} 78' 15''$.]

Primary leveling in 1896 by E. L. McNair.

Bench marks tied to Canal bench marks.

Albion, Orleans House, corner of Platt and Bank streets, 40.5 feet from Bank Street corner, on Platt Street side, 7.7 feet from office door; bronze tablet stamped "521"-----	Feet. 519. 984
Holley, Webster warehouse, south and west of Erie Canal bridge 115, in doorsill of door on canal side; copper bolt stamped "514"-----	513. 210
Elevations determined from New York State survey levels, corrected.	
Clarendon, 4 miles south of, opposite Andrew Kuhn's house on land belonging to Mrs. Butcher, 0.33 mile north of county line, in granite boulder; copper bolt stamped "648"-----	647. 137
Elba, 3.8 miles northeast of, at southwest corner of junction of east and west road and road south to East Elba, in granite boulder; copper bolt stamped "675"-----	674. 637
East Oakfield, 1.5 miles east of, 65 feet southeast of schoolhouse, district 9, 15 feet from road corner, on west side of north road, in boulder; copper bolt stamped "709"-----	708. 143
South Barre, 220 feet east of road crossing, in stone doorsill of schoolhouse, district 9; copper bolt stamped "652"-----	651. 645
Barre Center, 3 miles southwest of, 1.5 miles northeast of West Barre, E. E. Allis's house, on north side of road, in lower of three stone steps of eastern front door; copper bolt stamped "666"-----	665. 304

Bench mark set from old railroad levels, corrected (value doubtful).

South Byron, 1,710 feet west of railroad station, 27 feet north from center of north track of New York Central & Hudson River R. R., in next to upper step of large culvert, across Black Creek; copper bolt stamped "682"-----	681. 165
---	----------

ALEXANDRIA BAY QUADRANGLE.²[Latitude $44^{\circ} 15' - 44^{\circ} 30'$; longitude $75^{\circ} 45' - 76^{\circ}$.]

Primary leveling in 1900 by William Kelley.

From Theresa north to Redwood, thence west to Alexandria Bay.

Redwood, the Dollinger House (hotel), east side and northeast corner of foundation wall; aluminum tablet stamped "365 Cape Vincent"-----	364. 786
Alexandria Bay, Reformed church, 29.9 feet north-northeast from the northwest corner, in ledge in church lot; aluminum tablet stamped "283 Cape Vincent"-----	282. 267

From Lafargerville north via Omar to Fishers Landing.

Omar, 420 feet northerly from intersection of Fishers Landing and Collins Landing roads, in bed rock on sandstone ledge, west side of the Collins Landing road, and on line with northerly side of the Omar schoolhouse, and distant 51.62 feet from northwest corner of schoolhouse; bronze tablet stamped "297 Cape Vincent"-----	295. 745
---	----------

¹ See Bull. 514, pp. 95-96, for other elevations.² See Bull. 514, pp. 62-63, for other elevations.

Fishers Landing, crossroads near, 72.6 feet from the south corner of Mrs. Tom's residence and 131 feet northwest of the west corner of a house on the opposite side of the road; top of a round-headed $\frac{1}{4}$ -inch brass bolt¹ cemented into bed rock 6 inches below surface of ground -----

Feet.
274. 351

From Redwood north via South Hammond to Chippewa village.

Chippewa village, stone schoolhouse, district 11, 1 foot easterly from the northeast corner, set in bed rock; bronze tablet stamped "289 Cape Vincent" -----	287. 768
Chippewa village, stone schoolhouse, district 11, north face of northeast corner; center-punch mark of a brass bolt (permanent bench mark C. V. of the Deep Waterways Commission) -----	290. 698

AMSTERDAM QUADRANGLE.²

[Latitude $42^{\circ} 45' - 43'$; longitude $74^{\circ} - 74^{\circ} 15'$.]

Precise leveling in 1898 by E. L. McNair.

From Duaneburg east along Delaware & Hudson R. R. to South Schenectady.

Duaneburg, 1,000 feet west of Delaware & Hudson station, north end of east abutment of bridge; bronze tablet stamped "681 A" -----	680. 822
Duaneburg, in front of Delaware & Hudson station; top of south rail -----	676. 6
Kelleys, at station; top of rail -----	490. 9
Kelleys, 1.75 miles east of, 750 feet east of highway, at east abutment of cattle and wagon pass, in coping stone; bronze tablet stamped "410 A" -----	409. 008
South Schenectady, at road crossing of West Shore and Delaware & Hudson railroads; top of rail -----	349. 1

ANDES QUADRANGLE.

[Latitude $42^{\circ} - 42^{\circ} 15'$; longitude $74^{\circ} 45' - 75^{\circ}$.]

Leveling in 1915 by Karl E. Schlachter.

From Fraser southwest along New York, Ontario & Western Ry. to Hamden.

Fraser, in front of station; top of rail -----	1, 323. 6
Fraser station, 650 feet south of, in southwest abutment of railroad bridge over Platner Brook; bronze tablet stamped "N. Y. 1324" -----	1, 323. 631
Fraser station, 1 mile southwest of, 540 feet southwest of milepost N. Y. 192, in east side of concrete culvert 20; chiseled square painted "t. b. m. 1306. 2" -----	1, 306. 24
Delancey, in front of station; top of rail -----	1, 296. 5
Delancey station, 270 feet south of, in east side of concrete culvert; bronze tablet stamped "N. Y. 1285" -----	1, 285. 497
Hamden, opposite store of E. L. Miller, top of hydrant painted "t. b. m. 1,288.3" -----	1, 288. 38
Hamden, in front of station; top of rail -----	1, 282. 1

¹ The letters "U. S. P. B. M. 29" are cut in the bedrock. This is a bench mark set by the Deep Waterways Commission.

² See Bull. 514, pp. 67-68, for other elevations.

From Delancey along highway east to Andes, thence south along Delaware & Northern R. R. to point near Union Grove, thence east to Arena.

Delancey station, 2.2 miles east of, at road corner north, in slab in stone wall, north of road, 50 feet east of corner; chiseled square painted "t. b. m. 1,476.1"	Feet. 1,476.17
Delancey station, 3.6 miles east of, in boulder, south margin of road; bronze tablet stamped "N. Y. 1565"	1, 565. 039
Delancey station, 4.3 miles east of, 50 feet northeast of intersection of Bagley Brook and Terry Clove railroads, in ledge, west margin of road; chiseled square painted "t. b. m. 1638.0"	1, 638. 08
Cabin Hill Church, 2.3 miles west of, 60 feet south of corner, in southwest abutment of highway bridge to farmhouse; chiseled square painted "t. b. m. 1685.6"	1, 685. 72
Cabin Hill Church, 50 feet south of southwest corner of, in boulder; bronze tablet stamped "N. Y. 2203"	2, 203. 151
Cabin Hill Church, 1.5 miles east of, at road corner south, in boulder, 20 feet south of road; chiseled square painted "t. b. m. 2092.2"	2, 090. 30
Cabin Hill Church, 1.9 miles east of, at road corner north, in rock in stone wall, in northeast corner; chiseled square painted "t. b. m. 1916.7"	1, 916. 83
Andes, 2.3 miles west of, at road corner east, in boulder 10 feet west of road; bronze tablet stamped "N. Y. 1708"	1, 708. 093
Andes, 1.4 miles west of, at road corner south, in rock, north margin of road; chiseled square painted "t. b. m. 1681.1"	1, 681. 19
Andes, in northeast abutment of highway bridge over Tremper Kill, 900 feet northeast of depot; bronze tablet stamped "N. Y. 1594"	1, 594. 451
Andes, 1 mile south of, 528 feet north of railroad bridge 7, in boulder, west margin of track; chiseled square painted "t. b. m. 1546.3"	1, 546. 35
Kaufman's, in front of station; top of rail	1, 461. 6
Kaufman's station, 65 feet north of, in ledge, east margin of track; chiseled circle painted "t. b. m. 1463.9"	1, 463. 99
Kaufman's station, 0.7 mile south of, in boulder 12 feet east of track; bronze tablet stamped "N. Y. 1413"	1, 413. 419
Wolf Hollow, in front of station; top of rail	1, 391. 6
Wolf Hollow station, 0.4 mile south of, in southeast abutment of railroad bridge 4½; chiseled circle painted "t. b. m. 1357.9"	1, 357. 95
Pleasant Valley, in front of station; top of rail	1, 330. 6
Pleasant Valley station, 0.2 mile south of, in southeast abutment of railroad bridge 3½; chiseled circle painted "t. b. m. 1324.2"	1, 324. 30
Union Grove, 2 miles north of, in boulder, 35 feet west of track; bronze tablet stamped "N. Y. 1295"	1, 295. 335
Union Grove, 1.3 miles north of, in southwest abutment of railroad bridge 1; chiseled square painted "t. b. m. 1289.8"	1, 289. 89
Union Grove station, 0.5 mile west of, at junction with Andes Branch of Delaware & Northern R. R., in southeast abutment of bridge 12½; chiseled circle painted "t. b. m. 1216.1"	1, 218. 92
Union Grove, in southeast corner of railroad bridge, over the East Branch of the Delaware; bronze tablet stamped "N. Y. 1218.6"	1, 218. 686
Union Grove, in front of station; top of rail	1, 219. 5
Union Grove, 1 mile northeast of, in northwest abutment of railroad bridge 10; chiseled square painted "t. b. m. 1220.0"	1, 222. 89
Jacksonburg siding, 0.5 mile west of, in southwest corner of railroad bridge 8; bronze tablet stamped "N. Y. 1227"	1, 229. 722
Jacksonburg siding, at road crossing; top of rail	1, 235. 8

From point near Union Grove west along Delaware & Northern R. R. to Downsville.

Shavertown, 0.7 mile east of, in west side of stone culvert, in cap-stone; chiseled circle painted "t. b. m. 1192.5"	Feet.	1, 195. 33
Shavertown, 0.3 mile east of station, in southeast corner of railroad bridge over Tremper Kill; bronze tablet stamped "N. Y. 1187"	1, 187. 422	
Shavertown, in front of station; top of rail	1, 187. 9	
Shavertown, 1.8 miles southwest of, in northeast corner of railroad bridge 15; chiseled circle painted "t. b. m. 1175.0"	1, 175. 29	
Pepacton, 1.4 miles east of, on northeast abutment of Rock Eddy bridge; top of bolt painted "t. b. m. 1157.5"	1, 157. 75	
Pepacton station, 200 feet west of, in northeast corner of railroad bridge 17; bronze tablet stamped "N. Y. 1146"	1, 145. 804	
Pepacton, 1.3 miles west of (Wilson's siding) in east abutment of bridge 18; chiseled square painted "t. b. m. 1134.5"	1, 134. 71	
Pepacton, 1.9 miles west of, in east side of concrete culvert; bronze tablet stamped "N. Y. 1123"	1, 123. 311	
Williams siding, $1\frac{1}{2}$ miles east of Downsville, 150 feet east of, in east side of concrete culvert; chiseled circle painted "t. b. m. 1120.1"	1, 120. 33	
Downsville, in northeast abutment of first (and smaller) highway bridge from station to village; bronze tablet stamped "N. Y. 1103"	1, 102. 927	
Downsville, in front of station, top of rail	1, 103. 1	

From Pepacton south along highways to Craigie Clair school.

Pepacton, 1.2 miles south of, along road to Roscoe, at road fork west, in boulder, west margin of road; chiseled square painted "t. b. m. 1311.2"	1, 311. 42
Pepacton, 2 miles south of, at road corner east, in boulder in west margin of road; chiseled square painted "t. b. m. 1469.7"	1, 469. 93
Holliday's Brook School, 0.7 mile south of, in ledge, west margin of road; bronze tablet stamped "N. Y. 1941"	1, 940. 884
Holliday's Brook School, 1.5 miles south of, in front of barn, in boulder in west margin of road; chiseled square painted "t. b. m. 2085.5"	2, 085. 78
Berry Brook School, 0.4 mile north of, at road fork, on boulder; chiseled square painted "t. b. m. 1906.6"	1, 906. 83
Berry Brook School, 1.1 miles south of, at old wood road, in boulder in west margin of road, 8.5 feet south of water trough; bronze tablet stamped "N. Y. 1651"	1, 651. 442
Berry Brook School, 2.1 miles south of, at road fork in boulder, in east margin of road; chiseled square painted "t. b. m. 1500.2"	1, 599. 32

ANGELICA QUADRANGLE.¹

[Latitude $42^{\circ} 15' - 42^{\circ} 30'$; longitude $78^{\circ} - 78^{\circ} 15'$.]

Precise leveling in 1898 by E. L. McNair.

Near Belvidere.

Belvidere, in front of Erie R. R. station; top of north rail	1, 378. 7
Belvidere, 0.67 mile east of, south end of wing wall of abutment at east end of railway bridge over Van Campen Creek, 28 feet south of center of track; bronze tablet stamped "1351 D"	1, 352. 243

¹ See Bull. 514, p. 5, for other elevations.

16 SPIRIT LEVELING IN NEW YORK, 1896-1905, 1912-1916.

Primary leveling in 1903 by George Seidel.

From Portage, southwest along the Pennsylvania R. R. to Cuba.

Fillmore, main entrance of Dingman House, coping stone of stone wall; aluminum tablet stamped "1213 Albany 1903"	1, 213. 069
Houghton, road crossing at station; top of rail	1, 210
Caneadea, 0.6 mile north of, west side of track, old canal lock, foundation rock	1, 228. 856
Caneadea, road crossing; top of rail	1, 238
Caneadea, 500 feet south of station, west end of north abutment of railroad bridge; aluminum tablet stamped "1236 Albany 1903"	1, 236. 916
Oramel, road crossing at station; top of rail	1, 264
Belfast, 2.1 miles south of, west side of track at railroad crossing; top stone of culvert	1, 350. 810
Black Creek, road crossing at station; top of rail	1, 489
Black Creek, southwest corner of foundation wall of Congregational Church; aluminum tablet stamped "1517 Albany 1903"	1, 517. 944

From Caneadea east along public road to Allen Center (single-spur line).

Allen Center, 0.2 mile west of, north side of road, in foundation wall of Wm. Burk's residence; aluminum tablet stamped "1636 Albany 1903"	1, 636. 169
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From Belfast southeast along public road to Belvidere, thence along Erie R. R. to Belmont.

Belfast, corner of Main Street, northeast corner of foundation to Belfast House; aluminum tablet stamped "1313 Albany 1903"	1, 813. 140
Angelica, crossing at station; top of rail	1, 440
Angelica, foundation of Shawmut Railroad office building, on Depot Street; aluminum tablet stamped "1440 Albany 1903" (on single-spur line)	1, 439. 990
Belvidere, foundation wall under bay window of Mrs. S. H. Whitcomb's residence; aluminum tablet stamped "1371 Albany 1903"	1, 371. 272

Leveling in 1914 by A. J. Kavanagh.

At Angelica.

Angelica, 0.67 mile east of, in southeast corner concrete abutment of railroad bridge, at yard limit; chiseled square, painted "U. S. T. B. M. 1459"	1, 459. 44
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ANTWERP QUADRANGLE.¹

[Latitude 44°-44° 15'; longitude 75° 30'-75° 45'.]

Primary leveling by C. H. Semper in 1900.

At Great Bend.

Great Bend, in front of station; top of rail	654. 8
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APALACHIN QUADRANGLE.

[Latitude 42°-42° 15'; longitude 76°-76° 15'.]

Precise leveling in 1898 by E. L. McNair.

From Owego east along Erie R. R. to Hooper.

Owego, 2.75 miles east of Erie station, northwest corner of bridge 33, in coping stone; aluminum tablet stamped "812 A"	811. 679
Campville, in front of station; top of north rail	824. 9

¹ See Bull. 514, pp. 18-20, for additional elevations.

Union, 1.4 miles west of, northwest corner of bridge 31, across Nanticoke Creek, in coping stone of wing wall of abutment; bronze tablet stamped "825 A"-----	Feet. 828.353
Union station, in front of station, eastbound track; top of south rail-----	835.2
Hooper, in front of station; top of south rail, westbound track-----	834.5

Primary leveling in 1900 by W. E. Green.**From Flemington north along highway to Speedville.**

Wentzville, highway bridge, southwest corner of south abutment; bronze tablet stamped "930 A"-----	931.136
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From Owego via the Lehigh Valley R. R. to Newark Valley.

Flemington, waiting room at station; top of doorsill-----	907.23
Newark Valley, 900 feet south of station, at northwest corner of iron bridge 299 A, on abutment; bronze tablet stamped "961 A"-----	961.634
Newark Valley, waiting room at station; doorsill-----	967.03

From Union north along highway to Maine (single-spur line).

Union, Duane Street crossing west of station; top of rail-----	833.3
Union Center, Andrew & Pitcairn's store, northwest side of; mark on water table-----	879.82
Maine, northwest corner of Methodist Episcopal Church; aluminum tablet stamped "915 Albany"-----	916.700

From Union south along highway to Vestal Center (single-spur line).

Union, southwest corner of Union Methodist Episcopal Church; bronze tablet stamped "830 Albany"-----	830.751
Vestal, at Delaware, Lackawanna & Western R. R. station, road crossing; top of rail-----	828.7
Vestal Center, 975 feet east of, in northeast corner of abutment of iron highway bridge over Big Chocount Creek; bronze tablet stamped "985 Albany"-----	985.274

ATTICA QUADRANGLE.

[Latitude 42° 45'-43° ; longitude 78° 15'-78° 30'.]

Primary leveling in 1903 by George Seidel.**From Attica south along railroad to Varysburg, thence west along highway to Harris.**

Attica, 0.2 mile west of station, on south side of Erie R. R., in east abutment of railroad bridge; bronze tablet stamped "990 Rochester"-----	990.187
Arcade, railroad crossing; top of rail-----	974
Varysburg, southeast corner of foundation wall of Baptist Church; bronze tablet stamped "1113 Albany 1903"-----	1,113.072
Harris, north side of road, about 35 feet south of T. Dorshire's hotel, in large rock; bronze tablet stamped "1306 Albany 1903"-----	1,305.795

From Crittenden east along the New York Central & Hudson River R. R. to Corfu, thence along highway to Darien, thence east along railroad to Attica.

Crittenden, 0.2 mile east of; New York Central R. R. bench mark at milestone 419-----	846.89
Crittenden, 1.2 miles east of; New York Central R. R. bench mark at milestone 418-----	856

18 SPIRIT LEVELING IN NEW YORK, 1896-1905, 1912-1916.

	Feet.
Corfu, 2.1 miles west of; New York Central R. R. bench mark at mile-post 417-----	878. 36
Corfu, 1.1 miles west of; New York Central R. R. bench mark at mifestone 416-----	873. 28
Corfu, 0.1 mile west of; New York Central R. R. bench mark at milestone 415-----	862. 92
Corfu, southwest corner of foundation wall of Catholic Church; bronze tablet stamped "854 Albany 1903" (bench mark on single-spur line)-----	854. 445
Lehigh Valley R. R. crossing; top of rail-----	878
Delaware, Lackawanna & Western R. R. crossing; top of rail-----	909
Darien Center, southeast corner of foundation wall of Allegheny Hotel; aluminum tablet stamped "1011 Albany 1903"-----	1, 011. 207
Darien, Erie R. R. station; top of rail-----	1, 011. 8
Griswold, 500 feet southwest of station, north side of track; coping stone of abutment of railroad bridge-----	1, 032. 86
Griswold, road crossing at station; top of rail-----	1, 036

AUBURN QUADRANGLE.

[Latitude $42^{\circ} 45' - 43^{\circ}$; longitude $76^{\circ} 30' - 76^{\circ} 45'$.]

Primary leveling in 1896 by A. B. Pomme.

From Cascade northwest to Scipio, thence west via Barbers Corners to Levana, thence south to Aurora.

Cascade Hotel, 2 miles west of, on capstone of culvert in southeast corner of intersection of road running south; chiseled square-----	1, 266. 58
Scipio public school, 30 feet southeast of corner of, in boulder; copper bolt stamped "U. S. G. S. B. M. 1205 ft."-----	1, 203. 211
Scipioville, Watkins's store, on northeast corner of stepstone; chiseled square-----	989. 46
Barbers Corners, 250 feet south of, in limestone boulder on east side of road under apple tree near bridge; copper bolt stamped "849"-----	847. 954
Aurora, Cayuga Military Academy, south door of basement, in west end of doorsill; copper bolt stamped "437"-----	435. 732

From Levana north along the Lehigh Valley R. R. to Union Springs.

[The error distributed in this line is excessive.]

Union Springs, basement door at south end of sanitarium, in west end of doorsill; copper bolt stamped "U. S. G. S. B. M. 421 ft."-----

418. 680

From Union Springs northwest along the Lehigh Valley R. R. to Auburn.

Half Acre, 1.25 miles southwest of railroad station, on stone near southwest corner of intersection of road to south; chiseled square-----	706. 76
Aurelius, on mounting block in southwest corner of four corners; chiseled square-----	644. 27
Aurelius, 1.75 miles east of, on southeast bridge seat of bridge over Crane Brook; chiseled square-----	635. 84
Auburn, 411 feet south of south side of Genesee Street, on east side of track; bolt in rock (Lehigh Valley R. R. bench mark, railroad elevation 647.083)-----	647. 77
Auburn, south side of Genesee Street, between Sherwood and Delevan streets; west side of coping (city bench mark)-----	643. 17
Auburn, northwest corner of courthouse; water table (city bench mark)-----	708. 82

Auburn, North and Market streets; top of monument near southwest corner of city hall lot (city bench mark)	Feet.
	671. 75
Auburn, post-office building, Genesee Street entrance, in top of wing stone at east end of steps; bronze tablet stamped "710 feet"	707. 719

From Union Springs north along highway to Cayuga.

Cayuga, on northwest corner of doorsill to north door of malt house; chiseled square	Feet.
	387. 83
Cayuga, Cayuga and Seneca Canal, lock 10, between anchors of west wing of south gate; copper bolt stamped "U. S. G. S. B. M. 392 ft."	390. 420

From Auburn south along highway to Scipio.

Auburn, Genesee Street, 2 miles south of, on Lehigh Valley R. R.; iron bolt in box culvert, 911 feet north of north side of public road	Feet.
Fleming, Methodist Episcopal Church; copper bolt in doorstep, south door, stamped "U. S. G. S. B. M. 912 ft."	721. 13

	Feet.
	910. 051

From Throopsville southwest along highway to Cayuga.

Throopsville, 1.75 miles east of; iron bolt in foundation of culvert 201 feet north of point of switch (Lehigh Valley R. R. bench mark)	Feet.
Throopsville, north side of road just east of four corners, on south-east corner of stone horse block; chiseled square	546. 060
Fosterville, 3 miles west of, 800 feet east of canal, south side of road, on granite boulder horse block in front of wood-colored house; chiseled square	516. 36

408. 87

BABYLON QUADRANGLE.[Latitude $40^{\circ} 30' - 40^{\circ} 45'$; longitude $73^{\circ} 15' - 73^{\circ} 30'$.]**Primary leveling in 1901 by C. H. Semper.****From Deer Park south along highway to Babylon.**

Babylon, Deer Park Avenue crossing; top of rail	Feet.
Babylon, Methodist Episcopal Church on Deer Park Avenue, front face near north end; bronze tablet stamped "17 Willets Pt. 1901"	13. 0

16. 677

From Babylon northwest along railroad via Farmingdale to Jericho.

Farmingdale, at Main Street crossing; top of rail	Feet.
Farmingdale, front face of Catholic Church on Cherry Street, east end; bronze tablet stamped "74 Willets Pt. 1901"	71. 0

73. 550

BALDWINSVILLE QUADRANGLE.¹[Latitude $43^{\circ} - 43^{\circ} 15'$; longitude $76^{\circ} 15' - 76^{\circ} 30'$.]**Primary leveling in 1898 by D. E. Baxter.****From Hinmansville south via Baldwinsville to Newport.**

Hinmansville, Oswego Canal, lock 6, in lower hollow quoin between cinchers; copper bolt (canal bench mark)	360. 68
Phoenix, Culvert Street, Oswego Canal, in second step of bridge abutment, south end; copper bolt (canal bench mark)	364. 88

¹ See Bull. 514, pp. 85-87, for other elevations.

Phoenix, northwest corner of Union Academy, Bridge and Cherry streets, Cherry Street front, in water table; aluminum tablet stamped "394 Oswgo"-----	Feet. 395. 020
Phoenix, Oswego Canal, in second step of abutment, south end, on Bridge Street; copper bolt stamped "364 A" (canal bench mark)-----	365. 000
Phoenix, Oswego Canal, guard lock 1, in upper hollow quoin between cinchers; copper bolt stamped "363 A" (canal bench mark)-----	364. 400
Baldwinsville, southeast corner of Free Academy, Elizabeth Street; aluminum tablet stamped "423 Oswgo"-----	424. 348
Warners, 700 feet east of crossroads, Mr. Hawley's brick dwelling, in east end of stone water table; aluminum tablet stamped "477 Oswgo"-----	478. 190
Newport, at Warners, southwest corner of hotel barn, 30 feet north of canal; chisel mark on boulder (Erie Canal bench mark)-----	412. 587

From Bowens Corners south to Peru.

Plainville, 300 feet west of four corners at center of town, north side of road, in top step of schoolhouse, district 5; aluminum tablet stamped "403 Oswgo"-----	403. 689
Peru, highway bridge over Erie Canal, towpath abutment, in west end of bottom step; copper bolt (N. Y. S. B. M. No. 324)-----	413. 643

At Jordan (set from canal bench mark 330).

Jordan, in Jordan Academy, front of building, 3 feet east of door, in stone water table; aluminum tablet stamped "Oswgo 481"-----	480. 505
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BATAVIA QUADRANGLE.

[Latitude 42° 45'-43°; longitude 78°-78° 15'.]

Primary leveling in 1902 by George Bailey.

From Leroy west along the New York Central R. R. to Batavia, thence south to Attica.

Stafford, crossing just west of station; top of north rail-----	900. 4
Batavia (Attica branch of New York Central), 0.5 mile from station, in northeast abutment of railroad bridge; bronze tablet stamped "893 Rochester"-----	892. 386

From Attica along the Erie R. R. east to Linden, thence south to Warsaw.

Dale, 0.25 mile north of station, in southeast abutment of railroad bridge over highway; bronze tablet stamped "1208 Rochester"-----	1, 207. 654
Dale, in front of station; top of rail-----	1, 215. 0
Warsaw, 1 mile north of, 400 feet north of intersection with road north and south, in east wall of pipe culvert; aluminum tablet stamped "1008 Rochester"-----	1, 008. 684

From Warsaw north along the Buffalo, Rochester & Pittsburgh Ry. via Pearl Creek and Pavilion Center to Leroy.

Pearl Creek, 800 feet north of station, southeast abutment of railroad bridge over creek; bronze tablet stamped "954 Rochester"-----	954. 333
Pavilion Center, 400 feet south of, bridge over highway, in top of west end of north wall; bronze tablet stamped "953 Rochester"-----	953. 237
Leroy, West Main Street crossing; top of rail-----	887. 0

BELMONT QUADRANGLE.[Latitude $42^{\circ} 42' 15''$; longitude $78^{\circ} 78' 15''$.]**Precise leveling in 1898 by E. L. McNair.****From Friendship east along Erie R. R. to Belmont.**

	Feet.
Friendship, in front of Erie station; top of south rail.....	1,532.1
Friendship, Union School building, water table at right of main entrance; aluminum tablet stamped "1520 D".....	1,521.036
Belmont, southeast corner of Alleghany County Jail, in stone foundation; aluminum tablet stamped "1416 D." Permission granted B. B. Ackerman, Belmont, N. Y., February 2, 1912, to move this mark.....	1,417.765
Belmont, in front of Erie station; top of south rail.....	1,384.8

Primary leveling in 1896 by E. L. McNair.**From Cuba southeast to Clarksville.**

Clarksville, at M. M. Congdon's residence, in stone horse block; copper bolt stamped "U. S. G. S. B. M. 1604 ft.".....	1,596.063
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BERNE QUADRANGLE.[Latitude $42^{\circ} 30' - 42^{\circ} 45'$; longitude $74^{\circ} 74' 15''$.]**Precise leveling in 1898 by E. L. McNair.****At Delanson.**

Delanson, in front of Delaware & Hudson station; top of south rail.....	812.5
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Primary leveling in 1898-1900 by Seth Van Loan and J. H. Hodges.**From Delanson south to Gallupville, thence southeast to East Berne.**

Delanson, in front of station; top of rail.....	813
Gallupville, Dutch Church, in wall near southeast corner; bronze tablet stamped "831 Albany".....	831.310
Berne, Lutheran Church, in southeast corner; bronze tablet stamped "1015 Albany".....	1,014.986

From Berne southeast via South Berne to Westerlo, thence north to East Berne.

Westerlo, bridge over creek, in top of south end of east abutment; bronze tablet stamped "1144 Albany".....	1,144.094
East Berne, west entrance to village, 300 feet east of Berne road intersection, in embedded stone at bend in road; bronze tablet stamped "1174 Albany".....	1,174.310

From East Berne north to Altamont, thence northwest along the Delaware & Hudson R. R. to Delanson.

Altamont, in foundation wall southwest side of Altamont Hotel; bronze tablet stamped "464 Albany".....	464.780
Knox, 1.75 miles west of station, 900 feet west of road crossing, small culvert; point on north end, chiseled circle.....	771.86
Duane, 900 feet east of, south end of east abutment of bridge; point on top.....	894.94

From Westerlo west to Rensselaerville.

Rensselaerville, southwest corner Miner's storehouse, in stone sill; bronze tablet stamped "1367 Albany." (These figures are uncertain; the true elevation may possibly be 2 feet less.) ----- Feet. 1,369.568

Primary leveling in 1914 by F. J. McMaugh.

From Altamont southeast along highways to Indian Ladder, thence west and south to East Berne.

Altamont, in stone underpinning on west side of Altamont Hotel; bronze tablet stamped "Albany 464" -----	464.780
Altamont, 1.2 miles southeast of, 100 feet southwest of Delaware & Hudson R. R. crossing, east of road, on small boulder; keel mark-----	388.03
Altamont, 1.4 miles southeast of, 0.2 mile south of railroad crossing, 400 feet southwest of D. V. Crounse's house, 70 feet west of road, on west side of road, in root of large tree; railroad spike (not marked or painted) -----	388.31
Altamont, 3.1 miles southeast of, 25 feet northeast of small bridge, 10 feet east of road; cross mark on boulder-----	403.02
Altamont, 4.25 miles southeast of, 0.56 mile west of intersection of Indian Ladder Road and road in valley, 50 feet north of road, in root of elm tree, 3.8 feet north of trunk; steel nail-----	621.56
Altamont, 4.47 miles southeast of, on south side of Indian Ladder Road, 0.1 mile east of dim wood road, south of fence; point on boulder-----	833.22
Altamont, 4.71 miles southeast of, about 600 feet east of intersection of roads at top of hill, 35 feet west of end of wooden fence on south side of road; top of second iron staple-----	1,028.91
Altamont, 4.8 miles southeast of, at intersection of roads at picnic ground, 4 feet north of northeast corner of refreshment building, on top of small boulder; chisel flat mark-----	1,126.19
John Boyd Thacher Park Triangulation Station, 4.86 miles southeast of Altamont, 330 feet east of intersection of roads, about 20 feet from edge of cliff; tablet set in granite boulder about 4 by 3 by 6 feet bedded in ground about 2 feet, marked "John Boyd Thacher Park. Latitude, 42° 39' 19''; longitude, 74° 01' 00''. Elevation above sea 1,125.6 feet. Determined by U. S. Geological Survey, 1914" -----	1,125.635
Altamont, 5.5 miles southeast of, 0.7 mile west of Park triangulation station, at crossroads, on stone; chisel cross-----	1,239.32
Altamont, 6.63 miles southeast of, 400 feet east of white house, on ledge; chisel cross-----	1,406.01
Altamont, 7.5 miles southeast of, 250 feet north of bridge, on east edge of road, on stone; chisel cross-----	1,329.66
Altamont, 8.2 miles southeast of, 200 feet east of small house, on north side of road, on rock, chisel cross-----	1,322.48
Altamont, 10.27 miles southeast of, 80 feet south of bridge, on west side of road, on stone; cross mark-----	1,191.54

BIG MOOSE QUADRANGLE.

[Latitude $43^{\circ} 45' - 44^{\circ}$; longitude $74^{\circ} 45' - 75^{\circ}$.]

Primary leveling in 1899 by W. W. Gilbert and in 1897 by Clark Brown.

From Eagle Bay via Fourth Lake to Sixth Lake dam.

Fourth Lake; Fulton Chain, at Hess Inn, 175 feet east of sea wall, on lake front of lawn, 70 feet south of main hotel building, 40 feet north of boathouse and billiard room, on north bank of inlet of Fifth Lake Outlet, 3 feet northeast of sidewalk crossing; iron post stamped "R 1717" _____ Feet. 1,716.417

From Fulton Chain north along the New York Central & Hudson River R. R. to Nehasane.

Clearwater, 600 feet south of, 35 feet east of tracks, in west face of large boulder; bronze tablet stamped "1753 Albany" _____ 1,751.911

Big Moose, 110 feet east of point of switch at east end of side track, 40 feet south of main track, 25 feet west of west line of Hennessey's hotel, in northwest fact of large boulder; bronze tablet stamped "2036 Albany" _____ 2,034.324

Woods Lake, 0.37 mile south of, 62 rail lengths south of station, 575 feet north of milepost 100, 125 feet south of small stream, 20 feet west of track, in northeast face of large boulder; bronze tablet stamped "1881 Albany" _____ 1,879.778

Beaver River, east side of railroad water tank, in east face of foundation stone under south support; aluminum tablet stamped "1693 Albany" _____ 1,691.863

Keepawa station, 38 rails north of, 75 feet north of 90-mile post, 100 feet west of track, in east face of large boulder; aluminum tablet stamped "1722 Albany" _____ 1,720.968

Nehasane, 200 feet west of Mr. Ames's house (Nehasane station), 20 feet northwest of main track, in east face of ledge of rock; aluminum tablet stamped "1789 Albany" _____ 1,787.530

From Little Rapids west to Salmon Lake, thence north to Mud Pond (single-spur line, by J. W. Hodges in 1900).

Mud Pond (just south of Clear Lake) in rock at outlet; bronze tablet stamped "2007" _____ 2,007.321

BINGHAMTON QUADRANGLE.

[Latitude $42^{\circ} 42' 15'$; longitude $75^{\circ} 45' - 76^{\circ}$.]

Precise leveling in 1898 by E. L. McNair.

From Lestershire east along railroad to Binghamton.

Lestershire, in front of station, eastbound track; top of south rail	848.1
Binghamton, Broome County courthouse, west end of, at left of basement entrance from Collier Street; aluminum tablet stamped "867 A"	866.056
Binghamton, in front of Erie and Delaware & Hudson station, westbound track; top of north rail	863.5
Binghamton, 1 mile east of, at crossing of Delaware & Hudson and Syracuse, Binghamton & New York railroads; top of south rail	852.6

24 SPIRIT LEVELING IN NEW YORK, 1896-1905, 1912-1916.

From Binghamton along Delaware & Hudson R. R. to Sanitaria Springs.

Port Crane, 3.25 miles west of, 900 feet west of road crossing, in parapet wall at east end of culvert under railway; bronze tablet stamped "959 A"	Feet. 958.519
Port Crane, in front of station; top of north rail	1,041.8
Sanitaria Springs, in front of station; top of north rail	1,117.0
Sanitaria Springs, 0.33 mile east of station, northeast corner of bridge 107 over highway, in coping stone of abutment; bronze tablet stamped "1126 A"	1,125.617

Precise leveling in 1900 by C. H. Semper.

From Binghamton east along Erie R. R. to Riverside.

Binghamton, Broome County courthouse, west end of, at left of basement entrance from Collier Street; aluminum tablet stamped "867 A"	866.056
Langdon, 1,000 feet north of station, top of south abutment west side of creek culvert; bronze tablet stamped "860 Albany 1900"	860.468
Langdon, in front of station; top of rail	864.4
Kirkwood, in front of station, northbound track; top of rail	871.6
Kirkwood, 0.5 mile south of, retaining wall of signal tower, in northwest corner, 7 feet northwest of tower house; railroad spike in top of timber of retaining wall	872.52
Riverside, in front of station; top of rail	869.8

Primary leveling in 1900 by W. E. Green.

From Kirkwood west to Hawleyton (single-spur line).

Hawleyton, northeast corner of Methodist Episcopal Church; bronze tablet stamped "1277 Albany"	1,277.314
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From Binghamton to West Chenango (single-spur line).

West Chenango, Abbot Methodist Episcopal Church, in southeast corner of wall; bronze tablet stamped "1387 Albany"	1,388.018
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From Binghamton north along Delaware, Lackawanna & Western R. R. to Chenango Forks.

Chenango Bridge, in front of station; top of rail, southbound track	886.7
Chenango Forks, 0.1 mile north of Delaware, Lackawanna & Western station, iron highway bridge across Tioughnioga River, in southwest abutment, northwest wing, end stone of top course; bronze tablet stamped "—— Albany"	897.457

BLUE MOUNTAIN QUADRANGLE.

[Latitude $43^{\circ} 45' - 44^{\circ}$; longitude $74^{\circ} 15' - 74^{\circ} 30'$.]

Primary leveling in 1896 by A. F. Krause.

Near Indian Lake village.

Indian Lake village, 0.7 mile south of, west end of smooth sloping outcrop 75 feet in length, 10 feet from road, 20 feet east of elm tree 8 inches in diameter; copper bolt stamped "U. S. G. S. 1793 Ft. B. M."	1,788.807
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From Cedar River House southwest to Wakely dam.

Wakely dam, 4.8 miles north of, 0.7 mile southwest of Brown's house, 20 feet north of bridge over small stream flowing east into Cedar River, 15 feet to right of road; copper bolt stamped "U. S. G. S. Feet. B. M. 1,918" _____ 1,913. 585

From Cedar River House northwest to Blue Mountain Lake.

Forest House, 25 feet of north of west of northwest corner of bar-room; in outcrop; copper bolt stamped "U. S. G. S. 1941 Ft. B. M." _____ 1, 937. 247
Blue Mountain Lake, 3 miles southeast of, bridge over Rock River, on downstream end of easterly abutment; chiseled square _____ 1, 774. 56

From Blue Mountain Lake north to Long Lake.

Blue Mountain Lake, foundation of schoolhouse, in second stone from southwest corner of second course from top; bronze tablet stamped "1810" _____ 1, 805. 700
Long Lake, 5.5 miles south of, east side of South Pond, 12 feet to left and 2.5 feet above center of road, in boulder; copper bolt stamped "U. S. G. S. 1855 Ft. B. M." _____ 1, 851. 176
Long Lake, 260 feet west of Sabattis's two-story frame house, in west end of outcrop, 130 feet to left of center of road; copper bolt stamped "U. S. G. S. 1663 Ft. B. M." _____ 1, 658. 685
Long Lake, front line of Lake House, 35 feet south of house, on boulder; chiseled mark ("Colvins B. M. 71 A") _____ 1, 636. 64
Long Lake, 2.75 miles southwest from Grove House; 130 feet east of fork in State road to Forked Lake, 50 feet south of road, north face of large boulder; aluminum tablet stamped "1726 Albany" _____ 1, 726. 514

From Long Lake east to Essex-Hamilton County line.

Long Lake, 4 miles east of, 35 feet west of 4-mile post, in outcrop 14 feet to right and 2.5 feet above center of road; copper bolt stamped "U. S. G. S. 1863 Ft. B. M." _____ 1, 858. 465
Essex-Hamilton county line, 0.87 mile west of, south side of Fishing Brook, in boulder 12 feet to left of and 3.5 feet above center of road; copper plug stamped "U. S. G. S. 1698 Ft. B. M." _____ 1, 694. 227

BOONVILLE QUADRANGLE.¹

[Latitude 43° 15'-43° 30'; longitude 75° 15'-75° 30'.]

Precise leveling in 1900 by C. H. Semper.**At Boonville.**

Boonville, canal lock 71, at railroad station, top of west wall, south end; bronze tablet stamped "1120 Albany 1900" _____ 1, 121. 306

Primary leveling in 1901 by A. S. Havens.

From Boonville along public road and Black River Canal via West Leyden, Stokes, and Frenchville to Remsen.

West Leyden, steel bridge over Mohawk River, east abutment, top of north end; bronze tablet stamped "1493 Albany 1901" _____ 1, 493. 500
West Branch, steel bridge over West Branch of Mohawk River, south abutment, top of east end; bronze tablet stamped "1002 Albany 1901" _____ 1, 001. 800

¹ See Bull. 514, p. 78, for additional elevations.

Stokes, south entrance to hotel on northeast corner of crossroads, west end of lower step; chisel mark-----	Feet. 634. 68
Delta, steel bridge over Mohawk River, north of State dam, top of north end of east abutment; bronze tablet stamped "516 Albany 1901" -----	516. 160
Westerville, canal lock 16, southwest hollow quoin between anchors; copper bolt-----	587. 622
Frenchville, canal lock 17, top of north end of west wall; copper bolt-----	595. 473
Frenchville, steel bridge over creek, top of west end of south abu- ment; aluminum tablet stamped "593 Albany 1901" -----	593. 300
Steuben, church on northwest angle of crossroads, near southeast corner of south foundation wall; aluminum tablet stamped "932 Albany 1901" -----	932. 280

BRIERHILL QUADRANGLE.¹[Latitude $44^{\circ} 30'$ - $44^{\circ} 45'$; longitude $75^{\circ} 30'$ - $75^{\circ} 45'$.]**Primary leveling in 1904 by G. M. Dimmick.****From Ogdensburg southwest along highway to Edwardsville, thence north to
Morristown.**

Ogdensburg, 4.5 miles south of, in water table of residence of Paul Velour, north end, east face; bronze tablet stamped "317 Albany 1903 Adj" -----	317. 215
Ogdensburg, 8.93 miles south of, in foundation wall of residence of Alonzo Havens, center of east face; aluminum tablet stamped "390 Albany 1903 Adj" -----	389. 916
Ogdensburg, 11.67 miles south of, 200 feet north of residence of Luther Bloodough, 150 feet north of highway, 100 feet northwest of highway sluice, in solid rock; bronze tablet stamped "302 Albany 1903 Adj" -----	301. 488
Edwardsville, in foundation wall of Union Church, east end of south face, bronze tablet stamped "295 Albany 1903 Adj" -----	295. 206
Edwardsville, 2.93 miles northwest of; 2.6 miles southeast of Morristown, in solid rock, 30 feet west of southwest corner of red school- house and 54 feet northeast of intersection at four corners; bronze tablet stamped "300 Albany 1903 Adj" -----	300. 227
Morristown, in foundation wall of stone warehouse, 79.5 feet from north side of United States customhouse; 4-inch bolt (Deep Water- ways bench mark) -----	271. 288

BROADALBIN QUADRANGLE.[Latitude 43° - $43^{\circ} 15'$; longitude 74° - $74^{\circ} 15'$.]**Primary leveling in 1896 by Clark Brown and in 1899 by J. E. Thomas.****From Factory village west via Galway and Broadalbin to Mayfield.**

Galway, in northwest corner of Presbyterian Church; aluminum tab- let stamped "838 Albany" -----	838. 450
West Galway, in northwest corner of foundation wall of Presbyterian Church; aluminum tablet stamped "871 Albany" -----	871. 942
Broadalbin, in southeast corner of brick Baptist Church; aluminum tablet stamped "820 Albany" -----	820. 567

¹ See Bull. 514, pp. 61-62, for additional elevations.

From Mayfield east via Northampton to East Galway.

Northampton, on southeast corner of retaining wall at south approach to closed wooden bridge; State bench mark (Colvin's), chisel marked "B. M. No. 31"-----	Feet. 739.71
Northampton, 2.25 miles south of, on ledge of rock near crest of hill; State bench mark, chisel marked "72"-----	1,019.87
Northampton, 2.9 miles south of, at intersection of roads, northwest corner, 50 feet north of road; old State bench mark-----	1,035.00
Hagedorns Mills, south abutment in southeast corner of bridge over creek; bronze tablet stamped "975 Albany"-----	974.824
North Galway, square stone monument 200 feet north of road locally known as Mechanic Street; stone chisel marked "N. Y. 17 S. S."--	1,266.699

From Edinburg south via Batchellerville to Northampton.

Batchellerville, in southwest corner of Presbyterian Church foundation wall; bronze tablet stamped "771 Albany"-----	770.450
Northampton, 0.36 mile northeast of, west side of road; chisel mark on boulder (old State bench mark)-----	774.06
Northampton, 3.1 miles northeast of, on east side of road near yellow house; chisel mark on boulder (old State bench mark)-----	799.96
Northampton, in northeast corner of Presbyterian Church; bronze tablet stamped "790 Albany"-----	789.612

From Edinburg west along road to Northville.

Northville, northeast corner of Methodist Episcopal Church, corner of Main and Washington streets; aluminum tablet stamped "802 Albany"-----	802.292
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From Mayfield northeast along railroad to Northville.

Van Nostrands; road crossing at railroad station-----	743.0
Cranberry Creek, Main Street, 300 feet north of railroad crossing and 100 feet west of track, in boulder 3 feet high; copper bolt stamped "U. S. G. S. B. M. 768 ft."-----	763.790
Northville; platform of railroad station-----	765.0

BROCKPORT QUADRANGLE.¹

[Latitude 43°-43° 15'; longitude 77° 45'-78°.]

Primary leveling in 1897 by E. L. McNair.**At Spencerport.**

Spencerport, Amity street, in northeast pier of bridge 99; bronze tablet stamped "519 B"-----	518.848
Spencerport, New York Central & Hudson River R. R. station; southeast corner of doorstep at east end of building-----	528.96
Spencerport, at east end of New York Central & Hudson River R. R. station; top of rail-----	526.3

From Brockport south to point 1 mile south of Sweden Center.

Brockport, east end of towpath abutment of Park Avenue canal bridge; lower step (Erie Canal b. m. 107, State engineer's b. m. 475) -----	510.690
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¹ See Bull. 514, p. 95, for additional elevations.

Brockport Normal School, in foundation wall in front of office; bronze tablet stamped "538 B"	Feet. 539. 231
Brockport water tower, on stone foundation, west side; chiseled square	607. 83
Sweden Center, 1 mile south of, at Geo. W. Way's residence, in foundation wall under bay window; bronze tablet stamped "639 B"	640. 191

Spur lines from corrected railroad levels of doubtful value.

At Bergen.

Bergen, West Shore R. R. crossing; top of rail	580. 4
Bergen, New York Central & Hudson River R. R. station; top of rail	604. 1
Bergen, New York Central & Hudson River R. R. station, in doorstep of baggage room; bronze tablet stamped "604 B"	604. 959

Southward from Chili station (New York Central R. R.).

Chili station, 380 feet east of, south side of main line of New York Central & Hudson River R. R., in south end of old culvert abutment at southwest corner of flagman's shanty; bronze tablet stamped "561 B"	562. 174
Chili station, 2.5 miles south of, 1.25 miles south of Buckbee Corner, under southeast corner of dwelling house of John Groves, west of road, in foundation wall; bronze tablet stamped "558 B"	559. 471

At Churchville.

Churchville, 800 feet east of station; west abutment of New York Central & Hudson River R. R. bridge 721 (railroad company's bench mark)	564. 57
Churchville, in front of New York Central & Hudson River R. R. station; top of rail	569.
Churchville, West Shore R. R. crossing; top of rail	569. 6
Churchville, Union School building, at right side of main entrance; bronze tablet stamped "615 B"	615. 633

BUFFALO QUADRANGLE.¹

[Latitude 42° 45'-43°; longitude 78° 45'-79°.]

Precise leveling in 1902 by D. H. Baldwin.

From Buffalo along the Lake Shore & Michigan Southern Ry. to Athol Springs.

Buffalo (U. S. Engineer Corps bench mark and State Canal bench mark 553), south United States pier lighthouse, upper surface of plinth; east angle stamped by chiseling in stone so as to leave a rounded point	590. 099
Buffalo, Michigan Street bridge over Buffalo Creek; surface of floor	587
Buffalo, Lehigh Valley R. R. bench mark, northwest corner of bridge over Ohio Slip; in top of foundation stone; iron bolt	586. 228
Buffalo, northwest of New York Central switch tower, 24 feet from old stone milepost, 10 feet west of track; top of rail driven vertically in ground	589. 591
Buffalo, grade crossing of Erie R. R., four tracks; top of rail	585. 4

¹ See Bull. 514, pp. 101-103, for additional elevations.

Buffalo, southeast corner of three-span, iron-truss bridge, overhead crossing of the Delaware, Lackawanna & Western R. R., on south corner of fourteenth step from top of wing wall about level with track; chiseled square-----	Feet. 585. 66
Buffalo (railroad bench mark), northwest corner two-span, steel-truss bridge 267 over Buffalo Creek, southwest corner of parapet wall; chiseled circle-----	591. 46
West Seneca, 0.58 mile north of, end of trestle and two-span bridge overhead crossing, at north end of stone pier about 4 feet above main track, on coping stone; chiseled square-----	589. 16
West Seneca, in front of station; top of rail-----	599. 9
West Seneca, 1.04 miles south of (New York Central R. R. bench mark), 20 feet south of survey station 606+50, 400 feet south of switch tower; top of rail driven vertically in ground-----	591. 27
Athol Springs, in front of station; top of rail-----	626
Athol Springs, 0.76 mile south of, milepost "B 11" north face, 6 feet above ground; chiseled square-----	640. 54
Athol Springs, 0.91 mile south of, southeast corner of stone-arch culvert bridge, in south face of coping stone; bronze tablet stamped "631 Rochester 1902"-----	631. 110
Athol Springs, 1.1 miles south of, road crossing to "Hamburg-on-the-Lake;" top of east rail-----	636. 6

Primary leveling in 1903 by George Seidel.

From Ebenezer north along highway to Williamsville.

Ebenezer, railroad crossing at station; top of rail-----	636. 3
Gardenville, 100 feet north of iron bridge at street crossing; rock on northwest corner-----	630. 57
Erie R. R. crossing; top of rail-----	636
Delaware, Lackawanna & Western R. R. crossing; top of rail-----	641
Forks, 0.2 mile west of station, south side of New York Central tracks, Evangelical Church, to right of main entrance, in foundation wall; bronze tablet stamped "662 Albany 1903"-----	662. 079
New York Central R. R. bench mark at milepost 433-----	657. 69
New York Central R. R. bench mark at monument 90-----	654. 75

CALEDONIA QUADRANGLE.

[Latitude $42^{\circ} 45' - 43^{\circ}$; longitude $77^{\circ} 45' - 78^{\circ}$.]

Precise leveling in 1902 by D. H. Baldwin.

From Avon southwest along Pennsylvania R. R. to Cuylerville.

Avon, near Pennsylvania R. R. station, road crossing; top of east rail-----	543. 5
Fowlerville, 1.42 miles north of, remains of old canal lock, west wall, near center of top stone; chiseled square-----	551. 98
Fowlerville, in front of station; top of east rail-----	561. 2
York, in front of station; top of east rail-----	561. 3
York, 1.02 miles south of, east side of track, on coping stone of culvert; chiseled square-----	555. 76
Piffard, 660 feet north of west side of track, east side wall of drain from salt works, on coping stone; chiseled square-----	564. 96
Piffard, in front of station; top of east rail-----	569. 0
Piffard, 1.91 miles south of, east side of track, southeast corner of large culvert wall, on coping stone; chiseled square-----	566. 58

	Feet.
Cuylerville, in front of station; top of east rail-----	569. 9
Cuylerville, 0.53 mile south of, northwest corner of bridge 5, on northwest corner of parapet wall; chiseled square-----	569. 29
Delaware, Lackawanna & Western Junction, grade crossing; top of east rail-----	586. 8

Primary leveling in 1901 by C. H. Semper and in 1902 by William Kelley.

From Avon along the Erie R. R. to McQueens Crossing.

Avon, 0.57 mile south of station, on Bath branch of Erie R. R., bridge over highway, in west end of south abutment; bronze tablet stamped "609 Rochester"-----	608. 977
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From Genesee Valley junction south along the Erie R. R. to Mount Morris.

Avon, west side of station; platform-----	584. 0
Ashantee, in front of station and creamery; top of rail-----	579. 8
South Avon, road crossing near station; top of east rail-----	614. 3
Geneseo, in front of station; top of east rail-----	596. 2
Geneseo, 60 feet east of Erie freight house, 5 feet south of northwest corner of Delehanty's warehouse, in west face of foundation wall; aluminum tablet stamped "602 Rochester"-----	602. 290
Cuylerville, road crossing; top of east rail-----	579. 2

From Avon west along the Erie R. R. via Caledonia to Leroy.

Avon, 1.75 miles west of, bridge over Pennsylvania R. R.; top of rail-----	557. 4
Caledonia, John Ball's storehouse opposite station, in northerly face of foundation wall; aluminum tablet stamped "669 Rochester"-----	668. 399
Leroy, junction of the Erie and the Buffalo, Rochester & Pittsburgh railroads; top of rail-----	862. 50
Leroy, "Church crossing" of Erie R. R., at southwest corner of, at northeast corner of malthouse lettered "D," in easterly face; bronze tablet stamped "869 Rochester"-----	868. 385

From Mount Morris northwest along the Delaware, Lackawanna & Western R. R. via Greigsville to Linwood.

Leicester, foundation wall of town hall, set in easterly face, 12 feet from northeast corner; bronze tablet stamped "661 Rochester"-----	660. 404
Leicester, highway crossing; north rail-----	656. 2
Greigsville, in front of station; top of north rail-----	762. 0
Craigs, highway crossing; top of north rail-----	865. 0
Craig's, 50 feet west of station, on north side of track, near southwest corner of foundation wall of storehouse, on southerly face; bronze tablet stamped "866 Rochester"-----	865. 988
Linwood, in front of station; north rail-----	933. 2

CANAJOHARIE QUADRANGLE.¹

[Latitude 42° 45'-43°; longitude 74° 30'-74° 45'.]

Primary leveling in 1898 by Clark Brown.

From Canajoharie to Ames (mean of direct and reverse lines).

Canajoharie, Union Free School, west front, south of stone steps, in stone balustrade; aluminum tablet stamped "A 350"-----	350. 301
Marshville, schoolhouse; south end of doorsill-----	675. 72

¹ See Bull. 514, p. 70-72, for additional elevations.

From Ames east to Blaine, thence south to Sharon.

Blaine, 50 feet from east coping of cemetery wall; aluminum tablet stamped "A 943"	Feet.
	943.315
Sharon, opposite Lutheran Church and schoolhouse, outcropping ledge in field, southwest of road; aluminum tablet stamped "A 1212"	1,212.822

From Sharon northwest to Sharon Springs station.

Sharon Center, schoolhouse; north end of doorsill	1,437.77
Sharon Springs, 700 feet north of main east and west road through Rockville, 500 feet from top of hill, in outcrop on west side of street; aluminum tablet stamped "A, 1295"	1,295.007
Sharon Springs, in front of station; top of rail	1,353.7

From Sharon Springs station northwest to Sprout Brook, thence east to Ames.

Sprout Brook, 1 mile south of, at road corner; south end of schoolhouse doorsill	783.73
Hessville, 0.5 mile south of schoolhouse, 150 feet north of road to west, opposite house and 15 feet east of road, in boulder 8 feet broad; aluminum tablet stamped "A 826"	825.987

From Fort Plain west to Hallsville.

Fort Plain, Erie Canal lock 32, towpath coping, end of anchor, northeast gate; chiseled cross within circle (Canal b. m. 171)	312.151
Fort Plain, Union Free School, Division Street front, water table 1 foot from south corner; aluminum tablet stamped "A 316"	317.090
Fort Plain, 1.5 miles west of, Valley schoolhouse; west end of doorsill	394.53
Hallsville, south end of cheese factory, stone foundation, 1 foot from east corner; aluminum tablet stamped "A 509"	509.242

CANANDAIGUA QUADRANGLE.[Latitude $42^{\circ} 45' - 43^{\circ}$; longitude $77^{\circ} 15' - 77^{\circ} 30'$.]**Primary leveling in 1899 and 1901 by C. H. Semper and W. F. Hammond.****From Canandaigua west along the New York Central & Hudson River R. R. to East Bloomfield.**

Canandaigua Lake, at outlet; surface of water September 13, 1899	684.8
Canandaigua, southwest corner of courthouse, in foundation wall; bronze tablet stamped "766 Oswego 1899"	766.916
Holcomb, in front of station; top of rail	877.0
East Bloomfield, southeast corner of hotel; aluminum tablet stamped "1017 Oswego 1899"	1,016.760

From Manchester west along the Lehigh Valley R. R. to Fishers, thence north to Bushnell Basin.

Tuttles, in top of large boulder 500 feet south of station; bronze tablet stamped "599 Oswego 1899"	599.596
Victor, 1,500 feet east of, in south end of east abutment of railway cattle pass; bronze tablet stamped "559 Oswego 1899"	560.099

From Wheeler south along highway via Braggyville to Bristol Center (single-spur line).

Bristol Center, northwest corner of Methodist Episcopal Church, in foundation wall; bronze tablet stamped "931 Oswego 1899"	930.898
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From point 2 miles east of Canandaigua south on east side of Canandaigua Lake (single-spur line).

	Feet.
Canandaigua Lake; surface of water September 9, 1899	685. 3
Cottage City, on Lake road, east side of Canandaigua Lake, south wall of bridge, in top of east end; bronze tablet stamped "713 Oswego 1899"	713. 594

CANASERAGA QUADRANGLE.¹

[Latitude $42^{\circ} 15'$ - $42^{\circ} 30'$; longitude $77^{\circ} 45'$ - 78° .]

Precise leveling in 1898 by E. L. McNair.

At Alfred.

Alfred, 0.4 mile south of, east end of bridge 4 over road and creek; top of north rail	1, 607. 7
Alfred, Erie station, water table under front office window, facing track; aluminum tablet stamped "1610 D"	1, 611. 391

Precise leveling in 1902 by D. H. Baldwin.

From Swain east along Erie R. R. to Canaseraga.

Swain, 1.7 miles north of, southeast corner of steel-girder bridge over small stream, on parapet wall; chiseled square	1, 305. 38
Swain, north of the Pittsburg, Shawmut & Northern R. R. station, near southwest corner of highway bridge, south of railroad, in west wing wall, on large flat stone; chiseled square	1, 298. 58
Swain, 200 feet south of Erie R. R. station, small Union Church, northwest corner of, in foundation wall; aluminum tablet stamped "1316 Rochester 1902"	1, 316. 658
Swain, in front of Erie station; top of north rail	1, 307. 5
Swain, 0.4 mile southeast of, northwest corner of bridge 9, on coping stone of foundation; chiseled square	1, 297. 10
Swain, 1.79 miles southeast of, northeast corner of bridge 8, on parapet wall; chiseled square	1, 275. 69
Garwood, in front of station; top of south rail, northbound track	1, 274. 9
Canaseraga, 0.2 mile northwest of, northeast corner of bridge 6½, on foundation stone; chiseled square	1, 260. 33
Canaseraga, in front of station, westbound track; top of south rail	1, 257. 0
Canaseraga, Kingston Hotel, southwest corner, in water table; aluminum tablet stamped "1253 Rochester 1902"	1, 252. 973

Leveling in 1914 by A. J. Kavanagh.

From Swain south along Pittsburg, Shawmut & Northern R. R. to Angelica.

Swain, 200 feet south of Erie R. R. station, northwest corner of small Union Church, in foundation wall; aluminum tablet stamped "1316 Rochester 1902"	1, 316. 658
Swain, 1.42 miles south of, on Shawmut R. R., on west side of small stone culvert; chiseled square, painted "U. S. T. B. M. 1414"	1, 414. 13
Swain, 2.56 miles south of, 0.17 mile south of road crossing, on small boulder 6 feet southeast of track; chiseled square painted "U. S. T. B. M. 1506"	1, 506. 22
Grove, opposite station; top of rail	1, 614. 3

¹ See Bull. 514, p. 82, for additional elevations.

Grove, 0.33 mile southwest of station, in northeast wing of concrete overhead crossing, top tier; bronze tablet, stamped "1639"	Feet.
overhead crossing, top tier; bronze tablet, stamped "1639"	1,639. 629
Grove, 1.08 miles southwest of, 0.2 mile north of switch, on boulder 25 feet east of track; chiseled square, painted "U. S. T. B. M. 1704"	1,704. 27
Center, 0.3 mile northeast of, on boulder 5 feet west of track; chiseled square, painted "U. S. T. B. M. 1710.2"	1,710. 36
Center, opposite station, top of rail	1,710. 3
Center, 1.06 miles southwest of station, 0.15 mile north of sign "Tracy's", 30 feet west of track, in boulder at foot of two small poplar trees; bronze tablet stamped "1770"	1,770. 605
Birdsall, 0.32 mile northeast of station, 180 feet north of sawmill crossing, on boulder 6 feet east of track; chiseled square painted "U. S. T. B. M. 1743"	1,743. 62
Birdsall, opposite station; top of rail	1,729. 6
Birdsall, 0.56 mile southwest of, in top of south side of wooden culvert; copper nail and washer painted "U. S. T. B. M. 1713.5"	1,713. 75
Birdsall, 2.04 miles southwest of, 210 feet north of road crossing, at foot of telegraph pole W-28, on stone culvert; chiseled square painted "U. S. T. B. M. 1651"	1,651. 44
Scholes, in front of station; top of rail	1,624. 4
Scholes, 1.63 miles southwest of, 250 feet south of road crossing, in boulder 6 feet east of track; bronze tablet stamped "1608"	1,608. 598
Bennett, 0.81 mile northeast of, at south end of long siding, in switch block; copper nail and washer painted "U. S. T. B. M. 1591"	1,591. 00
Bennett, opposite station; top of rail	1,583. 4
Bennett, 150 feet south of station, on northeast corner of abutment of small bridge; copper nail and washer painted "U. S. T. B. M. 1584"	1,584. 28
Bennett, 1.14 miles southwest of, in boulder 6 feet east of track; bronze tablet stamped "1545"	1,545. 659
County House, 0.6 mile northeast of, 110 feet north of road crossing, on east side concrete culvert; chiseled square painted "U. S. T. B. M. 1511"	1,511. 82
County House, 270 feet northeast of station, on top course, southwest abutment of railroad bridge; chiseled square painted "U. S. T. B. M. 1501"	1,501. 92
County House, 0.53 mile west of, in southeast corner concrete abutment of railroad bridge; bronze tablet stamped "1486"	1,486. 192

From County House along highways east to Blinn's Four Corners, thence south to Phillips Creek, thence east to Alfred station.

Blinn's Four Corners, in yard of brown house, 4 feet from road, on small boulder; chiseled square painted "U. S. T. B. M. 1621"	1,620. 87
Blinn's Four Corners, 500 feet south of, in boulder 4 feet west of road; bronze tablet stamped "1645"	1,645. 428
Blinn's Four Corners, 1.10 miles south of, on large sandstone boulder; chiseled square painted "U. S. T. B. M. 1825"	1,824. 56
Blinn's Corners, 2.16 miles south of, 1.07 miles north of crossroad, on Phillips Creek road, on small boulder 6 feet south of road; chiseled square painted "U. S. t. b. m. 1852"	1,852. 32

Phillips Creek, 0.75 mile west of, on top of stump 6 feet south of road;	Feet.
copper nail and washer painted "U. S. t. b. m. 1803"-----	1,802.92
Phillips Creek, in southwest abutment of bridge at cheese factory;	
bronze tablet stamped "1836"-----	1,836.568
Phillips Creek, 1.45 miles east of, on boulder beside small sluiceway;	
chiseled square marked "U. S. t. b. m. 2169"-----	2,168.99
Five Corners, 1 mile west of, in front of abandoned house, on horse block; chiseled square painted "U. S. t. b. m. 2258"-----	2,257.67
Five Corners, in west end of south side of small bridge; bronze tablet stamped "2034"-----	2,034.455
Alfred, 1.49 miles west of, on south side concrete culvert; chiseled square painted "U. S. t. b. m. 2116"-----	2,115.76
Alfred, 0.7 mile west of, at edge of village, on north side concrete culvert; chiseled square painted "U. S. t. b. m. 1842.6"-----	1,842.63
Alfred, Main Street, in northwest wing wall of bridge; bronze tablet stamped "1730"-----	1,730.019
Alfred station, 1.06 miles west of, on south side concrete culvert; chiseled square painted "U. S. t. b. m. 1638.1"-----	1,638.14
Alfred station, Erie station, water table under front office window facing track; aluminum tablet stamped "1611 D"-----	1,611.391

CANTON QUADRANGLE.

[Latitude $44^{\circ} 30'$ - $44^{\circ} 45'$; longitude $75^{\circ} - 75^{\circ} 15'$.]

Primary leveling in 1904 by G. M. Dimmick and in 1908 by F. B. Northrup.

From De Kalb Junction northeast along Rome, Watertown & Ogdensburg R. R.
to Canton, thence north along highway to Madrid.

Canton, 5.5 miles southwest of, 9 feet south of railroad, 6 feet east of west line fence of highway, in granite ledge; chiseled square marked "389.7"-----	389.82
Canton, 4.0 miles southwest of, 12 feet south of railroad, 21 feet north of south line fence, in granite ledge; aluminum tablet stamped "398"-----	397.971
Canton, 1.0 mile southwest of, on southwest corner of railroad bridge abutment; chiseled square marked "367.6"-----	366.55
Canton, town hall, east end of top step of main entrance; aluminum tablet stamped "362"-----	363.132
Canton, 3.4 miles north of, at T road east, beside old State road, on granite boulder; chiseled square marked "375"-----	375.09
Canton, 4.5 miles north of, on old State road, in granite boulder, 720 feet north of farmhouse of H. E. & H. F. Egglestone, 10 feet west of center of road; aluminum tablet stamped "349"-----	349.045
Canton, 6.5 miles north of, on old State road, 15 feet east of center of road, on granite boulder; chiseled square marked "331.9"-----	330.93
Madrid, 3.9 miles south of, on old State road, on farm of J. W. Wright, 525 feet northeast of crossroad, 130 feet east of center of road, in granite boulder; aluminum tablet stamped "315"-----	314.398
Madrid, 1.9 miles south of, on old State road, 15 feet west of center of road, 17 feet east of west line fence, on stone; chiseled square marked "357.2"-----	356.25
Madrid, in foundation wall of Methodist Church, center of east face; bronze tablet stamped "320"-----	319.557

From Norwood west along highway to Madrid Springs.

	Feet.
Norwood, in foundation wall of Music Hall, north end of east face, 28 inches above ground; aluminum tablet stamped "330"-----	330. 237
Norwood, 1.2 miles west of, in old stone culvert at public highway crossing, 18 feet from center of track, 24 feet west of center of road, 3 feet west of north-south line fence; chiseled square marked "330.2"-----	330. 57
Norwood, 3.2 miles west of, 18 feet north of south line fence, 28 feet south of center of track, in granite boulder; aluminum tablet stamped "328"-----	328. 141
Madrid, 2.0 miles east of station, 33 feet northeast of center of track, 15 feet north of center of road, 18 feet south of north line fence, on granite boulder; chiseled square marked "308.6"-----	309. 18

From Madrid Springs west along highway to Lisbon.

Madrid, 1.1 miles south of, 0.5 mile east of Madrid station, on north end of east abutment of railroad bridge over Grass River; chisel mark; abutment marked "296.6"-----	295. 629
Madrid, 3.9 miles west of station, 65 feet north of railroad, 21 feet north of north line fence, in granite outcrop; aluminum tablet stamped "323"-----	322. 668
Lisbon, in foundation wall of Methodist Church, center of south face; bronze tablet stamped "357"-----	357. 696

From Canton east along highways via Crary Mills to Colton.

Canton, town hall, east end of top step of main entrance; aluminum tablet stamped "362"-----	363. 132
Canton, 2.9 miles southeast of, T road east to Crary Mills, on boulder west of junction; paint mark; boulder marked "377.8"-----	377. 91
Canton, 3.0 miles southeast of, T road east, 600 feet south of bridge over Granite Brook, north abutment, west bridge seat; aluminum tablet stamped "363"-----	363. 957
Crary Mills, west abutment of bridge over Granite Brook, southwest corner of abutment; aluminum tablet stamped "462"-----	463. 383
Crary Mills, 3.1 miles southeast of, southeast abutment of bridge over Leonards Brook; aluminum tablet stamped "597"-----	597. 404

CARTHAGE QUADRANGLE.¹

[Latitude 43° 45'-44°; longitude 75° 30'-75° 45'.]

Precise leveling in 1900 by C. H. Semper.**From Castorland northwest along Rome, Watertown & Ogdensburg R. R. to Carthage.**

Castorland, 1,600 feet south of station, bridge over Snake Creek, top of north abutment, west side; bronze tablet stamped "738 Albany 1900"-----	738. 346
Castorland, in front of station; top of rail-----	746. 2
Deer River, in front of station; top of rail-----	741. 2
Carthage, iron highway bridge over Black River, end of bridge rail 10 feet west of railroad, top of wing wall, east end; bronze tablet stamped "741 Albany 1900"-----	742. 143
Carthage, in front of station; top of rail-----	737. 4

¹ See Bull. 514, p. 27, for additional elevations.

Primary leveling in 1902 by J. B. Maguire.

From Lowville west along highway to Gardners Corners, thence north via Copenhagen to Champion, thence east to Carthage.

Gardners Corners, about 5.2 miles east of, northwest corner of foundation of school No. 14 in Martins Township; bronze tablet stamped "1700 Albany"	Feet.	1,700. 643
Gardners Corners, northwest corner of post office and general store; bronze tablet stamped "1697 Albany"	1,697. 560	
Copenhagen, highway bridge over Deer River, in north wing of west abutment; aluminum tablet stamped "1174 Albany"	1,174. 462	
Champion, 400 feet south of crossroads, west wall of culvert; bronze tablet stamped "1011 Albany"	1,010. 791	

CATSKILL QUADRANGLE.¹

[Latitude 42° 42' 15"; longitude 73° 45'-74°.]

Primary leveling in 1900 by George Bailey.

At Hudson.

Hudson, on northeast end of upper station, 1 foot from ground; bronze tablet stamped "Albany 151"	151. 543
Hudson, Diamond Street; crossing electric railway and railroad	151. 1

CATTARAUGUS QUADRANGLE.

[Latitude 42° 15'-42° 30'; longitude 78° 45'-79°.]

Precise leveling in 1898 by E. L. McNair.

From Perrysburg southeast along Erie R. R. to Cattaraugus.

Perrysburg, in front of Erie station; top of rail	1, 265. 1
Perrysburg, 400 feet east of waiting room of Erie station, in keystone at north end of arch culvert under railway; bronze tablet stamped "1261 D"	1, 262. 417
Dayton, 950 feet north of Erie station, 37.5 feet east of center of track, coping of tunnel underneath Erie track, second stepstone from top; bronze tablet stamped "1322 D"	1, 322. 926
Dayton, in front of Erie station; top of rail	1, 337. 1
Cattaraugus, Union School building, in water table at right of main entrance; bronze tablet stamped "1401 D" (possibly restamped "1384 D")	1, 385. 631
Cattaraugus, in front of Erie station; top of rail	1, 415. 2

Primary leveling in 1905 by R. P. Thompson.

From Collins station along Pennsylvania R. R. to Dayton.

Collins station, in southeast corner of building owned by F. Mathan, in water table; bronze tablet stamped "875 Adj 1903"	875. 150
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¹ See Bull. 514, p. 46, for additional elevations.

CAZENOVIA QUADRANGLE.¹[Latitude $42^{\circ} 45' - 43^{\circ}$; longitude $75^{\circ} 45' - 76^{\circ}$.]

Primary leveling in 1897 by Clark Brown.

From Apulia east to Fabius.

Fabius, 100 feet west of crossroads, Main and Cemetery streets, in
wall under west window of flat-roofed frame house; tablet stamped Feet.
"1284 S" _____ 1, 284. 670

From Fabius northeast to Delphi, thence north to Oran.

Oran, 1.5 miles southeast of, 1.5 miles southeast of railroad crossing of
Cherry Valley turnpike, 500 feet northwest of rock cut, on north
coping of cattle pass; chiseled square _____ 1, 092. 08
Oran, 300 feet west of church, 20 feet north of road, copper bolt in
prominent boulder; stamped "S 793" _____ 793. 678

From Fabius south via Keeney to Cuyler.

Fabius, 1.75 miles south of, east end of south abutment of iron bridge;
chiseled square _____ 1, 229. 79
Keeney, 500 feet east of schoolhouse, northeast wing of iron bridge,
top stone; chiseled square _____ 1, 209. 31
Cuyler, 1 mile northeast of, near end of northeast wing of iron bridge
over Tioughnioga River; chiseled square _____ 1, 206. 31

From Cuyler north via Deruyter to Deruyter reservoir.

Deruyter, foundation of water tank, in coping, side next to track;
iron bolt _____ 1, 284. 70
Deruyter reservoir dam, west end of, south parapet of spillway arch,
east end, face corner of coping; copper bolt stamped "1286 S" _____ 1, 286. 618

From Deruyter northeast to Sheds Corners, thence east to near Georgetown,
thence north to Erieville.

Deruyter, 2.5 miles north of by 0.5 mile east of, railroad bench mark
92, reservoir road, opposite old sawmill, south parapet of railroad
culvert; iron bolt set in lead _____ 1, 319. 110
Sheds Corners station, 600 feet south of, Tioughnioga River railroad
bridge, north abutment, west end parapet; iron bolt set in cement
(railroad bench mark 94) _____ 1, 386. 053
Sheds Corners station, 600 feet south of, railroad bridge over Tiough-
nioga River, bridge seat, west end of south abutment; copper bolt
stamped "1383 S" _____ 1, 384. 360
Georgetown, 1.5 miles west of, on road to Sheds Corners, 75 feet north
of road to Erieville, 20 feet north of brook, 15 feet west of road, 4
feet east of road fence; iron post stamped "S 1538" _____ 1, 538. 754
Erieville, railroad bridge over road south of, on top stone, south end
west abutment; chiseled square _____ 1, 619. 10

¹ See Bull. 514, pp. 82-83, for other elevations.

From Erieville north via Nelson to Fenner, thence southwest to Cazenovia, thence northwest to Oran.

Erieville, reservoir gatehouse, 6 feet west of door, in projection of bottom course; copper bolt stamped "1473 S"	Feet.
	1,474.117
Nelson, 500 feet south of crossroads, on face corner of bottom stone, east end of north abutment of bridge; chiseled square	1,432.24
Fenner, 1 mile south of, 1,000 feet north of Peterboro turnpike, 150 feet south of orchard, 75 feet west of road, in outcrop; copper bolt stamped "1466 S"	1,467.544
Cazenovia, 942 feet south of Lehigh Valley R. R. station; iron pin in northwest corner of north abutment (railroad bench mark 103)	1,187.713
Cazenovia, south entrance of chapel building of seminary, water table under pilaster at east side of door; bronze tablet stamped "S 1246"	1,247.392
Cazenovia, West Shore R. R. pumping station, foundation of water tank, north pedestal next to track; chiseled square	1,196.99
Cazenovia, 2 miles northwest of West Shore R. R. station, highest point of stone monument over tunnel, 40 feet north of road	1,265.14

CHATEAUGAY QUADRANGLE.

[Latitude $44^{\circ} 45' - 45^{\circ}$; longitude $74^{\circ} - 74^{\circ} 15'$.]

Leveling in 1913 by A. J. Kavanagh.

From point 6.1 miles northwest of Star southwest along Rutland R. R. to near Malone Junction.

Chateaugay, 3.64 miles east of, 200 feet west of where Marble River crosses Rutland R. R., on boulder 40 feet north of track; chiseled square painted "U. S. B. M. 1062"	1,062.17
Chateaugay, 2.89 miles east of, 0.3 mile west of point where County Line road crosses Rutland R. R., in large boulder in base of fence; bronze tablet stamped "1049"	1,049.125
Chateaugay, 1.6 miles east of, at point where old military turnpike crosses Rutland R. R., on south wing of overhead crossing; chiseled square painted "1014"	1,013.78
Chateaugay, 0.85 mile east of, 0.45 mile west of road to south, in bottom of telegraph pole 25 feet north of track; top of railroad spike painted "U. S. B. M. 996"	995.90
Chateaugay, 230 feet west of station, 15 feet south of track, in concrete supporting wall of sidewalk; bronze tablet stamped "972"	971.600
Chateaugay, 1.34 miles west of, in base of wooden viaduct, middle of north side; copper nail and washer painted "U. S. T. B. M. 941.6"	941.33
Chateaugay, 2.55 miles west of, 65 feet east of milepost 0.71, 25 feet north of track, on boulder back of telephone pole; chiseled square painted "U. S. T. B. M. 903"	902.44
Burke, 0.42 mile east of station, 155 feet east of road forks, on south side of concrete culvert; bronze tablet stamped "885"	884.321
Burke, in front of station; top of rail marked "876"	875.6
Burke, 0.64 mile west of station, 85 feet east of railroad crossing, on south wing of concrete culvert, on highway; chiseled square painted "U. S. T. B. M. 856.5"	856.12
Burke, 1.67 miles west of, at road crossing, 6 feet south of track, on east end of wooden sluiceway; copper nail and washer painted "U. S. T. B. M. 832.3"	831.89

	Feet.
Burke, 3.1 miles west of, 0.6 miles east of road crossing, 50 feet north of track, in boulder near fence; bronze tablet stamped "793"-----	792. 227
Malone Junction, 2.1 miles east of, 390 feet east of road crossing, on north side stone culvert; chiseled square painted "U. S. T. B. M. 769.9" -----	769. 49

From point near Burke along highways north and west to point northeast of Constable.

Burke, 0.42 mile east of station, 155 feet east of road forks, in south side of concrete culvert; bronze tablet stamped "885"-----	884. 321
Burke, 1.55 miles east of station, on bottom stone of northeast wing of overhead crossing; chiseled square painted "U. S. T. B. M. 886.5" -----	886. 20
Thayers Corners, 0.2 mile north of, at schoolhouse road fork, on rock 20 feet east of north-south road; chiseled square painted "U. S. T. B. M. 736.6"-----	736. 22
Thayers Corners, 1.41 miles north of, 205 feet south of road to east, 30 feet west of road, in boulder beside fence; bronze tablet stamped "597"-----	597. 166
Thayers Corners, 2.23 miles north of, in bridge over creek, on top of stone of southwest abutment; chiseled square painted "U. S. T. B. M. 504.8"-----	504. 41
Thayers Corners, 3.35 miles north of, 90 feet north of north corner of Burke schoolhouse, 15 feet east of road, on boulder in fence; chiseled square painted "U. S. T. B. M. 502.2"-----	501. 89
Thayers Corners, 5.06 miles north of, 0.21 mile west of turn in road, in George Marsh's barnyard, 50 feet south of barn in granite boulder; bronze tablet stamped "393"-----	392. 519
Thayers Corners, 6.33 miles northwest of, 520 feet east of John Bush's farmhouse, 15 feet north of road on small boulder; chiseled square painted "U. S. T. B. M. 356.4"-----	356. 04
Thayers Corners, 7.34 miles northwest of, at entrance to Mrs. Sarah Price's farm, at west side of driveway on boulder 3 feet from road; chiseled square painted "U. S. T. B. M. 341"-----	340. 27
Thayers Corners, 8.07 miles northwest of, opposite Luke Fee's farmhouse, 35 feet south of road in sandstone boulder; bronze tablet stamped "309"-----	308. 597
Constable, 4.65 miles north of station, 0.3 mile east of railroad on southeast abutment of bridge over "Susie's Brook," top stone; chiseled square painted "U. S. T. B. M. 277"-----	276. 70
Constable, 3.7 miles north of station, 290 feet south of milepost M 9, 800 feet north of road crossing, in southwest corner of concrete cowpass; bronze tablet stamped "296"-----	295. 891

From point near Burke along highways south and southeast to point northwest of Lyon Mountain.

Burke, .42 mile east of station, 155 feet east of road forks, on south side of concrete culvert; bronze tablet stamped "885"-----	884. 321
Burke, 1.32 miles south of, 750 feet north of Trout River bridge, on rock 12 feet west of road; chiseled square painted "U. S. T. B. M. 973"-----	972. 53
Burke, 2.18 miles south of, on rock 20 feet west of road, beside fence; chiseled square painted "U. S. T. B. M. 1096.6"-----	1, 096. 27

Burke, 3.2 miles south of, 2.55 feet east of where road turns east, in boulder under spruce tree in front of James Gardner's house; bronze tablet stamped "1176"	Feet.
	1, 176. 082
Belmont Center, 0.66 mile west of church, 190 feet east of T road to north, on granite boulder 12 feet north of road; chiseled square painted "U. S. T. B. M. 1302.9"	1, 302. 41
Belmont Center, at road forks at church, on boulder at foot of telephone pole, 12 feet south of road; chiseled square painted "1326.3"	1, 325. 87
Belmont Center, 0.82 mile southeast of church, 245 feet east of Joseph Bushey's house, in granite boulder 10 feet north of road; bronze tablet stamped "1421"	1, 420. 436
Belmont Center, 1.64 miles southeast of church, in bridge over creek, at east end of north side; copper nail and washer painted "U. S. T. B. M. 1330"	1, 329. 63
Belmont Center, 2.94 miles southeast of church, in front of brown house on south side of road, on large boulder beside road; chiseled square painted "U. S. T. B. M. 1641.5"	1, 641. 00
Chateaugay Lake village, at crossroads west of bridge, on west side of concrete culvert; bronze tablet stamped "1351"	1, 350. 459
Chateaugay Lake, 0.36 mile south of Banner House, on large boulder 10 feet west of road; chiseled square, painted "U. S. T. B. M. 1315"	1, 314. 82
Chateaugay Lake, 1.14 miles south of Banner House, on east side of concrete culvert; chiseled square painted "U. S. T. B. M. 1324"	1, 323. 61
Lyon Mountain, 8 miles north of, west side of road, 3 feet east of clump of 5 small maple trees, 10 feet from intersection, on top of boulder; chiseled square	1, 331. 13

From point 3.2 miles south of Burke along highways west, south, east, and northeast to Chateaugay Lake.

Burke, 3.2 miles south of, 255 feet east of where road turns east, in boulder under spruce tree in front of James Gardner's house; bronze tablet stamped "1176"	1, 176. 082
Burke, 4.26 miles southwest of, on concrete bridge over small stream, east side; chiseled square painted "U. S. T. B. M. 1184.2"	1, 183. 89
Burke, 5.36 miles southwest of, 0.3 mile east of white church corner, on south wing of concrete culvert; chiseled square painted "U. S. T. B. M. 1204.7"	1, 204. 31
Burke, 6.19 miles southwest of, 0.53 mile south of white church, 30 feet south of Orson Wilson's house, in boulder beside road; bronze tablet stamped "1217"	1, 217. 042
Burke, 7.5 miles south of, 1.83 miles south of white church, on southwest corner of concrete bridge over Wentworth Brook; chiseled square painted "U. S. T. B. M. 1247.9"	1, 247. 52
Kingville, 2.34 miles northwest of, on boulder in middle of old road; chiseled square painted "U. S. T. B. M. 1242.4"	1, 242. 09
Kingville, 1 mile west of, 60 feet east of bridge over creek, at foot of sawdust hill, in boulder 20 feet north of road; bronze tablet stamped "1255"	1, 254. 789
Kingville, at bend in road at sawmill, on boulder 30 feet north of road; chiseled square painted "U. S. T. B. M. 1421.4"	1, 421. 12
Kingville, 1 mile east of, 665 feet east of creek, 60 feet east of road forks, in birch side log in bridge over brook; copper nail and washer, painted "U. S. T. B. M. 1516.7"	1, 516. 42

Kingville, 1.59 miles east of, 0.72 mile east of O'Donnell's camp, on boulder in middle of wood road; bronze tablet stamped "1619"	Feet.	1,618.380
Kingville, 2.37 miles east of, on side of road to "Lot 46 Camps" on boulder; chiseled square painted "U. S. T. B. M. 1692"	1,691.78	
Kingville, 3.29 miles east of, on boulder in wood road (old tote road to Rabbit Inn); chiseled square painted "U. S. T. B. M. 1788"	1,787.87	
Chateaugay Lake, 4.84 miles south of, 1.45 miles south of Rabbit Inn, on Fred Hoy's tote road, in rock beside road; bronze tablet stamped "1920"	1,920.177	
Chateaugay Lake, 3.85 miles south of, 0.45 mile south of Rabbit Inn, on boulder in middle of tote road; chiseled square painted "U. S. T. B. M. 1605"	1,604.88	
Chateaugay Lake, 2.8 miles south of, 0.8 mile north of Rabbit Inn, 15 feet east of road on large boulder; chiseled square painted "U. S. T. B. M. 1573"	1,572.69	
Chateaugay Lake, 2.17 miles south of, on Hoy's tote road, 0.7 mile south of main road, in granite bowlder 6 feet east of road; bronze tablet stamped "1645"	1,644.418	
Chateaugay Lake, 1.47 miles south of where Hoy's tote road leaves main road, on boulder at fork; chiseled square painted "U. S. T. B. M. 1619"	1,619.24	
Chateaugay Lake, 0.85 mile south of, at three corner on hill, on boulder at corner; chiseled square painted "U. S. T. B. M. 1524"	1,524.03	
Chateaugay Lake, at crossroads, west of bridge, in west side of concrete culvert; bronze tablet stamped "1351"	1,350.459	

**From Whippleville southeast along New York Central & Hudson River R. R.
to Owls Head.**

Whippleville, 720 feet south of station, on southwest wing of stone culvert; chiseled square painted "U. S. T. B. M. 1112.4"	1,111.93
Whippleville, in front of station; top of rail, marked "1103.7"	1,103.3
Whippleville, 1.34 miles south of station, 475 feet south of milepost 168, on granite bowlder, 25 feet east of track; chiseled square painted "U. S. T. B. M. 1211.4"	1,210.97
Chasm Falls, 1.09 miles north of station, in northeast wing of concrete overhead crossing; bronze tablet stamped "1270"	1,269.159
Kingville, 3.5 miles west of, at T road, 0.3 mile east of railroad, on large granite boulder; chiseled square painted "1310.7"	1,312.18
Chasm Falls, 0.27 mile south of station at grade crossing, 35 feet southwest of crossing, on granite boulder; chiseled square painted "U. S. T. B. M. 1327.9"	1,327.46
Chasm Falls, 1.09 miles north of station in northeast wing of concrete overhead crossing; bronze tablet stamped "1270"	1,269.159
Chasm Falls, in front of station; top of rail marked "1302.9"	1,302.4
Chasm Falls, 0.27 mile south of station, at grade crossing, 35 feet southwest of crossing, on granite boulder; chiseled square painted "U. S. T. B. M. 1327.9"	1,327.46
Owls Head, 1.17 miles north of station, 90 feet north of milepost 164, on west side of stone culvert; chiseled square painted "U. S. T. B. M. 1466"	1,465.73

CHAUTAUQUA QUADRANGLE.

[Latitude $42^{\circ} 42' 15''$; longitude $79^{\circ} 15' - 79^{\circ} 30'$.]

Primary leveling in 1902 by G. M. Dimmick.

From Wooglin southeast along Jamestown, Chautauqua & Lake Erie Ry. via Chautauqua Point to Jamestown.

	Feet.
Chautauqua Point, in front of station; top of south rail-----	1,323.2
Dewittville, in front of station; top of south rail-----	1,314.3
Dewittville, foundation wall of Methodist Church, 7.5 feet west of southeast corner, in southern side; bronze tablet stamped "1319	
Dunkirk"-----	1,319.864
Starr Farm, in front of station; top of south rail-----	1,314.4
Midway Grove; top of south rail-----	1,317.7
Midway, highway crossing near station; top of south rail-----	1,319.8
Warners, in front of station; top of south rail-----	1,315.0
Giffords, in front of station; top of south rail-----	1,313.0
Bay View, in front of station platform; top of south rail-----	1,323.0
Bemus Point, in front of station; top of south rail-----	1,355.8
Bemus Point, 440 feet south of station, west side of Cemetery Street, on the southerly side of A. G. Barrett's residence, in foundation wall of bay window, bronze tablet stamped "1345 Dunkirk"-----	1,345.529
Phillips Mills, in front of station; top of south rail-----	1,316.6
Colburns, in front of station; top of south rail-----	1,321.0
Bellevue, in front of station; top of south rail-----	1,321.6
Driftwood, in front of station; top of south rail-----	1,323.5
Griffith, in front of station; top of south rail-----	1,318.9
Greenhurst, in front of station; top of south rail-----	1,324.3
Fluvanna, in front of station; top of south rail-----	1,313.0
Fluvanna, Chautauqua Lake, June 13, 1902; water surface-----	1,308
Jamestown, Isabella Avenue; top of south rail-----	1,311.3

From Bemus Point along highway northeast to Ellery (single-spur line).

Ellery, Cowden Bros.' store, in foundation wall, north face; bronze tablet stamped "1758 Dunkirk 1902"-----	1,758.450
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From Jamestown southwest along Erie R. R. to Niobe (Grant station), thence north along highway to Panama, thence west to North Clymer.

Jamestown, 3,750 feet west of north end of east abutment of Erie R. R. bridge over Chautauqua Outlet, in bridge seat; bronze tablet stamped "1324 Dunkirk 1902"-----	1,321.470
Lakewood, highway crossing near station; top of north rail-----	1,352.1
Lakewood post office, on east side of Chautauqua Avenue, 4 feet east of southwest corner of R. H. Maxim's building (post office), on south side; aluminum tablet stamped "1362 Dunkirk"-----	1,361.810
Ashville, in front of station; north rail-----	1,353.3
Watts Flats, in front of station; top of north rail-----	1,452.7
Niobe, north end of brick wall, west abutment of Erie R. R. bridge, 600 feet west of depot; bronze tablet stamped "1434 Dunkirk"-----	1,433.522
Panama, Hotel Berny, north face, east corner, in water table; aluminum tablet stamped "1551 Dunkirk"-----	1,550.667

CHERRY CREEK QUADRANGLE.

[Latitude $42^{\circ} 15'$ – $42^{\circ} 30'$; longitude $79^{\circ} 79'$ $15'$.]

Precise leveling in 1898 by E. L. McNair.

From Sheridan east along Erie R. R. to Smiths Mills.

	Feet.
Sheridan, in front of Erie station; top of rail.....	758. 3
Forestville, 530 feet west of entrance to waiting room of Erie station, at northeast corner of iron bridge over highway, in bridge seat, 7 feet north of center of track; bronze tablet stamped "871 D" pos- sibly restamped "1348 D".....	871. 888
Forestville, in front of Erie station; top of rail.....	875. 5
Smiths Mills, in front of Erie station; top of rail.....	1, 010. 7
Smiths Mills, 2.3 miles east of, 10.5 feet north of center of railway track, under west end of overhead highway bridge; bronze tablet in foundation stone stamped "1097 D 1898".....	1, 098. 628

Primary leveling in 1898 by E. L. Faison.

From Cassadaga east to Cherry Creek.

Charlotte Center, 1.6 miles east of, 640 feet east of road turning off south, in stone 12 feet north of road, 6 inches above ground; copper bolt stamped "1915 D".....	1, 915. 887
Cherry Creek, in west side of north abutment of Main Street iron bridge over Cherry Creek; copper bolt stamped "1309 D".....	1, 310. 510
Cherry Creek, 400 feet south of station, northwest corner of abutment of plate-girder bridge over Erie Railroad; cross mark on top.....	1, 293. 77

From Cherry Creek northwest via Arkwright to Laona.

Arkwright Center, 0.9 mile east of, 15 feet north of center of road, large stone in place, 2 feet above ground; copper bolt stamped "1570 D".....	1, 571. 006
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CHILDWOLD QUADRANGLE.

[Latitude $44^{\circ} 15'$ – $44^{\circ} 30'$; longitude $74^{\circ} 30'$ – $74^{\circ} 45'$.]

Precise leveling in 1900 by C. H. Semper.

At Kildare.

Kildare, 350 feet north of station, in large boulder 8 feet east of rail; bronze tablet stamped "1528 Albany 1900".....	1, 527. 874
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Primary leveling in 1902 by A. T. Fowler.

From Horseshoe north along highway to Lake Massawepie, thence southeast
to Childwold station.

Lake Massawepie, east side of, in yard of camp owned by Hotel Childwold, 30 feet west of road, east of two houses, in boulder; bronze tablet stamped "1540 Albany".....	1, 540. 209
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4-1 SPIRIT LEVELING IN NEW YORK, 1896-1905, 1912-1916.

Leveling in 1916 by F. L. Shalibo.

From point near southwest corner of Childwold quadrangle along highways northeast to Sevey, thence east and south to Massawepie.

Shurtleff station, 50 feet southeast of, on south side of track in large boulder; chiseled square marked "t. b. m. 1,520.5"	Feet.	1, 520.49
Shurtleff, in face of dam at north end, in 6 by 6 inch timber; copper nail marked "t. b. m. 1514.4"		1, 514.46
Shurtleff, 0.2 mile north of station, 40 feet south of road, 300 feet southwest of Shurtleff Hotel, 583 feet northwest of center of dam across Grass River, in rock ledge; bronze tablet stamped "Prim. Trav. Sta. No. 6, 1916, Elev. 1556"		1, 555.826
Shurtleff, 1.1 miles northeast of, on southwest side of road, in root of 20-inch beech tree; copper nail marked "t. b. m. 1671.9"		1, 671.94
Shurtleff, 1.8 miles northeast of, on northwest side of road, in cement culvert over small stream; chiseled square marked "t. b. m. 1558.3"		1, 558.36
Sevey Corners, 600 feet southwest of Sevey Hotel, 50 feet southwest of junction of Potsdam-Tupper Lake road with road to Cranberry Lake, in south end of concrete headwall to small culvert, at southeast corner of road forks; bronze tablet stamped "Prim. Trav. Sta. No. 8, 1916, Elev. 1532"		1, 531.834
Sevey Corners, 1 mile east of, on north side of road, in large boulder; chiseled square marked "t. b. m. 1582.8"		1, 582.87
Sevey Corners, 2 miles east of, at northwest corner of road forks, in large rock; chiseled square marked "t. b. m. 1617.6"		1, 617.63
Childwold, 150 feet southeast of A. F. Cardinal's residence and post office, 40 feet south of road inside of wire fence, on south side in large boulder; bronze tablet stamped "Prim. Trav. Sta. No. 15, 1916, Elev. 1628"		1, 627.883
Childwold, 1.2 miles east of, 30 feet from road on north side, opposite abandoned house, in large boulder; chiseled square marked "t. b. m. 1693.7"		1, 693.76
Childwold, 2.2 miles east of, near top of long hill at forks of old wood road, on north side of road, in large boulder; chiseled square marked "t. b. m. 1669.6"		1, 669.61
Gale Corners, in center of triangle, in wooden post; copper nail marked "t. b. m. 1526.6"		1, 526.65
Gale Corners, 1.1 miles east of, 0.25 mile southeast of Childwold Hotel on north side of road, in root of 10-inch tree; copper nail marked "t. b. m. 1527.2"		1, 527.17
Lake Massawepie, east side of, in yard of camp owned by Hotel Childwold, 30 feet west of road, east of two houses, in boulder; tablet stamped "1540"		1, 540.209

From Sevey north along highways near west border of quadrangle.

Sevey Corners, in cement culvert at southeast corner of road forks; bronze tablet stamped "P. B. M. 1532"	1, 531.834
Sevey Corners, 1.1 miles north of, on east side of road in boulder; chiseled square marked "t. b. m. 1458.2"	1, 458.20
Sevey Corners, 1.6 miles north of, 200 feet north of road corners, on east side of road in old stump; copper nail marked "t. b. m. 1456.2"	1, 456.18

Sevey Corners, 2 miles north of, on west side of road, in root of tamarack tree; copper nail marked "t. b. m. 1436.8"	Feet.	1,436.84
Sevey Corners, 2.9 miles north of, on west side of road, in front of H. C. Perry's residence, in large boulder; chiseled square marked "t. b. m. 1413.9"	1,413.98	
Sevey Corners, 3.1 miles north of, 1,000 feet north of H. C. Perry's residence, on west side of road, in root of pine tree; copper nail marked "t. b. m. 1447.1"	1,447.10	
Sevey Corners, 3.1 miles north of, 1,000 feet north of H. C. Perry's residence, 220 feet west of road in boulder; bronze tablet stamped "t. b. m. 1444"	1,444.305	
Sevey Corners, 4 miles north of, on east side of road in root of tree; copper nail marked "t. b. m. 1514.4"	1,514.50	
Sevey Corners, 4.4 miles north of, at road forks, in front of Parameter's Camp, on east side in large rock; chiseled square marked "t. b. m. 1394.2"	1,394.26	
Sevey Corners, 5.1 miles north of, on east side of road, in boulder; chiseled square marked "t. b. m. 1384.3"	1,384.33	
Sevey Corners, 6.1 miles north of, 600 feet north of William Smith's residence, on east side of road, in large boulder; chiseled square marked "t. b. m. 1348.8"	1,348.84	
Hollywood, opposite and 60 feet east of front entrance of Hollywood Inn and post office, on east side of road, in rock; bronze tablet stamped "Prim. Trav. Sta. No. 20, 1916, Elev. 1335"	1,335.283	
Hollywood, 0.9 mile north of, on east side of road, in boulder; chiseled square marked "t. b. m. 1378.0"	1,378.10	
Hollywood, 1.9 miles north of, on west side of road, in large boulder; chiseled square marked "t. b. m. 1348.5"	1,348.61	
Hollywood, 2.9 miles north of, 300 feet north of A. Sherman Lumber Co. farmhouse, 15 feet from road on east side, in rock; bronze tablet stamped "1400"	1,400.485	

CHITTENANGO QUADRANGLE.¹

[Latitude 43°-43° 15'; longitude 75° 45'-76°.]

Primary leveling in 1897 by Clark Brown and in 1902 by J. B. Maguire.**From Canastota south via Perryville to Fenner.**

Canastota, Peterboro Street Bridge over Erie Canal, east wing of towpath abutment; fourth step (old canal bench mark 52)	433.89
Canastota, 0.5 mile south of New York Central & Hudson River R. R. station; iron bolt in culvert coping (Lehigh Valley R. R. bench mark 118)	457.406
Clockville, 400 feet south of, 15 feet east of track; water-pipe valve case south edge of bell (Lehigh Valley R. R. bench mark 116)	645.79
Cotton, 0.4 mile southwest of station, culvert for farm crossing on north side of track; iron bolt in coping (Lehigh Valley R. R. bench mark 114)	758.016
Perryville, crossroads, new schoolhouse on site of old church, corner to right of front entrance, in stone foundation; tablet stamped "1103 Albany"	1,103.431

¹ See Bull. 514, p. 81, for other elevations.

From Constantia east to Cleveland.

Cleveland, opposite station, west end of concrete wall; bronze tablet stamped "416 Albany 1903" ----- Feet. 416. 504

CHURUBUSCO QUADRANGLE.

[Latitude $44^{\circ} 45' - 45^{\circ}$; longitude $73^{\circ} 45' - 74^{\circ}$.]

Primary leveling in 1913 by A. J. Kavanagh.

Northwest of Lyon Mountain.

Chateaugay, 4.61 miles east of, on old military turnpike at white schoolhouse crossroad, on boulder 30 feet from intersection; chiseled square painted "1118.7" ----- 1, 118. 71

Primary leveling in 1912 by R. A. Kiger and K. W. Trimble.

From Lyon Mountain along highway north to Ellenburg Center, thence northeast to Ellenburg station, thence south to Ledger Corner, thence west to point 3 miles northeast of Lyon Mountain.

Lyon Mountain, 185 feet west of, 11 feet from center line of railroad, on south wing of east abutment of railroad bridge over brook; aluminum tablet stamped "1753" ----- 1, 753. 247

Lyon Mountain, 0.8 mile north of, at three corners, on southeast side of, on top of white quartz rock; chiseled square marked "1707.9 B. M." ----- 1, 707. 661

Lyon Mountain, 2.2 miles north of, at road fork, 5 feet west of road, on top of stone; chiseled square marked "1664.4 B. M." ----- 1, 664. 21

Lyon Mountain, 3.4 miles north of, 1,400 feet south of small stream, 15 feet west of highway, in top of large quartz boulder; bronze tablet stamped "1660" ----- 1, 659. 752

Lyon Mountain, 5 miles north of, 500 feet north of stream, 12 feet east of highway, on quartz boulder; chiseled square marked "1537.2 B. M." ----- 1, 537. 00

Lyon Mountain, 6.1 miles north of, 400 feet northeast of dwelling, 3 feet east of highway, on top of quartz rock; chiseled square marked "1545.8 B. M." ----- 1, 545. 52

Ellenburg Center, 4.6 miles south of, 160 feet west of three corners, 20 feet east of highway, in quartz ledge; bronze tablet stamped "1672" ----- 1, 671. 358

Ellenburg Center, 3.5 miles south of, 480 feet north of dwelling, 15 feet east of highway, on quartz rock; chiseled square marked "1509.8 B. M." ----- 1, 509. 55

Ellenburg Center, 2.4 miles south of, in southwest corner of road fork, on sandstone south stone head to culvert; chiseled square marked "1352.7 B. M." ----- 1, 352. 43

Ellenburg Center, 1.8 miles south of, at Arnolds Corner, 25 feet northwest of center of road at corner, in quartz rock; bronze tablet stamped "1400" ----- 1, 399. 774

Ellenburg Center, 0.8 mile south of, in northwest corner of road fork, on top of large quartz boulder; chiseled square marked "1308.2 B. M." ----- 1, 307. 93

Ellenburg Center, on south end of east abutment of highway bridge over Chazy River; chiseled square marked "1202.2 B. M." ----- 1, 201. 85

Ellenburg Center, 1 mile northeast of, 230 feet east of dwelling 6 feet east of center of highway, in sandstone ledge; bronze tablet stamped "1154" ----- 1, 153. 327

	Fect.
Ellenburg Corners, on north end of east abutment of highway bridge over Chazy River; chiseled square marked "964.0 B. M."-----	963. 65
Ellenburg Corners, 1.2 miles northeast of, in southwest corner of crossroads, on large quartz boulder; chiseled square marked "941.0 B. M."-----	940. 66
Ellenburg, 250 feet west of station, in southwest corner of road fork, at Rutland R. R. under grade crossing, on concrete pavement; chiseled square marked "883.7 B. M."-----	883. 33
Ellenburg, in second stone from top of northwest corner of foundation of Grange Hall at southeast corner of Main and State streets, 100 feet south of Main Street, 40 feet east of State Street; bronze tablet stamped "838"-----	837. 198
Dannemora siding, top of south rail of main track at grade crossing, marked "870.8"-----	870. 48
Ellenburg, 1.7 miles south of, in northeast corner of crossroads, on quartz boulder; chiseled square marked "988.4 B. M."-----	988. 01
Ellenburg, 2.8 miles south of, in east end of south abutment of highway bridge over Graves Brook; bronze tablet stamped "1116"-----	1, 115. 226
Ellenburg, 4.1 miles south of, 500 feet north of dwelling, 10 feet east of highway, on brown quartz boulder; chiseled square marked "1289.2 B. M."-----	1, 288. 81
Ellenburg, 5.1 miles south of, 200 feet west of dwelling, 10 feet east of highway, on quartz rock; chiseled square marked "1392.2 B. M."-----	1, 391. 76
Ellenburg, 6.2 miles south of, at three corners, 10 feet east of highway, 6 feet south of small stream, in sandstone rock; bronze tablet stamped "1466"-----	1, 465. 446
Ellenburg, 7.3 miles south of, 150 feet north of Wallace School, 10 feet west of highway, on large quartz boulder; chiseled square marked "1225.5 B. M." (probably marked incorrectly)-----	1, 525. 13
Ledgers Corner, 2 miles north of, in southeast corner of road fork, in base of corner fence post; nail marked "1467.9 B. M."-----	1, 467. 48
Ledgers Corner, 50 feet northwest of road fork, 70 feet southeast of schoolhouse, in quartz rock; bronze tablet stamped "1601"-----	1, 600. 631
Ledgers Corner, 1.1 miles west of, 200 feet south of dwelling, 7 feet south of highway on flat sandstone rock; chiseled square marked "1645.5 B. M."-----	1, 645. 04
Ledgers Corner, 2.1 miles west of, on south end of east abutment of highway bridge over outlet to Chazy Lake; chiseled square marked "1, 530.7 B. M."-----	1, 530. 25
Ledgers Corner, 3.6 miles west of, 300 feet east of dwelling 15 feet north of highway, in large white quartz rock; bronze tablet stamped "1575"-----	1, 574. 372
Lyon Mountain, 3 miles northeast of, on southeast end of south abutment of concrete culvert, near junction of railroad sections 7 and 9, 12 feet from center of track; aluminum tablet stamped "1715"-----	1, 714. 918
From Lyon Mountain along highway north to point north of Star, thence east and southeast near Rutland R. R. to Ellenburg station.	
Lyon Mountain, 0.8 mile north of, south edge of ditch, south side of road forks, on white quartz boulder; chiseled square painted "1707"-----	1, 707. 66
Lyon Mountain, 1.8 miles north of, 25 feet south of telephone pole 1215, on end of large rock on west side of road; chiseled square marked "1415"-----	1, 415. 02

	Feet.
Divided Brook, floor of bridge over-----	1,378.0
Divided Brook, surface of water; June 18, 1912-----	1,372.0
Lyon Mountain, 2.2 miles north of, on south side of bridge over Divided Brook at forks of road to Hutton; top of bolt marked "1357"-----	1,356.37
Lyon Mountain, 3.1 miles north of, 10 feet north of center of road, 30 feet west of saloon in building known as Fineburg Block, in granite boulder; bronze tablet stamped "1333"-----	1,333.066
Chateaugay Lake, floor of iron bridge over arm of-----	1,314.0
Chateaugay Lake, surface of water, June 19, 1912-----	1,310.0
Lyon Mountain, 4.1 miles north of, 160 feet north of road forks, 30 feet north of Backus's store, 50 feet east of Catholic Church, on rock on east edge of road; chiseled square marked "1314.4"-----	1,314.23
Lyon Mountain, 5.2 miles north of, 150 feet north of small yellow house, east side of road, on boulder; chiseled square marked "1331"-----	1,331.25
Lyon Mountain, 6.3 miles north of, west side of road, 20 feet north of center of road, 15 feet west of telephone pole 1378, 75 feet south of cleared field on west side of road; copper nail in root of double birch tree, marked "1323"-----	1,322.79
Lyon Mountain, 6.7 miles north of, 15 feet west of center of road, in yard of house occupied by Ezra Bigor, in boulder; bronze tablet stamped "1327"-----	1,327.105
Lyon Mountain, 7.3 miles north of, 30 feet north of forks of road to east, 20 feet east of center of road, 100 feet northwest of one-story red house, in root of 14-inch maple tree; copper nail marked "1317.8"-----	1,317.63
Lyon Mountain, 8 miles north of, west side of road, 10 feet from intersection, 3 feet east of clump of five small maple trees, on top of boulder; chiseled square marked "1331.3"-----	1,331.13
Lyon Mountain, 9 miles north of, on west side of road, 15 feet from center and 10 feet from fence, on boulder; chiseled square marked "1616"-----	1,615.66
Lyon Mountain, 9 miles north of, 5 feet east of center of road, on edge of roadbed, 200 feet north of house occupied by A. E. McPherson, in rock; bronze tablet stamped "1649"-----	1,649.036
Lyon Mountain, 10.2 miles north of, west side of road, at forks to right, 10 feet from center of road, 10 feet east of bars in stone fence, on boulder; chiseled square marked "1786.9"-----	1,786.71
Lyon Mountain, 11.1 miles north of, west side of road, 75 feet north of 12-inch maple and 80 feet south of 12-inch elm, 25 feet north of small double elm, on rock; chiseled square marked "1778"-----	1,777.60
Harrigan Corners, 50 feet north of crossroads, on south side of road leading west, 15 feet south of center of road, on rock; chiseled square marked "1822.1"-----	1,822.00
Harrigan Corners, 0.4 mile north of, on east side of road, 20 feet west of southwest corner of J. Tacy's barn, on rock; chiseled square marked "1739"-----	1,739.06
Star Crossroads, north side of road, 300 feet west of intersection, 20 feet north of center of road, 100 feet northeast or northeast corner of Horace Johnson's house, in top of rock almost covered with earth; bronze tablet stamped "1526"-----	1,526.266

Star, 1.5 miles north and east of, in southwest corner of road forks, on large rock in ditch; chiseled square marked "1368.9"-----	Feet. 1,368.82
Star, 2.8 miles north of, at forks of road to east, 50 feet north of intersection, 15 feet east of center line of north-south road, on flat rock; chiseled square marked "1290.8"-----	1,290.70
Star, 3.2 miles north of, 15 feet west of center line of road, 10 feet south of private road to west, 25 feet west of private road east leading to residence of John Campbell, in sandstone boulder 2 feet high, 2½ by 2 feet on top; bronze tablet stamped "1262"-----	1,262.234
Star, 3.8 miles north of, on east side of road, 30 feet east of inter- section of road to west, 5 feet northwest of 15-inch maple tree, on boulder; chiseled square marked "1213.1"-----	1,212.95
Star, 4.9 miles north of, 200 feet south of intersection of old military turnpike, in top of foundation stone of northwest corner of barn of John Fitzgerald; bronze tablet stamped "1183"-----	1,182.97
Star, 5.9 miles north of, 1,200 feet south of railroad crossing, in north end of west side timber of small bridge; copper nail marked "1125"-----	1,124.58
Forks of road near railroad crossing; point on boulder-----	1,321.1
Star, 7 miles north and east of, 120 feet west of Tom Luby's house, on flat rock 2 by 4 feet and about ½ foot high; chiseled square marked "1166"-----	1,166.24
Churubusco, northeast corner of stone foundation of public school building, 2 feet above ground and 2½ feet south of northeast corner; bronze tablet stamped "1194"-----	1,193.580
Crossroads, point on rock at-----	1,177.5
Churubusco, 1.3 miles east of, 10 feet north of center of road, at tele- phone pole 1154, on flat top rock; chiseled square marked "1142"-----	1,141.97
Churubusco, 2 miles east of, in center of triangle at intersection of road to right, on flat rock; chiseled square marked "1,109"-----	1,108.99
Clinton Mills, at railroad crossing; top of rail marked "1093"-----	1,093
Clinton Mills, 20 feet south of center of road, 65 feet east of Clinton Mills schoolhouse, 130 feet east of road forks at schoolhouse, in low flat rock about level with ground; bronze tablet stamped "1098"-----	1,097.715
Clinton Mills, 1 mile east of, 10 feet north of center of road, 25 feet north of New York Telephone Co.'s pole B 1060, on flat rock ledge; chiseled square marked "1088"-----	1,088.22
Clinton Mills, 2 miles east of, 25 feet south of center of road, 40 feet west of telephone pole 1015, on large rock in swamp; chiseled square marked "989"-----	989.35
Clinton Mills, 2.7 miles east of, 25 feet northeast of intersection in edge of ditch, at crossroads, on rock; chiseled square marked "953"-----	953.06
Clinton Mills, 3.8 miles east of, in top of flat ledge, 470 feet south of angle of road to south, 10 feet west of center of road; bronze tablet stamped "908"-----	908.24
Clinton Mills, 4.8 miles east and south of, 8 feet south of sharp angle in road, 15 feet east of center of road, in root of 10-inch beech tree; copper nail marked "880"-----	879.63
Clinton Mills, 6 miles east and south of, on west side of road, near fence in front of G. Colligan's house, in top of stump; copper nail marked "955"-----	955.40

	Feet.
Chazy River, bridge over North Branch of-----	826.0
North Branch of Chazy River, surface of water, July 4, 1912-----	818.0

CLAYTON QUADRANGLE.¹[Latitude $44^{\circ}44'15''$; longitude $76^{\circ}76'15''$.]

Precise leveling in 1900 by C. H. Semper.

At Limerick.

Limerick, stone-arch bridge over Perch River; point on east end of south parapet wall-----	317.09
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Primary leveling in 1900 by William Kelley.

From Clayton south via Clayton Center and Depauville to Limerick.

Clayton, southwest corner of Catholic Church, in water table; copper bolt-----	278.815
Clayton, James Street, in front of Mrs. Linnell's residence, on back part of top of fire hydrant; copper bolt stamped "Cape Vincent 289"-----	287.631
Clayton Center, residence of Merritt Legenfelter, on west face of building at south corner in stone foundation wall, bronze tablet stamped "Cape Vincent 423"-----	422.071
Depauville, at crossroads in east corner of stone foundation wall under residence of Ira Gillett; aluminum tablet stamped "299 Cape Vincent"-----	297.525
Perch River, stone schoolhouse, in northeast corner of water table; bronze tablet stamped "338 Cape Vincent"-----	336.950

From Limerick northwest via Chaumont to Threemile Bay.

Chaumont, Main Street, in north face of buttress at northwest corner of Hiram Copeley's stone office building; aluminum tablet stamped "295 Cape Vincent"-----	293.425
Threemile Bay, Baptist Church, in southeast corner of foundation wall; aluminum tablet stamped "266 Cape Vincent"-----	264.544

From Threemile Bay north via St. Lawrence to Clayton.

St. Lawrence, 225 feet north of crossroads, on east side of road, on large boulder; bronze tablet stamped "357 Cape Vincent"-----	356.269
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From Clayton southeast to Lafargeville.

Clayton, north side of Water Street, in limestone water table on west side 1.85 feet northerly from the southwest corner of the Barker brick building; aluminum tablet stamped "257 Cape Vincent"-----	256.248
Clayton, 1.9 miles from, north end of west abutment of iron bridge on New York Central R. R., northeast corner of top step; chiseled mark-----	325.49

From Limerick south to Dexter.

Dexter, brick schoolhouse, 2 feet easterly from northwest corner of main building, in limestone water table on north side; aluminum tablet stamped "326 Cape Vincent"-----	324.395
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¹ See Bull. 514, p. 64, for other elevations.

CLOVE QUADRANGLE.

[Latitude $41^{\circ} 30' - 41^{\circ} 45'$; longitude $73^{\circ} 30' - 73^{\circ} 45'$.]

Primary leveling in 1899 by Seth Van Loan.

At Dover Plains.

Dover Plains, in northwest corner of bank; aluminum (?) tablet stamped "Albany 406"	Feet. 406. 866
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CLYDE QUADRANGLE.¹[Latitude $43^{\circ} - 43^{\circ} 15'$; longitude $76^{\circ} 45' - 77^{\circ}$.]

Primary leveling in 1898-99 by C. H. Semper and D. E. Baxter.

At Clyde (set from State bench marks).

Clyde, Methodist Episcopal Church, on northeast side of Sodus Street, in north end of foundation of front wall; aluminum tablet stamped "406 Oswego"	405. 196
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From Wallington east along highway and railroad to Red Creek.

Alton, highway crossing; top of rail	402. 8
Dunbar, road crossing; top of north rail	393. 7
North Rose, in front of station; top of rail	387. 80
Wolcott, Main Street highway crossing; top of north rail	361. 7
Wolcott, northwest corner of Main and Clyde streets, in masonry foundation southeast corner of Baptist Church; aluminum tablet stamped "378 Oswego"	379. 026

From Wolcott south along highway to Mays Point.

South Butler, in northwest corner of schoolhouse on road east from hotel; bronze tablet stamped "399 Oswego 1899"	399. 717
Savannah, northeast corner Main and East Church streets; top of concrete monument	420. 20
Savannah, 4.8 miles south of, Barry Bridge 1, western division, in top of first step of west wing of north abutment; top of copper bolt stamped "B. M. 2"	395. 16

From North Rose southwest along highway to Lyons.

Wayne Center, in southeast corner of schoolhouse on crossroads; bronze tablet stamped "438 Oswego 1899"	438. 942
Lyons, on west side of Broad Street, between Church and Pearl streets, in Dutch Reformed church; bronze tablet stamped "Oswego 438 1899"	438. 395
Lyons, Water Street highway bridge over canal, east wing of tow-path abutment; chiseled square	407. 727

CLYMER QUADRANGLE.

[Latitude $42^{\circ} - 42^{\circ} 15'$; longitude $79^{\circ} 30' - 79^{\circ} 45'$.]

Primary leveling in 1902 by G. M. Dimmick.

From Clymer north along Western New York & Pennsylvania Ry. to Mayville.

Clymer, in front of station; top of east rail	1, 472. 1
North Clymer, east end of foundation wall of Methodist Episcopal Church, south face; bronze tablet stamped "1582 Dunkirk 1902"	1, 582. 091

¹ See Bull. 514, pp. 91-92, for other elevations.

	Feet.
Panama (North Clymer), in front of station; top of east rail-----	1,562.0
Sherman, in front of station; top of north rail-----	1,581.5
Summerdale, at highway crossing; top of east rail-----	1,638.7
Mayville, in front of station; top of east rail-----	1,314.2
Mayville, Chautauqua Lake; water surface-----	1,310

From Sherman station west to Sherman (single-spur line).

Sherman, 0.72 mile west of station, highway bridge over Finch Creek, west end of north abutment; bronze tablet stamped "1538 Dun- kirk 1902"-----	1,538.226
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From Clymer west along highway to Marvin, thence north to point 9 miles
north of Findley Lake, thence indirectly eastward to point 3 miles west of
Mayville.

Clymer, 1.3 miles west of station, west end of foundation wall of Baptist Church, front face; bronze tablet stamped "1468 Dunkirk 1902"-----	1,468.349
Marvin, 0.6 mile north of, highway bridge over Finch Creek, top of north end of west abutment; bronze tablet stamped "1388 Dunkirk 1902"-----	1,387.907
Findley Lake, Aug. 9, 1903; water surface-----	1,421
Findley Lake, west corner of foundation wall of Methodist Church, in front face; aluminum tablet stamped "1429 Dunkirk 1902"-----	1,428.655

COHOES QUADRANGLE.

[Latitude 42° 45'-43°; longitude 73° 30'-73° 45'.]

Precise leveling in 1898 by E. L. McNair.

On Erie Canal near Cohoes.

Cohoes, 3.5 miles west of, east end of lower Mohawk Aqueduct, south- west corner of parapet wall; chiseled cross inclosed by circle-----	194.608
Cohoes, on top of wall west side of mill race between locks 45 and 16, 6 inches from northeast corner of small brick building between mill race and towpath; chiseled cross-----	159.404
Cohoes, lock 15, on east wall, south end of west lock; cross cut on second foot-iron clamp (U. S. Engineer Corps bench mark)-----	159.890
Cohoes, lock 15, southwest corner of east wall of west lock; top of point of coping-----	159.810

COLDEN QUADRANGLE.

[Latitude 42° 30'-42° 45'; longitude 78° 30'-78° 45'.]

Primary leveling in 1904 by I. W. Pettit.

From Boston Center south to Boston.

Boston Center (Patchin), opposite Michael Flickgenar's grocery, on large boulder; bronze tablet stamped "903 Albany 1903 Adj"-----	903.048
Boston, 135 feet north of Iroquois Hotel, in grass plat at intersection of roads; iron post stamped "941 Albany"-----	940.964

COOPERSTOWN QUADRANGLE.¹

[Latitude 42° 30'-42° 45'; longitude 74° 45'-75°.]

Precise leveling in 1898 by E. L. McNair.

From Maryland northeast along Delaware & Hudson R. R. to Worcester.

Maryland, 1.9 miles west of, southeast corner of bridge 51 across Schenevus Creek, in parapet wall; bronze tablet stamped "1170 A"-	1, 169. 850
Maryland, in front of Delaware & Hudson station; top of north rail-	1, 213. 4
Schenevus, in front of Delaware & Hudson station; top of south rail-	1, 276. 3
Schenevus, 0.25 mile east of Delaware & Hudson station, southeast corner of bridge across Schenevus Creek, in coping stone of abutment; bronze tablet stamped "1272 A"-	1, 271. 387
Worcester, 80 feet west of west end of Delaware & Hudson station, foundation of railroad water tank, third course of stone, east side of tank; aluminum tablet stamped "1131 A"-	1, 310. 160

Primary leveling in 1899 by A. W. Gill and W. W. Gilbert.

From Springfield Center south to Cooperstown.

Cooperstown, northwest corner of county courthouse; aluminum tablet stamped "1264 Albany"-	1, 264. 480
Cooperstown, opposite Cooperstown & Charlotte Valley R. R. station; top of rail, main track	1, 283. 0

From Colliersville along the Delaware & Hudson R. R. to Cooperstown.

Milford, Methodist Church, northeast corner of foundation; aluminum tablet stamped "1207 Albany"-	1, 207. 200
Hartwick, Seminary building, in foundation, east side; aluminum tablet stamped "1266 Albany"-	1, 266. 390
Hartwick Seminary, 1.4 miles north of, iron bridge over river, on capstone at northeast corner; chisel mark	1, 179. 37

COPAKE QUADRANGLE.

[Latitude 42°-42° 15'; longitude 73° 30'-73° 45'.]

Primary leveling in 1900 by George Bailey and in 1902 by G. C. Mills.

From Millerton north along New York Central & Hudson River R. R. to Philmont.

Mount Riga station, 1.5 miles north of, stream to west; northwest corner of culvert (stream 3 feet lower)-	773. 43
Boston Corners, 300 feet south of station, in top of southeast corner of culvert on New York Central R. R.; bronze tablet stamped "Albany 727"-	727. 139
Copake Ironworks, 500 feet south of station; northwest abutment of railroad bridge (stream 25 feet below)-	674. 33
Oraryville, 500 feet west of station, south side of track, in west abutment of railroad bridge; bronze tablet stamped "Albany 635"-	635. 151
Martindale station, just north of, at crossing; west rail	639. 5

¹ See Bull. 514, p. 33, for other elevations.

From Boston Corners westward via Central New England Ry. to Gallatinville, thence north along highways via Glenco Mills to Claverack, thence northeast to Philmont.

Boston Corners, 300 feet south of station, in top of southeast corner of culvert on New York Central R. R., bronze tablet stamped "Albany 727"-----

Feet.
727. 139

Copake, Central New England bridge 80, on north end of west abutment; chiseled square-----

537. 69

Copake, 2.5 miles southwest of, bridge 85, 900 feet southeast of highway and 0.5 mile southeast of Millers Pond, in east corner of southwest abutment; bronze tablet stamped "Albany 508"-----

508. 350

Ancram, stone-arch highway bridge over Roeliff Janson Kill, on south end of west parapet; chiseled square-----

480. 76

Gallatinville, highway bridge over Roeliff Janson Kill, east wing of north abutment; aluminum tablet stamped "405 Albany"-----

405. 192

New Forge, on south end of west abutment of iron bridge over Claverack Creek; bronze tablet stamped "516 Albany"-----

515. 995

West Taghkanick, 0.9 mile north of, 600 feet south of George Sears's dwelling; 1-inch steel bar 15 inches long sunk flush in rock ledge on west side of road, marked "U. S. B. M. 289"-----

289. 61

Glenco Mills, iron highway bridge over Taghkanick Creek, in west wing wall of south abutment; aluminum tablet stamped "261 Albany"-----

261. 703

Claverack, 0.5 mile southeast of, iron highway bridge, center pier, east end; bronze tablet stamped "156 Albany"-----

155. 841

CORNING QUADRANGLE.

[Latitude 42°-42° 15'; longitude 77°-77° 15'.]

Precise leveling in 1898 by E. L. McNair.

From Addison east along Erie R. R. to East Corning.

Addison, in front of Erie station; top of north rail, westbound track-----

985. 5

Addison, 0.4 mile east of Erie station and 750 feet northwest of tracks, Union school building, at right of main entrance; aluminum tablet stamped "1021 D"-----

1, 022. 554
965. 2

Erwins, in front of station; top of rail, eastbound track-----

936. 195

Painted Post, 0.8 mile west of, in masonry wall of open culvert, east wall of culvert and south side of railroad track; bronze tablet stamped "935 D"-----

938. 4

Painted Post, in front of Erie station, eastbound track; top of south rail-----

936. 3

Corning, in front of station; top of rail-----

Corning, city hall, corner of Erie and Cedar streets, foundation stone under water table at right of Cedar Street entrance; aluminum tablet stamped "935 D"-----

936. 759
909. 3

East Corning, in front of station; top of south rail-----

Leveling in 1899 by Robert Coe and W. F. Hammond, in 1912 by K. W. Trimble and K. E. Schlachter.

From Savona southeast along Erie R. R. to Painted Post.

Savona, in south end east abutment of highway bridge over Cohocton River; tablet stamped "1050 Oswego 1899"-----

1, 050. 708

Savona, 0.4 mile south of; chisel mark on east end of pier-----

1, 045. 0

Savona, 1.8 miles south of; top of boulder on east side of track, 1,200 feet north of crossing-----	Fect.
Campbell, 700 feet north of station, on east end of bridge seat, south wall of railroad girder bridge; chisel mark-----	1,036.62
Coopers Plains, at station; top of rail-----	1,007.22
Coopers Plains, 1 mile south of, on east end of bridge seat, on south wall; chisel mark-----	963.11
Painted Post, 2 miles north of, crossing of Delaware, Lackawanna & Western and Erie railroads; top of rail-----	950.81
Painted Post, 1 mile north of, on west end of parapet wall of north abutment; chisel mark-----	949.15
From point 1 mile north of Coopers Plains northeast along highway toward Monterey.	942.88
Coopers Plains, 1 mile north of, on southwest corner of iron bridge; on cross marked on anchor bolt-----	980.58
East Campbell; crossroads-----	1,032.0
East Campbell, 600 feet east of; top of boulder-----	1,026.44
From Lawrenceville, Pa., north along New York Central & Hudson River R. R. to Corning, N. Y.	
Lawrenceville, Pa., on top of stone at south end of east abutment of highway bridge over Tioga River, near station-----	993.43
Lindley, 0.8 mile south of, on corner of stone on east side of north abutment of small bridge, 140 feet south of milepost 99-92-----	986.94
Lindley, 0.2 mile north of, nearly opposite milepost 101-70; in telephone pole, nail-----	981.89
Lindley, 1.2 miles north of, on west side of south abutment of iron bridge at milepost 102-69; on top of bridge seat stone-----	980.640
Lindley, 2.2 miles north of, at west end of south abutment of small bridge, 840 feet south of milepost 103-68; top of coping stone-----	972.99
Presho, 0.8 mile south of, east end of south abutment of steel bridge, 630 feet south of milepost 104-67; top of stone-----	963.77
Presho, on west side of south abutment of double-track steel bridge, 700 feet south of station; top of bridge seat stone-----	962.40
Presho, 1.2 miles north of, west end of north abutment of small bridge-----	953.71
Mulholland, 620 feet south of highway crossing near station platform, on east side of south abutment of small bridge; top of third stone step-----	955.78
Corning, 4 miles southwest of, 30 feet north of milepost 109-62, 10 feet west of track; railroad spike in stump-----	945.80
Corning, 2.5 miles west of, on south side of west abutment of small bridge, 400 feet west of yard limit sign; top of stone-----	935.11
Corning, on right side of Cedar Street entrance to city hall; aluminum tablet stamped "935 D 1898"-----	936.759
From point 1 mile south of Coopers Plains along highway north to East Campbell, thence northeast to Hornby, thence south to Painted Post, thence northwest to beginning.	
Coopers Plains, in northwest corner of road fork; copper nail in south end of boardwalk, marked "965.4 B. M."-----	965.44
Coopers Plains, 0.9 mile north of, at three corners; chiseled square on west stonehead to highway culvert, marked "980.1 B. M."-----	980.14

Coopers Plains, 2.3 miles north of, in top of east concrete head to highway culvert over small stream; bronze tablet stamped "1008"-	1,008.504
East Campbell, in northeast corner of road fork; nail in base of corner fence post, marked "1032.6 B. M."-----	1,032.67
East Campbell, 0.8 mile northeast of, in northeast corner of road fork; chiseled square on top of limestone rock, marked "1094.2 B. M."-----	1,094.24
East Campbell, 2.4 miles northeast of, 700 feet east of three corners, in top of north end of west abutment to highway bridge over Mead Creek; bronze tablet stamped "1197"-----	1,197.107
Hornby, 2.6 miles west of, in northwest corner of road fork, 50 feet east of schoolhouse; chiseled square in top of highway guard stone, marked "1270.2 B. M."-----	1,270.25
Hornby, 1 mile west of, 480 feet east of dwelling, 10 feet south of highway; nail in root of maple tree, marked "1494.5 B. M."-----	1,494.56
Hornby, southwest corner of foundation of town hall, in west face; bronze tablet stamped "1516"-----	1,515.643
Hornby, 0.9 mile south of, at three corners, 15 feet west of highway; nail in root of maple tree, marked "1773.3 B. M."-----	1,773.41
Hornby, 2.1 miles south of, in northwest corner of road fork; nail in base of mailbox post, marked "1626.6 B. M."-----	1,626.74
Hornby, 3.3 miles south of, at deep rock cut on west side of highway, west of highway, in limestone ledge; bronze tablet stamped "1381"-----	1,381.042
Painted Post, 3 miles northeast of, in northeast corner of road fork; nail in base of telephone pole, marked "1172.7 B. M."-----	1,172.88
Painted Post, 2.6 miles northeast of, 20 feet west of three corners; nail in top of maple stump, marked "1097.8 B. M."-----	1,097.96
Painted Post, 1.1 miles east of, in northwest corner of road fork; nail in base of signpost, marked "988.6 B. M."-----	988.76
Painted Post, Delaware, Lackawanna & Western R. R. grade crossing; top of north rail of north track, marked "947"-----	947.16
Coopers Plains, 1 mile southeast of; on east end of bridge seat, south wall; chiseled mark-----	950.81

From Addison north along highway to Campbell, thence southeast to Coopers Plains.

Addison, 1.8 miles north of, on road to Campbell, in top of concrete carriage step of Mrs. Mary Audinwood's home; chiseled square-----	1,312.30
Addison, 1.8 miles north of, on road to Campbell, in top of concrete carriage step of Mrs. Mary Audinwood's home; bronze tablet-----	1,312.299
Addison, 2.7 miles north of, along road to Campbell, on bridge over Goodhue Brook, on top of west girder, most northeasterly bolt-----	1,252.32
Phillips School, 1.5 miles northeast of, along road to Campbell, in railroad rail in southwest corner of culvert; chiseled cross-----	1,615.22
Campbell, 4 miles southwest of, along road to Addison, copper nail in root of old tree stump on west side of road-----	1,585.06
Campbell, 4 miles southwest of, along road to Addison, in stone step before A. T. Lewis's home; bronze tablet stamped "1562"-----	1,561.757
Campbell, 1 mile southwest of, along State road toward Thurston, 300 feet east of road forks; north side of road; chiseled square on concrete culvert-----	1,069.55
Campbell, 300 feet west of Erie Railroad station, in northwest corner of concrete abutment of highway bridge; bronze tablet-----	1,010.426

From Corning south along highway to point near Caton, thence west to point 1.4 miles north of Lindley.

	Feet.
Corning, at corner of Erie and Cedar streets, in foundation stone under water table, at right of Cedar Street entrance; aluminum tablet stamped "935"	936. 759
Corning, 0.9 mile southeast of, 6 feet south of south wall of small cemetery, on street curb at base of telephone pole; chiseled square marked "921.2 B. M."	921. 21
Corning, 1.9 miles southeast of, at Brown's Crossing, on west end of north concrete abutment to undergrade bridge; chiseled square marked "911.9 B. M."	911. 91
Brown's Crossing, 1.2 miles south of, 60 feet south of dwelling, 10 feet south of State highway, in base of maple stump; nail marked "971.8 B. M."	971. 82
Brown's Crossing, 2.4 miles south of, 70 feet north of junction of west Caton road and State highway, 7 feet east of State highway, in concrete culvert head; bronze tablet stamped "1098"	1, 097. 701
Caton, 1.9 miles north of, on east concrete head to culvert under State highway; chiseled square marked "1277.5 B. M."	1, 277. 51
Caton, 0.8 mile north of, 7 feet east of State highway, on east concrete culvert head; chiseled square marked "1390.5 B. M."	1, 390. 50
Caton, northeast corner of concrete floor to State highway bridge over small stream; bronze tablet stamped "1411"	1, 411. 269
Caton, 1.1 miles west of, at three corners, in base of mail-box post; nail marked "1757.7 B. M."	1, 757. 62
Caton, 2.1 miles west of, at three corners, in top of center post of guard fence; nail marked "1536.6 B. M."	1, 536. 51
Caton, 2.8 miles west of, 280 feet east of three corners, in south end of east abutment to highway bridge over small stream; bronze tablet stamped "1313"	1, 312. 626
Lindley, 2.9 miles northeast of, at three corners, in southwest corner of foundation to church, in west face; chiseled cross marked "1277.8 B. M."	1, 277. 74
Lindley, 1.2 miles north of, at Black's Store, in southeast corner of road fork, in base of telephone pole; nail marked "987.4 B. M."	987. 42
From point 1.4 miles north of Lindley south to Lindley, thence west to point 4.2 miles south of Freeman (single-spur line).	
Lindley, in south end of west abutment to highway bridge over Tioga River; bronze tablet stamped "986"	986. 105
Lindley, 0.9 mile west of, on west end of south concrete guard wall to highway bridge over stream; chiseled square marked "1089. B. M."	1, 089. 041
Lindley, 2.2 miles west of, 150 feet south of dwelling, 7 feet south of highway, in root of oak tree; nail marked "1426 B. M."	1, 425. 990
Lindley, 3.2 miles west of, at three corners, center of triangle formed by junction of roads, in limestone rock; bronze tablet stamped "1642"	1, 641. 702
Liberty Pole School, 1.1 miles east of, at right-angle bend in highway, 12 feet south of highway, in root of chestnut tree; nail marked "1700.5 B. M."	1, 700. 482
Liberty Pole School, in northeast corner of crossroads, in top of stump 1 foot above ground; nail marked "1797.1 B. M."	1, 797. 094

Liberty Pole School, 1.5 miles west of, northeast corner of foundation Feet.
to Nichols School, in east face; bronze tablet stamped "1706" --- 1,705.561

Leveling in 1916 by K. E. Schlachter.

From west border of quadrangle east to point near Campbell.

Thurston, 1.5 miles east of, in east end of south guard rail of bridge
over Michigan Creek; chiseled circle painted "t. b. m. 1133.9" - 1,133.0
Campbell, 1 mile west of, along State road to Thurston, 300 feet east
of road corner, in north side of concrete culvert; chiseled square
painted "t. b. m. 1070" --- 1,069.55

CORTLAND QUADRANGLE.

[Latitude 42° 30'-42° 45'; longitude 76°-76° 15']

Primary leveling in 1900 by W. E. Green.

**From Messengerville northwest along the Delaware, Lackawanna & Western
R. R. to Cortland.**

Blodgett Mills, at road crossing near station; top of rail ----- 1,082.9
Blodgett Mills, 1,000 feet north of station, on west side of track, in
retaining wall; bronze tablet stamped "1086 Albany" ----- 1,086.336

From Messengerville west along highway to Virgil (single-spur line).

Virgil, northeast corner stone of Methodist Episcopal Church; bronze
tablet stamped "1421 Albany" ----- 1,421.249

**From Cortland southeast along the Erie and New York Central railroads to
Solon.**

McGrawville, South Street crossing; top of rail ----- 1,150.2.
Maybury, switch at flag station; top of rail ----- 1,247.7
Solon, crossing at milk station; top of rail ----- 1,311.4
Solon, in northwest corner wall of William Corcoran's house; bronze
tablet stamped "1308 Albany" ----- 1,308.00

From Cortland northeast along the Lehigh Valley R. R. to Truxton.

Lorings (flag station), at road crossing; top of rail ----- 1,105.9
East River (flag station), at road crossing; top of rail ----- 1,132.8
East Homer, in front of station; top of rail ----- 1,132.3
East Homer, waiting room at station; doorsill ----- 1,134.29
Truxton, waiting room of station; doorsill ----- 1,156.78
Truxton, in front of station; top of rail ----- 1,154.7
Truxton, corner of Methodist Episcopal Church; bronze tablet
stamped "1159 Albany" ----- 1,159.096

**From Ithaca Junction north along the Delaware, Lackawanna & Western R. R.
to Tully.**

Cortland, waiting room at station; doorsill ----- 1,114.22
Cortland, State Normal School building, north side of east entrance;
aluminum tablet stamped "1122 Albany" ----- 1,121.855
Homer, James Street crossing; top of rail ----- 1,132.9
Homer, waiting room at station; doorsill ----- 1,132.82
Little York, at road crossing; top of rail ----- 1,162.0

	Feet.
Preble, at road crossing; top of rail-----	1, 188. 3
Preble, Presbyterian Church, in southeast corner of wall; bronze tablet stamped "1212 Albany" -----	1, 212. 554

From Cortland along the Lehigh Valley R. R. to McLean.

Cortland, Lehigh Valley station; waiting-room doorsill-----	1, 130. 32
McLean, E. G. Galloup's store, on east side of wall; chiseled cross----- 1, 119. 74	

COXSACKIE QUADRANGLE.¹[Latitude $42^{\circ} 15' - 42^{\circ} 80'$; longitude $73^{\circ} 45' - 74^{\circ}$.]**Precise leveling by the Coast and Geodetic Survey.****At Hudson station.**

Hudson station; United States Coast and Geodetic Survey bench mark 4 (railroad bench, roundheaded bolt, in west side of top of stone pier under iron column, under overhead bridge in street leading to docks and Athens Ferry; the first one north of Hudson station. The pier is under the second column from south end in the east row of three)-----	10. 686
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CRANBERRY LAKE QUADRANGLE.[Latitude $44^{\circ} - 44^{\circ} 15'$; longitude $74^{\circ} 45' - 75^{\circ}$.]**Leveling in 1914 by K. E. Schlachter.****From point north of Newton Falls south along log railroad to Benson mines.**

Newton Falls, 2.6 miles north of, on west margin of track, in large granite boulder; bronze tablet stamped "1458"-----	1, 457. 685
Newton Falls, 1.5 miles north of, along log railroad, on rock on west margin of track; chiseled circle-----	1, 442. 85
Newton Falls station, 23 feet south of southeast corner of, in boulder; bronze tablet stamped "Prim. Trav. Sta. No: 3, 1913, 1383"-----	1, 383. 124
Newton Falls, 1.3 miles south of, 609 feet north of road crossing on west side of concrete culvert; chiseled square-----	1, 438. 27

Leveling in 1916 by F. L. Shallbo.**From Benson Mines southeast along highways to Wanakena, thence southwest and southeast along track to Gull Lake, thence east to Nehasane.**

Benson Mines, 188 feet northeast of station, in concrete base of water tower; bronze tablet stamped "1406"-----	1, 405. 925
Benson Mines, 1 mile southeast of, on Wanakena Highway on west side, 15 feet from road, on large boulder; chiseled square marked "t. b. m. 1404.9"-----	1, 409. 85
Benson Mines, 2 miles southeast of, on Wanakena Highway, on east side of road, on large boulder; chiseled square marked "t. b. m. 1515"-----	1, 514. 66
Benson Mines, 3 miles southeast of, on Wanakena Highway, on east side of road, in ledge of rock; bronze tablet stamped "1676"-----	1, 676. 368
Benson Mines, 4 miles southeast of, on Wanakena Highway, in center of road forks, on boulder; chiseled square marked "t. b. m. 1695"-----	1, 695. 16

¹ See Bull. 514, pp. 46-47, for other elevations.

Benson Mines, 4.9 miles southeast of, on Wanakena Highway, in ledge of rock, on west side of road; chiseled square marked "t. b. m. 1633"	Feet.	1,633.32
Benson Mines, 6.2 miles southeast of, on Wanakena Highway, on east side of road, in cement culvert, opposite abandoned camp; chiseled square marked "t. b. m. 1529"	1,528.93	
Wanakena, about 50 feet northwest of station, in front of post office and residence of J. O. Hornele, on Front Street, 35 feet from road forks, in large boulder; bronze tablet stamped "Prim. Trav. Sta. No. 1, 1916, Elev. 1495"	1,494.866	
Wanakena, 1.1 miles south of, on east side of old railroad bed, at junction of trail leading to High Falls, on large boulder; chiseled square marked "t. b. m. 1533"	1,532.89	
Wanakena, 2.1 miles south of, on west side of High Falls trail, in root of large tree; copper nail marked "t. b. m. 1862"	1,862.45	
Wanakena, 3.1 miles south of, on east side of High Falls trail, on large boulder; bronze tablet stamped "P. B. M. 1901"	1,900.634	
Wanakena, 3.7 miles south of, on west side of High Falls trail in large stump; copper nail marked "t. b. m. 1690"	1,690.24	
Wanakena, 4.8 miles south of, on west side of High Falls trail, in root of 8-inch pine tree; copper nail marked "t. b. m. 1615"	1,615.25	
High Falls, 10 feet west of northwest corner of kitchen and dining room of the Postem Lodge, 35 feet northeast of the northeast corner of main building, in top of large granite boulder; bronze tablet stamped "Prim. Trav. Sta. No. 9, 1916, Elev. 1618"	1,617.990	
High Falls, 1 mile south of, on east side of Gull Lake trail, in large boulder; chiseled square marked "t. b. m. 1721"	1,720.89	
High Falls, 1.9 miles south of, on Gull Lake trail, 600 feet south of creek, on east side of trail, on boulder; chiseled square marked "t. b. m. 1766"	1,765.53	
Gull Pond, about 500 feet north of north end of, 580 feet along trail from crossing of the outlet, on east side of Gull Lake trail, in large granite boulder; bronze tablet stamped "Prim. Trav. Sta. No. 10, 1916, Elev. 1882"	1,881.695	
Gull Pond, surface of water, June 5, 1916	1,850.7	
High Falls, 3.7 miles south of, on Gull Lake trail, in center of trail, on large boulder; chiseled square marked "t. b. m. 2047"	2,046.76	
High Falls, 4.4 miles south of, at forks of old Albany road and Gull Lake trail, in 16-inch birch tree; copper nail marked "t. b. m. 1835"	1,835.46	
Gull Lake, south end of, on land of the Webb estate, 15 feet south of the southeast corner of porch to George W. Muir's residence, in ledge of rock; bronze tablet stamped "Prim. Trav. Sta. No. 11, 1916, Elev. 2038"	2,038.479	
Gull Lake, 1 mile east of, 900 feet east of bridge over Deer Creek outlet, on north side of road in root of 18-inch maple tree; copper nail marked "t. b. m. 1853"	1,852.57	
Gull Lake, 1.9 miles east of, in root of 8-inch pine tree on south side of road; copper nail marked "t. b. m. 1799"	1,798.83	
Gull Lake, 3.4 miles east of, 300 feet west of point where road strikes Partloe Lake shore at foot of small hill, and 800 feet west of point where wagon road crosses old railroad bed, 30 feet south of Gull Lake-Nehasane road, in bedrock; bronze tablet stamped "Prim. Trav. Sta. No. 13, 1916, Elev. 1806"	1,805.876	

Gull Lake, 4.3 miles east of, on private highway on east side of road in large boulder; chiseled square marked "t. b. m. 1896"	Feet.	1,896.43
Gull Lake, 5.3 miles east of, 15 feet from road on south side, in large boulder; chiseled square marked "t. b. m. 1910"	1,910.45	
Gull Lake, 6.5 miles east of, at M. & M. Railroad crossing on north side of road, 25 feet from track in large boulder; chiseled square marked "t. b. m. 1807"	1,807.16	
Nehasane, 200 feet west of Mr. Ames's house (Nehasane station), 20 feet northwest of main track in east face of ledge of rock; alumini- num tablet stamped "Prim. Trav. Sta. No. 14, 1916, 1789 Albany" (Bull. 281, p. 40)	1,787.530	

From Newton Falls along highway northeast to Cooks Corners, thence southeast
and northeast via Cranberry Lake to point near northeast corner of quad-
rangle.

Newton Falls station, 20 feet east of northeast corner of, in large boulder; tablet stamped "1383"	1,383.124
Newton Falls, in center of town, 100 feet in front of Newton Falls Hotel, in boulder; chiseled square marked "t. b. m. 1478.9"	1,478.95
Newton Falls, 1 mile east of, 60 feet south of stream crossing on south side of road, in large boulder; chiseled square marked "t. b. m. 1423.9"	1,423.94
Newton Falls, 1.6 miles east of, at northeast corner of bridge over Cranberry Lake outlet, in stone abutment; chiseled square marked "t. b. m. 1422.5"	1,422.50
Newton Falls, 2.7 miles east of, 20 feet from road on north side, in root of 24-inch stump; copper nail marked "t. b. m. 1481.4"	1,431.36
Newton Falls, 3.5 miles east of, in old road leading to river, in root; copper nail marked "t. b. m. 1429.1"	1,429.09
Newton Falls, 4.5 miles east of, on south side of road, in large boulder; bronze tablet stamped "1433"	1,433.351
Newton Falls, 5.4 miles east of, on south side of road, at forks of road leading to J. Shanon lumber camp, in large rock; chiseled square marked "t. b. m. 1439.7"	1,439.73
Cooks Corners, at southeast corner of cement porch to Cook's Hotel; bronze tablet stamped "Prim. Trav. Sta. No. 2, 1916, 1481"	1,480.519
Newton Falls, 6.9 miles east of, 1,400 feet east of Cooks Corners, at road forks, in wooden post; copper nail marked "t. b. m. 1454.8"	1,454.82
Newton Falls, 7.6 miles east of, 300 feet southwest of old dam, on north side of road, in large boulder; chiseled square marked "t. b. m. 1445.3"	1,445.32
Newton Falls, 8.7 miles east of, at foot of hill and bend of road, in root of 30-inch beech tree; copper nail marked "t. b. m. 1465.6"	1,465.66
Cranberry Lake, at northeast corner of bridge over Cranberry Lake outlet, near dam; chiseled square marked "t. b. m. 1472.4"	1,472.43
Cranberry Lake, at top of north end of dam at outlet, on wall; chiseled square marked "t. b. m. 1488.5"	1,488.55
Cranberry Lake, 300 feet west of dam at foot of, at T road south across river, 550 feet southwest of Windsor Hotel, in old cement engine foundation of the Bissell Bros.' sawmill, Cranberry Lake, west base, 10 feet from lake bank and 89 feet east of old burner site; bronze tablet stamped "Prim. Trav. Sta. No. 3, 1916, Elev. 1492"	1,491.532

Cranberry Lake, at railroad crossing by station; top of rail marked "t. b. m. 1488.3"	Feet.	1,488.36
Cranberry Lake, 70 feet south of center of porch of the White Birches, at east end of village in round cement block, Cranberry Lake, 10 feet west of gate, east base; bronze tablet stamped "Prim. Trav. Sta. No. 4, 1916, Elev. 1502"	1,502.481	
Cranberry Lake, 0.9 mile east of, 800 feet east of Y on south side of railroad, in large rock; chiseled square marked "t. b. m. 1,503.0"	1,503.04	
Lines station, 60 feet east of, 500 feet west of trail, on south side of track, in boulder; chiseled square marked "t. b. m. 1440.5"	1,440.54	

DAMASCUS QUADRANGLE.[Latitude $41^{\circ} 30' - 41^{\circ} 45'$; longitude $75^{\circ} - 75^{\circ} 15'$.]

Precise leveling in 1900 by C. H. Semper.

From Cochecton south along Erie R. R. to Tusten.

Cochecton, 100 feet north of station, railroad bridge over highway, top of north abutment, east side; bronze tablet stamped "746 Albany 1900"	746.777
Cochecton, in front of station, northbound track; top of rail	749.0
Narrowsburg, in front of station, northbound track; top of rail	715.6
Narrowsburg, 600 feet west of station, 100 feet west of east end of rock cut, north side; bronze tablet stamped "718 Albany 1900"	718.717
Tusten, in front of station, northbound track; top of rail	684.6

DANNEMORA QUADRANGLE.[Latitude $44^{\circ} 30' - 44^{\circ} 45'$; longitude $78^{\circ} 30' - 78^{\circ} 45'$.]

Leveling by J. M. Perkins in 1911.

From Saranac south along highway to Disco.

Saranac, 0.7 mile southeast of, 300 feet east of red schoolhouse, at road corner; point on stone, marked "761.3"	760.09
Saranac, 1.9 miles south of, at road corner; square cut in stone, marked "974.1"	972.95
Saranac, 2.8 miles south of, at district 1 school, in stone 30 feet from school and 20 feet from road; aluminum tablet stamped "1203"	1,202.097
Redford, about 2.5 miles east of, 50 feet north of road corner, on road to Peasleeville and Saranac; drill hole in top of rock, marked "1463.0"	1,461.76
Disco, on stone 100 feet west of road corner and opposite butter factory; aluminum tablet stamped "1158"	1,157.086
Disco, in front of red schoolhouse, 1,200 feet north of post office, square cut in top of stone, marked "1218.7"	1,217.61
Disco, 1 mile south of post office, at road corner, in rock opposite house; bronze tablet stamped "1132"	1,130.918

From Russia station along Delaware & Hudson R. R. northeast to Dannemora, thence southeast to point 3 miles east of Morrisonville, thence along highway south to Lapham, thence along Delaware & Hudson R. R. southwest to Harkness, thence along highway west, north, and west to Redford.

Russia station, 110 feet east of, 11 feet from center of main track, in top of concrete culvert; aluminum tablet stamped "1480" 1,488.587

	Feet.
Dannemora, 2.3 miles west of, 10 feet from center of track, 15 feet from center of highway near crossing, in top of culvert; bronze tablet stamped "1351" -----	1, 350. 408
Dannemora, 0.6 mile east of, 150 feet west of railroad milepost marked "P. 19"; top of concrete culvert marked "1279.5" -----	1, 279. 01
Dannemora, 1.5 miles east of, on concrete culvert top, 10 feet from center line of location of track; aluminum tablet stamped "1188" -----	1, 187. 842
Cadyville, 5.4 miles west of, on top of concrete culvert over brook; bronze tablet stamped "734" -----	733. 815
Morrisonville, 1.5 miles west of, 6 feet north of center of track, on concrete culvert at highway crossing; bronze tablet stamped "593" -----	592. 818
Morrisonville, 0.9 mile east of, on top of concrete cattle pass, 12 feet from center of track; bronze tablet stamped "384" -----	388. 600
Morrisonville, 3.5 miles east of, about midway between West End switch and railroad milepost marked "L.P.76-P.7," on top of concrete culvert; aluminum tablet stamped "294" -----	293. 782
Peru, 4.9 miles north of, where road to Peru crosses road connecting Schuyler Falls and South Plattsburg (Salmon River station), near telephone pole; point on stone, marked "284.3" -----	284. 11
Peru, 4 miles north of, at roadside, 730 feet north of road corner, near residence of Charles Wright, on boulder; aluminum tablet stamped "318" -----	317. 644
Peru, 2.1 miles north of, at road crossing about 0.5 mile north of Lapham Mills; square cut on top of rock, marked "320.5" -----	320. 31
Peru, 0.9 mile east of, on culvert top on State highway about 200 feet east of residence of Barney Fitzpatrick; aluminum tablet stamped "294" -----	294. 271
Peru, 960 feet north of post office, at road corner, near telephone pole; square cut on top of rock, marked "351.9" -----	351. 82
Peru, in front of station; top of north rail of main track, marked "346.2" -----	346. 1
Peru, 1.5 miles south of, 7 feet west of track, on stone abutment of cattle pass; aluminum tablet stamped "378" -----	378. 238
Harkness, at crossing near Harkness station; top of south rail of main track, marked "374.1" -----	374. 1
Harkness, 0.6 mile west of, 10 feet north of Peasleeville road, 130 feet west of road corner, 20 feet west of small culvert, in granite boulder; aluminum tablet stamped "379" -----	378. 861
Harkness, 1.6 miles west of, at road corner near residence of Warren Kirby, at north fence corner; square cut on stone, marked "641.8" -----	641. 84
Harkness, 3.6 miles west of, 12 feet east of Peasleeville road, and 1,200 feet north of residence of Thomas Boyd, in boulder; aluminum tablet stamped "558" -----	555. 845
Harkness, 4.2 miles west of, on road to Peasleeville, at road corner near residence of Lawrence Clair, in grass triangle; square cut in small stone, marked "722.0" -----	722. 06
Harkness, 5.2 miles west of, on road to Peasleeville, at road corner; square cut on stone, marked "1105.7" -----	1, 105. 76
Peasleeville, 4.2 miles south of, at road corner on Harkness road; point on small stone, marked "1041.4" -----	1, 041. 51
Peasleeville, 3.2 miles south of, on Harkness road, at road corner, 15 feet west of Peasleeville road, opposite road to Peru, in small boulder; aluminum tablet stamped "949" -----	949. 232

	Feet.
Peasleeville, 2.2 miles south of, at road corner, on Harkness road, opposite telephone pole; point on stone, marked "855.4"-----	855.54
Peasleeville, 1.6 miles east of, on road to Peru, on rock at road corner near Patent school; square cut on top of stone, marked "725.5"-----	725.70
Peasleeville, 1 mile east of, bridge over Salmon River-----	668.6
Salmon River; surface of water under bridge, September 18, 1911-----	660.4
Peasleeville, 1 mile east of post office, on road to Peru, at road corner opposite Ricketson's store; square cut on stone, marked "691.7"-----	691.89
Peasleeville, on rock near wall opposite Methodist Church, under elm tree 11 inches in diameter; aluminum tablet stamped "754"-----	754.28
Peasleeville, 0.9 mile west of post office, on road to Redford, at road corner; square cut on top of small stone, marked "723.8"-----	723.97

From east border of quadrangle along highways west, north, and west to Delaware & Hudson R. R., thence north 0.6 mile along the railroad to point 2 miles south of Peru.

Primary leveling by Fred W. Crisp in 1916.

Peru, 3.5 miles southeast of, on Peru-Keeseville road, northeast corner of crossroads, east end of concrete culvert; chiseled square, painted "400.8"-----	400.98
Peru, 3.5 miles southeast of, on Peru-Keeseville road, northeast corner of crossroads, east end of concrete culvert (p. b. m. to be set).-----	
Peru, 3.5 miles south by 0.5 mile west of, at T road north, south, and east, southeast corner of junction, in root of tree; copper nail and washer, marked "U. S. G. S. B. M. 410.2"-----	410.33

DELHI QUADRANGLE.¹

[Latitude 42° 15'-42° 30'; longitude 74° 45'-75°.]

Precise leveling in 1898 by E. L. McNair.

Near Colliers.

Colliers, in front of Delaware & Hudson station; top of rail-----	1, 119.3
Colliers, 700 feet east of, bridge 54 across Susquehanna River, northeast corner of coping stone of east abutment; bronze tablet stamped "1119 A"-----	1, 118.493
Cooperstown Junction, in front of station; top of rail-----	1, 127.3

Leveling by Karl E. Schlachter in 1915.

From point 5 miles northwest of Fraser along highway to Fraser, thence northeast along New York, Ontario & Western Ry. to Delhi.

West Delhi, 2.4 miles south of, 700 feet north of school, on southeast corner of bridge over East Fork of Platner Brook; top of bolt painted "t. b. m. 1,577.4"-----	1, 577.51
Fraser station, 2.4 miles north of, 175 feet east of road fork, in northeast corner of concrete abutment of bridge over East Fork of Platner Brook; bronze tablet stamped "N. Y. 1,556"-----	1, 555.685
Fraser station, 1.3 miles north of, at road fork, in ledge on east margin of road; chiseled square painted "t. b. m. 1,429.5"-----	1, 429.58
Keesler's siding, in front of platform; top of rail-----	1, 361.7
Delhi, in front of station; top of rail-----	1, 357.3

¹ See Bull. 514, p. 34, for other elevations.

Delhi, Delaware County courthouse, southeast corner, in front face of Feet.
 water table; aluminum tablet stamped "1,370" (Bull. 514, p. 34) 1,370.459
 West Delhi, 1.6 miles south of, in east side of stone culvert, in front
 of house of R. A. Blake; chiseled square painted "t. b. m: 1,678.5" - 1,678.65

DEPEW QUADRANGLE.

[Latitude $42^{\circ} 45' - 43^{\circ}$; longitude $78^{\circ} 30' - 78^{\circ} 45'$.]

Primary leveling in 1903 by George Seidel.

From Darien west along Erie R. R. to Alden.

Alden, in foundation of standpipe of village waterworks; aluminum tablet stamped "865 Albany 1903" -----	865.582
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From Harris along highway west to Orchard Park.

Wales Center, 2.2 miles east of; north end of west abutment of iron bridge-----	1,045.70
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Wales Center, 150 feet east of covered bridge, northeast corner of foundation wall of George Kelver's residence; aluminum tablet stamped "898 Albany 1903" -----	897.753
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East Aurora, in brick wall to left of main entrance of schoolhouse; aluminum tablet stamped "926 Albany 1903" (moved (?)) -----	926.235
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East Aurora, 1.5 miles west of, iron bridge across Cazenovia Creek; end of west abutment-----	832.61
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Orchard Park, southeast corner of Briggs Bros.' block, in brick foundation; aluminum tablet ¹ stamped "868 Albany 1903" -----	868.933
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From East Aurora northwest along the Pennsylvania R. R. and highway to Ebenezer.

Elma station, Elma-Center post-office road crossing; top of rail-----	814.2
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Spring Brook, railroad crossing; top of rail-----	748.0
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Blossom (Upper Ebenezer), in foundation wall of schoolhouse, district 8; aluminum tablet stamped "672 Albany 1903" -----	672.087
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From Williamsville east along public road via Clarence to Millgrove.

Williamsville, northwest corner of foundation wall of Mansion House; bronze tablet stamped "665 Albany 1903" -----	665.022
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Clarence, main entrance of Parker High School; aluminum tablet stamped "752 Albany 1903" -----	752.704
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Millgrove, 1.1 miles north of; east end of north abutment of small bridge-----	777.45
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From Millgrove along the New York Central R. R. to Crittenden.

Wende, road crossing at station; top of rail-----	791.0
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Wende, 1.1 miles east of station; New York Central R. R. bench mark at milepost 421-----	811.38
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Crittenden, 0.8 mile west of; New York Central R. R. bench mark at milestone 420-----	825.56
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¹ This elevation is by a single line from a checked elevation at Big Tree, which is nearer than East Aurora, from which also by single line an elevation 0.9 foot less was derived.

DEPOSIT QUADRANGLE.

[Latitude 42°-42° 15'; longitude 75° 15'-75° 30'.]

Precise leveling in 1901 by D. H. Baldwin.**Near Apex on New York, Ontario & Western Ry.**

	Feet.
Apex, 0.45 mile north of, at railroad summit; top of east rail.....	1, 461. 3
Apex, in front of station; top of east rail.....	1, 445. 1

Precise leveling in 1900 by C. H. Semper.**Near Deposit.**

Deposit, 1 mile west of, iron bridge over river, south wing of east abutment; bronze tablet marked "1026 Albany 1900".....	1, 026. 543
Deposit, in front of station, northbound track; top of rail.....	1, 003. 7
Deposit, 4.4 miles south of, north abutment of iron bridge, west side, top of bridge seat; bronze tablet stamped "978 Albany 1900".....	978. 972
Hales Eddy, in front of station, northbound track; top of rail.....	973. 3

DRYDEN QUADRANGLE.

[Latitude 42° 15'-42° 30'; longitude 76° 15'-76° 30'.]

Primary leveling in 1898 by W. W. Gilbert.**From North Candor north along the Lehigh Valley R. R. to Ithaca.**

Willseyville, Stevens Hotel, east end of walk between driveway and building; chisel mark on south end of stone step.....	948. 38
Willseyville, 2.25 miles north of, Delaware, Lackawanna & Western R. R. bridge over highway, south abutment under west rail and 2.5 feet above ground; aluminum tablet stamped "957".....	958. 250
Besemer, 1.12 miles west of, in field 50 feet north of track; hickory tree blazed "B. M. 46," spike in root (Lehigh Valley R. R. bench mark).....	952. 40
East Ithaca, 2.5 miles southeast of, 0.25 mile west of small white schoolhouse among pines on south side of track and immediately west of private road crossing; iron pin set in boulder 20 feet north of track (Lehigh Valley R. R. bench mark 472).....	943. 69
East Ithaca, 1.25 miles southeast of, 450 feet northwest of highway crossing and 20 feet north of track; iron pin set in large boulder (Lehigh Valley R. R. bench mark 49).....	901. 37

From Besemer east along highway to Caroline, thence south to Speedsville, thence west to Willseyville.

Slaterville Springs, Methodist Church; chisel mark on top of southwest corner of foundation.....	1, 117. 81
Slaterville Springs, town clerk's office, east side of building, near northeast corner, 3 feet above ground; aluminum tablet stamped "A 1120".....	1, 121. 400
Speedsville, O. F. Freeland's store, west side of building, 8 feet north of southwest corner, in top course of masonry foundation; aluminum tablet stamped "A 1121".....	1, 121. 939
Perryville schoolhouse, east side of road, west end of first stone step from top, south of door; chisel mark.....	1, 010. 19

From Caroline north to Dryden, thence west to Etna.

Caroline, 1.25 miles north of, at West Oswego Creek, on abutment at southwest corner of bridge; chisel mark	Feet.	1,305.36
Dryden, 2 miles south of, first crossing of Lehigh Valley R. R. north of Dryden Lake; top of rail	1,162.7	
Dryden, South Street crossing; top of rail	1,101.8	
Dryden, Southworth Library building, in foundation course of masonry south front of structure; aluminum tablet stamped "A 1090"	1,090.520	

From Etna southwest along the Lehigh Valley R. R. to Ithaca.

Etna, Lehigh Valley R. R. station, opposite east line of building; top of rail	1,025.6	
Varna, 0.5 mile northeast of, at iron highway bridge over Fall Creek, west end of south abutment; chisel mark	956.43	
Varna, opposite west line of station; top of rail	997.5	
Varna, 1.5 miles southwest of, 1,200 feet west of milepost 52, on north side of track; iron pin set in boulder (Lehigh Valley R. R. bench mark 51)	935.55	
East Ithaca, 0.5 mile northeast of, abutment at southwest corner of iron highway bridge over Cascadilla Creek; iron pin (Lehigh Valley R. R. bench mark 502)	866.88	
East Ithaca, opposite south line of station; top of west rail, main track	873.0	
Ithaca, south end of Cornell University civil engineering building, bottom course of foundation, 5 feet east of southwest corner; aluminum tablet stamped "A 814"	815.107	

DUNKIRK QUADRANGLE.

[Latitude 42° 15'-42° 30'; longitude 79° 15'-79° 30'.]

Precise leveling in 1898 by E. L. McNair.

At Dunkirk.

Dunkirk, St. Mary's Home and School, Washington Avenue, between Third and Fourth streets, in water table 20 feet from northeast corner; aluminum tablet stamped "598 Dunkirk 1898"	598.938	
Dunkirk, Nelson Block, extreme northwest corner of, on top of water table; chiseled cross	588.866	

Precise leveling in 1902 by D. H. Baldwin.

From Waites Crossing southwest along Lake Shore & Michigan Southern Ry. to Dunkirk.

Waites Crossing, nearly opposite flag station; top of east rail	625.4	
Waites Crossing, 0.70 mile south of, southeast corner of cattle pass bridge 195, at east corner of parapet stone; chiseled square	624.10	
Dunkirk, in front of Lake Shore & Michigan Southern Ry. station; top of rail	598.9	

Primary leveling in 1898 by E. L. Faison.

From Dunkirk to Fredonia along the Dunkirk, Allegheny Valley & Pittsburgh R. R.

Dunkirk, extreme northwest corner of Nelson block; top of water table	588.866	
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Dunkirk, Elk Street crossing of Lake Shore & Michigan Southern Ry.; top of rail	Fect.
	594. 6
Dunkirk, 2 miles south of, Dunkirk, Allegheny Valley & Pittsburgh R. R. culvert 3; extreme northwest corner	664. 37
Fredonia, in front of Dunkirk, Allegheny Valley & Pittsburgh R. R. station; top of rail	767. 8
From Fredonia via Laona, Lillydale, Cassadaga, and Stockton to Mayville.	
Laona, on west side of railroad bridge over Canadaway Creek, in top stone of north abutment; bronze tablet stamped "817 D"	817. 926
Lillydale, 1.5 miles north of, southwest corner of abutment, south end of Skidmore viaduct; chiseled square	1, 295. 60
Lillydale, in front of Dunkirk, Allegheny Valley & Pittsburgh station; top of rail	1, 812. 9
Stockton, 500 feet west of Chriss's Hotel, east side of stone foundation of blacksmith shop on Mayville Street, 4 feet above ground; bronze tablet stamped "1316 D"	1, 817. 521
Mayville, at Jamestown Junction, west side of cemetery, highway bridge over Black Brook, in top stone at north end of east abutment; bronze tablet stamped "1324 D" (reset)	1, 324. 865
Mayville, top of bottom step of front of courthouse; chiseled square	1, 462. 49
Mayville, schoolhouse grounds, in north meridian monument; bronze tablet stamped "1500 D"	1, 500. 670
Mayville, schoolhouse grounds, in south meridian monument; bronze tablet stamped "1499 D"	1, 499. 500
From Jamestown Junction southeast along the Jamestown, Chautauqua & Lake Erie Ry. to Wooglin.	
Hartfield; top of station platform	1, 315. 7
Wooglin, in front of station; top of south rail	1, 350. 2
From West Portland northeast via Brocton to Fredonia.	
West Portland, on northeast corner of second step of red brick church; cross mark	774. 75
Brocton, at crossing of Western New York & Pennsylvania Ry.; top of rail	745. 1
Brocton, 1 mile north of, 0.25 mile east of station, in south side of center pier of double arch (stone) of Lake Shore Ry. bridge over Slippery Rock Creek; copper bolt stamped "667 D"	668. 518
Fredonia, south entrance to clothing store in Columbia Hotel; top of south stone step	728. 52
EDEN QUADRANGLE.	
[Latitude $42^{\circ} 30'$ - $42^{\circ} 45'$; longitude $78^{\circ} 45'$ - 79° .]	
Precise leveling in 1902 by D. H. Baldwin.	
From Eden southwest along Lake Shore & Michigan Southern Ry. to Derby.	
Athol Springs, 1.79 miles south of, near Hamburg station on Pennsylvania R. R., road crossing on Lake Shore & Michigan Southern Ry.; top of rail	651. 6
Lake View, 1.99 miles north of, west end of box culvert; northeast corner of coping stone, chiseled square	665. 55
Lake View, in front of station; top of rail	708. 8
North Evans, in front of station; top of rail	697. 5

Derby, 1.29 miles north of, 200 feet east of Lake Shore & Michigan Southern track, southeast corner of highway bridge, crossing Pennsylvania R. R., in west face of concrete wing wall 2 feet above ground; bronze tablet stamped "724 Rochester 1902"	Feet.
	723. 807
Derby, in front of station; top of rail	704. 6
Derby, 1.27 miles south of trestle 236, southwest corner, near northwest corner of coping stone; chiseled square	681. 08

Primary leveling in 1904 by I. W. Pettit, and in 1905 by R. P. Thompson.

From Blaisdell south along Pennsylvania R. R. via Hamburg to Collins station,	
Hamburg, in stone foundation at northwest corner of Kopp's Hotel, at end of car line; bronze tablet stamped "826 Albany 1903 Adj"	825. 555
Water Valley, Erie R. R.; top of rail	790. 6
Eden Valley station, 300 feet east of Erie R. R. station, in northwest corner of foundation of Albert Dagle's house; bronze tablet stamped "792 Albany Adj 1903"	792. 254
Eden Center, northeast corner of foundation of schoolhouse; bronze tablet stamped "Albany 828 Adj 1903"	827. 573
North Collins, Erie R. R. station, in east face of southeast corner; bronze tablet stamped "847 Adj 1903"	847. 023
Lawton, in west face of foundation wall of E. H. Lawton & Son's store; bronze tablet stamped "826 Albany 1903"	825. 640

From Hamburg along highway southeast to Boston Center.

North Boston, 3.7 miles east of Hamburg, on northwest corner of south abutment of bridge over Idlewood (or Eighteenmile) Creek; bronze tablet stamped "818 Albany 1903 Adj"	817. 517
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From Boston south to Mortons Corners, thence west to Lawton.

New Oregon, 100 feet northwest of crossroads, in southeast corner of foundation of Peter Kirsch's house; bronze tablet stamped "1075 Adj 1903"	1, 075. 137
Woodwards Hollow, in east face of foundation wall of F. J. Ryther's store; bronze tablet stamped "1305 Adj 1903"	1, 304. 850
Mortons Corners, 500 feet west of, 106 feet from corner of Martha Schabehorn's house, 77 feet from Helen Briggs's house, and 151.42 feet from Emily Sampson's house; iron post (primary-traverse station No. 134) stamped "1389 Adj 1903"	1, 389. 046
Whites Corners, 0.9 mile west of, in dooryard at northwest corner of dwelling house occupied by Mr. Christopher Naegle, on south side of road; primary-traverse iron post stamped "1115 Adj 1903"	1, 114. 399

ELLENVILLE QUADRANGLE.¹

[Latitude 41° 30'-41° 45'; longitude 74° 15'-74° 30'.]

Primary leveling in 1903 by G. M. Dimmick.

From Napanoch south along New York, Ontario & Western Ry. via Summitville to Middletown.

Ellenville, in foundation wall of station, center of east face; aluminum tablet stamped "319 Albany 1903"	319. 518
Spring Glen, in foundation wall of station, center of west face; bronze tablet stamped "451 Albany 1903"	451. 661

¹ See Bull. 514, p. 35, for other elevations.

	Feet.
Summitville, 150 feet north of station, north end of west retaining wall; point on top of stone sluiceway, square	546. 44
Wurtsboro (Mamakating station), in foundation wall of station, north end of east face; bronze tablet stamped "723 Albany 1903" (destroyed, 1914)	722. 782
Bloomingburg, 0.6 mile south of, south end of east abutment of railroad bridge; point on top	713. 53
Winterton, in front of station; top of east rail	598. 7
Fair Oaks, in front of station; top of east rail	641. 2
Crawford Junction, south end of east retaining wall of small culvert 60 feet south of station; point on top	591. 93

From Crawford Junction northeast along Erie branch to Pine Bush, thence to Dwaarkill (single-spur line).

Circleville, 150 feet south of station, at highway crossing; top of east rail	621. 8
Bullville, at highway crossing south of station; top of east rail	508. 9
Bullville, in foundation wall of Methodist Church, north end of east face; aluminum tablet stamped "518 Albany 1903"	517. 840
Thompson Ridge, 60 feet south of station, highway crossing; top of east rail	459. 4
Pine Bush, in foundation wall of Presbyterian Church, center of south face; bronze tablet stamped "397 Albany 1903"	396. 919
Dwaarkill, in foundation wall of the residence owned by Mr. Horne, center of north face; bronze tablet stamped "351 Albany 1903" ---	351. 684

ELMIRA QUADRANGLE.

[Latitude 42°-42' 15"; longitude 76° 45'-77°.]

Precise leveling in 1898 by E. L. McNair.

From Big Flats east along Erie R. R. to Elmira.

Big Flats, 1.25 miles west of, in bridge seat at southwest corner of Erie R. R. bridge 67 A; bronze tablet stamped "899 D" ---	900. 815
Big Flats, in front of Erie station; top of south rail, westbound track	910. 8
Horseheads, in front of Erie station, westbound track; top of north rail	903. 4
Horseheads, 0.35 mile southwest of Erie station, on pier of Lackawanna R. R. bridge at crossing of Northern Central Ry., 50 feet south of center of northbound track of Northern Central Ry.; aluminum tablet stamped "901 D" (somewhat battered) ---	902. 111
Horseheads, Northern Central station; northeast corner of stone doorsill of men's waiting room	900. 113
Elmira, Erie station, eastbound track, opposite distance board; top of south rail	857. 3
Elmira, city hall, corner of Church and Lake streets, stone pedestal of lamp-post at left of Lake Street entrance; aluminum tablet stamped "857 Albany" ---	858. 626
Elmira, 0.5 mile east of Erie station, in stone foundation at west end of Erie R. R. bridge across Chemung River, between nearest eastbound tracks; head of iron bolt, chisel mark (not found, 1916) ---	854. 593

Precise leveling in 1899 by C. H. Semper.

From Elmira south along Northern Central Ry. to Williamsport, Pa.

	Feet.
Southport, in front of station; top of east rail-----	854. 3
Elmira, 7 miles south of, creek and cattle-pass culvert, west side of railroad, in wall; bronze tablet stamped "1067 Harrisburg 1899"-----	1,068. 338
State boundary (New York-Pennsylvania) line post, opposite; top of rail-----	1,096. 7

Primary leveling in 1898 by W. W. Gilbert.

From Horseheads along the Northern Central Ry. to Watkins, thence to Burdett.

Horseheads, Lehigh Valley R. R., opposite southeast line of Horseheads station; top of rail, main track-----	890. 8
Horseheads, men's waiting room of Northern Central station; northwest corner of stone doorsill-----	900. 11
Pine Valley, opposite south line of Pine Valley station; top of rail-----	891. 0

FONDA QUADRANGLE.¹[Latitude $42^{\circ} 45' - 43^{\circ}$; longitude $74^{\circ} 15' - 74^{\circ} 30'$.]

Primary leveling in 1896 by A. F. Krause.

From Auriesville along canal and thence along Fonda, Johnstown & Gloversville R. R. to Johnstown.

Auriesville, $\frac{1}{2}$ mile west of West Shore R. R. station, northwest end of west wing, bridge over canal, north abutment, in corner stone; chiseled square (State engineer bench mark 106)-----	302. 785
Auriesville, bridge over canal 0.5 mile west of West Shore R. R. station, in fourth course of north abutment, 1.5 feet east of east angle; cross cut in stone-----	302. 32
Fultonville, bridge over Mohawk River, on top of coping of south abutment; chiseled square-----	294. 04
Fonda County courthouse, in corner stone of fourth course of stones from top of foundation at northwest corner; bronze tablet stamped "294"-----	293. 764
Cayadutta Creek, railroad bridge over, in northeast corner of coping stone, southeast end of north abutment; chiseled square-----	350. 73
Sammonsville, station of the Fonda, Johnstown & Gloversville R. R., in large stone at corner of foundation; chiseled square-----	587. 24

FRANKLINVILLE QUADRANGLE.

[Latitude $42^{\circ} 15' - 42^{\circ} 30'$; longitude $78^{\circ} 15' - 78^{\circ} 30'$.]

Primary leveling in 1903 by George Seidel.

From Caneadea west along public road to Rushford (on spur line).

Rushford, northeast corner of foundation wall of schoolhouse; aluminum tablet stamped "1517 Albany 1903"-----	1,517. 343
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¹ See Bull. 514, p. 69, for other elevations.

FULTON QUADRANGLE.¹[Latitude $43^{\circ} 15'$ - $43^{\circ} 30'$; longitude $76^{\circ} 15'$ - $76^{\circ} 30'$.]

Primary leveling in 1898 by C. H. Semper and D. E. Baxter.

From Oswego south via Fulton to Hinmansville.

Minetto, State dam, west side of Oswego River, southeast corner of third bulkhead pier on top of surface; aluminum tablet stamped "302 A" -----	Feet. 303.344
Minetto, 0.07 mile south of, Oswego Canal, between cinchers of middle gate; copper bolt (canal bench mark at lock 12)-----	308.54
Minetto, 1.3 miles south of, south wing of west abutment, second step; copper bolt (canal bench mark at bridge)-----	311.28
Minetto, 3.0 miles south of, Oswego Canal, between cinchers of middle gate; copper bolt (canal bench mark guard lock 4)-----	311.99
Minetto, 4.7 miles south of, Oswego Canal, lock 11, middle hollow between cinchers; copper bolt (L. S. B. M. 129)-----	320.18
Minetto, 5.5 miles south of, Oswego Canal, on first stone step, south end abutment; copper bolt (L. S. B. M. 128)-----	322.47
Minetto, 5.9 miles south of, Oswego Canal, in first step of abutment, south end; copper bolt (L. S. B. M. 127)-----	323.16
Minetto, 6.1 miles south of, Oswego Canal, on north hollow quoin between cinchers; copper bolt (L. S. B. M. 126)-----	329.025
Minetto, 6.2 miles south of, lock 9, in middle hollow quoin between cinchers; copper bolt (Oswego Canal bench mark)-----	337.15
Fulton, northwest corner of town hall, south First Street, in water table; aluminum tablet stamped "363 A"-----	364.542
Fulton, 0.5 mile south of, Oswego Canal, lock 8, on lower hollow quoin between cinchers; copper bolt (L. S. B. M. 125)-----	347.946
Fulton, 0.8 mile south of, Oswego Canal, first step of abutment, south end; copper bolt (canal bench mark)-----	351.00
Fulton, 0.9 mile south of, Oswego Canal, guard lock 3, in lower hollow quoin between cinchers; copper bolt (canal bench mark)-----	352.03
Fulton, 4.3 miles south of, lock 7, in middle hollow quoin between cinches; copper bolt (canal bench mark)-----	353.52
Fulton, 5.5 miles south of, Oswego Canal, unused lock, in lower hollow quoin; copper bolt (canal bench mark)-----	359.89

From Fulton east to Gilbert Mills, thence north to Vermillion, thence west to Oswego.

Gilbert Mills, southeast corner of schoolhouse, district 5; aluminum tablet stamped "435 Oswego"-----	436.144
Vermillion, on southeast corner of Methodist Church, Main Street; aluminum tablet stamped "422 Oswego"-----	422.559
South Scriba, on north side of Hall road, in southeast corner of Ladies' Aid Society hall; aluminum tablet stamped "400 Oswego"-----	401.517
Lansing, on northeast corner of brick schoolhouse; chiseled square-----	418.84
Oswego, at Rome, Watertown & Ogdensburg R. R. crossing, on Hall road; top of west rail-----	322.1

¹ See Bull. 514, pp. 87-88, for other elevations.

From Fulton southwest to Bowens Corners.

Fulton, 1.9 miles west of, 30 feet east of road to south, south end of west abutment of highway bridge over Lye Creek; chiseled square-	Feet.
Bowens Corners, south door of brick schoolhouse, district 5, on stone doorstep; aluminum tablet stamped "449 Oswego"-----	371. 84
	449. 603

GENEVA QUADRANGLE.

[Latitude $42^{\circ} 45'$ - 43° ; longitude $76^{\circ} 45'$ - 77° .]

Primary leveling in 1899 by C. H. Semper.

From Geneva north to Lyons.

East X, on southwest corner of stone step of station house on Lyons & Geneva R. R.; chiseled mark-----	478. 65
Mitchell (West Junius), in north face wall of post office at railroad crossing; bronze tablet stamped "491 Oswego 1899"-----	492. 524

From Geneva south along Lehigh Valley R. R. to Kendala.

Geneva, in west face of St. Peter's Church, in water table; bronze tablet stamped "481 Oswego 1899"-----	481. 524
Geneva, 1.9 miles south of, in west end of south abutment of bridge 342, Lehigh Valley R. R.; copper bolt-----	465. 52
Geneva, 6.3 miles south of, in top step west end of south abutment of Lake road overhead bridge 337, Lehigh Valley R. R.; top of iron bolt-----	523. 09
Varick, 1.8 miles south of, in northeast foundation stone of Lehigh Valley water tank, on west side of road; bronze tablet stamped "562 Oswego 1899"-----	563. 385

From Mays Point south to Fayette.

Mays Point, in west wing south abutment, in third step, of Mays canal bridge; bronze tablet stamped "396 Oswego 1899"-----	396. 642
Seneca Falls, in south face wall of Mynderse Academy, North Park Street; bronze tablet stamped "465 Oswego 1899"-----	466. 066
Fayette post office, in northwest corner of Dutch Reformed Church; bronze tablet stamped "612 Oswego 1899"-----	613. 223

GENOA QUADRANGLE.

[Latitude $42^{\circ} 30'$ - $42^{\circ} 45'$; longitude $76^{\circ} 30'$ - $76^{\circ} 45'$.]

Primary leveling in 1899 by C. H. Semper and W. F. Hammond.

From Ovid Center southeast along Lehigh Valley R. R. to Ithaca.

Ovid Center, 2.5 miles south of, set in bridge seat of cattle pass, northeast side; top of iron rod (L. V. B. M. 325)-----	821. 83
Farmer, corner of Main and Lodi streets, in northeast corner of Baptist Church; bronze tablet stamped "912"-----	912. 420
Farmer, 0.7 mile south of, in north wall of cattle pass, east side; top of iron bolt stamped "B. M. No. 323"-----	843. 88
Farmer, 2.4 miles south of, 600 feet north of highway, by fence west of railroad; top of iron bolt stamped "B. M. No. 322" (L. V.)-----	849. 18

	Feet.
Covert, 1.4 miles south of, on west side of railroad, set in rock; top of iron pin stamped "320" (L. V.)	901. 41
Covert, 1.9 miles south of, on west side of railroad, 600 feet south of highway, set in rock; top of iron pin (No. 319 L. V.)	882. 08
Trumansburg, in south face of Union School and Academy; bronze tablet stamped "1000 Oswego 1899"	1, 000. 390
Trumansburg, first crossing west of station, set in rock on north side of track; iron pin (Lehigh Valley bench mark 318)	874. 98
Willow Creek, 3 miles south of; top of iron plug set in boulder (L. V. B. M. 311)	588. 09

From Ithaca north along road to Scipio.

Ludlowville, in south end of bulkhead dam; aluminum tablet stamped "481 Oswego"	482. 334
Genoa, northeast corner of Hotel De Witt, in top of retaining wall; aluminum tablet stamped "837 Oswego"	838. 591
Venice Center, north side of hotel building, in foundation stone; aluminum tablet stamped "998 Oswego"	999. 600

From Ludlowville northwest along road to Aurora.

Black Rock (Ellsworth post office), iron bridge over Paines Creek, west abutment, in top of south wing; aluminum tablet stamped "723 Oswego"	724. 413
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GILBOA QUADRANGLE.[Latitude $42^{\circ} 15'$ - $42^{\circ} 30'$; longitude $74^{\circ} 15'$ - $74^{\circ} 30'$.]**Primary leveling in 1900 by George Bailey and W. S. D. Moore.****From Lexington north to Prattsville.**

Lexington, 2.5 miles north of, north abutment of Schoharie Creek bridge, east end, top stone; chisel mark	1, 275. 76
Prattsville, 1 mile east of, east abutment of Red Kill bridge, south end, top stone; chisel mark	1, 181. 18
Prattsville, public school building, in front wall; aluminum tablet stamped "1164 Albany"	1, 164. 638

From Prattsville east to Windham.

Windham, bridge over Batavia Creek on road to Hunter, top of north abutment, east end; bronze tablet stamped "1517 Albany"	1, 517. 884
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From Prattsville north to Gilboa.

Prattsville, at fork with Grand Gorge road, Schoharie Creek bridge, east approach, top stone of north retaining wall at end of railings; chisel mark	1, 151. 04
Gilboa, 1.2 miles south of, south abutment of Manor Kill bridge, east end, top stone; chisel mark	1, 115. 65
Gilboa, 1.2 miles south of, south abutment of Manor Kill bridge, Schoharie Creek, in ledge of rock; bronze tablet stamped "1010 Albany"	1, 010. 190

From Gilboa east to Manorkill.

Strykersville (West Conesville post office), bridge 40 feet west of post office, on southwest abutment; chisel mark	Feet.	1,260.12
Conesville, bridge 150 feet west of post office, on northeast corner abutment; chisel mark		1,383.23
Manorkill, white church opposite post office, southeast corner; bronze tablet stamped "Albany 1515"		1,515.295

From Gilboa north via Blenheim to Breakabeen.

Blenheim, 300 feet north of post office, northwest side of road, in ledge of rock; aluminum tablet stamped "813 Albany"	813.430
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From Franklinton south to Livingstonville.

Livingstonville, in northwest corner of Methodist Church; bronze tablet stamped "Albany 1077"	1,077.310
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GLENS FALLS QUADRANGLE.¹

[Latitude 43° 15'-43° 30'; longitude 73° 30'-73° 45'.]

Primary leveling in 1898 by Clark Brown.

At Fort Edward.

Fort Edward, Argyle Street canal bridge, north wing, east abutment, second step, face corner; chiseled cross in circle (canal bench mark)	141.56
Fort Edward, lock 15, southeast anchor; chiseled cross in circle (canal bench mark 79)	148.52
Fort Edward, high school building, front entrance, in stone pilaster at left side; bronze tablet stamped "145 A"	144.571

GLOVERSVILLE QUADRANGLE.

[Latitude 43°-43° 15'; longitude 74° 15'-74° 30'.]

Primary leveling in 1900 by William Kelley; in 1896, by A. F. Krause and Clark Brown.

From Caroga Corners northeast along road via Bleecker Center, Benson Center, and Benson to Northville.

[The error distributed in this line is excessive.]

Caroga Corners, in field about 150 feet east of road intersection, in top of large boulder; bronze tablet stamped "1527 Albany"	1,527.198
Benson Center Corners, 17 feet westerly from bars in wall, in field on farm of Ludwick Politch, on large boulder; aluminum tablet stamped "1288 Albany"	1,288.862
Benson, 185 feet east of Methodist Church, nearly opposite Benson post office, north side of road, in top of large boulder; aluminum tablet stamped "1139 Albany"	1,138.783

From Peters Corners south along road to Bleecker village (single-spur line).

Bleecker Village, in front of schoolhouse, district 4, on south side of road, in top of large boulder; aluminum tablet stamped "1506 Albany"	1,505.840
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¹ See Bull. 514, pp. 55-56, for other elevations.

From Johnstown northeast along railroad to Mayfield.

Johnstown, station of the Fonda, Johnstown & Gloversville R. R., in first stone below brickwork at west corner of building; bronze tablet stamped "652"	Feet.
	652. 008
Johnstown, 2.12 miles north of, railroad bridge 5, on northeast corner of top stone, east end of abutment; chiseled square	749. 62
Gloversville, station of the Fonda, Johnstown & Gloversville R. R., in first stone below brickwork, 20 feet north of southwest corner of building; bronze tablet stamped "798"	798. 136
Broadalbin, top of frog in switch at junction	813. 1
Mayfield, platform at railroad station	743. 0
Mayfield, 60 feet east of gristmill, 30 feet from creek, 90 feet south of railroad track, in broad boulder; copper bolt stamped "U. S. G. S. B. M. 756 Ft."	752. 199

GOSHEN QUADRANGLE.

[Latitude $41^{\circ} 15'$ - $41^{\circ} 30'$; longitude $74^{\circ} 15'$ - $74^{\circ} 30'$]

Precise leveling in 1900 by C. H. Semper.

From Howells southeast along Erie R. R. to Middletown, thence east along New York, Ontario & Western Ry. to Campbell Hall.

Howells, in front of station, westbound track; top of rail	688. 2
Middletown, in front of station, westbound track; top of rail	562. 1
Middletown, Clemson Bros. saw shop, in front face of brickwork, left of office entrance; bronze tablet stamped "558 Albany 1900"	558. 919
Mechanicstown, in front of station; top of rail	482. 0
Crystal Run, in front of station; top of rail	419. 0
Stony Ford, in front of station; top of rail	372. 4
Campbell Hall, Campbell Hall Hotel, south face of brickwork; bronze tablet stamped "408 Albany 1900"	409. 078

Primary leveling in 1904 by G. M. Dimmick.

From Burnside west along New York, Ontario & Western Ry. to Campbell Hall, thence southwest along Erie R. R. to Goshen, thence southeast to Greycourt.

Kipps station, in foundation wall of residence of J. H. Kipps, south end of west face; aluminum tablet stamped "390 Albany 1903 Adj"	389. 600
Goshen, in foundation wall of Episcopal Church, north end of west face; aluminum tablet stamped "439 Albany 1903 Adj"	438. 794
Chester, in foundation wall of Methodist Church, center of south face; bronze tablet stamped "477 Albany 1903 Adj"	476. 776
Greycourt, in face of north abutment of railroad bridge over highway; bronze tablet stamped "447 Albany"	448. 282

From Greycourt southwest along the Lehigh & Hudson River Ry. to Warwick, thence west along highway to Pine Island.

Lake station, in foundation wall of the residence of J. Halbut, center of east face; bronze tablet stamped "554 Albany 1903 Adj"	553. 710
Warwick, in foundation wall of Methodist Church, north end of east face; aluminum tablet stamped "538 Albany Adj"	537. 903
Edenville, in stone residence of J. E. Hotaling, east end of south face, 24 inches above ground; aluminum tablet stamped "473 Albany 1903 Adj"	473. 217

Pine Island, in center of south face of brick railroad station, Pine Island division of the Erie Railroad; bronze tablet stamped "407 Albany 1903 Adj" ----- Feet. 407.003

From Johnson northeast along New York, Susquehanna & Western R. R. to Middletown.

Slate Hill, in foundation wall of the store of Ourling Bros., south end of west face; bronze tablet stamped "505 Albany 1903 Arj" ----- 505.300

GOUVERNEUR QUADRANGLE.

[Latitude $44^{\circ} 15'$ - $44^{\circ} 30'$; longitude $75^{\circ} 15'$ - $75^{\circ} 30'$.]

Leveling in 1913 by A. J. Kavanagh.

From point near Keenes northeast along New York Central & Hudson River R. R. and highway to DeKalb.

Gouverneur, 1.92 miles southwest of, at switch to east to St. Lawrence Marble Works; in switch block; copper nail stamped "449.2" -----	449.26
Gouverneur, 0.64 mile southwest of station, in railroad bridge over Oswegatchie River, in northeast corner of concrete abutment; bronze tablet stamped "429" -----	430.442
Gouverneur, in front of station; top of rail-----	441.9
Gouverneur, 0.09 mile northeast of station, in switch block where Factory Street crosses railroad; copper nail stamped "451.5" -----	451.51
Gouverneur, 1.08 miles northeast of station, on concrete culvert, north wing of west side; chiseled square-----	460.32
Gouverneur, 1.75 miles northeast of station, 330 feet south of milepost S-110 in northwest corner of stone culvert; bronze tablet stamped "449" -----	448.672
Gouverneur, 2.97 miles northeast of station, 600 feet north of milepost S-111, on middle stone of east side of cow pass; chiseled square-----	466.94
Gouverneur, 4.02 miles northeast of station, on granite boulder 11 feet west of track; chiseled square painted, "484.6" -----	484.55
Gouverneur, 4.29 miles northeast of, 200 feet north of Cole's switch at Pyrites mine, in east side of concrete culvert; bronze tablet stamped "474" -----	473.570
Richville, 2.22 miles southwest of, 0.45 mile north of road crossing, on east side of concrete culvert; chiseled square-----	455.95
Richville, 0.91 mile southwest of, on granite boulder, 50 feet east of track; chiseled square-----	437.76
Richville, 280 feet southwest of station, 60 feet north of and 35 feet west of center of main track at road crossing, in front yard of house owned by W. K. Premo, at foot of locust tree, in granite boulder; aluminum tablet stamped "P. T. Sta. 7, 1912, 450" -----	449.758
Richville, in front of station; top of rail-----	445.6
Richville, 0.71 mile northeast of, 250 feet north of end of Richville siding, in east side of concrete culvert; chiseled square-----	445.89
Richville, 2.37 miles northeast of, 380 feet south of milepost S-118, on granite boulder at foot of telegraph pole, 40 feet west of track; chiseled square -----	465.38

	Feet.
Richville, 3.53 miles northeast of, on New York Central R. R., 560 feet north of milepost S-119, 50 feet east of track, on granite boulder; bronze tablet stamped "458"-----	457. 562
Richville, 4.47 miles northeast of, on New York Central R. R., 280 feet north of road crossing, 10 feet east of track; top of left support of milepost painted "S-120"-----	426. 52
Richville, 5.44 miles northeast of, where East De Kalb road crosses New York Central R. R., 30 feet east of track, in granite boulder, 10 feet south of road; bronze tablet stamped "424"-----	423. 502
De Kalb, 1.95 miles southeast of, at road fork, on granite rock; chiseled square-----	400. 12
De Kalb, in front yard of schoolhouse, 30 feet from center of highway, in granite boulder; bronze tablet stamped "376"-----	376. 090
From point 0.9 mile northwest of De Kalb southwest and south along highway to Gouverneur.	
De Kalb, 1.29 miles west of, on Maple Ridge road, 15 feet north of center of highway, on granite boulder; chiseled square painted "394.7"-----	394. 67
De Kalb, 2.32 miles west of, on Maple Ridge road, 200 feet south of house on Burnham farm, 15 feet east of road, on granite boulder; chiseled square painted "407"-----	406. 79
De Kalb, 3.58 miles southwest of, at three corners at Maple Ridge cheese factory, 40 feet east of Maple Ridge road, 90 feet north of road to east, in granite boulder; bronze tablet stamped "370"-----	369. 732
De Kalb, 4.64 miles southwest of, 1.06 miles south of cheese factory, 10 feet east of road, 80 feet north of driveway, on granite boulder; chiseled square painted "391"-----	391. 21
North Gouverneur, 2.05 miles north of, on Maple Ridge road, 420 feet south of Brown's farm, 20 feet south of road, on granite boulder; chiseled square painted "355.4"-----	355. 39
North Gouverneur, 1.06 miles north of, 150 feet north of residence of G. C. Conklin, 15 feet south of road, in granite boulder; bronze tablet stamped "390"-----	389. 916
North Gouverneur, at crossroads, 60 feet west of intersection, on granite boulder; chiseled square painted "377.4"-----	377. 34
Gouverneur, 6.26 miles north of, 150 feet south of George Whitmore's farmhouse, 15 feet west of road, in granite boulder; bronze tablet stamped "373"-----	373. 032
Gouverneur, 5.18 miles north of, 180 feet north of red house, on north bank of river, 10 feet east of road; chiseled square painted "402"-----	401. 94
Gouverneur, 4.18 miles north of, 0.3 mile south of cross roads, on west side of concrete culvert; chiseled square painted "421"-----	420. 89
Gouverneur, 3.61 miles north of, 250 feet south of farmhouse of G. Davis, in east side of concrete box culvert; bronze tablet stamped "423"-----	423. 118
Gouverneur, 2.38 miles north of, on Rock Island road, 100 feet south of A. M. Rowley's driveway, 10 feet east of road, on granite boulder; chiseled square painted "454.7"-----	454. 55
Gouverneur, 1.33 miles north of, on south side first rise on Rock Island road outside corporation, 6 feet east of road, on granite boulder, chiseled square painted "464.5"-----	464. 40

From Gouverneur east along New York Central & Hudson River R. R. to Edwards, thence north along highway to point on railroad 5.4 miles northeast of Richville.

Gouverneur, 0.95 mile south of, on Edwards Branch of New York Central R. R., on southwest corner of stone cow pass; chiseled square painted "452.8"	Feet. 452.88
Hailesboro, 0.8 mile northwest of, on west end of bridge over Mattoon Creek, on top of bridge seat; chiseled square painted "441"	440.51
Hailesboro, top of rail in front of station	472.8
Hailesboro, 0.19 mile east of station, in overhead crossing, in second stone from top, on north side of east end; bronze tablet stamped "487"	487.165
Hailesboro, 1.36 miles east of, 100 feet west of crossing, on granite boulder, 10 feet south of track; chiseled square painted "564"	563.52
York, 0.38 mile north of station, on southwest corner of stone culvert; chiseled square	584.31
York, 0.56 mile east of station, 15 feet south of track, in granite outcrop; bronze tablet stamped "568"	567.553
Emeryville, 0.27 mile west of station, on middle of south side of stone cow pass; chiseled square	588.42
Emeryville, in front of station; top of rail	606.7
Emeryville, 0.75 mile east of station, 30 feet north of track, on granite boulder; chiseled square	599.12
Emeryville, 1.71 miles east of, at west end of railroad bridge over creek in north side of bridge seat; bronze tablet stamped "619"	618.58
Talcville, 0.86 mile west of, on railroad bridge over Oswegatchie River on north side 20 feet from east end; copper nail and washer in stringer	623.68
Talcville, in front of station; top of rail	647.3
Talcville, 0.33 mile east of station, on boulder 10 feet north of track; chiseled square	675.77
Edwards, 0.65 mile west of station, in railroad bridge over West Branch of Oswegatchie River, in south side of west abutment; bronze tablet stamped "653"	653.393
Edwards, in front of station; top of rail	664.5
Edwards, at corner opposite post office, on concrete sidewalk, at foot of telephone post; chiseled square painted "666.5"	666.47
Edwards, 4.55 miles north of, 65 feet north of old road to west to Trout Lake, 6 feet east of road, on granite boulder; chiseled square	790.15
Trout Lake, 55 feet north of front door of schoolhouse, 90 feet south of road crossing, in solid granite ledge, 5 miles north of Edwards; aluminum tablet stamped "P. T. No. 4, N. Y., 1912, 707"	706.710
Trout Lake, 0.93 mile northeast of schoolhouse at corner, 65 feet south of road to east, on east side of culvert; chiseled square	693.13
Hermon, 1.03 miles west of, on bridge over Tanner Creek, east end; copper nail and washer in stringer	474.26
Hermon, 2.03 miles west of, 220 feet east of Bell schoolhouse corner, 10 feet south of road, on granite rock; chiseled square	465.59
Richville, 5.44 miles northeast of, where East De Kalb road crosses New York Central R. R., 30 feet east of track in granite boulder 10 feet south of road; bronze tablet stamped "424"	423.502

GREENE QUADRANGLE.

[Latitude $42^{\circ} 15' - 42^{\circ} 30'$; longitude $75^{\circ} 45' - 76^{\circ}$.]

Primary leveling in 1900 by W. E. Green and in 1902 by C. W. Marvin.

From Chenango Forks northeast along the Delaware, Lackawanna & Western R. R. to Greene.

	Feet.
Willard, in front of station; top of rail	901. 0
Greene, Main street crossing; top of rail	916. 1
Greene, town hall, in foundation stone under middle column; bronze tablet stamped "923 Albany"	923. 910
Greene, waiting room at station; doorsill	917. 25

From Chenango Forks northwest along Delaware, Lackawanna & Western R. R. to Lisle.

Barker, road crossing near station; top of rail	937. 6
Barker, northwest corner of abutment of highway bridge; bronze tablet stamped "934 Albany"	934. 192
Whitney Point, waiting room at station; doorsill	956. 26
Whitney Point, at road crossing north of station; top of rail	955. 9

From East Pharsalia southwest to Smithville Flats (single-spur line).

McDonough, east foundation wall of Emanuel Baptist Church, 3 feet from southeast corner; aluminum tablet stamped "1418 Albany"	1, 418. 666
Smithville Flats, in stone foundation of Presbyterian Church, 1 foot west of southeast corner; bronze tablet stamped "1033 Albany 1902"	1, 033. 997

From Lisle north along highway to Cincinnati.

Willett, southeast corner of foundation wall of Hotel Ingall; bronze tablet stamped "1039 Albany"	1, 039. 527
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HAMLIN QUADRANGLE.

[Latitude $43^{\circ} 15' - 43^{\circ} 30'$; longitude $77^{\circ} 45' - 78^{\circ}$.]

Primary leveling in 1897 by E. L. McNair.

From Brockport north to Hamlin, thence east to Hilton, thence south to Spen-
cerport.

Hamlin, Hamlin House, 6 feet from southwest corner, in ground inside fence; iron post stamped "B 337"	337. 707
Hilton, house of Dr. J. J. Williams, in foundation wall under bay window; bronze tablet stamped "B 284"	285. 259

HAMMOND QUADRANGLE.¹[Latitude $44^{\circ} 15' - 44^{\circ} 30'$; longitude $75^{\circ} 30' - 75^{\circ} 45'$.]

Leveling in 1913 by A. J. Kavanagh.

From Keenes northeast along New York Central & Hudson River R. R. 3.1 miles.

Keenes, 66 feet south of center of highway, 45 feet east of center of track, 150 feet southwest of Kentfield House, in lower end of granite outcrop; aluminum tablet stamped "465"	465. 577
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¹ See Bull. 514, pp. 20-21, for other elevations.

Keenes, 1 mile northeast of, on New York Central R. R. at south end of Mattoon siding, in switch block 12 feet south of center of track; copper nail and washer stamped "448.645"	Feet.
	448.64
Keenes, 2.15 miles northeast of, where Antwerp road crosses railroad, 250 feet north of north end of Mattoon siding, in base of warning sign; copper nail and washer stamped "466.760"	
	466.76
Keenes, 3.08 miles northeast of, 0.32 mile north of mile post SO104 on New York Central R. R., in stone culvert, east side; bronze tablet stamped "449"	
	448.784

Near Gouverneur.

Gouverneur, 3.04 miles southwest of, 430 feet north of yard limit sign, 22 feet east of track, on granite boulder; chiseled square marked "447.8"	447.84
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HAMMONDSPORT QUADRANGLE.[Latitude $42^{\circ} 15' - 42^{\circ} 30'$; longitude $77^{\circ} - 77^{\circ} 15'$.]**Primary leveling in 1899 by W. F. Hammond.****From Catawba southwest to Hammondsport.**

Urbana, in east side of wine cellar; tablet stamped "734 Oswego 1899"	734.479
Hammondsport, 0.25 mile south of, in west end of north abutment of bridge over inlet to Lake Keuka; tablet stamped "718 Oswego 1899"	718.662

From Savona northeast via Bradford and Tyrone to Reading Center.

Savona, in south end of east abutment of highway bridge over Cohocton River; tablet stamped "1050 Oswego"	1,050.708
Bradford, in top of west end of south abutment of bridge; bronze tablet stamped "1100 Oswego 1899"	1,100.442
Tyrone, in west end of south wall of highway bridge at gristmill; bronze tablet stamped "1155 Oswego 1899"	1,155.231
Altay, 1,000 feet west of, in top of north wing of east abutment of highway bridge; bronze tablet stamped "1213 Oswego 1899"	1,213.661

From Cooper north via East Campbell and Monterey to Tyrone.

Monterey, 60 feet northwest of iron bridge, in boulder; bronze tablet stamped "1212 Oswego 1899"	1,212.778
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From Savona via the Erie R. R. to Painted Post.

Campbell, 700 feet north of station, south wall of railroad girder bridge, on east end of bridge seat; chisel mark	1,007.21
Painted Post, 2 miles north of, crossing of the Delaware, Lackawanna & Western and Erie railroads; top of rail	949.16
Painted Post, 0.8 mile west of, in southeast corner of open bridge, on precise-level line; bronze tablet stamped "935 Dunkirk 1898"	936.195

Near Monterey.

Coopers Plains, 6 miles north of, southwest corner of bridge; nail in chord	1,078.46
Monterey, 3 miles south of; top of boulder at road to South Bradford	1,127.49

Monterey, 1.5 miles south of, southwest corner of iron bridge; top of iron support	Feet.
	1,177.68
Monterey, 60 feet northwest of iron bridge, in boulder; bronze tablet stamped "1212 Oswego 1899"	1,212.778

HARFORD QUADRANGLE.[Latitude $42^{\circ} 15'$ - $42^{\circ} 30'$; longitude $76^{\circ} - 76^{\circ} 15'$.]

Primary leveling in 1900 by W. E. Green.

From Lisle northwest along the Delaware, Lackawanna & Western R. R. to Messengerville.

[The error distributed in this line is excessive.]

Lisle, 100 feet north of station, at road crossing; top of rail	972.4
Lisle, southeast corner of schoolhouse 1; bronze tablet stamped "975 Albany"	975.166
Killawog, waiting room at station; doorsill	1,001.03
Marathon, Main Street crossing; top of rail	1,041.3
Marathon, waiting room at station; top of rail	1,043.0
Marathon, 1.5 feet from northwest corner of Peck Memorial Library, in water table; bronze tablet stamped "1019 Albany"	1,019.821
Messengerville, at road crossing near milk station; top of rail	1,055.7
Messengerville, road crossing near station; top of rail	1,055.6

From Maine north to Nanticoke (single-spur line).

Nanticoke, at north corner of house of Mrs. Mary Councilman, in foundation wall; aluminum tablet stamped "1100 Albany" 1,101.044

From Newark Valley north along the Lehigh Valley R. R. to point 4 miles south of Dryden.

Berkshire, in front of station; top of rail	1,042.7
Berkshire, Methodist Episcopal Church, north side of west or front entrance; bronze tablet stamped "1055 A"	1,055.658
Berkshire, 0.2 mile north of, at crossing near milk station; top of rail	1,046.1
Richford, waiting room at station; doorsill	1,100.02
Richford, at road crossing near station; top of rail	1,098.6
Richford, 0.1 mile north of Lehigh Valley R. R. station; bench mark under water tank, on southwest foundation stone	1,100.34
Harford Mills, waiting room at station; doorsill	1,152.44
Harford, waiting room at station; doorsill	1,185.62
Harford, in north front of Harford Methodist Episcopal Church; aluminum tablet stamped "1196 A"	1,195.861

HARLEM QUADRANGLE.¹[Latitude $40^{\circ} 45'$ - 41° ; longitude $73^{\circ} 45'$ - $74^{\circ} 1$.]

At Willets Point (U. S. Engineer Corps bench mark).

Willets Point, military post grounds, long dock; face of retaining wall under coal shed, marked "+18.0555" with chisel (reported destroyed 1909)	14.135
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¹ See Bull. 514, pp. 41-42, for other elevations.

HARTWICK QUADRANGLE.¹[Latitude $42^{\circ} 30' - 42^{\circ} 45'$; longitude $75^{\circ} - 75^{\circ} 15'$.]

Primary leveling in 1904 by G. M. Dimmick.

From Schuyler Lake southeast to Cooperstown.

Oakville, in foundation wall of Hotel Ayres, south end of east face; Feet.
 bronze tablet stamped "1278 Adj. 1903" ----- 1,277.753

HEMPSTEAD QUADRANGLE.[Latitude $40^{\circ} 30' - 40^{\circ} 45'$; longitude $73^{\circ} 30' - 73^{\circ} 45'$.]

Primary leveling in 1897 by Clark Brown.

At Creedmoor schoolhouse.

Creedmoor schoolhouse, northwest corner of Madison Avenue and
 Pine Street, 15 feet from south line of lot and 2 feet from front
 line; iron post stamped "85 W. P." ----- 85.163

From Mineola southeast via Garden City and Hempstead to Merrick.

Mineola, in coping west end north pier of railroad water tank; bronze
 tablet stamped "105 W. P." (reported destroyed 1909) ----- 105.291
 Merrick, southwest corner of railroad crossing, about 15 feet from
 center of track, 5 feet west of line of street, 15 feet north of cor-
 ner of stone; iron post stamped "19 W. P." ----- 18.834

From Merrick west via Freeport to Rockville, thence north to Mineola.

Rockville Center, northeast corner of Village Avenue and Observer
 Street, in stone water table of brick building north of door be-
 tween pilaster and window; bronze tablet stamped "26 W. P." ----- 26.378

HIGHMARKET QUADRANGLE.[Latitude $43^{\circ} 30' - 43^{\circ} 45'$; longitude $75^{\circ} 30' - 75^{\circ} 45'$.]

Primary leveling in 1902 by J. B. Maguire.

From Houseville southeast along trail and highway to Clemens Corners.

[The error distributed in this line is excessive.]

Wetmore, 1 mile southeast of, Page & Fairfield Co. lumber camp 6,
 at upper end of tramway, in the north foundation wall of camp;
 bronze tablet stamped "2003 Albany" ----- 2,002.641
 Michigan Mills (4 miles south of Page), at entrance to trail in woods,
 250 feet north by 150 feet west of mill, in boulder; bronze tablet
 stamped "1778 Albany" ----- 1,777.526
 North Osceola (Clemens Corners), school 4, Osceola Township, in
 northeast corner of foundation wall; aluminum tablet stamped
 "1591 Albany" ----- 1,590.955

From Clemens Corners south to Osceola.

Osceola, southwest corner of foundation of general store and post
 office; aluminum tablet stamped "1033 Albany" ----- 1,032.970

¹ See Bull. 514, pp. 30-31, for other elevations.

From Hooker north to Gardners Corners.

Hooker, 2 miles northeast of southeast corner of Jesse Marcellus farm, 10 feet west of fence and 325 feet north of creek at the Cul-pepper road, in boulder; bronze tablet stamped "1758 Albany"----- 1,756.827 Feet.

HOBART QUADRANGLE.

[Latitude $42^{\circ} 15'$ - $42^{\circ} 30'$; longitude $74^{\circ} 30'$ - $74^{\circ} 45'$.]

Primary leveling in 1901 by William Kelley.

From Roxbury northeast along Ulster & Delaware R. R. to Grand Gorge, thence west to Hobart.

Roxbury, in front of station; top of west rail-----	1,495.1
Roxbury, 0.85 mile north of, north abutment of Ulster & Delaware bridge 59, west end; aluminum tablet stamped "1499 Albany 1901"-----	1,499.601
Grand Gorge station; platform-----	1,562.6
Grand Gorge, 125 feet east of main track and 100 feet north of station, top of large boulder; aluminum tablet stamped "1561 Albany 1901"-----	1,561.901
South Gilboa station, under overhead bridge; top of west rail-----	1,748.8
Stamford, in front of station; top of south rail, main track-----	1,788.7
Hobart, 0.25 mile east of, west abutment of bridge 70, south end of back wall; aluminum tablet stamped "1633 Albany 1901"-----	1,634.701
Hobart, in front of station; top of north rail-----	1,636.0

From Stamford northwest along highways to North Kortright, thence northeast to North Harpersfield.

Stamford, Joseph Millan's brick store on Main Street, in northwest face; aluminum tablet stamped "1826 Albany 1901"-----	1,827.24
North Kortright, front of post office, south side of road; spike in pine tree -----	1,517.43
North Harpersfield, southerly side of residence of Jas. A. Topping, under bay window, in foundation wall; bronze tablet stamped "1609 Albany 1901"-----	1,610.221

HONEOYE QUADRANGLE.

[Latitude $42^{\circ} 45'$ - 43° ; longitude $77^{\circ} 30'$ - $77^{\circ} 45'$.]

Precise leveling in 1902 by D. H. Baldwin.**Near Honeoye Junction.**

Scottsville, 1.75 miles south of, southwest corner of culvert, on coping stone; chiseled square-----	540.30
Honeoye Junction, in front of flag station; top of east rail-----	537.3
Honeoye Junction, Lehigh Valley R. R. bridge 34, northeast corner, near corner of foundation coping stone; chiseled square-----	553.584

From line continued east along Lehigh Valley R. R.

Genesee Valley Junction, grade crossing of Erie and Lehigh Valley railroads; top of rail-----	538.8
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Primary leveling in 1901 by C. H. Semper.

From East Bloomfield west along New York Central R. R. to Genesee Valley Junction.

[The error distributed as far as Honeoye Falls is excessive.]

	Feet.
West Bloomfield, in front of station; top of rail-----	776.3
Honeoye Falls, Church Street crossing; top of rail-----	668.1
tablet stamped "657 Rochester 1901"-----	656.414
West Rush, 200 feet south of station, west face of hotel, in foundation stone; bronze tablet stamped "571 Rochester 1901"-----	570.282
West Rush, 100 feet west of station, road crossing; top of rail-----	557.9
Genesee Valley Junction (Rush Junction), grade crossing of the New York Central & Hudson River and the Erie railroads; top of rail-----	540.8

From Honeoye Falls south along highway to Livonia Center, thence west to Livonia, thence south to South Livonia.

Lima, St. Rose's School, Rochester Street, west face of north end; aluminum tablet stamped "849 Rochester 1901"-----	849.065
Livonia Center, Lehigh Valley R. R. crossing, near station; top of rail-----	975.9
Livonia Center, Catholic Church, front face of southwest corner; bronze tablet stamped "1093 Rochester 1901"-----	1,092.415
Livonia, Main Street crossing of Erie R. R.; top of rail-----	1,024
South Livonia, road crossing near station; top of rail-----	1,162.1

From Livonia Center south along Lehigh Valley R. R. to Hemlock, thence southeast along highway to Honeoye.

Hemlock, in front of station; top of rail-----	907.8
Honeoye, Congregational Church on Main Street, in west face; bronze tablet stamped "844 Rochester 1901" (bench mark on a short spur line not checked)-----	843.433

From McQueens Crossing along the Erie R. R. to Livonia.

South Lima, near southeast corner of cold-storage building at railroad station; bronze tablet stamped "912 Rochester 1901"-----	911.607
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HORNELL QUADRANGLE.

[Latitude $42^{\circ} 15'$ - $42^{\circ} 30'$; longitude $77^{\circ} 30'$ - $77^{\circ} 45'$.]

Precise leveling in 1898 by E. L. McNair.

From Almond east along Erie R. R. to Adrian.

Almond, in front of Erie station; top of rail-----	1,395.0
Almond, 950 feet east of Erie station, bridge foundation at northwest corner of small railroad bridge over highway; aluminum tablet stamped "1383 D"-----	1,382.914
Hornell, in front of Erie station; top of rail-----	1,152.8
Hornell, 0.7 mile east of Erie station, foundation wall at northeast corner of iron railroad bridge; aluminum tablet stamped "1141 D"-----	1,142.481
Canisteo, in front of Erie station; top of south rail-----	1,128.0

Canisteo, 2.1 miles east of, bridge seat at northeast corner of iron-girder bridge 87; aluminum tablet stamped "1113 D" (destroyed) - 1, 114. 092
 Adrian, in front of Erie station; top of south rail----- 1, 101. 7

From Burns southeast along Erie R. R. to Hornell.

Burns, in front of station; top of northeast rail-----	1, 196. 2
Burns, 0.4 mile southeast of, north side of track, on east wall of open culvert; chiseled square-----	1, 190. 10
Arkport, in front of station; top of north rail-----	1, 191. 9
Arkport, Methodist Protestant Church, southeast corner, in foundation stone; aluminum tablet stamped "1188 Rochester 1902"-----	1, 188. 284
Arkport, 1.91 miles south of, southeast corner of bridge 4, on wing wall; chiseled square-----	1, 169. 0
Hornell, 0.66 mile north of station, southeast corner of bridge 1, on foundation stone; chiseled square-----	1, 169. 04

Leveling in 1914 by A. J. Kavanagh.

From Arkport north along highway to South Dansville, thence east to Cohocton.

Arkport, in Methodist Church, southeast corner, in foundation stone; aluminum tablet stamped "1188 Rochester 1902"-----	1, 188. 284
Arkport, 1.3 miles northeast of four corners, in barnyard of Fred Lawrence, on granite boulder; chiseled square painted "U. S. T. B. M. 1460"-----	1, 460. 59
Arkport, 1.8 miles northeast of, on small boulder beside road; chiseled square painted "U. S. T. B. M. 1594"-----	1, 594. 64
Arkport, 3.1 miles northeast of, in southeast corner of retaining wall of small cemetery; bronze tablet stamped "U. S. P. B. M. 1860"-----	1, 859. 695
South Dansville, 2.65 miles southwest of, at three corners at foot of hill, on west side of rubble culvert; chiseled square painted "U. S. T. B. M. 1612.7"-----	1, 612. 72
South Dansville, 1.52 miles southwest of, at three corners at Dunn's farm, on east side of culvert; chiseled square painted "U. S. T. B. M. 1489"-----	1, 488. 89
South Dansville, at three corners at gristmill, in northeast wing of concrete bridge; bronze tablet stamped "U. S. P. B. M. 1406.3"-----	1, 406. 228
South Dansville, 0.82 mile east of, in front of abandoned house near top of "Dey Hill," on boulder beside road; chiseled square painted "U. S. T. B. M. 1803"-----	1, 802. 66
South Dansville, 2.40 miles east of, 90 feet west of Healey schoolhouse, on boulder beside road; chiseled square painted "U. S. T. B. M. 2015"-----	2, 014. 85
South Dansville, 3.50 miles east of, 1.3 miles west of Loon Lake four corners, in concrete sidewalk into L. R. Kiefer's house; bronze tablet stamped "U. S. P. B. M. 2029"-----	2, 028. 723
Loon Lake, at four corners near lake, 30 feet east of crossroads, on granite boulder; chiseled square painted "U. S. T. B. M. 1727.7"-----	1, 727. 53
Loon Lake, 0.9 mile southeast of four corners, at crossroads at large yellow barn, on boulder under cherry tree; chiseled square painted "U. S. T. B. M. 1739"-----	1, 738. 72
Cohocton, 4.8 miles west of, in front of Jacob Werth's red barn, in granite boulder; bronze tablet stamped "U. S. P. B. M. 1793"-----	1, 792. 623

Cohocton, 3.72 miles west of, 100 feet east of J. O. Rex's house, on north side of concrete culvert; chiseled square painted "U. S. T. B. M. 1670"	Feet. 1,669.13
Cohocton, 1.2 miles west of, on north side of concrete culvert; chiseled square painted "U. S. T. B. M. 1428"	1,428.36
 From point 4.8 miles southwest of Cohocton south along highway to point near Howard, thence southwest to Hornell, thence north along Pittsburg, Shawmut & Northern R. R. to Arkport.	
Haskinsville, 3.42 miles north of, opposite "South Church," at road fork, on boulder at corner of stone wall; chiseled square painted "U. S. T. B. M. 1704"	1,703.18
Haskinsville, 2.53 miles north of, in end of concrete sidewalk in front of W. M. E. Holmes's house; bronze tablet stamped "1690"	1,689.677
Haskinsville, 1.04 miles north of, 30 feet south of driveway to Harvey Henderson's, on boulder beside road; chiseled square painted "U. S. T. B. M. 1650"	1,649.48
Haskinsville, 300 feet north of four corners, on middle east side of bridge; chiseled square painted "U. S. T. B. M. 1607.6"	1,607.53
Haskinsville, 1.64 miles southeast of, opposite residence of Mrs. C. J. Myers, 30 feet east of road in large boulder; bronze tablet stamped "1884."	1,883.566
Haskinsville, 2.67 miles southeast of, at three corners, opposite Cyrus Keller's house, on flat rock; chiseled square painted "U. S. T. B. M. 1993"	1,992.97
Haskinsville, 3.34 miles southeast of, 0.2 mile north of State road, in beam of abandoned barn; copper nail and washer painted "U. S. T. B. M. 1903"	1,904.14
Howard, 1.77 miles west of, on south side concrete culvert; bronze tablet stamped "1727"	1,726.663
Howard, 2.63 miles west of, 215 feet west of Fred De Groff's residence, on north wing concrete culvert; chiseled square painted "U. S. T. B. M. 1754"	1,754.09
Big Creek, 0.57 mile east of church, on southwest corner stone culvert; chiseled square painted "U. S. T. B. M. 1549"	1,549.16
Big Creek, 0.74 mile west of church, 5 feet south of road, in base of S. P. C. A. concrete watering trough; bronze tablet stamped "1453"	1,452.554
Big Creek, 1.85 miles west of church, at T road to south, on south side of concrete culvert; chiseled square painted "U. S. T. B. M. 1381"	1,380.61
Big Creek, 3.07 miles west of church, on south wing concrete culvert; chiseled square painted "U. S. T. B. M. 1323"	1,322.94
Hornell, 2.6 miles northeast of, 50 feet east of driveway to Glendale Farm, in north wing concrete culvert; bronze tablet stamped "1284"	1,284.010
Hornell, 1.83 miles northeast of, in west wing of concrete culvert; chiseled square painted "U. S. T. B. M. 1230"	1,229.98
Hornell, 1 mile north of, at fork in State road, at Country Club, on southeast corner of bridge seat; chiseled square painted "U. S. T. B. M. 1183"	1,183.23
Hornell, 850 feet north of Shawmut station, in southwest corner of concrete highway bridge; bronze tablet stamped "1156"	1,155.343

Arkport, in Methodist church, in southeast corner of foundation wall; aluminum tablet stamped "1188 Rochester 1902"	Feet.
	1, 188. 284
Arkport, 2 miles east of, on northwest corner Erie R. R. bridge; chiseled square marked "U. S. T. B. M. 1172"	1, 171. 61
Arkport, 3.05 miles east of, on concrete foundation of block signal No. 334-1 B; chiseled square painted "U. S. T. B. M. 1171"	1, 171. 45
Hornell, 850 feet north of Shawmut station, in southwest corner concrete highway bridge; bronze tablet stamped "1156"	1, 155. 343

Near Howard (double-spur line).

Howard, 1.14 miles west of, on north side concrete culvert; chiseled square painted "U. S. T. B. M. 1706"	1, 706. 28
Howard, at three corners, west of village, on north wing concrete culvert; chiseled square painted "U. S. T. B. M. 1654.6"	1, 654. 46
Howard, 100 feet east of post office, in concrete horse block in front of Mrs. Peck's house; bronze tablet stamped "1648"	1, 647. 776

INDIAN LAKE QUADRANGLE.[Latitude $43^{\circ} 30' - 43^{\circ} 45'$; longitude $74^{\circ} 15' - 74^{\circ} 30'$.]

Primary leveling in 1896 by Clark Brown and A. F. Krause.

Wakely Dam.

Wakely dam, 25 feet east of north of log house; in boulder copper bolt stamped "2124"	2, 119. 764
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From Speculator north via Jessups River and Lewey Lake to Indian Lake.

Speculator, small triangular park at crossroads, in boulder; copper bolt stamped "U. S. G. S. 1772 Ft. B. M."	1, 768. 369
Camp Perkins, 0.5 mile east of, 50 feet west of Jessups River bridge, on north bank of river, in outcrop 5 feet above center of bridge; copper bolt stamped "U. S. G. S. 1689 Ft"	1, 685. 012
Lewey Lake, 100 feet from south shore of, 300 feet north of Lewey Lake House, in boulder 8 feet broad; copper bolt stamped "U. S. G. S. 1659 Ft. B. M."	1, 654. 964
Sabael, 3 miles southwest of, 900 feet southwest of Beaver Brook bridge, outcrop 3 feet above and 20 feet north of road; copper bolt stamped ".1799 Ft. U. S. G. S. B. M."	1, 795. 112

From Kings Flow dam southwest via Camp Comfort to Speculator.

Camp Coinfort (Ross Kunjamuk House), 2,000 feet south of, 8 feet east of road, in boulder 6 by 4 by 2 feet; copper bolt stamped "1774 Ft."	1, 770. 375
Speculator, 3 miles northeast of, at Rylander Clearing, west of Elm Lake, 300 feet south of house foundation, 1,000 feet north of top of hill, in flat outcrop 6 feet west of road; copper bolt stamped "U. S. G. S. B. M. 1952 Ft."	1, 947. 992

JAMESTOWN QUADRANGLE.[Latitude $42^{\circ} - 42^{\circ} 15'$; longitude $79^{\circ} - 79^{\circ} 15'$.]

Primary leveling in 1902 by G. M. Dimmick.

From Jamestown northeast along Erie R. R. to Cherry Creek.

Jamestown, 1.42 miles east of, railroad bridge over Chautauqua Outlet, on center of west abutment; square	1, 302. 34
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Kennedy, 750 feet south of station, east end of north abutment of Erie R. R. bridge; bronze tablet stamped "1257 Dunkirk 1902" ---	Feet. 1,257.353
Kennedy, in front of station; top of east rail-----	1,260.6
Conewango, in front of station; top of east rail-----	1,282.8
Conewango, residence of Dr. Smith, north face, east end, in foundation wall; bronze tablet stamped "1293 Dunkirk 1902" -----	1,293.321

From Falconer north along the Dunkirk, Allegheny Valley & Pittsburgh R. R. to Gerry, thence along highway east to Ellington.

Falconer, 500 feet south of station, top of east end of north abutment of bridge; aluminum tablet stamped "1258 Dunkirk 1902" -----	1,257.717
Gerry, in front of station; top of east rail-----	1,296.1
Gerry, in foundation wall of schoolhouse, district 1, 9 feet from southeast corner, east face; bronze tablet stamped "1309 Dunkirk 1902" -----	1,308.729
Ellington, foundation wall of Congregational Church, in north face of east end; bronze tablet stamped "1380 Dunkirk 1902" -----	1,379.945

From Jamestown southeast along highway via Kiantone to Fentonville (checked by line from Pennsylvania).

Kiantone (6 miles southeast of Jamestown), in foundation wall of church, center of south face; aluminum tablet stamped "1493 Dunkirk" -----	1,493.126
Fentonville, road crossing; top of rail-----	1,248.0
Fentonville, 500 feet east of station, northwest corner of foundation wall of Ira Adam's house; bronze tablet stamped "1255 Dunkirk" -----	1,255.414

KAATERSKILL QUADRANGLE.

○

[Latitude 42°-42° 15'; longitude 74°-74° 15'.]

Primary leveling in 1900 by George Bailey and W. S. D. Moore.

From Lanesville northeast to Kaaterskill Junction, thence northwest to Hunter.

Edgewood, 300 feet north of station, north pier of bridge, east end, in top stone; bronze tablet stamped "1790 Albany" -----	1,790.606
Hunter, 1 mile south of, east abutment of highway bridge, south end, top of stone; chisel mark-----	1,620.17
Hunter, public-school building, north side of front entrance, in foundation wall; aluminum tablet stamped "1602 Albany" -----	1,602.562

KASOAG QUADRANGLE.

[Latitude 43° 15'-43° 30'; longitude 75° 45'-76°.]

Primary leveling in 1903 by G. M. Dimmick and George Seidel, in 1904 by L. E. Tucker.

From Altmar southeast along the Rome, Watertown & Ogdensburg R. R. to West Camden.

Kasoag, 500 feet east of Rome, Watertown & Ogdensburg R. R., northwest corner of foundation of post office; aluminum tablet stamped "638 Albany" -----	637.817
Williamstown, in west foundation wall of freight depot; bronze tablet stamped "603 Albany" -----	602.550

West Camden, 150 feet east of railroad, in northwest corner of foundation of Foster's general store; bronze tablet stamped "542 Albany"----- Feet.
541. 784

From Camden north along road to Osceola.

Florence, at intersection of State road and road to Osceola, southwest corner of the foundation of O'Mara's general store; bronze tablet stamped "974 Albany" (destroyed; store burned)----- 973. 826

From West Amboy along highway via Amboy to Williamsburg.

West Amboy, in foundation wall of Union Church, east end of north face; aluminum tablet stamped "588 Albany 1903"----- 587. 989
Amboy, in foundation wall of Union Church, west end of south face; bronze tablet stamped "654 Albany 1903"----- 654. 158

From Cleveland northeast to Camiden.

Elpis, in north wall of foundation of Methodist Church; bronze tablet stamped "571"----- 571. 236

KINDERHOOK QUADRANGLE.

[Latitude 42° 15'-42° 30'; longitude 73° 30'-73° 45'.]

Primary leveling in 1900 by George Bailey.

From Philmont north to Chatham.

Philmont, west side of Empire House, in stone over cellar window; bronze tablet stamped "Albany 525"----- 525. 504
Ghent, just south of New York Central R. R. station, at crossing; east rail, east track----- 397. 3
Chatham, east side of tenth roof support from east end of station, train side; tablet (bench mark of the Massachusetts Topographical Survey Commission)----- 470. 912
Chatham, in northeast corner of Masonic Block, about 3 feet from ground; aluminum tablet stamped "Albany 470"----- 470. 990
Chatham, 1 mile north of, on west abutment of bridge 201, in top stone; bench 84 of the Massachusetts Topographical Survey Commission, marked by a hole and "B. S." bottom of hole----- 519. 457

From Niverville southwest via Stuyvesant Falls to Hudson.

Niverville, near northwest corner of water tank, in brick about 4 feet from ground; bench mark of the Massachusetts Topographical Survey Commission, marked "B-O-M," center of hole----- 322. 936
Niverville, in southwest corner of brick water tank, 3 feet from ground; bronze tablet stamped "Albany 323"----- 322. 924
Valatie, road crossing; west rail----- 245
Kinderhook, 100 feet south of station, north side of highway, 10 feet west of track; top stone over drain----- 259. 02
Stuyvesant Falls, west end of bridge over Kinderhook Creek, in end of north wing wall; bronze tablet stamped "Albany 156"----- 156. 376
Rossman station, road crossing 100 feet south of; east rail----- 63. 6
Stockport, road crossing just north of station; west rail----- 47. 0
Stottville, 150 feet north of station, road crossing; east rail----- 125. 4

LAKE BONAPARTE QUADRANGLE.

[Latitude $44^{\circ} 44' 15''$; longitude $75^{\circ} 15' - 75^{\circ} 30'$.]

Leveling in 1914 by A. P. Meade, jr.

Near Bacon.

	Feet.
Bacon, 0.9 mile east of, in southeast corner of small railroad bridge; top end of bolt-----	950. 39
Bacon, 1.2 miles east of, 4 feet southeast of milepost 54, in rock; chiseled square painted "966"-----	966. 37

Leveling in 1912 by H. S. Senseney.

From Carthage northeast along New York Central & Hudson River R. R. to Pitcairn, thence northwest along highways to Keene.

Rogers, opposite dairy; top of rail-----	846. 6
Karter switch, at road crossing; top of east rail-----	902. 0
North Croghan, 50 feet north of crossing, 15 feet west of track, in ledge; aluminum tablet stamped "Prim. Trav. Sta. No. 5, 1908, 880"-----	879. 828
North Croghan, 1 mile northeast of, west side of track; spike in telegraph pole, painted "T. B. M. 853"-----	852. 78
North Croghan, 1.1 miles northeast of, bridge over Indian River-----	838. 6
Indian River, surface of water, July 24, 1912-----	825
Natural Bridge, in front of station, in base of semaphore; bolt painted white, painted "T. B. M. 837"-----	836. 95
Natural Bridge, at crossing; top of rail-----	837. 5
Burnetts switch; top of rail-----	821. 5
Natural Bridge, 1.3 miles northeast of, 75 feet north of road crossing, 15 feet west of road, in ledge; bronze tablet stamped "857"-----	857. 049
Natural Bridge, 2.3 miles northeast of, north side of track; chiseled square on ledge, painted "T. B. M. 858"-----	857. 64
Diana, at road crossing; top of rail-----	833. 3
Diana, 75 feet west of water tank, north side of track; spike in telegraph pole, painted "T. B. M. 828"-----	829. 34
Fitzgerald station, road crossing, west side of track; spike in telegraph pole, painted "T. B. M. 820"-----	820. 29
Fitzgerald station, 0.5 mile east of, south side of track, in cement culvert; bronze tablet stamped "796"-----	796. 413
Fitzgerald station, 1.4 miles east of, north side of track; spike in telegraph pole, painted "T. B. M. 779"-----	778. 68
Fitzgerald station, 2.7 miles east of, north side of track, at road crossing; spike in telegraph pole, painted "T. B. M. 776"-----	775. 59
Lake Bonaparte, road crossing at station; top of rail-----	772. 5
Lake Bonaparte, 240 feet north of station, in concrete bridge over ditch; aluminum tablet stamped "Prim. Trav. Sta. No. 1, 771"-----	770. 465
Lake Bonaparte, 1.1 miles east of station, east end of small trestle, north side of track; bolt painted white, painted "T. B. M. 775"-----	774. 53
Lake Bonaparte, 2 miles east of station, 60 feet east of road crossing, north side of track; spike in telegraph pole, painted "T. B. M. 773"-----	772. 85
Harrisville, at road crossing west of station; top of rail-----	780. 1

	Feet.
Harrisville, Main Street crossing, north side of track, 1 foot west of boardwalk; top of iron post marked "C"-----	792. 67
Harrisville, east end of highway bridge over Oswegatchie River, south side of road in cement walk; aluminum tablet stamped "Prim. Trav. Sta. No. 3, 813"-----	813. 154
Harrisville 1 mile east of, north side of track; spike in telegraph pole, painted "T. B. M. 837"-----	836. 58
Bacon station, 75 feet east of road crossing, 20 feet south of track, in ledge; bronze tablet stamped "894"-----	894. 410
Pitcairn, 0.2 mile west of, southwest corner of T road south; copper b. m. nail in root of tree, painted "T. B. M. 777"-----	776. 51
Pitcairn, 1.5 miles northwest of, in front of vacant house, north side of road; copper nail in root of cherry tree, painted "T. B. M. 769"-----	768. 90
Oswegatchie River, bridge over-----	754. 3
Oswegatchie River, surface of water, Aug. 7, 1912-----	740. 3
Harrisville, 2 miles north of, 800 feet north of Maynard's Corners, west side of road; painted circle on rock, painted "T. B. M. 768"-----	768. 02
Harrisville, 2.5 miles north of, 700 feet south of Geer's Corners, east side of road, in culvert; bronze tablet stamped "765"-----	765. 351
Harrisville, 5 miles north of, 0.4 mile north of Leonard's Corners, rear of William Leonard's house; copper nail in apple tree; painted in front of house "T. B. M. 781"-----	781. 156
Harrisville, 6 miles north of, 1.5 miles north of Leonard's Corners, east side of road; chiseled square on ledge, painted "T. B. M. 800"-----	799. 73
Harrisville, 6.5 miles north of, 0.2 mile south of Davis Demerit's house, 15 feet west of forks in road, in ledge; bronze tablet stamped "797"-----	796. 549
Harrisville, 8 miles north of, 25 feet north of forks in road near Mr. Fuller's house; copper nail in stump, painted "T. B. M. 794"-----	793. 88
Harrisville, 9 miles north of, 1 mile south of Russell turnpike, at forks in road, opposite house; copper nail in root of tree, painted "T. B. M. 710"-----	710. 02
Keenes station, 7 miles southeast of, at Kellogg's Corners, in concrete front of store; bronze tablet stamped "663"-----	662. 601
Kellogg's Corners, 2.2 miles west of, north side of road; copper nail in root of tree, painted "T. B. M. 639"-----	638. 63
Keenes station, 6 miles southeast of, at Rices Corners, on top of boundary monument marked "St. Lawrence, Jefferson, and Lewis counties"; painted "T. B. M. 644"-----	644. 11
Keenes station, 5.5 miles southeast of, 0.4 mile northwest of Rices Corners (monument in plain sight), east side of bridge over creek, in south abutment; bronze tablet stamped "610"-----	609. 411
Keenes station, 2.5 miles east of, at Steele's Corners; painted circle on rock, marked "584.15"-----	583. 69
Keenes station, 150 feet southwest of hotel, 66 feet south of center of highway, in lower end of granite outcrop; aluminum tablet stamped "465"-----	465. 577
 From Harrisville southeast along highway to Middle Branch, thence southwest to Indian River.	
Harrisville, 1.1 miles south of, 500 feet south of M. Mannigan's house, west side of road; chiseled mark on ledge, painted "T. B. M. 911"-----	910. 87

	Feet.
Harrisville, 2 miles south of, on road to Jerden Falls, west end of John Boesch's front yard; copper nail in root of tree, painted "T. B. M. 873"-----	872. 93
Harrisville, 3.5 miles south of, on road to Jerden Falls, in front of Mr. Edgar Mantle's house, in cement base of pump; bronze tablet stamped "872"-----	871. 583
Harrisville, 4 miles south of, on road to Jerden Falls, on summit of hill, west of Middle Branch schoolhouse, west side of road; copper nail in root of tree, painted "T. B. M. 902"-----	902. 33
Middle Branch schoolhouse, 0.5 mile west of, 500 feet west of T road north, 70 feet south of road, in ledge; aluminum tablet stamped "Prim. Trav. Sta. No. 2, 872"-----	872. 299
Middle Branch schoolhouse, 1.6 miles south of, on road to Jerden Falls, 70 feet east of cement culvert, north side of road; copper nail in root of tree, painted "T. B. M. 910"-----	910. 27
Middle Branch schoolhouse, 2.7 miles south of, on road to Jerden Falls, 100 feet north of Andrew McRobbie's house, west side of road, on ledge; chiseled square painted "T. B. M. 964"-----	963. 48
Middle Branch schoolhouse, 2.7 miles south of, on road to Jerden Falls, 350 feet south of Andrew McRobbie's house, in cement culvert; bronze tablet stamped "938"-----	938. 058
Jerden Falls, 1.8 miles north of, 200 feet north of Fred Mersell's house, 70 feet east of road; chisel mark on ledge, painted "T. B. M. 940"-----	940. 06
Jerden Falls, 0.7 mile north of, east side of road, 50 feet north of abandoned house; copper nail in root of tree, painted "T. B. M. 932"-----	932. 25
Jerden Falls, bridge over west branch of Oswegatchie River, west end of south abutment; bronze tablet stamped "917"-----	916. 466
Indian River, 50 feet west of St. Anthony's Roman Catholic Church, in large boulder; bronze tablet stamped "954"-----	954. 424

LAKE PLACID QUADRANGLE.[Latitude $44^{\circ} 15' - 44^{\circ} 30'$; longitude $73^{\circ} 45' - 74^{\circ} 0'$.]**Primary leveling in 1901 by C. H. Semper.****Near Lake Placid.**

Lake Placid, 0.4 mile south of station on road to Averyville, on west margin of road, in large rock; aluminum tablet stamped "1750 Ft. Covington 1901"-----	1, 750. 339
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LAKE PLEASANT QUADRANGLE.[Latitude $43^{\circ} 15' - 43^{\circ} 30'$; longitude $74^{\circ} 15' - 74^{\circ} 30'$.]**Primary leveling in 1896 by Clark Brown, in 1898 by W. W. Gilbert, and in 1904 by L. E. Tucker.****From Piseco northeast along highway to Speculator.**

Lake Pleasant, north side of stone jail, 6 inches east of northeast corner, 3.5 feet above ground; aluminum tablet stamped "1791 A"-----	1, 790. 543
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From Northville northwest along highway to Speculator.

Hope schoolhouse, district 4; 75 feet west of, boulder 15 feet north of road; copper bolt stamped "U. S. G. S. B. M. 832 Ft."-----	828. 311
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Wells, Hosley House, in back yard of hotel, on rock 15 feet broad and 5 feet high; bronze tablet stamped "1026"-----	Feet.
	1,022.170
Wells, east end of abutment of covered bridge; chiseled circle and "B. M. B. X."-----	988.62
Wells, 0.3 mile north of, patent line monument in yard of white house opposite road to east, in ground 15 feet southeast of house; stone marked "A" (triangle is 6 inches on each side)-----	1,018.00
Wells, 2.5 miles northwest of, angle of road to Hamilton Lake, 40 feet from each road, west of junction, boulder 6 feet high and 15 feet broad; chiseled circle stamped "B. M. S."-----	1,593.24
Charley Lake, 25 feet southwest of schoolhouse opposite, in boulder 8 feet broad; copper bolt stamped "U. S. G. S. B. M. 1719"-----	1,714.685
Gilman Lake, white house opposite center of, 10 feet east of road at trail to Griffin; stone 100 feet south of building marked with chiseled circle above legend "B. M. C. K." (located 15 feet north of a stone marked in a similar manner with legend "B. M. C. J.")-----	1,730.28

From Benson Center northwest along road to point 1.5 miles south of Silver Lake, thence southwest to Arietta.

Silver Lake, 1.5 miles south of, on west bank of West Branch of Sacandaga River (Fly Stream) where crossed by Benson Center road, 10 feet north of Silver Lake trail, in large boulder; bronze tablet stamped "1865 Albany 1903 Adj"-----	1,865.009
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LASSELLSVILLE QUADRANGLE.

[Latitude 43°-43° 15'; longitude 74° 30'-74° 45'.]

Primary leveling in 1901 by William Kelley.

From St. Johnsville north along road via Oppenheim to Emmondsburg, thence west to Salisbury Center.

St. Johnsville, southwest corner of Grace Church (Christian), in water table; aluminum tablet stamped "360 Albany"-----	360.523
Oppenheim, southwest corner of brick residence of John P. Swartout, on the western side, in limestone water table; bronze tablet stamped "1110 Albany" -----	1,109.818

From Emmondsburg north to Oregon.

Stratford (Devereaux), near southwest corner of Crossman's Hotel, on southerly side, in foundation wall; bronze tablet stamped "1074 Albany" -----	1,074.472
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From Oppenheim east along road via Garoga to Johnstown.

Lassellsburg, southeast corner of D. C. Leek's store, in foundation wall, east face; aluminum tablet stamped "1153 Albany"-----	1,152.969
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From Arietta south to Caroga Corners.

Arietta, 240 feet north of Alex. Baudin's Hotel, on west side of road, in bedrock; bronze tablet stamped "1696 Albany"-----	1,696.974
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From Caroga Corners south to Garoga.

Rockwood, 0.67 foot from southeast corner of Caleb A. Long's residence, in south face of foundation wall; bronze tablet stamped "1045 Albany"-----	1,045.380
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LITTLE FALLS QUADRANGLE.¹

[Latitude 43°-43° 15'; longitude 74° 45'-75°.]

Primary leveling in 1896 by A. B. Pomme, in 1898 by Clark Brown, E. L. Faison, and M. S. McDiarmid.

From Little Falls east to Ingham Mills, thence north to Salisbury Center.

	Feet.
Little Falls, engineer's bench mark at lock 36, Erie Canal-----	343. 487
Little Falls, southeast corner of Ann and Albany streets, northwest corner of brick building with stone foundation; aluminum tablet stamped "397"-----	397. 118
Little Falls, 2 miles east of, Erie Canal lock 37, northeast corner; top of coping stone, chiseled cross-----	353. 535
Manheim, in front of station; top of south rail-----	604. 5
Inghams Mills, 27 feet east of Little Falls & Dolgeville R. R. track, 120 feet north of road crossing, on rock in place 6 feet above ground; aluminum tablet stamped "726 A"-----	726. 870

From Salisbury Center west via Fairfield to Middleville.

Salisbury Center, brickwork in rear of Universalist Church; aluminum tablet stamped "1065 A"-----	1, 064. 372
Salisbury Corners, church near northeast corner of crossroads, stone entrance, lower step, south end of face corner; chiseled square-----	1, 214. 22
Fairfield, Military Academy laboratory building, front of south end, in stonework 3 feet above ground; aluminum tablet stamped "1278 A"-----	1, 277. 867
Fairfield, Military Academy laboratory building, front of south end, projection on corner stone 1 foot above ground; old bench mark marked "1276.829 above tide at Troy"-----	1, 276. 240

From Middleville north to Norway, thence east and south to Salisbury Center.

Middleville, 3.5 miles north of, 200 feet north of road to east by stone schoolhouse, east end of stone culvert; chiseled square-----	777. 00
Norway, northwest corner of crossroads opposite hotel, west end of stone foundation of building, 1 foot from face corner; aluminum tablet stamped "1320 A"-----	1, 319. 830
Salisbury Center, 5.5 miles north of, 80 feet north of Jerseyfield Lake road, in outcrop 1 foot from southeast corner of Willis Nichols's barn; aluminum tablet stamped "1618 A"-----	1, 618. 535
Salisbury, 2.3 miles north of, at Curtis schoolhouse, east and west road crossing; stone step marked with circle-----	1, 426. 08

From Newport along the New York Central & Hudson River R. R. southeast to Middleville, thence south to Herkimer.

White Creek, iron bridge, on south abutment of bridge seat, east wing; chiseled square-----	632. 77
City Brook, on south end of east parapet wall of stone arch, on coping stone; chisel mark-----	609. 03
Canyon Brook, stone arch over, south end of east parapet wall, on coping stone; chiseled square-----	591. 26
Middleville, West Canada Creek; north coping of west abutment of iron highway bridge, marked "O"-----	572. 35

¹ See Bull. 514, pp. 72-74, for other elevations.

Middleville, West Canada Creek, in coping of iron bridge, west abutment, north wing; copper bolt stamped "U. S. G. S. B. M. 572"---	Feet. 570. 861
Herkimer County poorhouse, in north corner of bottom of flagstone, front entrance; chiseled square-----	591. 21
Countryman station, Atlantic & St. Lawrence (Grand Trunk) R. R., bridge 10, north abutment, west wing wall, close to angle, on coping stone; chiseled square-----	492. 31
West Canada Creek, Dempsters Bridge, 0.5 mile north of Kasts Bridge, north abutment, west wing; bridge seat marked "O." B. M.-----	473. 80
West Canada Creek, Kast Bridge (railroad station), west abutment, north wing; bridge seat stamped "O. B. M."-----	457. 51
Herkimer waterworks, north door of pump house; northwest corner of doorstep, stamped "O. B. M. 5"-----	402. 03
Herkimer, county clerk's office on Court Street, left of main entrance, in stone water table; aluminum tablet stamped "407 A"-----	406. 975

LIVINGSTON MANOR QUADRANGLE.¹

[Latitude 41° 45'-42°; longitude 74° 45'-75°.]

Leveling by Karl E. Schlachter in 1915.

From Horton southeast along New York, Ontario & Western Ry. to Roscoe, thence northeast along highway to Craigie Clair School near Beaver Kill.

Horton station, 0.6 mile east of, in foundation of semaphore 142½; chiseled square, "t. b. m. 1146.3"-----	1, 147. 29
Cooks Falls, 0.8 mile west of, 350 feet east of Grove siding, south margin of track, in ledge, 1.5 feet above ground; bronze tablet stamped "N. Y. 1160"-----	1, 160. 430
Cooks Falls station; top of south rail of westbound track-----	1, 184. 1
Cooks Falls station, 0.7 mile east of, 560 feet west of mile post 140, in north end of stone culvert; chiseled circle painted "t. b. m. 1,196.4"-----	1, 196. 28
Cooks Falls, 1.6 miles east of, in north end of central pier of railroad bridge 153; bronze tablet stamped "N. Y. 1220"-----	1, 220. 308
Roscoe station, 2.6 miles west of, 400 feet west of mile post 138, in south side of stone culvert; chiseled square painted "t. b. m. 1238.7"-----	1, 238. 58
Roscoe station, 1.6 miles west of, in ledge, south margin of track, opposite mile post 137; chiseled circle painted "t. b. m. 1263.6"-----	1, 263. 52
Roscoe station, 0.4 mile west of, in north end of east pier of railroad bridge 151; bronze tablet stamped "N. Y. 1280"-----	1, 279. 779
Roscoe, in front of station; top of rail-----	1, 283. 9
Roscoe station, 1.1 miles north of, 100 feet north of old Rockland post office, top of hydrant painted "t. b. m. 1,296.2"-----	1, 296. 14
Beaver Kill bridge, in east end of central pier; bronze tablet stamped "N. Y. 1332"-----	1, 332. 099
Beaver Kill bridge, 0.6 mile northeast of, at Spring Brook corner, in stone at bottom of stone wall, north of road; chiseled square painted "t. b. m. 1,350.3"-----	1, 350. 35
Beaver Kill bridge, 1.2 miles northeast of, 50 feet east of water trough, in ledge, east margin of road; chiseled square painted "t. b. m. 1,367.9"-----	1, 367. 89

¹ See Bull. 514, pp. 35-36, for other elevations.

Craigie Clair School, 700 feet south of, in northwest abutment of highway bridge over Beaver Kill; bronze tablet stamped "N. Y. 1415"	Feet.
	1,414.693

LOCKPORT QUADRANGLE.¹

[Latitude $43^{\circ}43'15''$; longitude $78^{\circ}30'78^{\circ}45'$.]

Precise leveling in 1896 by E. L. McNair.

At Gasport.

Gasport, Erie Canal bridge 152, in north end of east abutment; copper bolt stamped "521 ft."	520.256
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From Lockport southeast to Dysinger Corners, thence north to Orangeport.

Lockport, in front of Niagara County courthouse, east of main door, Niagara Street entrance; bronze tablet stamped "616 ft."	615.183
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Dysinger Corners, William Dysinger's red barn, in southwest corner of foundation; bronze tablet stamped "628 ft."	627.697
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McNalls Corners, on northwest corner of road crossing, southeast corner of doorstep of large brick house; chiseled square	659.01
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At Pendleton.

Pendleton, Sulphur Springs guard lock bridge 168, in north end of east pier; copper bolt stamped "582 ft."	581.160
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Bench marks set from old railroad levels, corrected (value doubtful).

Transit (East Amherst post office), 700 feet west of station, Batavia & Tonawanda branch of New York Central & Hudson River R. R., south side of bridge 119, in west abutment next to lower step; copper bolt stamped "587"	588.554
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East Clarence, 2,400 feet east of, Batavia & Tonawanda branch of New York Central & Hudson River R. R., bridge 114, at south end of east abutment, in coping stone; copper bolt stamped "639"	638.070
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LONG EDDY QUADRANGLE.

[Latitude $41^{\circ}45'42''$; longitude $75^{\circ}75^{\circ}15'$.]

Precise leveling in 1900 by C. H. Semper.

From Lordville southeast along Erie R. R. to Callicoon.

Lordville, opposite milepost "J. C. 153 B. 271," northbound track; top of rail	869.3
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Lordville, at railroad station, suspension bridge over Delaware River, in face of north abutment; bronze tablet stamped "865 Albany 1900"	865.915
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Long Eddy, 400 feet north of station, girder bridge, east side of south abutment, in top of bridge seat; bronze tablet stamped "884 Albany 1900"	885.195
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Long Eddy, in front of station, northbound track; top of rail	886.7
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¹ See Bull. 514, pp. 97-98, for other elevations.

	Feet.
Hankins, in front of station, northbound track; top of rail-----	807. 5
Hankins, 1 mile south of, 100 feet west of milepost "J C 141," south side of railroad, in west abutment of small bridge over creek; aluminum tablet stamped "801 Albany 1900" (permission granted to A. D. Parsons March 31, 1915, for moving this mark)-----	802. 015
Callicoon, in front of station, northbound track; top of rail-----	782. 3
Callicoon, 900 feet south of station, railroad girder bridge over Delaware River, top of north abutment, east side; bronze tablet stamped "780 Albany 1900" -----	780. 683

Leveling in 1915 by Karl E. Schlachter.

From Cadodia east along New York, Ontario & Western Ry. to Horton.

Cadodia, 2.8 miles east of, in north side of top of concrete foundation at semaphore 157; bronze tablet stamped "N. Y. 961"-----	961. 442
Tyler's siding, 2 miles west of Fish's Eddy, in north side of east abutment of New York, Ontario & Western Ry. bridge 168; chiseled circle painted "t. b. m. 958.3"-----	958. 32
Fish's Eddy, 1 mile west of, in south side of concrete foundation of New York, Ontario & Western semaphore 155; chiseled circle painted "t. b. m. 978.6"-----	978. 71
Fish's Eddy, in east abutment of railroad bridge 165, between northbound and southbound tracks; bronze tablet stamped "982"-----	981. 770
Fish's Eddy, opposite crossing signal at station; top of rail-----	989. 1
East Branch, 2.1 miles west of, on concrete foundation of New York, Ontario & Western Ry. semaphore 153; chiseled circle painted "t. b. m. 990.5"-----	990. 67
East Branch, 0.9 mile west of, 650 feet west of semaphore 151½, in ledge, in south margin of track; chiseled circle painted "t. b. m. 1,007.9"-----	1, 008. 11
East Branch, in northeast corner of concrete foundation of railroad water tank; bronze tablet stamped "N. Y. 1,007"-----	1, 007. 124
East Branch, 1.1 miles east of, 120 feet east of road crossing at sawmill, in ledge, south margin of track; chiseled circle painted "t. b. m. 1,029.6"-----	1, 029. 86
Trout Brook station, 520 feet west of, in north end of west abutment of railroad bridge 160; chiseled square painted "t. b. m. 1,038.3"-----	1, 038. 59
Trout Brook, in front of station; top of rail-----	1, 041. 0
Trout Brook station, 1.3 miles east of, 580 feet east of milepost 147, in ledge, south margin of track; bronze tablet stamped "N. Y. 1,074"-----	1, 074. 723
Elk Brook station, top of north rail of eastbound track, at road crossing-----	1, 090. 5
Chiloway station, 0.7 mile west of, in foundation of semaphore 145; chiseled square painted "t. b. m. 1,096.3"-----	1, 096. 62
Chiloway station, 65 feet east of, in east end of north side of railroad culvert 159; bronze tablet stamped "N. Y. 1106"-----	1, 106. 670
Horton station, 0.5 mile west of, in north side of culvert 157; chiseled square painted "t. b. m. 1,127.6"-----	1, 127. 90
Horton station; top of north rail of westbound track-----	1, 140. 9

LONG LAKE QUADRANGLE.

[Latitude $44^{\circ} 44' 15''$; longitude $74^{\circ} 15' - 74^{\circ} 30'$.]

Primary leveling in 1899 by C. B. Bailey and W. W. Gilbert.

From Tupper Lake Junction east along road to Wawbeek, thence south to Long Lake.

Tupper Lake Junction, New York Central & Hudson River R. R., Adirondack division, in foundation to water tank; aluminum tablet stamped "1555 Albany"	Feet. 1, 556. 031
Tupper Lake, 3.75 miles east of, north side of road at crossing of Cornell forestry west line, on top of large boulder 6 feet high; chiseled square	1, 570. 88
Raquette Falls, 150 feet west of Martin Talbot's, in boulder; aluminum tablet stamped "Albany 1574"	1, 574. 634
Long Lake, island in lower end of, 120 feet west of Island House, owned and occupied by Amos Robinson, in top of boulder; aluminum tablet stamped "1638 Albany"	1, 638. 211

From point 4 miles west of Newcomb, north to Catlin Lake (single-spur line).

Catlin Lake, Caughnawauga Club House, 50 feet east of boathouse, large rock at edge of lake; aluminum tablet stamped "1603 Covington 1901"	1, 603. 091
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From Tupper Lake south via Moody to Jenkins Pond (single-spur line).

Tupper Lake, 2.2 miles south of, at Simons Pond, end of iron bridge over Raquette River, east side; top of large bolt holding bridge plate on caisson pier	1, 554. 56
Tupper Lake, 10.6 miles south of, foot of Jenkins Pond, Litchfield Park, 50 feet east of farmhouse, at entrance to barn; aluminum tablet stamped "1748 Covington 1901"	1, 757. 778

From Long Lake to point 5 miles northwest.

Long Lake, 5 miles northwest of, 250 feet north of Big Brook, 12 feet east of road, west face of large boulder; aluminum tablet stamped "1722 Albany"	1, 720. 965
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LOWVILLE QUADRANGLE.¹[Latitude $43^{\circ} 45' - 44^{\circ}$; longitude $75^{\circ} 15' - 75^{\circ} 30'$.]

Precise leveling in 1900 by C. H. Semper.

At Lowville.

Lowville station, 1,000 feet south of, railroad bridge 756 over creek and highway, west side north abutment; bronze tablet stamped "863 Albany 1900" (found in 1910 to be an aluminum tablet marked "864.529")	864. 529
Lowville, in front of station; top of rail	868. 8

¹ See Bull. 514, pp. 24-27 for other elevations.

LUZERNE QUADRANGLE.

[Latitude $43^{\circ} 15'$ - $43^{\circ} 30'$; longitude $73^{\circ} 45'$ - 74° .]

Precise leveling in 1899 by E. L. McNair.

From Hadley north along Delaware & Hudson R. R. to Thurman.

Hadley, 1.5 miles south of, at northeast corner of stone culvert, about 600 feet west of red house on west side of highway, in coping stone; aluminum tablet stamped "634 Albany 1899"-----	Feet. 634. 309
Hadley, 3.25 miles north of, at northwest corner of steel-girder bridge 9 over Wolf Creek, in coping stone of bridge seat; aluminum tablet stamped "630 Albany 1899"-----	630. 458
Stony Creek, 0.4 mile south of, at northwest corner of steel-girder bridge 10 over Stony Creek, in coping stone of bridge seat; aluminum tablet stamped "600 Albany 1899"-----	600. 427
Thurman, 1.25 miles north of station, at west end of south abutment of steel-girder bridge 13, in coping stone; aluminum tablet stamped "628 Albany 1899"-----	627. 774

Primary leveling in 1899 by J. E. Thomas.

From Hadley west to Day, thence south to Edinburg.

Hadley, northwest corner of G. West's paper mill; aluminum tablet stamped "613 Albany"-----	613. 917
Hadley, 5.75 miles southwest of, 1,500 feet north of road, east side of lower river road leading to Conklingville, on boulder at intersection; old State bench mark, chiseled "B. M. 11"-----	628. 84
Conklingville, west end of south abutment of iron bridge over Sacandaga River; bronze tablet stamped "726 Albany"-----	726. 049

From West Day east to Efner Lake (single-spur line).

Day Center, 3 miles southeast of, on Lake road, near house owned and occupied by John S. Kinney, in ledge of rock; bronze tablet stamped "1009 Albany"-----	1, 009. 590
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From Hadley north to Warrensburg, thence west to Thurman.

Luzerne, on stepping stone in front of Catholic Church; chisel mark-----	665. 03
Luzerne, 4.5 miles northeast of, west side of Warrensburg road, 300 feet south of house at edge of woods, in ledge of rocks; bronze tablet stamped "834 Albany"-----	834. 025
Warrensburg, on Main Street, in southeast corner of stone building used as post office; bronze tablet stamped "749 Albany"-----	749. 022

From Stony Creek to Knowlhurst.

Stony Creek, 0.4 mile south of, at northwest corner of steel-girder bridge 10 over Stony Creek, in coping stone of bridge seat; aluminum tablet stamped "600 Albany 1899"-----	600. 427
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LYON MOUNTAIN QUADRANGLE.

[Latitude $44^{\circ} 30' - 44^{\circ} 45'$; longitude $73^{\circ} 45' - 74^{\circ}$.]

Primary leveling by George Seidel in 1903.

At Twin Pond.

Twin Pond, Delaware & Hudson R. R. station, 100 feet west of, south wing of west abutment of railroad bridge; aluminum tablet stamped "1443 Ft. Covington 1903"-----	Feet. 1,442.824
Twin Pond, Delaware & Hudson R. R. b. m. "2078+82," cross cut into south corner of parapet abutment-----	1,442.91

Leveling by J. M. Perkins in 1911.

From Twin Pond along Delaware & Hudson R. R. northeast to point north of
Chazy Lake post office, thence south and east to Russia station.

Twin Pond, 0.8 mile east of, 12 feet south of center of track, in west end of concrete culvert cap; painted square on top, marked "1506"-----	1,505.97
Standish, 100 feet west of, opposite section house, at southwest corner of railroad water standpipe, on concrete base; marked "1578.3"-----	1,578.27
Standish, 0.7 mile east of, on south abutment of concrete culvert, 6 feet west of center of track; aluminum tablet stamped "1598"-----	1,597.880
Lyon Mountain, 185 feet west of, south wing of east abutment of rail- road bridge over brook, 11 feet from center of track; aluminum tablet stamped "1753"-----	1,753.247
Bradley Pond switch, 200 feet east of; top of concrete culvert, marked "1712"-----	1,711.90
Lyon Mountain, 2.7 miles northeast of, on Delaware & Hudson R. R.; top of concrete culvert, marked "1715.3"-----	1,715.12
Lyon Mountain, 3 miles northeast of, on southeast end of south abu- tment of concrete culvert, near junction of railroad sections 7 and 9, 12 feet from center of track; aluminum tablet stamped "1715"-----	1,714.918
Chazy Lake, 215 feet north of, on east side of concrete railway bridge over brook, 10 feet from center of track; aluminum tablet stamped, "1605"-----	1,604.805
Russia, 3.3 miles west of station, on west end of concrete culvert, 14 feet from center line of location of track; aluminum tablet stamped "1598"-----	1,597.476
Russia, 110 feet east of station, in top of concrete culvert, 11 feet from center of main track of Delaware & Hudson R. R.; aluminum tablet stamped "1489"-----	1,488.587

From Picketts Corners southwest along highway to point near Merrillville.

Picketts Corners, on rock in yard of F. Bresett, 2 feet from fence line and 40 feet from corner of store; aluminum tablet stamped "801" ¹ -----	799.548
Saranac Hollow, on stone post at fence corner near intersection of Redford road and road to Burnt Hill; drill hole in top of stone marked "778.0"-----	776.87
Moffitsville, west end of wooden bridge over Saranac River; eleva- tion painted on large stone marked "797.6" at south side of bridge-----	796.55

¹ The true elevation of this bench mark may be 1 foot greater.

Moffitsville, 0.5 mile west of, in grass plot between two roads from Moffitsville to Redford; drill hole in top of stone marked "926.9"	Feet. 925.80
Moffitsville, 1.7 miles west of, near intersection of Saranac and Redford (old plank) roads with road passing Patrick Moore's house, 5 feet east of center of former road and 100 feet north of center line of latter, in granite stone in wall; aluminum tablet stamped "1125"	1, 123.592
Redford, 0.5 mile south of, beside Clayburg road, at forks opposite road that crosses Saranac River on iron bridge; point on rock marked "1097.3"	1, 096.28
Redford, 1.1 miles south of, at road corner, 9 feet from corner of fence; square cut in top of rock marked "1109.8"	1, 108.76
Clayburg, on northwest corner of north abutment of iron bridge over Saranac River; aluminum tablet stamped "1119"	1, 117.561
Clayburg, 0.25 mile north of, on Cold Brook road at road corner; square cut on small stone marked "1132.0"	1, 130.95
Clayburg, 2.3 miles north of, opposite Ans's store; point on rock marked "1135.9"	1, 134.90
Cold Brook, on south abutment of west wall of iron bridge over north branch of Saranac River where Cold Brook enters; aluminum tablet stamped "1145"	1, 144.089
Cold Brook, by roadside in front of schoolhouse; point on rock marked "1167.4"	1, 166.48
Cold Brook, 1 mile west of, 250 feet west of Mrs. P. Hanlon's resi- dence, 12 feet south of road; point on stone marked "1193.2"	1, 192.23
Cold Brook, 3.2 miles west of, at road corner, in boulder opposite school 12; aluminum tablet stamped "1365"	1, 364.086
Sugar Bush, 1 mile north of post office, at road corner, near fence cor- ner; square cut in top of boulder marked "1570.8"	1, 569.88
Sugar Bush, 0.8 mile south of, at fork in roads, in rock in grass tri- angle between Alderbrook road and road to Merrillville; aluminum tablet stamped "1616"	1, 614.677
Merrillville, 1.4 miles east of guide boards, at road corner; square cut in top of boulder marked "1501.2"	1, 500.35
Vermontville, 5.6 miles north of, 4.3 miles south of Chases road cross- ing, in large boulder; aluminum tablet stamped "1776"	1, 776.288

From Disco along highways west to Alderbrook.

Disco, 2.1 miles south of post office, at road corner; square cut in top of stone, marked "1191.7"	1, 190.57
Goodriches Mills, between district school 8 and road corner, in a stone in field, 200 feet from school and 50 feet from road; aluminum tablet stamped "1151"	1, 149.801
Goodriches Mills, 1.8 miles west of, in front of house of M. Yelle; point on stone marked "1220.0"	1, 218.89
Goodriches Mills, 2.7 miles west of, at road corner, in front of residence of M. Tearney; square cut in top of stone, marked "1291.8"	1, 290.68
Silver Lake, 2.3 miles east of, at road corner, on stone in field near stone wall at north side of road, 100 feet west of road corner; aluminum tablet stamped "1514"	1, 513.176
Hawkeye (Silver Lake), in front of hotel near boathouse; point on rock marked "1402.6"	1, 401.57
Silver Lake; surface of water, August 21, 1911	1, 393.3

Hawkeye, 1.4 miles west of, 150 feet east of road corner, on north side of road, in boulder; aluminum tablet stamped "1542"	Feet. 1, 541. 111
Union Falls, on west wing wall of concrete dam, under gate house; square cut in concrete, marked "1398.8"	1, 397. 70
Alderbrook, 0.2 mile east of post office, in front of church, near ceme- tery gate, on boulder; aluminum tablet stamped "1607"	1, 606. 172
Alderbrook, 0.2 mile west of post office, at road corner near yellow schoolhouse; point on stone marked "1534.7"	1, 533. 61
Alderbrook, 1.2 miles west of, on boulder at road corner; square cut with drill hole in center, on top of rock marked "1347.5"	1, 346. 43
Alderbrook, 2.8 miles west of, at road corner; point on boulder marked "1501.2"	1, 500. 35

MACEDON QUADRANGLE.[Latitude $43^{\circ} 43' 15''$; longitude $77^{\circ} 15' 77'' 30''$.]**Primary leveling in 1898 by C. H. Semper.****From Forestlawn east along highway to Ontario.**

Union Hill station, road crossing near; top of rail	425. 7
Lakeside, on west wall of railroad culvert, north side of track, 600 feet west of station, on top step; chiseled square	421. 56
Lakeside, highway crossing east of; top of rail	424. 0
Ontario Center, 0.6 mile east of, in southeast corner of cellar wall of Ontario Union school; bronze tablet stamped "447 Oswgo."	447. 670
Ontario, in front of station; top of rail	414. 6

From Webster south along highway to Fairport.

Webster, at northeast corner of Union Academy building, in water table; aluminum tablet stamped "465 Oswgo"	466. 225
Fairport, Main Street, New York Central & Hudson River R. R.; top of rail	455. 8
Fairport, Main Street, West Shore R. R.; top of rail	455. 6
Fairport, Union school, in water table of Church Street front; alumini- num tablet stamped "498 Oswgo"	498. 983

From Ontario south via Walworth to Palmyra.

Walworth, at northwest corner of Walworth Academy building, in water table; aluminum tablet stamped "564 Oswgo"	564. 785
Palmyra, 1 mile west of, Mud Creek aqueduct, in buttress of south wing of west abutment; aluminum tablet stamped "446 Oswgo"	446. 625

From Fairport south to Bushnell Basin.

Bushnell Basin, bridge 50 over Erie Canal, towpath abutment, inner face of west wing; bronze tablet stamped "465 Oswgo"	465. 759
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McKEEVER QUADRANGLE.¹[Latitude $43^{\circ} 30' - 43^{\circ} 45'$; longitude $75^{\circ} - 75^{\circ} 15'$.]**Primary leveling in 1897 by Clark Brown, and in 1898 by C. H. Semper.****From Forestport north to White Lake.**

White Lake station, 2 miles south of, near Nicholl's mills, on face of coping, at northwest corner of railroad bridge over Bear Creek; chiseled square	1, 370. 08
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¹ See Bull. 514, pp. 23-24, for additional elevations.

104 SPIRIT LEVELING IN NEW YORK, 1896-1905, 1912-1916.

From White Lake northeast along New York Central & Hudson River R. R.
via McKeever to Fulton Chain.

White Lake station, 50 feet west of railroad, 10 feet north of wagon road, in boulder 5 feet broad; copper bolt stamped "1421 A"-----	Feet.	1,420.664
White Lake station, 2.5 miles north of, 100 feet north of White Granite Co.'s switch, west of track at foot of embankment; iron staple in boulder 20 feet broad-----	1,456.819	
McKeever, 600 feet south of station, west of track, in rock in cut; copper bolt stamped "U. S. G. S. 1544 Ft. B. M."-----	1,543.828	
McKeever, 2 miles north of, iron railway bridge 6 (20-foot span), northwest wing, near face corner end of coping; chiseled square-----	1,559.12	
McKeever, 3.5 miles north of, at railroad bridge 37 (90-foot span) over Moose River, 1 foot from girder, north abutment, west end on face angle; chiseled square-----	1,641.34	
Minnehaha station, Moose River bridge, north end, east end of parapet, on corner; chiseled square-----	1,681.39	
Fulton Chain station, 3 miles southwest of, 500 feet north of house, south end of culvert, on north end of parapet; chiseled square-----	1,714.28	

From White Lake east to North Lake (Atwell post office).

North Lake (Atwell), 6.3 miles northwest of, at junction of road to Woodhull Lake; aluminum tablet in top of rock stamped "1947 A"-----	1,947.329
Woodhull, in front of gate house, in line with back edge of dam; $\frac{1}{2}$ -inch copper bolt-----	1,883.072

MALONE QUADRANGLE.

[Latitude $44^{\circ} 45' - 45^{\circ}$; longitude $74^{\circ} 15' - 74^{\circ} 30'$.]

Leveling in 1913 by A. J. Kavanagh.

Near Malone Junction on Rutland R. R.

Malone Junction, 0.97 mile east of, 60 feet east of road crossing, on north side of stone culvert; chiseled square painted "U. S. T. B. M. 750.9"-----	750.50
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From point north of Constable south along New York Central & Hudson River R. R. to Whippleville.

Constable, 2.76 miles north of station, top of east support of milepost M. 8; chiseled cross painted "U. S. T. B. M. 339"-----	338.74
Constable, 1.74 miles north of station, on top of east support of milepost M. 7; chiseled cross painted "U. S. T. B. M. 383.4"-----	383.00
Constable, 0.77 mile north of station, at north end of high trestle bridge, in top of stone of northwest abutment; bronze tablet stamped "404"-----	403.210
Constable, 0.25 mile north of station, on east side of wooden compass, in top timber; copper nail and washer painted "U. S. T. B. M. 412.4"-----	411.96
Constable, 0.72 mile south of station, on northwest corner of railroad bridge, top of coping stone; chiseled square painted "U. S. T. B. M. 462"-----	461.39
Malone Junction, 3.62 miles north of, 0.41 mile south of milepost M-4, 50 feet east of track, in sandstone boulder; bronze tablet stamped "512"-----	511.144

Malone Junction, 2.25 miles north of, on railroad bridge over Trout River, on northwest abutment on top of concrete course; chiseled square painted "U. S. T. B. M. 559.9"-----	Feet. 559.50
Malone Junction, 1.04 miles north of, 250 feet north of road crossing, on top of west support of milepost M-1; chiseled cross painted "U. S. T. B. M. 680"-----	679.71
Malone Junction, 245 feet west of cross tracks, opposite corner of street to north, in large granite boulder at foot of telegraph pole; bronze tablet stamped "739"-----	738.824
Malone Junction, in front of station; top of cross tracks marked "741.6"-----	741.2
Malone Junction, 1.01 miles south of, on New York Central R. R., on northwest corner of culvert; chiseled square painted "U. S. T. B. M. 818.9"-----	818.48
Malone Junction, 2.38 miles south of, on New York Central R. R., 90 feet north of milepost 11-171, on northwest wing of stone cow pass; chiseled square painted "U. S. T. B. M. 940"-----	939.62
Whippleville, 1 mile north of station, 0.25 mile north of milepost 4-170, in west side concrete dry bridge; bronze tablet stamped "1010"-----	1,009.351

Leveling in 1914 by H. S. Senseney.

From Malone west along Rutland R. R. to Brushton.

Malone Junction, 245 feet west of cross tracks, opposite corner of street to north, in large granite boulder at foot of telephone pole; bronze tablet stamped "739"-----	738.824
Malone, opposite Rutland station, south side of track, in telephone pole; spike marked "U. S. B. M. 715"-----	714.67
Malone, 1.4 miles west of, on west end of south abutment of highway bridge over railroad; chiseled square marked "U. S. B. M. 701"-----	701.03
Malone, 2.3 miles west of, north side of track, in culvert; bronze tablet not stamped-----	674.302
Malone, 3.7 miles west of, south side of track, in telephone pole; spike marked "U. S. B. M. 643"-----	642.87
Malone, 4.8 miles west of, south side of track, in telephone pole; spike marked "U. S. B. M. 618"-----	617.28
Bangor, front of station; top of south rail-----	576.8
Bangor station, 400 feet west of, north side of tracks, in culvert; bronze tablet not stamped-----	575.139
Bangor station, 1.4 miles west of, south side of track, in telephone pole; spike marked "U. S. B. M. 545"-----	544.99
Bangor station, 2.7 miles west of, 50 feet east of road crossing, south side of track, in telephone pole; spike marked "U. S. B. M. 514"-----	513.43
Bangor station, 3.5 miles west of, north side of track, 25 feet east of private road crossing, in ledge; bronze tablet not stamped-----	495.818
Bangor station, 4 miles west of, 60 feet west of road crossing, south side of track, in telephone pole; spike marked "U. S. B. M. 487"-----	486.54
Bangor station, 5.2 miles west of, 100 feet east of private road crossing, south side of track, in telephone pole; spike marked "U. S. B. M. 461"-----	460.68

From point 2 miles east of Brushton south, east, and north along highway via Skeery to Malone.

	Feet.
North Bangor, about 3 miles southwest of, 1.1 miles south of railroad, east side of road, on culvert; chiseled square marked "U. S. B. M. 570 "	570. 25
West Bangor, about 2 miles northwest of, 200 feet south of Little Salmon River, at southwest corner of forks of roads, in culvert; bronze tablet stamped "605 "	604. 459
West Bangor, about 1.5 miles west of, at northwest corner of road forks, on ledge; chiseled square marked "U. S. B. M. 757 "	757. 12
West Bangor, about 2 miles west of, north side of road at T road to south, on ledge; chiseled square marked "U. S. B. M. 787 "	786. 82
West Bangor, about 2.5 miles southwest of, on "Bangor-Brandon" town line, east side of road, in culvert; bronze tablet stamped "N. Y. 828 "	827. 523
Skerry, 5.1 miles west of, 60 feet west of road forks, south side of road, on ledge; chiseled square marked "U. S. B. M. 931 "	931. 15
Skerry, 4 miles west of, at southeast corner of crossroads, on ledge; chiseled square marked "U. S. B. M. 987 "	986. 64
Skerry, 3 miles west of, 60 feet southwest of crossroads, in ledge; bronze tablet stamped "1,000 "	1, 000. 010
Brandon Center, in front of church, on ledge; chiseled square marked "U. S. B. M. 1041 "	1, 041. 09
Skerry, 1.5 miles west of, 15 feet north of crossroads, in triangle, on ledge; chiseled square marked "U. S. B. M. 1121 "	1, 120. 89
Skerry, 300 feet south of church, west side of road, in boulder; bronze tablet stamped "Prim. Trav. Sta. No. 1 1086 1914 "	1, 086. 060
Skerry, 0.9 mile east of, north side of road, on summit of hill, on ledge; chiseled square marked "U. S. B. M. 1277 "	1, 276. 96
Skerry, 2.4 miles east of, 40 feet southwest of crossroads, on ledge; chiseled square marked "U. S. B. M. 1304 "	1, 304. 31
Skerry, 3.9 miles northeast of, 100 feet southwest of crossroads, in boulder; bronze tablet stamped "1277 "	1, 276. 714
Malone, 5.4 miles south of, 50 feet west of Lake Titus road, on northeast corner of bridge; painted bolthead marked "U. S. B. M. 1184 "	1, 183. 61
Malone, 4 miles south of, west side of road, on ledge; chiseled square marked "U. S. B. M. 1082 "	1, 081. 85
Malone, 2.7 miles south of, 200 feet north of road forks, west side of road, in ledge; bronze tablet stamped "N. Y. 980 "	980. 312
Malone, 1.8 miles south of, east side of road, in root of spruce tree; copper nail, marked "U. S. B. M. 933 "	933. 07
Malone, east side of "Webster" Street, 35 feet north of "Woodward" Street, in wooden post; copper nail, marked "U. S. B. M. 849 "	849. 31
Malone, west side of entrance of county clerk's office, in stone step; bronze tablet stamped "N. Y. 730 1914 "	729. 501
 From point 2 miles east of Brushton north and east along highway to Westville, thence southeast to point 2.3 miles west of Malone.	
Cook Corners, about 2 miles southwest of, at southeast corner of road forks, on boulder; chiseled square marked "U. S. B. M. 422 "	422. 16

Cook Corners, about 1 mile southwest of, at northwest corner of cross-roads, on ledge; chiseled square marked "U. S. B. M. 361"-----	Feet. 361.00
Cook Corners, 0.9 mile west of, north side of road, opposite road to south, in ledge; bronze tablet stamped "N. Y. 304"-----	303.887
Cook Corners, southwest corner of, on culvert; chiseled square marked "U. S. B. M. 315"-----	315.05
Cook Corners, 1.2 miles north of, east side of road, on culvert; chiseled square marked "U. S. B. M. 321"-----	320.73
Cook Corners, 1.9 miles north of, southeast corner of road forks, in culvert; bronze tablet stamped "N. Y. 292"-----	291.527
Cook Corners, 2.8 miles north of, west side of road, on culvert; chiseled square marked "U. S. B. M. 240"-----	240.13
Fort Covington Center, 60 feet south of road forks, west side of road, in culvert; bronze tablet stamped "N. Y. 204"-----	203.432
Fort Covington Center, 1.3 miles north of, southeast corner of bridge over West Branch Deer Creek, in floor of; bronze tablet stamped "N. Y. 187"-----	187.085
Westville, 1.6 miles west of, south end of west abutment of bridge; chiseled square marked "U. S. B. M. 187"-----	187.13
Westville, at forks of roads, 100 feet west of Ordway's store, in culvert; bronze tablet stamped "N. Y. 205"-----	205.013
Westville Center, 1.1 miles north of, east side of road, on culvert; chiseled square marked "U. S. B. M. 218"-----	217.54
Westville Center, 50 feet northeast of church, at northeast corner of crossroads, in stump; copper nail marked "U. S. B. M. 257"-----	257.07
Fay, 2.9 miles north of, 200 feet south of road forks, west side of road, in culvert; bronze tablet stamped "N. Y. 298"-----	298.263
Fay, 2 miles north of, west side of road, on culvert; chiseled square marked "U. S. B. M. 337"-----	336.41
Fay, 1.2 miles north of, west side of road, 250 feet north of forks, on culvert; chiseled square marked "U. S. B. M. 384"-----	384.26
Fay, 350 feet north of road forks, west side of road, in culvert; bronze tablet stamped "N. Y. 424"-----	424.301
Fay, 0.9 mile south of, east side of road, on culvert; chiseled square marked "U. S. B. M. 518"-----	518.10
Fay, 1.7 miles south of, 50 feet north of road forks, east side of road, in telephone pole; spike marked "U. S. B. M. 597"-----	596.57
 From Westville northeast along highway to Trout River, thence east to point 3.7 miles north of Constable. (An error of 0.36 foot was adjusted in this line.)	
Westville, 1.4 miles east of, at northeast corner of crossroads, in base of signpost; spike marked "U. S. B. M. 212"-----	211.97
Westville, 3.1 miles east of, northwest corner of road forks, in ledge; bronze tablet stamped "N. Y. 263"-----	262.650
Westville, 4.5 miles east of, northwest corner of crossroads, in root of tree; copper nail with washer, marked "U. S. B. M. 239"-----	238.84
Trout River, in base of international boundary monument 735; bronze tablet stamped "N. Y. 224"-----	223.178
Trout River, 1.3 miles east of, south side of road, in root of stump; copper nail with washer, marked "U. S. B. M. 239"-----	238.78

MARGARETVILLE QUADRANGLE.

[Latitude 42°-42° 15'; longitude 74° 30'-74° 45'.]

Primary leveling in 1901 by William Kelley and W. E. Green.

From Fleischmans station to Halcottsville.

	Feet.
47, south end; aluminum tablet stamped "1515 Albany 1901"	1,515.771
Kelleys Corners, in front of station; top of west rail	1,380.7
Halcottsville, in front of station; top of west rail	1,403.8
Halcottsville, 550 feet south of, Ulster & Delaware R. R. bridge 54, on top of south abutment, at west end; bronze tablet stamped "1399 Albany 1901"	1,399.691
Halcottsville, 1.45 miles north of, at highway crossing; crest of dam	1,410.8

From Arkville southeast along road to West Shandaken.

Dry Brook, West Shandaken, front of Second Adventist Church, southwest corner; bronze tablet stamped "1628 Albany 1901"--- 1,628.726

From Arkville southwest along highway to Arena, thence southeast to Grant Mills, thence south to Ulster-Delaware county line on Coykendall road.

Margaretville, stone steps at entrance to People's Bank, west face; aluminum tablet stamped "1325 Albany 1901"	1,325.581
Grant Mills, 2.9 miles south of, line between Delaware and Ulster counties, 1,380 feet northwesterly from large culvert, north side of Coykendall road, in large rock; bronze tablet stamped "2464 Albany 1901"	2,468.376

Near Dunraven north to New Kingston.

New Kingston, north face of United Presbyterian Church, 2 feet west of belfry tower; aluminum tablet stamped "1685 Albany 1901" (possibly 2.85 feet too low)----- 1,685.745

Leveling in 1915 by K. E. Schlachter.

From Margaretville southwest along Delaware & Northern R. R. to Arena.

Margaretville, at entrance to People's Bank, cemented into west face of stone step; aluminum tablet stamped "1325"	1,325.581
Keeneys, in front of station; top of rail	1,307.3
Keeneys station, 0.3 mile west of, east margin of track on boulder; chiseled square painted "t. b. m. 1305.4"	1,305.44
Dunraven station, 0.2 mile east of, in west end of north abutment of railroad bridge 4; chiseled circle painted "t. b. m. 1296.6"	1,296.62
Dunraven station, top of west rail at	1,295.2
Dunraven station, 0.8 mile west of, in boulder 12 feet north of track; bronze tablet stamped "N. Y. 1284"	1,284.066
Hall's Bridge, 150 feet west of, in south margin of track, on boulder; chiseled square painted "t. b. m. 1272.9"	1,272.89
Arena, 0.8 mile east of, in west end of north abutment of culvert 5; chiseled circle painted "t. b. m. 1268.5"	1,268.53
Arena station, 450 feet east of, in ledge, south margin of track, 1 foot above ground; bronze tablet stamped "N. Y. 1270"	1,270.119
Arena, at road intersection near old "Central House"; back part of hydrant top marked "B. M. 1263" (old t. b. m.)	1,266.57

MASENNA QUADRANGLE.¹

[Latitude 44° 45'-45°; longitude 74° 45'-75°.]

Primary leveling in 1904 and 1906 by G. M. Dimmick.

From Richards Landing south along highway to Massena Springs, thence east along the Grand Trunk Ry. to Helena.

Richards Landing, 58.5 feet east of east face of Isaac Richards's residence, 3 feet north of south fence of river road, 13 feet underground; concrete base, in top of which is set a $\frac{1}{4}$ -inch round-head bolt (Deep Waterways P. B. M. 6)-----

Massena, in northwest corner of Clark block; bronze tablet stamped "205 Albany 1904"-----

Massena Springs, 4.33 miles east of, in south end of east abutment of railroad bridge; bronze tablet stamped "193 Albany 1904"-----

From Massena Springs southwest along road via Raymondville to Norwood, thence along railroad northeast to Winthrop, thence along highway northeast via Helena to Hogansburg.

Massena Springs, 2.75 miles southwest of, in foundation wall of north end of east face of brick house of Charles Cahby (owned by Allen Ames), on highway leading from Massena Springs southwest to Raymondville; bronze tablet stamped "216 Albany 1904"-----

Raymondville, in foundation wall of Union Church, 10 feet from north end of west face; bronze tablet stamped "251 Albany 1904"-----

Norfolk, in foundation wall of Presbyterian Church, 12 feet south of north end of west face; aluminum tablet stamped "257 Albany 1904"-----

Norwood, in foundation wall of Music Hall, north end of east face, 28 inches above ground; aluminum tablet stamped "330 Albany 1903 Adj"-----

Knapps, in foundation wall of residence of L. M. Maxfield, west end of south face; aluminum tablet stamped "360 Albany 1904"-----

Knapps, 3.81 miles east of, in top of north end of east abutment of railroad bridge, 420 feet west of highway crossing; aluminum tablet stamped "345 Albany 1904"-----

Winthrop, in foundation wall of Universalist Church, south end of east face; aluminum tablet stamped "337 Albany 1904"-----

Winthrop, 2.96 miles north of, in foundation wall of schoolhouse, district 3, town of Brasher, south end of east face; aluminum tablet stamped "291 Albany 1903 Adj"-----

Brasher Center, in foundation wall of Methodist Church, east end of south face; aluminum tablet stamped "266 Albany 1903 Adj"-----

Feet.
232. 381
205. 000
192. 946

216. 063
251. 126
257. 037

330. 237
359. 984

344. 718
337. 180
290. 458
265. 748

376. 484

From Buckton north to Winthrop.

Stockholm, 2.7 miles north of Buckton, in brickwork of residence of Andrew Traverse, west end of south face; aluminum tablet stamped "376 Adj 1903"-----

¹ See Bull. 514, p. 59, for other elevations.

MEDINA QUADRANGLE.¹[Latitude $43^{\circ} 43' 15''$; longitude $78^{\circ} 15' - 78^{\circ} 30'$.]

Primary leveling in 1896 by E. L. McNair.

On circuits tied to canal bench marks.

Middleport, Erie Canal bridge 145, in north foundation under center of bridge and facing towpath and canal; bronze tablet stamped "519" (permission to remove bench mark granted on December 29, 1911, to J. V. Hogan)-----
 Medina, Prospect Street bridge 140, lower step, east end, north side of Erie Canal; copper bolt stamped "518"-----
 517. 189

Elevations determined from New York State survey levels of 1883, corrected.

East Shelby, at southwest corner of Methodist Episcopal Church, in boulder; copper bolt stamped "668"-----
 667. 547
 Shelby Town, 125 feet north of Coons bridge, east side of road between East and West Shelby, in top of boulder 3 feet high; copper bolt stamped "616"-----
 615. 756
 Wheatville, 200 feet north of road crossing, 3 feet east of fence line, under northwest corner of red barn of John Waterstreet, in granite boulder; copper bolt stamped "669"-----
 668. 182
 Alabama station, 4 miles northwest of, 0.2 mile north of Tonawanda Creek, north side of gate entrance to feeder, in second step of east abutment; copper bolt stamped "622"-----
 621. 160

Bench marks set from old railroad levels, corrected (value doubtful).

Pembroke, 1,550 feet east of railroad station, Batavia & Tonawanda branch of New York Central & Hudson River R. R., on coping stone of east abutment of bridge 104, south side of track; copper bolt stamped "823"-----
 822. 780
 East Pembroke, 1 mile north of, 630 feet north of corner, east side of north and south road, on land belonging to E. H. Clark, in boulder 6 feet square deeply embedded in ground; copper bolt stamped "873 ft."-----
 872. 140

MEXICO QUADRANGLE.²[Latitude $43^{\circ} 15' - 43^{\circ} 30'$; longitude $76^{\circ} - 76^{\circ} 15'$.]

Primary leveling in 1903 by G. M. Dimmick and George Seidel.

From Vermilion east along highways via Mexico, Union Square, and South Albion to Kasoag.

Mexico, in foundation wall of pillar post of school building; aluminum tablet stamped "384 Albany 1903"-----
 384. 059
 Union Square, in foundation wall of residence of E. C. Parsons, center of north face; bronze tablet stamped "467 Albany 1903"-----
 467. 454
 South Albion, in foundation of cheese factory, south end of east face; bronze tablet stamped "645 Albany 1905"-----
 645. 002

¹ See Bull. 514, p. 96, for additional elevations.² See Bull. 514, p. 88, for additional elevations.

From Union Square south along the Rome, Watertown & Ogdensburg R. R. to Parish, thence east along highways to West Amboy.

Parish; top of southeast corner of foundation wall of station-----

Feet.
475. 95

From Parish south along the Rome, Watertown & Ogdensburg R. R. to Central Square, thence east along the New York, Ontario & Western Ry. to Constantia.

Hastings, 1.2 miles west of station, in foundation wall of Presbyterian Church, south end of west face; aluminum tablet stamped "486 Albany" (bench mark on single-spur line)-----

486. 355

MILFORD QUADRANGLE.

[Latitude $41^{\circ} 15'$ - $41^{\circ} 30'$; longitude $74^{\circ} 45'$ - 75° .]

Primary leveling in 1904 by G. M. Dimmick.

At Mongaup.

Mongaup, top of north abutment of highway bridge over Mongaup Creek; bronze tablet stamped "503 Albany 1903 Adj"-----

503. 031

MILLBROOK QUADRANGLE.

[Latitude $41^{\circ} 45'$ - 42° ; longitude $73^{\circ} 30'$ - $73^{\circ} 45'$.]

Primary leveling in 1899 by Seth Van Loan.

From Washington Hollow east via Millbrook to Dover Plains.

Millbrook, 2 miles west of, south parapet wall of bridge over stream; point in stone-----

459. 56

Millbrook, west side of Millbrook Bank near southwest corner; aluminum tablet stamped "Albany 568"-----

568. 824

From Dover Plains north along the Harlem R. R. to Millerton.

Wassaic, 600 feet south of, north abutment of bridge over stream; point on west end-----

453. 13

Amenia, in corner stone southwest corner of Amenia Bank; aluminum tablet stamped "Albany 573"-----

573. 87

Coleman, 0.87 mile north of, west end of north abutment overhead bridge; point on second step from top-----

586. 68

Millerton, first bridge north of, south abutment, west end; point on second stone from top-----

499. 56

From Millerton via Shekomeko along the Newburg, Dutchess & Connecticut R. R. to Pine Plains.

Millerton, in northeast front of brick block hotel; aluminum tablet stamped "Albany 701"-----

701. 081

Winchells station, 1.25 miles west of, south abutment of cattle pass bridge 66; point on east end-----

864. 73

Shekomeko, 1 mile north of, south abutment of overhead bridge 63; point on fourth step from top, west end-----

731. 97

Bethel station, west abutment of bridge 57; point on north end, chisel mark "U. S."-----

500. 79

Pine Plains, in foundation stone of Myers dwelling, near southeast corner of house; aluminum tablet stamped "Albany 474"-----

474. 626

From Pine Plains via Stissing and Stanfordville to Clinton Corners.

McIntyre, Central New England Ry. bridge, in face of south abutment, third course from ground; aluminum tablet stamped "Albany 399"	Feet.
	399. 388

MOIRA QUADRANGLE.¹[Latitude $44^{\circ} 45' - 45^{\circ}$; longitude $74^{\circ} 30' - 74^{\circ} 45'$.]**Precise leveling in 1900 by C. H. Semper.****From Moira along New York & Ottawa R. R. to Fort Covington.**

Moira, Methodist Episcopal Church, in east face of; aluminum tablet stamped "420 Albany 1900"	419. 450
Bombay, public school on Main Street, in northwest face of; bronze tablet stamped "193 Albany 1900"	193. 144
Fort Covington (Deep Waterways primary bench mark), Grand Trunk Ry. bridge over Salmon River; chiseled square, 1 foot from south edge and 1 foot from east edge of east abutment	166. 453
Fort Covington, Grand Trunk Ry. bridge over Salmon River, 600 feet west of station, top of south end of east abutment; bronze tablet stamped "167 Albany 1900"	166. 452

Primary leveling in 1904 by G. M. Dimmick.**From Helena to Hogansburg.**

Helena, in north end of west abutment of Grand Trunk Ry. bridge over St. Regis River; bronze tablet stamped "191 Albany 1904"	191. 039
Hogansburg, in foundation wall of St. Patrick's Church; $\frac{1}{4}$ -inch bolt (Deep Waterways P. B. M. B.)	178. 261

Leveling in 1914 by H. S. Senseney.**From Brushton west along Rutland R. R. to Moira.**

Brushton, in front of station; top of south rail	438. 8
Brushton, south side of entrance of Brushton High School, in fourth step; bronze tablet not stamped	432. 510
Brushton, 1.2 miles west of, 100 feet east of road crossing, south side of track, in telephone pole; spike marked "U. S. B. M. 410"	409. 42
Moira, in front of Rutland station; top of north rail	377. 3
Moira, Methodist Episcopal Church, in face of; aluminum tablet stamped "420 Albany 1900"	419. 450

From Dickinson along highways northwest 2 miles, thence west 8 miles, thence north 6.7 miles, thence east and southeast to Moira.

Dickinson Center, 3.6 miles north of, in large rock on east side of railroad at culvert 18, 25 feet east of rail, 5 feet north of track; aluminum tablet stamped "603 Albany 1900"	602. 642
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¹ See Bull. 514, p. 59, for additional elevations.

	Feet.
Alburg, 1.4 miles south of, east side of road, 100 feet south of church, in telephone pole; spike marked "U. S. B. M. 595"-----	595. 34
Alburg, 0.5 mile east of, 180 feet west of road forks, south side of road, in culvert; bronze tablet stamped "464"-----	464. 194
Alburg, 1.2 miles west of, at northeast corner of crossroads, on rock; chiseled square marked "U. S. B. M. 512"-----	512. 23
Alburg, 2.7 miles west of, at northeast corner of crossroads, on boulder; chiseled square marked "U. S. B. M. 504"-----	504. 31
Lawrenceville, 300 feet east of Deer River, at northwest corner of crossroads, in culvert; bronze tablet stamped "435"-----	434. 517
Lawrenceville, 1.2 miles west of, at northeast corner of crossroads, on culvert; chiseled square marked "U. S. B. M. 467"-----	467. 26
Lawrenceville, 2.1 miles west of, at northeast corner of crossroads, on culvert; chiseled square marked "U. S. B. M. 439"-----	438. 60
Lawrenceville, 3.2 miles west of, at northwest corner of crossroads, in concrete step of creamery; bronze tablet stamped "437"-----	436. 565
Lawrenceville, 3 miles west of, about 550 feet east of school house, at northeast corner of road forks, on ledge; chiseled square marked "U. S. B. M. 403"-----	403. 14
Lawrenceville, about 3 miles northwest of, at northeast corner of crossroads, on rock; chiseled square marked "U. S. B. M. 368"-----	367. 971
North Lawrence, about 1.5 miles west of, 75 feet north of railroad, 35 feet east of road, in ledge; bronze tablet stamped "330"-----	330. 201
North Lawrence, about 1.5 miles northwest of, 120 feet north of road forks, east side of road, in telephone pole; spike marked "U. S. B. M. 285"-----	284. 47
North Lawrence, about 2.5 miles northwest of, 250 feet southeast of road forks, in boulder; bronze tablet stamped "265"-----	264. 439
Brasher Iron Works, 4.3 miles south of, south side of road, in stump; copper nail with washer marked "U. S. B. M. 264"-----	263. 85
Brasher Iron Works, 2.6 miles south of, 50 feet south of road forks, east side of road, in root of maple tree; copper nail stamped "U. S. G. S. N. Y. B. M."-----	260. 14
Brasher Iron Works, 2.8 miles south of, north end of west abutment of bridge over Deer River; bronze tablet stamped "261"-----	260. 746
Moira, 6.7 miles northwest of, 1.1 miles east of Deer River, north side of road, in root of stump; copper nail marked "U. S. B. M. 279"-----	278. 62
Moira, 5.9 miles northwest of, 60 feet east of Jerry Hurley's house, in root of elm tree; copper nail marked "U. S. B. M. 308"-----	307. 90
Moira, 5.2 miles northwest of, 250 feet north of house, east side of road, in root of stump; copper nail marked "U. S. 278"-----	277. 85
Moira, 3.9 miles northwest of, at road forks, 60 feet southeast of school house, in ledge; bronze tablet stamped "321"-----	320. 809
Moira, 2.7 miles northwest of, on east end of north abutment of bridge over Lawrence Brook; chiseled square marked "U. S. B. M. 314 W-10"-----	313. 33
Moira, 1.2 miles northwest of, 15 feet east of road forks, on boulder; chiseled square marked "U. S. B. M. 399"-----	398. 95
Moira, Methodist Episcopal Church, in east face of; aluminum tablet stamped "420 Albany 1900"-----	419. 450

From point 2.6 miles south of Brasher Iron Works northwest along highway to Helena.

Brasher Iron Works, 1 mile south of, 720 feet south of road forks, 20 feet east of road, on boulder; chiseled square marked "U. S. B. M. 264"-----	Feet. 263. 63
Brasher Iron Works, 300 feet south of schoolhouse, west side of road, in ledge; bronze tablet stamped "263"-----	262. 928
Brasher Iron Works, 1 mile north of, southwest corner of road forks, in telephone pole; spike marked "U. S. B. M. 243.5"-----	243. 18
Brasher Iron Works, 2.1 miles north of, east side of road, in root of dead elm tree; copper nail with washer stamped "U. S. G. S. N. Y. B. M." marked "U. S. B. M. 195"-----	194. 61
Helena, on north end of west abutment of Grand Trunk Ry. bridge over St. Regis River; bronze tablet stamped "191 Albany 1904"-----	191. 039

From Helena east along Grand Trunk Ry. to Bombay.

Helena, front of station; top of south rail, marked "U. S. 1994"-----	199. 4
Helena, 1.1 miles east of, south side of track, in telephone pole; spike marked "U. S. B. M. 193"-----	193. 13
Helena, 2.3 miles east of, south side of track, in telephone pole; spike marked "U. S. B. M. 191"-----	191. 04
Helena, 2.8 miles east of, 25 feet northeast of road crossing, in ledge; bronze tablet stamped "192"-----	191. 775
Helena, 3.8 miles east of, 50 feet east of road crossing, south side of track, in telephone pole; spike marked "U. S. B. M. 198.6"-----	198. 62
Helena, 4.8 miles east of, south side of track, in telephone pole; spike marked "U. S. B. M. 198"-----	197. 63
Helena, 6.8 miles east of, 400 feet north of railroad, west side of road, in culvert; bronze tablet stamped "196"-----	195. 956
Helena, 7.8 miles east of, south side of track, in telephone pole; spike marked "U. S. B. M. 191"-----	190. 90
Bombay, front of station; top of east rail-----	189. 1
Bombay, public school on Main Street, in northwest face of; bronze tablet stamped "193 Albany 1900"-----	193. 144

MONTICELLO QUADRANGLE.¹

[Latitude $41^{\circ} 30'$ - $41^{\circ} 45'$; longitude $74^{\circ} 30'$ - $74^{\circ} 45'$.]

Primary leveling in 1904 by G. M. Dimmick.

From Oakland Valley northwest to Forestburg.

Oakland Valley, highway bridge over Neversink River, in ledge of rock 35 feet southeast of southeast corner; bronze tablet stamped "686 Albany 1903 Adj"-----	685. 570
Hartwood, in stone residence of Willis Butler, north end of east face, 30 inches above ground; bronze tablet stamped "1275 Albany 1903 Adj"-----	1, 275. 457

¹ See Bull. 514, pp. 36-37, for additional elevations.

MORAVIA QUADRANGLE.

[Latitude $42^{\circ} 30'$ - $42^{\circ} 45'$; longitude $76^{\circ} 15'$ - $76^{\circ} 30'$.]

Primary leveling in 1896 by A. B. Pomme.

From Etna northeast along Lehigh Valley R. R. to McLean.

Freeville, Lehigh Valley R. R. freight house, west side of fourth pedestal from south end under freight platform; chisel mark	1,047.30
McLean, north of small bridge at west side of square and south of store and post office, in east wall of mill race; chiseled square marked "U. S. G. S. 1123"	1,119.61

From McLean west to Midway, thence north to North Lansing, thence northeast to Locke, thence north to Moravia.

Peruville, 200 feet east of station, iron highway bridge, on southeast bridge seat; chiseled square	1,026.95
Peruville, 2.25 miles west of, in southeast corner of intersection of road running south, on southeast corner of stone step to front entrance of schoolhouse; chiseled square	1,396.82
Benson Corners, 0.33 mile south of, under most northerly of four butternut trees nearly opposite farmhouse, in boulder in east fence; copper bolt stamped "U. S. G. S. 1320 ft."	1,317.900
Midway, 1 mile north of, about 200 feet south of road running east and west, on southwest bridge seat of small bridge; chiseled square	983.20
North Lansing, R. Beardsley's store, south of and close to building; iron post stamped "U. S. G. S. B. M. 1005 Ft."	1,001.986
Locke, 3 miles southwest of, bridge at crossroads, on southeast bridge seat; chiseled square	941.63
Locke, George Culver's store, corner of Main and Mill streets, on top of curbstone; chiseled square	793.07
Locke station, railroad bridge over Owasco Inlet, 3,260 feet north of station; iron bolt cemented in southeast abutment	781.77

From Sayles Corners southwest to Moravia.

Wilson Corners, top of retaining wall at blacksmith shop, in limestone boulder; chiseled square	1,091.24
Montville, gristmill north of blacksmith shop, in northeast corner of road running east, west step stone to stairs; chiseled square	913.57
Moravia, Moravia House, corner of Cayuga and Main streets, in northeast corner of foundation; bronze tablet stamped "743"	740.480
Moravia, Church Street, at top of schoolhouse hill, capstone at north end of culvert; chiseled square	869.91

From Moravia east along highway to Dresserville, thence south to McLean.

Dresserville, Kenyon's tannery lower dam, on eighth step from top of east wing; chiseled square	1,278.77
Dresserville, George Fritz's sawmill and gristmill, in west end of doorsill to south door of boiler house; copper bolt stamped "U. S. G. S. B. M. 1291 ft."	1,286.680

Lake Como, opposite, 100 feet north of intersection of road running west, on stone at foot of southwest wing wall of small bridge; chiseled square	Feet.	1,332.47
Groton City, 2.25 miles north of, west abutment of Fall Creek bridge, on capstone of north wing; chiseled square		1,292.33
Groton City, 0.25 mile north of, farm of George A. Bliss, 150 feet east of dwelling house and 125 feet east of road; copper bolt in boulder stamped "U. S. G. S. B. M. 1372 ft."		1,368.780
Lafayette, south end of culvert on road running east, about 150 feet east of intersection of road running north and south, on capstone; chiseled square		1,248.44
McLean, east side of North Street, 60 feet south of evergreen trees planted in graveyard, on a straight line with road fence, in boulder opposite upper part of graveyard; copper bolt stamped "U. S. G. S. B. M. 1234 ft."		1,231.290

MORICHES QUADRANGLE.[Latitude $40^{\circ} 45' - 41^{\circ}$; longitude $72^{\circ} 45' - 73^{\circ}$.]**Primary leveling in 1903 by George Seidel.****From Selden along public road east via Middle Island to Riverhead.**

Middle Island post office, 0.4 mile east of, west of Artist Lake, 20 feet south of center of highway, 175 feet west of road to Woodville, in rock; bronze tablet stamped "57 Willets Pt."	57.065
Manorville, 3.5 miles north of, 1.2 miles east of Horn Tavern, south of road, about 800 feet east of Henry Hallock's farmhouse, at road running south; iron post stamped "83 Willets Pt."	83.454

From Eastport west along Long Island R. R. to Patchogue.

Center Moriches, pavement, west end of platform; rock	29.99
South Haven, Presbyterian Church, northwest corner of foundation wall; bronze tablet stamped "17 Willets Pt."	17.654

MORRISVILLE QUADRANGLE.[Latitude $42^{\circ} 45' - 43^{\circ}$; longitude $75^{\circ} 30' - 75^{\circ} 45'$]**Primary leveling in 1898 by Clark Brown, in 1899 by W. W. Gilbert and A. W. Gill, in 1904 by G. M. Dimmick.****From Fenner east along highway to Peterboro, thence south via Morrisville to Georgetown, thence northwest to Erieville.**

Peterboro, side of schoolhouse, 15 feet from rear corner, in stone foundation; tablet stamped "1320 Albany"	1,321.183
Morrisville, front of county jail, 7 feet from west corner, in stone foundation; tablet stamped "1325 Albany"	1,326.259
Morrisville station, north line of; top of rail	1,225.84
West Eaton, front of schoolhouse, right of entrance, 1 foot from corner, in stone foundation; tablet stamped "1395 Albany"	1,395.675

From Georgetown station east to Earlville.

Georgetown station, 1.75 miles southeast of, 10-foot span bridge over stream, north end of east abutment, 2.5 feet below top; iron bolt	1,493.92
Lebanon, 53 feet west of highway, 128 feet northeast of railroad, in southwest corner of wall of store dwelling; aluminum tablet stamped "1358"	1,357.949

From Earlville north to Bouckville, thence west to Morrisville.

Hamilton, Hamilton Bank building, in water table, 2 feet west of northeast corner, aluminum tablet stamped "1126 Albany"	Feet.	1,126.038
Hamilton, 1 mile north of, top of northwest corner of east abutment of railroad bridge over old canal		1,126.91
Bouckville, north side of stone building occupied by Coe & Brockett's store, 2 feet above ground, 1 foot west of northeast corner; aluminum tablet stamped "1149 Albany"		1,149.634

From Earlville northeast to Poolville.

Poolville, in foundation wall of milk station, east end of south face; bronze tablet stamped "1098 Albany 1903 Adj"	1,098.566
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From Morrisville station north to Durhamville.

Munnsville, Dexter & Davis's building used as store and post office, in south side of stone foundation, 15 feet east of southwest corner; aluminum tablet stamped "679 Albany"	679.661
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NAPLES QUADRANGLE.[Latitude $42^{\circ} 30'$ - $42^{\circ} 45'$; longitude $77^{\circ} 15'$ - $77^{\circ} 30'$.]**Primary leveling in 1900 by W. E. Green.****From Rushville south along railroad to Naples.**

Middlesex, in water table of brick schoolhouse; bronze tablet stamped "737 D"	735.642
Middlesex, 100 foot northeast of station, at highway crossing; top of rail	717.0
Parish, in front of station; top of rail	695.8
Naples, Presbyterian Church, in northwest corner of front, in water table; bronze tablet stamped "799 Dunkirk"	799.561

From Naples northwest along highway via Hunts Hollow to county corner.

Pansy, 1 mile northwest of, 0.3 mile southwest of county corner, west side of road, on north retaining wall of approach to Wm. S. Washburn's barn; bronze tablet stamped "941 Dunkirk"	941.698
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From Naples east along highway to Italy, thence north along Italy Hollow road to Potter Center.

Italy, Methodist Episcopal Church wall; bronze tablet stamped "1121 Dunkirk"	1,121.298
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From Hunts Hollow south along highway to Atlanta, thence southeast along Erie R. R. to Cohocton.

Atlanta, Presbyterian Church, front wall, in water table; bronze tablet stamped "1317 Dunkirk"	1,317.906
Atlanta, at crossing east of station; top of rail	1,317.0
Cohocton, Main Street crossing; top of rail	1,286.5

From Italy south to Prattsburg.

Prattsburg, Presbyterian Church, in front wall, bronze tablet stamped "1470 Dunkirk"	1,470.637
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NEW BERLIN QUADRANGLE.¹[Latitude $42^{\circ} 30'$ - $42^{\circ} 45'$; longitude $75^{\circ} 15'$ - $75^{\circ} 30'$.]

Precise leveling in 1901 by D. H. Baldwin.

From West Edmeston south along Unadilla Valley R. R. to New Berlin.

West Edmeston, 1.55 miles south of, southwest corner of highway bridge, on coping stone of foundation; chiseled square	Feet.	1, 127. 18
Sweets, road crossing near station; top of east rail		1, 123. 8
South Edmeston, at road crossing; top of east rail		1, 111. 0
South Edmeston, 0.2 mile east of railroad, northeast corner of highway bridge, on top stone of foundation; aluminum tablet stamped "1110 Albany 1901" (probably destroyed, 1909)		1, 109. 984
South Edmeston Free Church, in northeast corner of foundation wall; aluminum tablet stamped "1127 N. Y."		1, 127. 299
New Berlin, New York, Ontario & Western Ry. bridge 52, near northwest end of center pier, on top of coping stone; aluminum tablet stamped "1089 Albany 1901" (probably destroyed, 1909)		1, 089. 291
New Berlin, top of west end of south abutment New York, Ontario & Western Ry. bridge, in concrete; aluminum tablet		1, 090. 108

From New Berlin southwest along New York, Ontario & Western Ry.

New Berlin, opposite New York, Ontario & Western station; top of southeast rail	1, 093. 4
New Berlin, 1.01 miles south of, south side of stone-arch highway bridge, on face of keystone; chiseled cross	1, 091. 32
Sage, crossing near flag station; top of east rail	1, 085. 1
New Berlin Center, in front of flag station; top of east rail	1, 073. 6
Davis, crossing; top of east rail	1, 074. 0
South New Berlin, railroad crossing south of station; top of east rail	1, 057. 0
South New Berlin, Baptist Church, under front window, north side of entrance, near northwest corner of building, in third course of brick above water table; aluminum tablet stamped "1059 Albany 1901"	1, 059. 667
South New Berlin, 1.21 miles south of, southeast corner of railroad bridge, on abutment; chiseled square	1, 074. 24
Holmesville, in front of station, main track; top of east rail	1, 067. 8

NEWBURG QUADRANGLE.

[Latitude $41^{\circ} 30'$ - $41^{\circ} 45'$; longitude $74^{\circ} - 74^{\circ} 15'$.]

Precise leveling in 1900 by C. H. Semper.

From Campbell Hall north along Wallkill Valley R. R. to Walden, thence to East Walden and along Central New England Ry. to Lloyd.

Neeleytown, in front of station; top of rail	376. 5
Beaver Dam, in front of station; top of rail	403. 7
Walden, national bank, southwest corner aluminum tablet stamped "376"	375. 136
St. Elmo, in front of station; top of rail	435. 2
Modena, in front of station; top of rail	465. 8

¹ See Bull. 514, pp. 31-33, for additional elevations.

	Feet.
Mowbray, in front of station; top of rail-----	454. 2
Elting, in front of station; top of rail-----	421. 0
Clintondale, in front of station; top of rail-----	386. 3
Lloyd, street railroad in front of station; top of rail-----	353. 6
Lloyd, Centerville Hotel, southeast corner, bronze tablet stamped "359" (destroyed) -----	358. 177

Primary leveling in 1900 by G. Bailey.

From Newburg west via Coldenham to Montgomery, thence north to New Hurley station.

Newburg, southwest corner of post-office building, to right of entrance; aluminum tablet stamped "95"-----	94. 404
Coldenham, 0.2 mile west of, at entrance to A. B. Lindsay's place, large stone gatepost; aluminum tablet stamped "Albany 434"-----	433. 619
Berea, crossing of Philadelphia & Reading R. R.; top of west rail of main track-----	410. 3
Walden, southeast corner of National Bank of Walden; aluminum tablet stamped "Albany 376"-----	375. 136
Walden, in front of Wallkill Valley R. R. station; top of west rail, main track-----	353. 2
Borden condensed-milk factory, on west end of culvert over stream flowing into pond; stone on southeast corner of coping; chisel mark-----	292. 52
Wallkill, 400 feet south of station, at highway crossing; top of rail-----	279. 1
Wallkill, foundation of water tank; point cut on stone-----	279. 13

From New Hurley post office southeast via Plattekill and Balmville to Newburg.

Plattekill, 0.2 mile east of, north end of bridge over stream flowing south, on top stone of retaining wall; chisel mark-----	554. 15
Balmville, on stone foundation of fence surrounding big tree; chiseled point-----	194. 60

From New Hurley station north via Gardiner to Newpaltz, thence east to Highlands.

Gardiner station, 150 feet south of, in east wall of culvert; bronze tablet stamped "Albany 309"-----	308. 097
Forest Glen station, 0.2 mile south of, south end of trestle, east side of track, on wall; chisel mark-----	297. 73
Newpaltz, Newpaltz Savings Bank, southwest corner; bronze tablet stamped "Albany 237"-----	236. 022

From Lloyd southwest to Clintondale.

Clintondale, Ambrose's store, southwest corner; bronze tablet stamped "Albany 553" -----	552. 740
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NEWCOMB QUADRANGLE.

[Latitude $43^{\circ} 45' - 44^{\circ}$; longitude $74^{\circ} - 74^{\circ} 15'$.]

Primary leveling in 1896 by A. F. Krause.

Aiden Lair lodge, 50 feet southeast of, in boulder; copper bolt stamped "U. S. G. S. 1659 Ft. B. M."-----	1, 655. 022
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From North River northwest via Summit to Indian Lake.

Indian Lake, 4 miles east of, southeast of Spring's white house, in front of log house 10 feet to left of road; copper bolt stamped "U. S. G. S. B. M. 1834 Ft."----- 1, 830. 049

From Aiden Lair north to Tahawus, thence west to Newcomb.

Tahawus, 2 miles south of, 0.6 mile northwest of Daniel Havron's house, in large boulder 12 feet to left of road; copper bolt stamped "U. S. G. S. 1737 Ft. B. M."----- 1, 732. 862
 Hudson River bridge, on top of coping at downstream end of west abutment; chiseled mark----- 1, 563. 41
 Newcomb Methodist Church, 85 feet northeast of door, 16 feet to left and 1.3 feet above center of road; copper bolt stamped "U. S. G. S. 1640 Ft. B. M."----- 1, 637. 051

From Newcomb west to Hamilton-Essex county line.

Rich Lake, south side of, 460 feet back from Abner Beldin's house, on large boulder, 14 feet to right of and 3.8 feet above center of road; copper bolt stamped "U. S. G. S. 1603 Ft. B. M."----- 1, 599. 473

From bridge east of Indian Lake village northeast down Indian River to mouth.

Indian River bridge, west abutment, near front angle of coping on upstream end; chiseled square----- 1, 597. 78
 Hudson River, southwest bank, junction with north bank of Indian River; circular chisel mark and letter "S" on large boulder----- 1, 424. 32

From mouth of Indian River northeast via North Woods Club and Moose Pond Club to Aiden Lair.

Hudson River, junction of southwest bank with northwest bank of Indian River, in recess at upper southwest corner of boulder; copper bolt stamped "U. S. G. S. 1428 Ft. B. M."----- 1, 423. 897
 North Woods Club house, boulder 200 feet northeast of; copper bolt stamped "U. S. G. S. 1769 Ft. B. M."----- 1, 764. 825
 Moose Pond Club house, 100 feet northwest of; in large boulder near shore; copper bolt stamped "U. S. G. S. 2095 Ft. B. M."----- 2, 091. 399

From mouth of Indian River northwest to Chain Lakes.

Cedar River, south bank of, 2 miles west of Hudson River, 20 feet southwest of ferry on road to Chain Lakes, in outcrop; copper bolt stamped "U. S. G. S. 1549 Ft. B. M."----- 1, 544. 603
 Chain Lakes, 50 feet south of Third Lake, 12 feet above water surface in outcrop, 1,100 feet northwest of hotel; copper bolt stamped "1615"----- 1, 610. 793

NEW YORK CITY¹ AND VICINITY.

[Latitude 40° 22' 30"-41° ; longitude 73° 40'-74° 15'.]

Includes Brooklyn, Harlem, Paterson, Staten Island, and parts of Hempstead, Oyster Bay, and Sandy Hook quadrangles.

The following list gives corrections to apply in order to reduce to mean sea level the elevations of bench marks which have been used by the various city bureaus and referred to different datums:

	Feet.
United States Geological Survey, Coast and Geodetic Survey since 1898, and Board of Water Supply (mean sea level)-----	0.00
Croton Aqueduct, at Jerome and McLean avenues-----	-.786
Dock Department, mean low water at the Battery-----	-2.103
Coast and Geodetic Survey previous to 1898-----	+.11
United States Navy Yard datum, Brooklyn sewers, water supply, bridge department-----	+1.68
Public works, Manhattan highways and sewers-----	+2.750
Bronx highways and sewers-----	+2.608
Queens Borough and Long Island City datum-----	+2.725
Brooklyn highway bureau-----	+2.547
Richmond Borough (high water)-----	+3.192

NICHOLVILLE QUADRANGLE.

[Latitude 44° 30'-44° 45' ; longitude 74° 30'-74° 45'.]

Precise leveling in 1900 by C. H. Semper.

From St. Regis Falls along New York & Ottawa R. R. to Dickinson Center.

St. Regis Falls, 1,000 feet south of station, in large rock 20 feet west of railroad and 300 feet north of railroad water tank; aluminum tablet stamped "1256 Albany 1900"-----	1,256.497
Dickinson Center, in front of station; top of rail-----	954.5
Dickinson Center, 3.6 miles north of, in large rock on east side of railroad at culvert No. 18, 25 feet east of rail, 5 feet north of track; aluminum tablet stamped "603 Albany 1900"-----	602.642

NINEVEH QUADRANGLE.

[Latitude 42°-42° 15' ; longitude 75° 30'-75° 45'.]

Precise leveling in 1898 by E. L. McNair.

From tunnel east along Delaware & Hudson R. R. to Afton.

Tunnel, 0.5 mile west of station, at southeast corner of bridge 104, crossing over road, in coping stone of abutment; bronze tablet stamped "1384 A"-----	1,384.002
Tunnel, in front of station; top of north rail-----	1,415.2
Harpersville station, 1,250 feet west of, southwest corner of iron-trestle bridge 97, in coping stone of abutment; bronze tablet stamped "1051 A"-----	1,049.041

¹ For descriptions and elevations of bench marks in New York City see "Precise leveling in New York City, 1909-1914," by Frederick W. Koop, assistant engineer, Board of Estimate and Apportionment, published by the city of New York.

	Feet.
Harpersville, in front of station; top of north rail.....	1,053.7
Nineveh, in front of station; top of north rail.....	1,033.7
Afton, in front of station; top of north rail.....	982.0
Afton, 1,050 feet northeast of, northeast corner of iron-girder bridge 90½, crossing over highway, in coping stone of abutment; bronze tablet stamped "973 A".....	972.782

Precise leveling in 1900 by C. H. Semper.**From Gulf Summit along Erie R. R. to Oquaga.**

Gulf Summit, at railroad crossing near station, northbound track; top of rail.....	1,363.5
Oquaga, at railroad crossing by station, northbound track; top of rail.....	1,153.6

Primary leveling in 1902 by J. B. Maguire.**From Harpersville south along the Delaware & Hudson R. R. to Lanesboro, Pa.**

Centerville, in front of station; top of rail.....	966.5
East Windsor, in front of station; top of rail.....	988.2
Windsor, in south wall at southeast of foundation of Presbyterian Church; bronze tablet stamped "972 Albany".....	972.917
Stateline, 1 mile north of post office, east side of river road, east side of river, at school 14, Windsor Township, in northwest corner of foundation of W. W. Watrous's house; bronze tablet stamped "960 Albany".....	961.147

NORTH CREEK QUADRANGLE.

[Latitude 43° 30'-43° 45'; longitude 73° 45'-74°.]

Precise leveling in 1899 by E. L. McNair.**From The Glen north along Delaware & Hudson R. R. to North Creek.**

"The Glen," Delaware & Hudson R. R. station, 530 feet north of, at southwest corner of a steel-girder bridge 14, 5 feet west of girder, in coping stone of bridge seat; aluminum tablet stamped "749 Albany 1899".....	749.510
Riverside, 400 feet north of station, on southeast corner of west headwall of culvert under Delaware & Hudson tracks; aluminum tablet stamped "883 Albany 1899".....	882.49
North Creek station, 0.4 mile southeast of, bridge seat at southeast corner of steel-girder bridge 18, 4.4 feet below east rail; aluminum tablet stamped "1001 Albany 1899".....	1,001.491
North Creek station, 1,000 feet north of, in quarry outcrop on south- west side of track, 2 feet above track and 6 feet from southwest rail; bronze tablet stamped "1012" (set in 1896).....	1,008.048

NORTHEAST QUADRANGLE.

[Latitude 42°-42° 15'; longitude 79° 45'-80°.]

Primary leveling in 1902 by G. M. Dimmick.**Near Stateline village.**

Stateline (village), 2.2 miles south of, 1,000 feet south of three corners, in east end of north abutment of small bridge; bronze tablet stamped "1293 Dunkirk 1902".....	1,293.049
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NORTHPORT QUADRANGLE.

[Latitude $40^{\circ} 45' - 41^{\circ}$; longitude $73^{\circ} 15' - 73^{\circ} 30'$.]

Primary leveling in 1901 by C. H. Semper.

From Jericho northeast along highway and railroad to East Northport.	
Syosset, road crossing at station; top of rail	Feet. 205. 9
Syosset, 1.9 miles east of, overhead railroad bridge, south end of east abutment; top of bridge seat, chiseled square	161. 38
Cold Spring, at road crossing at station; top of rail	129. 8
Huntington, northwest corner of Central Presbyterian Church on Main Street, front face; bronze tablet stamped "52 Willets Pt. 1901"	52. 193
From East Northport south along highway via Commack to Brentwood, thence west along railroad to Deerpark.	
East Northport, 0.2 mile south of station, south corner of schoolhouse, front face; bronze tablet stamped "229 Willets Pt. 1901" (asked to remove to new building Sept. 15, 1908, Larkfield)	229. 433
Commack, near post office, northeast angle of crossroads; large flat rock	131. 57
Brentwood, 200 feet west of station, road crossing; top of rail	86. 0
Brentwood, southeast corner of Presbyterian Church, 500 feet south of station, front face; bronze tablet stamped "87 Willets Pt. 1901"	87. 401
Edgewood, 100 feet south of station, at road crossing; top of rail	77. 5
Deerpark, 800 feet south of road crossing, in front face of south corner of church; bronze tablet stamped "72 Willets Pt. 1901"	72. 071
From East Northport east along the Long Island R. R. to Kings Park.	
East Northport, 2 miles east of, Bread and Cheese Hollow bridge across ravine, west end; top of rail	147. 9
Kings Park, road crossing; top of high rail	171. 8

NORWICH QUADRANGLE.

[Latitude $42^{\circ} 30' - 42^{\circ} 45'$; longitude $75^{\circ} 30' - 75^{\circ} 45'$.]

From Norwich north along the Delaware, Lackawanna & Western R. R. to Earlville.

Norwich, at Main Street crossing of the Delaware, Lackawanna & Western R. R.; top of rail	1, 006. 7
Norwich, southeast corner of county courthouse, on Broad Street, in foundation wall; aluminum tablet stamped "1015 Albany 1900"	1, 015. 216
Galena, North Norwich, at railroad crossing near station; top of rail	1, 030. 8
Galena (North Norwich post office), culvert of the New York, Ontario & Western Ry., east side of top of north abutment; bronze tablet	1, 028. 181
Earlville, in brickwork of schoolhouse, 1 foot to right of front door; tablet stamped "1100 Albany"	1, 100. 295

From Norwich northwest via Plymouth and Otselic to Georgetown station.

Beaver Meadow, in north face of Methodist Church; bronze tablet stamped "1484 Albany 1900"	1, 483. 869
Otselic, 500 feet east of hotel; west side of iron highway bridge, on top of south abutment; aluminum tablet stamped "1331 Albany 1900"	1, 331. 035

From South Plymouth along highways west to North Pharsalia, thence south to East Pharsalia (single-spur line).

East Pharsalia, southeast corner of wall to chapel, 1,000 feet south of hotel; bronze tablet stamped "1557 Albany 1900"----- 1,557. 240

NUNDA QUADRANGLE.

[Latitude 42° 30'-42° 45'; longitude 77° 45'-78°.]

Precise leveling in 1902 by D. H. Baldwin.

From Mount Morris south along railroads to Nunda.

Mount Morris, 2,200 feet east of Delaware, Lackawanna & Western station, at northwest corner of railroad bridge, on coping stone; aluminum tablet stamped "575 Rochester 1901"-----	574. 084
Mount Morris, 0.52 mile north of Erie R. R. station, grade crossing of Delaware, Lackawanna & Western; top of rail-----	574. 2
Mount Morris, in front of Erie station; top of west rail-----	597. 4
Mount Morris, 0.48 mile south of Erie R. R. station, southeast corner of Pennsylvania R. R. bridge, near northeast corner of parapet wall; chiseled square-----	603. 72
Sonyea, 0.3 mile north of, southwest corner of girder bridge over highway, top of parapet wall; chiseled square-----	611. 56
Sonyea, in front of station; top of east rail-----	623. 5
Sonyea, 0.54 mile south of, center of bridge 12 over Keshqua Creek; top of east rail-----	630. 6
Sonyea, 2.38 miles south of, southeast corner of bridge 13, near northeast corner of parapet wall; chiseled square-----	707. 58
Tuscarora, 0.61 mile north of, southeast corner of bridge 15, northeast corner of parapet wall; chiseled square-----	748. 82
Tuscarora, in front of station; top of east rail-----	767. 1
Tuscarora, 1,100 feet south of, southeast corner of bridge, top of parapet wall; bronze tablet marked "773 Rochester 1902"-----	773. 302
Nunda Junction, in front of station; top of east rail, Swains branch-----	868. 7
Nunda, in front of station; top of west rail-----	941. 0
Nunda, Fireman's Hall, front face, 1 foot from northwest corner, in water table; aluminum tablet stamped "944 Rochester 1902"-----	944. 345

Along Pittsburg, Shawmut & Northern R. R.

Nunda, 4.27 miles southeast of, 60 feet south of crossing, west side of track, on coping stone of box drain; chiseled square-----	1,253. 96
Ross crossing, 1.40 miles northwest of, small wooden bridge near farm crossing; top of east rail-----	1,290. 5

Along Erie R. R.

Ross crossing, 200 feet southeast of, between tracks, north side of open culvert, on coping stone; chiseled square-----	1,317. 95
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Primary leveling in 1902 by George Bailey and in 1903 by George Seidel.

From Groveland along the Delaware, Lackawanna & Western R. R. to Mount Morris.

Groveland, first crossing east of station, north side of Delaware, Lackawanna & Western R. R., in concrete monument inside of fence east of crossing (reset by Delaware, Lackawanna & Western R. R.); bronze tablet stamped "601 Rochester"-----	606. 287
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	Feet.
Groveland, in front of station; top of rail-----	588. 9
Mount Morris, grade crossing of the Erie and Delaware, Lackawanna & Western railroads; top of rail-----	574. 2
Mount Morris, 1 mile north of, Delaware, Lackawanna & Western junction, grade crossing of Western New York & Pennsylvania Ry.; top of north rail-----	587. 6
From Mount Morris west along public road to Gibsonville (single-spur line).	
Mount Morris, Scoville House, in doorsill at north side of front entrance; bronze tablet stamped "627 Rochester"-----	627. 144
Gibsonville, at road forks near old store, in boulder sunk in ground; bronze tablet stamped "726 Rochester"-----	726. 182
From Canaseraga north along public road to Ossian (single-spur line).	
Ossian, east corner of foundation wall of Dr. T. H. Lamont's residence; aluminum tablet stamped "1345 Albany 1903"-----	1,343. 826

OAK ORCHARD QUADRANGLE.[Latitude $43^{\circ} 15'$ - $43^{\circ} 30'$; longitude $78^{\circ}-78^{\circ} 15'$.]**Primary leveling in 1896 by E. L. McNair.****On circuits tied to canal bench marks.**

Fairhaven, 1,200 feet south of, on east side of road to Albion, in top of stone masonry wall in front of Mrs. Dixon's house; copper bolt stamped "439" -----	438. 206
East Gaines, 1 mile east by 1 mile south of W. H. Bunker's house, on west side of Transit road, 600 feet north of Murray and Gaines Baptist Church, in dooryard 12 feet south of dwelling, in stone 3 feet square and 1.5 feet high; copper bolt stamped "458"-----	457. 114
Murray, 610 feet north of road crossing on west side of road, 81 feet southwest of stone schoolhouse, in boulder 3 feet wide and 2 feet high; copper bolt stamped "410"-----	409. 458

OGDENSBURG QUADRANGLE.¹[Latitude $44^{\circ} 30'$ - $44^{\circ} 45'$; longitude $75^{\circ} 15'$ - $75^{\circ} 30'$.]**Primary leveling by G. M. Dimmick in 1904.****From Ogdensburg southeast along highway to Heuvelton, thence northeast to Lisbon, thence northwest to Red Mills.**

Ogdensburg, in west pier at mouth of Oswegatchie River, in United States lighthouse; $\frac{1}{4}$ -inch bolt (Deep Waterways P. B. M. D.)-----	251. 022
Ogdensburg, 3.8 miles south of, 50 feet east of track, 100 feet west of road, 23 feet south of private road, in rock; bronze tablet stamped "309 Albany 1903 Adj"-----	309. 132
Heuvelton, in foundation wall of Presbyterian Church, east end of south face; bronze tablet stamped "315 Albany 1903 Adj"-----	315. 188
Flockville, in foundation wall of Presbyterian parsonage, west end of north face; bronze tablet stamped "364 Albany 1903 Adj"-----	364. 086
Lisbon, in foundation wall of Presbyterian Church, center of south face; bronze tablet stamped "357 Albany 1903 Adj"-----	357. 696

¹ See Bull. 514, pp. 22-23, 61, for other elevations.

126 SPIRIT LEVELING IN NEW YORK, 1896-1905, 1912-1916.

From Heuvelton south along highway 9 miles, thence east 6 miles to De Kalb.

De Peyster, in foundation wall of Union Church, south end, east face; bronze tablet stamped "374 Albany 1903 Adj"-----	Feet. 374. 479
De Peyster, 3.56 miles south of, 101 feet northwest of corner of Thos. Towander's residence, 7 feet west of highway; tablet stamped "332 Albany 1903 Adj"-----	332. 411
De Kalb, 0.9 mile northwest of, 600 feet southeast of residence of Horace Streeter, 50 feet north of center of highway; tablet in ledge, stamped "414 Albany 1903 Adj"-----	413. 641

From De Kalb north along railroad to Rensselaer Falls, thence northwest to Heuvelton.

De Kalb, 4.17 miles north of, 300 feet northwest of highway crossing of the Rome, Watertown & Ogdensburg division of New York Central & Hudson River R. R., 150 feet northeast of residence of Van Hunters, 100 feet north of center of track, in solid rock; aluminum tablet stamped "393 Albany 1903 Adj"-----	393. 221
Rensselaer Falls, in water table of Methodist Church, south end of west face; aluminum tablet stamped "328 Albany 1903 Adj"-----	327. 544
De Kalb Junction, 0.8 mile northeast of (set in 1908); aluminum tablet stamped "462"-----	461. 976

OLCOTT QUADRANGLE.¹

[Latitude 43° 15'-43° 30'; longitude 78° 30'-78° 45'.]

Primary leveling in 1896 by E. L. McNair.

From Lockport north 6.5 miles, thence east to Hartland, thence south to Gasport.

Ridgeroad, 1.5 miles northwest of, on road running east and west, 3 miles north of Wrights Corners, district 16, 30 feet southeast of schoolhouse, on granite boulder; copper bolt stamped "363 ft."-----	362. 466
Hartland, 0.75 mile north of, in front of W. T. Curtiss's house on west side of road, in line of ditch, in granite boulder nearly embedded in ground; copper bolt stamped "376 ft."-----	375. 21

OLD FORGE QUADRANGLE.

[Latitude 43° 30'-43° 45'; longitude 74° 45'-75°.]

Primary leveling in 1897 by Clark Brown and in 1898 by C. H. Semper.

From Fulton Chain northeast along road via Old Forge and north side of Fulton Chain Lakes to Eagle Bay.

Fulton Chain, 5 feet north of Wakeley's Hotel, 8 feet east of railroad track, in boulder; bronze tablet stamped "R 1712"-----	1, 711. 854
Old Forge, 0.25 mile west of railroad station, at picnic ground, in boulder 7 by 12 by 15 feet, north of railroad track; bronze tablet stamped "R 1733"-----	1, 732. 515
Third Lake, Fulton Chain, at Bald Mountain House, 40 feet east of dock, 8 feet from north shore of lake; iron post stamped "R 1712"-----	1, 712. 164

¹ See Bull. 514, p. 98, for other elevations.

From Sixth Lake southeast to Fawn Lake.

Sixth Lake, Fulton Chain, 125 feet east of north end of dam, in boulder 4 by 10 feet, 4 feet from edge of dock; bronze tablet stamped "R 1788"	Feet.	1,787.422
Sixth Lake dam, 1.6 miles south of, summit of Seventh Lake Mountain, in boulder 5 feet broad, 8 feet west of road; chiseled square	2,134.07	
Fawn Lake, 1.5 miles southeast of, on road from Sixth Lake to Kennells, 900 feet south of summit, 25 feet north of small brook, in boulder 12 feet square and 8 feet high, 10 feet east of road at south end of level stretch of road; bronze tablet stamped "R 2263"	2,262.079	

From Woodhull northeast via trail to near Proctors camp, south branch Moose River (single-spur line).

Bisby lodge, on west shore of Bisby First Lake, about 400 feet north from lodge, 10 feet from bank, in shallow water, in 5 by 10 foot boulder; bronze tablet stamped "2035 R"	2,034.375	
Deadmans Gulch, east of mouth, 20 feet north of Canachagala Stillwater of South Branch Moose River, near site of old dam, 14 feet above water, in large boulder; copper bolt stamped "1769 R" (this bench mark, connected with one at Kendalls, closed +2.9675, according to letter of Nov. 3, 1910, from Walter McCallock, consulting engineer New York State Water Supply Commission; elevation probably 3 feet less)	1,768.761	

From North Lake east to Honnedaga Lake.

North Lake (Atwell post office), 100 feet east of State House, in rock; aluminum tablet stamped "1829 R"	1,828.245	
Honnedaga Lake, 400 feet west of, on north side of road to North Lake, in large rock; bronze tablet stamped "2221 A"	2,221.110	
Honnedaga Lake, Herkimer Landing, 325 feet from lake, 35 feet southwesterly from corner of barn, in very large boulder; copper bolt stamped "2223 Ft. R"	2,222.668	
Honnedaga Forest Lodge, in south face of large boulder 50 feet north of office building; aluminum tablet stamped "2205 A"	2,205.015	

From Honnedaga northeast to county line.

Honnedaga, 1.3 miles east of, at Herkimer-Hamilton county line, north side of trail, in large boulder (transit station No. 21 of county-line survey); bolt	2,149.390	
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OLEAN QUADRANGLE.

[Latitude $42^{\circ}42'15''$; longitude $78^{\circ}15'78''30''$.]

Precise leveling in 1898 by E. L. McNair.

From Allegany northeast along Erie R. R. to Cuba.

Allegany, in front of Erie station; top of rail	1,415.8	
Olean, in front of Erie station; top of rail	1,430.4	
Olean, city hall and post-office building on State Street, northwest corner of, stone next under water table; bronze tablet stamped "1450 D"	1,451.790	
Hinsdale, in front of Erie station; top of rail	1,493.5	

Hinsdale, 2.25 miles east of, bridge seat of small girder bridge, 9.5 feet northwest of center of track; bronze tablet stamped "1508 D"	1,509.288
Cuba, in front of Erie station; top of rail	1,534.9
Cuba, 0.5 mile east of Erie station, at south end of pier of stone arch bridge over Union Street; aluminum tablet stamped "1517 Albany" (this is a new tablet set in 1903 in old hole)	1,516.789

Primary leveling in 1896 by E. L. McNair.**From Olean southeast to Portville, thence northeast to Clarksville.**

Olean, in front of Western New York & Pennsylvania Ry. station; top of rail	1,428.5
Westons Mills, Haskell Creek highway bridge, near southeast corner of east abutment; top of coping stone	1,425.79
Allegheny River highway bridge; west end of north abutment	1,433.05
Portville, in front of Western New York & Pennsylvania Ry. station; top of rail	1,436.4
Portville, Presbyterian Church, in upper stone step at entrance; copper bolt stamped "U. S. G. S. B. M. 1438 Ft."	1,432.143
Obi, 1 mile southwest of, Seventh Day Baptist Church, 85 feet from church doors, 10 feet from center of road, 3 feet from fence, on land belonging to Mrs. E. B. Adams, in large flat rock, on west side of road; copper bolt stamped "U. S. G. S. B. M. 1547 ft."	1,539.910

From Olean north via Hinsdale toward Ischua.

Hinsdale, 1.5 miles south of Olean Creek bridge, Faye Hollow highway, in capstone of bridge foundation; copper bolt stamped "U. S. G. S. B. M. 1449 ft."	1,442.079
Scott, 2.1 miles north of, west side of Hinsdale-Ischua road, in base of stone wall, under south side of barn of Harris Johnson, in large flat stone; copper bolt stamped "U. S. G. S. B. M. 1544 Ft."	1,536.378

ONEONTA QUADRANGLE.

[Latitude 42° 15'-42° 30'; longitude 75°-75° 15'.]

Precise leveling in 1898 by E. L. McNair.**From Wells Bridge northeast along Delaware & Hudson R. R. to Oneonta.**

Wells Bridge, 300 feet west of station, northeast corner of highway bridge across Susquehanna River, in coping stone of abutment; bronze tablet stamped "1047 A"	1,046.657
Wells Bridge, in front of Delaware & Hudson station; top of south rail	1,049.5
Otego, in front of Delaware & Hudson station; top of rail	1,063.9
Otego, 1 mile east of, southeast corner of culvert, third step from top; bronze tablet stamped "1051. A"	1,050.145
Oneonta, State Normal School, in face of west pillar at main entrance; aluminum tablet stamped "1232 A"	1,231.912
Oneonta, in front of Delaware & Hudson station; top of north rail	1,083.9
Oneonta, Delaware & Hudson station; southwest corner of doorsill of door into waiting room and dining hall (door faces track and is east of office window)	1,086.469

Precise leveling in 1901 by D. H. Baldwin.

From Franklin station southeast along New York, Ontario & Western R. R. to Northfield.

	Feet.
Franklin station, crossing; top of north rail	1, 582. 2
Merrickville, at crossing; top of north rail	1, 700. 0
Northfield, 0.37 mile northwest of, 30 feet south of south end of Zig-zag tunnel, vertical face of rock on west side of track about 6 feet above rail; aluminum tablet stamped "1766 Albany 1901" (not found 1915)	1, 766. 900
Northfield, 0.37 mile northwest of, at railroad summit, north end of oil house; top of east rail	1, 765. 1
Northfield, in front of station; top of northeast rail	1, 757. 2

Leveling in 1914 by F. L. Shalibo.

From Wells Bridge along highway north to point near Maple Grove, thence east to Oneonta.

Wells Bridge, 300 feet west of station, northeast corner of highway bridge across Susquehanna River, in coping stone of abutment; bronze tablet stamped "1047"	1, 046. 657
Hughston Corners, 1 mile east of, 0.7 mile west of Briar Creek road, on north side of road, on stone in fence; chiseled square marked "U. S. G. S. T. B. M. 1723"	1, 723. 27
Hughston Corners, 1.7 miles east of, over hill road to three corners at Briar Creek road; chiseled square marked "U. S. T. B. M. 1520"	1, 520. 12
Hughston Corners, 2.8 miles northeast of, on Briar Creek road at three corners in front of A. J. Lent's residence, on east side of road, in stone; chiseled square marked "U. S. T. B. M. 1601"	1, 600. 59
Hughston Corners, 3 miles north of, in foundation of schoolhouse, district 6; bronze tablet stamped "1618"	1, 617. 646
Hughston Corners, 3.7 miles northeast of, junction of Briar Creek and Flax Island roads, on east side of road, in stone; chiseled square marked "U. S. T. B. M. 1857"	1, 857. 26
Hughston Corners, 4.6 miles northeast of, 200 feet south of three corners near S. A. Strait's residence, on east side of road, in root of tree; copper nail marked "U. S. T. B. M. 1510"	1, 509. 89
Cooks Corners, 6 miles west of, at bend of road on top of hill, in front of Charles Gardner's residence on west side of road, in stone; chiseled square marked "U. S. G. S. T. B. M. 1825"	1, 823. 04
Cooks Corners, in front of B. A. Cook's residence, in stone step; chiseled square marked "U. S. G. S. T. B. M. 1609"	1, 609. 12
Cooks Corners, 1.1 miles east of, at northeast corner of schoolhouse, district 16, in stone; bronze tablet stamped "U. S. G. S. P. B. M. 1720"	1, 720. 112
Cooks Corners, 2.5 miles east of, at three corners on north side of road, opposite Charles Holbrook's residence, in stone; chiseled square marked "U. S. T. B. M. 1536"	1, 535. 62
Otsdawa, at northeast corner of four corners, in stone of stone wall; chiseled square marked "U. S. T. B. M. 1409"	1, 409. 16
Otsdawa, 9 miles east of, at three corners, road running south, 150 feet east of corners, on south side of road, in rock; bronze tablet stamped "1690"	1, 689. 771

Otsdawa, 1.9 miles east of, in front of schoolhouse, district 14, on iron sluiceway; chiseled cross marked "U. S. G. S. T. B. M. 1480"	Feet. 1,480.16
Otsdawa, 2.9 miles east of, 9 miles west of West Oneonta, at bend of road, on south side of road, in root of tree; copper nail marked "U. S. G. S. T. B. M. 1314"	1,313.40
West Oneonta, at four corners, in cement step leading to town clerk's office, under E. H. Culver's store; bronze tablet stamped "U. S. P. B. M. 1144"	1,144.032
West Oneonta, 1.1 miles south of, 300 feet south of bridge over Otego Creek, in cement culvert on east side of road; chiseled square marked "U. S. T. B. M. 1065"	1,065.27
West Oneonta, 2.1 miles southeast of, at four corners, in front of Junction Hotel, on nut on southeast corner of switch stand marked "U. S. T. B. M. 1118"	1,116.41
Oneonta, at junction of Chestnut Street and Fonda Avenue; nut on top of water hydrant, marked "U. S. T. B. M. 1108"	1,106.33
Oneonta, State Normal School, in face of west pillar, at main entrance; aluminum tablet stamped "1232 A"	1,231.912

Leveling in 1915 by K. E. Schlachter.**From Oneonta south along highway to point 5 miles northwest of Fraser.**

Oneonta, State Normal School, in face of west pillar at main entrance; aluminum tablet stamped "1232"	1,231.912
Oneonta, on concrete curb at southeast end of highway bridge over Delaware & Hudson R. R. tracks; chiseled circle painted "t. b. m. 1,106.8"	1,106.75
Oneonta, 3.5 miles south of, along turnpike to North Franklin, 375 feet south of road fork, at divide, east margin of road, in ledge; bronze tablet stamped "N. Y. 1850"	1,850.265
Oneonta, 5 miles south of, 1,200 feet south of Mrs. E. Blanchard's farm, on boulder, west margin of road; chiseled square painted "t. b. m. 1,565.3"	1,565.31
North Franklin, in southwest concrete abutment of bridge over Ouleout Creek; bronze tablet stamped "N. Y. 1334"	1,334.487
North Franklin, 1 mile south of, on ledge in east margin of road; chiseled square painted "t. b. m. 1,740.8"	1,740.90
Case Hill Corner, at northwest corner of barn, in rock; chiseled square painted "t. b. m. 1,871.3"	1,871.42
Treadwell, 0.3 mile north of, in northwest abutment of bridge over South Fork of Ouleout Creek; bronze tablet stamped "N. Y. 1496"	1,495.85
Treadwell, 1.6 miles south of, 300 feet south of Roaring Brook school, in northwest corner of concrete culvert over Roaring Brook; chiseled square painted "t. b. m. 1,769.4"	1,769.53
West Delhi, 2 miles north of, at corner, on rock in west margin of road; chiseled circle painted "t. b. m. 2,047.5"	2,047.68
West Delhi, at four corners in northwest abutment of bridge over East Fork of Platner Brook; bronze tablet stamped "N. Y. 1795"	1,795.502

ORISKANY QUADRANGLE.¹[Latitude $43^{\circ} 43' 15''$; longitude $75^{\circ} 15' 75^{\circ} 30''$.]

Precise leveling in 1901 by D. H. Baldwin.

From Utica south along Delaware, Lackawana & Western R. R. to Sauquoit.

Utica, Pleasant Avenue, Delaware, Lackawanna & Western R. R. crossing; top of east rail	Feet.
	477.8
New Hartford, junction with trolley at station; top of east rail	537.7
Washington Mills, crossing; top of east rail	616.6
Willowvale, crossing; top of east rail	658.1
Chadwick, 0.5 mile north of, 75 feet west of Delaware, Lackawanna & Western R. R. track, brick storehouse of Utica-Willowvale Bleaching Co., in sandstone water table at east end of north wall; aluminum tablet	690.719
Chadwick, crossing at station; top of east rail	721.4
Sauquoit, crossing at station; top of east rail	822.4

Primary leveling in 1904 by G. M. Dimmick.

From Paris station north to Paris, thence east to Sauquoit.

Paris, in foundation wall of Episcopal Church, south end of west face; bronze tablet stamped "1497 Adj 1903"	1,497.371
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ORWELL QUADRANGLE.

[Latitude $43^{\circ} 30' - 43^{\circ} 45'$; longitude $75^{\circ} 45' - 76^{\circ}$.]

Primary leveling in 1902 by J. B. Maguire.

From Greenboro east along road to Hooker.

Oswego-Lewis county line, 0.25 mile north of, in large boulder on northwest side of road; aluminum tablet stamped "1696 Albany"	1,695.582
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From Greenboro west along road to Smartville, thence south to Altmar.

Greenboro, on State road at post office, in face of east wall of culvert; bronze tablet stamped "1269 Albany"	1,268.538
Orwell, northwest corner of crossroads, northeast corner of founda- tion of public fountains; bronze tablet stamped "810 Albany"	809.587

From Clemens Corners west to Redfield, thence north to Greenboro.

Redfield, in north foundation of Methodist Church; aluminum tablet stamped "952 Albany"	951.005
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From Greenboro north via highway to school 7, Lorraine Township (single-spur
line).

East Boylston, 1.1 miles north of, school 7, Lorraine Township, Jefferson County, west side of Greenboro-Lorraine road, in large boulder; aluminum tablet stamped "1262 Albany"	1,261.160
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From 3 miles northeast of Altmar, southeast to Ricard.

Ricard, 0.5 mile north of post office, 0.1 mile south of Orwell-Wil- liamston township line, in front face of foundation of Armstrong's house on west side of road; bronze tablet stamped "759 Albany"	758.729
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¹ See Bull. 514, pp. 78-78, for other elevations.

OSWEGATCHIE QUADRANGLE.

[Latitude 44°-44° 15'; longitude 75°-75° 15'.]

Leveling by A. P. Meade, jr., in 1914.

From Bacon east along New York Central & Hudson River R. R. (Carthage & Adirondack branch) to Benson mines, thence south along highways to Leon Kelley's 1911 camp.

Bacon, 2 miles east of, south of railroad, in west end of cliff, on big rock; chiseled square marked "1001.4"	Feet. 1,001.44
Bacon, 2.7 miles east of, at Millers Crossing, south of track, 100 feet east of road, in big rock; bronze tablet stamped "1031"	1,030.959
Bacon, 3.4 miles east of, on south side of railroad, on stone; chiseled square marked "1053"	1,052.72
Bacon, 3.6 miles east of, in south side of east end of culvert over river; end bolt	1,067.17
Bacon, 3.7 miles east of; crossing west of Kalurah	1,070.0
Kalurah, on east side of road crossing, in south end of tie; copper nail	1,093.25
Kalurah, 0.4 mile east of, at railroad crossing of trail to Long Pond, on north side of track, in platform; copper nail	1,094.16
Kalurah, 0.4 mile east of, 450 feet north of Long Pond; surface of water, Aug. 21, 1914	1,086.4
Kalurah, 0.6 mile east of, in south side of culvert; west bolt	1,092.32
Kalurah, 0.8 mile east of, in south side of culvert; west bolt	1,093.41
Kalurah, 1.2 miles east of, 50 feet east of milepost 58, 5 feet south of track; top of vertical rail	1,103.14
Twin Lake or Pond; surface of water, Aug. 21, 1914	1,093.9
Jayville, 500 feet west of, 200 feet west of water tower, 18 feet south of Smith tower; in big rock; bronze tablet stamped "1121"	1,121.464
Jayville; top of rail at station	1,122.0
Jayville, 0.5 mile east of, 30 feet southeast of milepost 59, 4 feet south of track; top of vertical rail	1,163.05
Jayville, 1.3 miles east of, 30 feet east of milepost 60, 5 feet south of track; top of vertical rail	1,233.606
Jayville, 2.4 miles east of, on east side of milepost 61; top of iron brace nearest to track	1,313.39
Jayville, 2.7 miles east of, opposite Bear Lake, in center of track; copper nail marked "1328"	1,325.56
Bear Lake; surface of water, Aug. 21, 1914	1,297.5
Jayville, 3.6 miles east of, 0.4 mile southwest of Briggs, 50 feet east of milepost 62, on south side of track, in west end of cement culvert; bronze tablet stamped "1389"	1,389.161
Briggs, 110 feet west of, 15 feet north of track, in big rock; chiseled and painted square (railroad b. m.)	1,411.49
Briggs, 0.1 mile east of, at crossing; top of high rail marked "1421"	1,421.3
Briggs, 0.4 mile east of; railroad summit	1,438.2
Briggs, 0.6 mile east of, at west end of fill, on north side of track; square mark marked "1429"	1,429.05
Briggs, 0.7 mile east of, 45 feet east of milepost 63; top of vertical rail	1,422.65
Briggs, 1.3 miles east of, 30 feet west of Vaughns switch, on south side of culvert, on guardrail; top of west bolt	1,407.15
Briggs, 1.3 miles east of, at road crossing; top rail	1,401.7

Briggs, 1.6 miles east of, at milepost 64, west of track; top of iron brace nearest to railroad	Feet. 1, 891. 92
Aldrich, 30 feet west of, at crossing; top of south rail	1, 344. 88
Aldrich, 0.3 mile northeast of station, in southwest corner of abutment of railroad bridge over Little River, 1 foot from edge of abutment, 86 feet west of center of bridge; bronze tablet stamped "Prim. Trav. Sta. No. 1, 1913, 1333"	1, 333. 318
Aldrich, 1.2 miles northeast of, 10 feet north of milepost 66, 6 feet east of track, on big rock; chiseled and painted square marked "1361"	1, 360. 93
Railroad summit	1, 369. 9
Aldrich, 2.3 miles northeast of, at milepost 67, 6 feet south of track; top of north iron brace of post	1, 365. 14
Coffins Mills, at road crossing, east of road, north of railroad, on big stone; chiseled cross	1, 366. 26
Coffins Mills, at milepost 68, on south side of track; top of nearest one to track of two iron braces	1, 375. 20
Oswegatchie, 200 feet east of station, at road crossing, on east side of road, 25 feet south of railroad, 100 feet from hotel; bronze tablet stamped "1372"	1, 371. 932
Oswegatchie, 0.8 mile east of, at milepost 69, 6 feet south of track; top of iron brace nearest track	1, 346. 86
Oswegatchie, 1.8 miles east of, at milepost 70; top of iron brace nearest rack	1, 368. 12
Oswegatchie, 2.1 miles east of, at road crossing; top of high rail	1, 382. 6
Oswegatchie, 2.9 miles east of, at milepost 71; top of iron brace nearest track	1, 436. 30
Oswegatchie, 3.9 miles east of, at milepost 72; top of iron brace nearest track	1, 406. 62
Benson Mines, 188 feet northeast of station, in concrete base of water tower; bronze tablet stamped "Prim. Trav. Sta. No. 2, 1913, 1406"	1, 405. 925
Little River; floor of bridge over	1, 401. 7
Little River; surface of water, Aug. 25, 1914	1, 394. 0
Benson Mines department store and post office, at forks of roads, at east end of wooden culvert drain; copper nail	1, 407. 12
Benson Mines, 0.7 mile southwest of, at Post Henderson R. R. to south; top of rail	1, 399. 02
Benson Mines, 1.2 miles south by west of, at foot of second grade, on north side of road, on big stone; chiseled circle (an old bench mark)	1, 442. 47
Starlake village, Grove Hotel north of, at crossroads, on southeast corner of pump floor; copper nail	1, 455. 73
Starlake post office, in front of Sunnyside Inn, at forks of roads, on stone; chiseled square	1, 488. 61
Star Lake; surface of water, Aug. 25, 1914	1, 449. 6
Starlake, 0.5 mile south of, at top of grade, on south side of road, on rock in bank; chiseled square	1, 511. 62
Starlake, 1 mile south of, west of road, on fence line, 500 feet north of J. E. Kenny's house, on big rock; bronze tablet stamped "1427"	1, 427. 457
Starlake, 1.7 miles south of; floor of bridge over Little River	1, 390. 16
Little River; surface of water, Aug. 25, 1914	1, 380. 1
Starlake, 2.3 miles south of, at southwest corner of forks of roads, at private road west, on top of fence post; copper nail	1, 455. 49
Starlake, 2.8 miles south of; floor of bridge over Tamarac Creek	1, 388. 8

	Feet.
Tamarac Creek; surface of water, Aug. 26, 1914.....	1,383.3
Starlake, 3.4 miles south of, on west edge of road, on top of big stump; copper nail.....	1,445.30
Starlake, 3.9 miles southwest of, in small creek running east to Tamarac Creek; surface of water, Aug. 26, 1914.....	1,430.3
Starlake, 4 miles southwest of, on east side of road, on big rock; chiseled square.....	1,436.87
Starlake, 4.5 miles southwest of, on east side of road on grade, in root of maple tree; copper nail.....	1,525.04
Starlake, 4.9 miles southwest of, on west side of road, 5 feet south of big brick blazed rock; bronze tablet stamped "1541".....	1,541.330
Starlake, 5.3 miles southwest of; corduroy bridge over Streeter Lake outlet stream.....	1,455.4
Streeter Lake outlet stream; surface of water, Aug. 27, 1914.....	1,451.9
Starlake, 5.5 miles southwest of, at forks of roads, on east side of road to Ball Bros.' lumber camps, on big stone; chiseled square.....	1,495.08
Starlake, 5.8 miles southwest of, at forks of roads, T road (private) west to Streeter Lake, on big stone; chisel mark.....	1,507.56
Streeter Lake; surface of water, Aug. 27, 1914.....	1,486.1
Starlake, 6.9 miles southwest of; corduroy floor of bridge.....	1,488.12
Surface of water of creek under bridge, Aug. 28, 1914.....	1,486.0
Pansy Lake outlet stream, at corduroy bridge; surface of water.....	1,487.0
Starlake, 7.9 miles southwest of, 15 feet east of road, on west end of big rock; chiseled square.....	1,512.28
Starlake, 8.6 miles southwest of; point on big rock in road.....	1,508.18
Middle Branch of Oswegatchie River; surface of water, Aug. 29, 1914.....	1,500.3
Francis old camp, at trail south to river, 15 feet south of bunk house, 1.5 feet above ground on tree; copper nail.....	1,547.01
Francis old camp; surface of water in creek to south.....	1,537.2
Francis camp, 650 feet south of, 20 feet east of road, in large granite boulder; bronze tablet stamped "Prim. Trav. Sta. No. 5, 1913, 1573".....	1,572.908
Francis camp, 0.8 mile southwest of; surface of water in brook, Aug. 30, 1914.....	1,531.0
Francis camp, 1.2 miles southwest of, at road forks, in road; top of stone.....	1,594.89
Francis camp, 2.2 miles southwest of, center of big corduroy bridge.....	1,592.4
Francis camp, 2.3 miles southwest of, at forks of trail and road, on stone; chiseled square.....	1,609.45
Francis camp, 2.4 miles southwest of, east of trail, at northwest corner of Totten and Crossfield purchase; top of St. Lawrence-Herkimer county line granite monument 4 feet high, 12 inches square, marked "St. Lawrence County" on one side and "Herkimer County" on the opposite side.....	1,622.610
Francis camp, 2.7 miles southwest of, on north side of Middle Branch of Oswegatchie River, on north end of big bridge, on stone; marked point.....	1,638.60
Middle Branch of Oswegatchie River; surface of water, Sept. 2, 1914.....	1,626.7
Alder Bed driving camp, 0.1 mile southwest of, 30 feet west of stable, 20 feet southwest of shed, on rock; chiseled square.....	1,649.45
Alder Bed driving camp, 0.2 mile southwest of; corduroy bridge (water runs north).....	1,636.0

Alder Bed driving camp, 0.5 mile southwest of, on big rock in corduroy road; chiseled square-----	Feet.
	1,669.11
Alder Bed driving camp, 1.8 miles south of, at summit of ridge, on large flat granite rock at edge of road, maple tree 15 feet south, blazed on three sides, beech tree opposite; bronze tablet stamped "Prim. Trav. Sta. No. 6, 1913, 2039"-----	2,039.389
Alder Bed driving camp, 2.9 miles southwest by south of, 0.3 mile west of Kelley's camp, on south side of road, in top of stump; copper nail-----	1,809.26
Kelley's camp, 0.2 miles north of; surface of water in creek at road to Massawepie north, Sept. 3, 1914-----	1,772.4
Kelley's camp, 15 feet southwest of tool house, 40 feet south of store-house, 12 feet east of dead birch tree, on rock; chiseled square-----	1,773.38
Kelley's camp, 1 mile south of, at forks of road and log road, 30 feet from corduroy road, on rock in road; chiseled square-----	1,773.50

From Oswegatchie northwest along highways to Fine, thence southwest to Kalurah.

Oswegatchie, 200 feet east of station, at road crossing, on east side of road and 25 feet south of railroad, 100 feet north of hotel; bronze tablet stamped "1372"-----	1,371.932
Oswegatchie school; ground-----	1,297
Oswegatchie, 0.8 mile north of, on south end of bridge over Little River, on east side of road, on top of big rock; chiseled square-----	1,162.92
Oswegatchie, 1 mile north of, at T road east, at northeast corner of roads, 9 feet southwest of telephone pole, on highest rock; chiseled circle marked "1183"-----	1,182.81
Oswegatchie, 1.3 miles north of, at T road west, 10 feet southeast of big black rock, 30 feet southeast of another big rock, on stone; chiseled square-----	1,259.75
Oswegatchie, 2 miles north of, on east side of highway, 50 feet south of maple grove, on granite boulder; chiseled mark-----	1,201.69
Oswegatchie, 2.2 miles north of, at southwest corners of roads, on stone at edge of field; chiseled square-----	1,182.20
Oswegatchie, 2.7 miles northwest of, at T road west, on east side of highway and south side of private road, on big rock; chiseled square-----	1,203.34
Oswegatchie, 3 miles north of, east of highway, at corner of fences, opposite house owned by Charles Akins, on big flat rock; bronze tablet stamped "1199"-----	1,199.192
Oswegatchie, 3.7 miles northwest of; east end of cement culvert-----	1,062.6
Oswegatchie, 4.2 miles northwest of, on southeast corner of west wall of cement culvert, at end of wooden fence, house 200 feet west; chiseled square-----	1,010.50
Oswegatchie, 5 miles north of, on southwest corner of Scotts bridge over Oswegatchie River; end bolt-----	1,009.10
Oswegatchie River; surface of water, Sept. 8, 1914-----	998.5
Oswegatchie, 5.1 miles north of, on west side of highway, at road to school, on grade, on stone; chiseled square-----	1,024.08
Oswegatchie, 5.6 miles northwest of, at T road north to Russell, on west side of road, on rock; chiseled square-----	1,015.03
Oswegatchie River; surface of water at bend, Sept. 8, 1914-----	989.0
Oswegatchie, 6.6 miles north of, at top of grade, on north side of road, on rock; chiseled square-----	1,026.69

Oswegatchie, 7.2 miles north of, at T road south, on north side of road, on rock under cliff; chiseled square	Feet.
	1, 001. 500
Fine, east end of village, 50 feet east of T road north, on north side of road, in large boulder; bronze tablet stamped "Prim. Trav. Sta. No. 4, 1913, 977"	977. 268
Fine, just southwest of, at top of grade, at T road south, on north side of road, on rock under cliff; chiseled square	1, 001. 50
Fine, just southwest of, on southeast corner of bridge over Oswegatchie River, on stone coping; chisel mark	988. 46
Oswegatchie River; surface of water, Sept. 9, 1914	970. 0
Fine, 1.5 miles southwest of, at fork of roads, 15 feet east of main road to Pitcairn, south of road running east, on top of big stone in field; chiseled square	996. 36
Fine, 1.7 miles southwest of, on culvert; northeast corner of north wall	985. 0
Surface of water of small pond north of road, Sept. 9, 1914	976. 3
Fine, 2.3 miles southwest of, southeast across road from triangle of three roads, at road fork, on top of stone; square mark	992. 07
Fine, 3 miles west of, on west abutment at southwest corner of bridge over Yellow Creek; bronze tablet stamped "926"	926. 285
Fine, 3.4 miles west of, at forks of roads, at T road south, 65 feet south of main road, on east side of road to south, on rock; chiseled square	962. 09
Fine, 4.3 miles west of, 50 feet east of road fork south to Greenwood farm, in root of big pine tree; copper nail	869. 53
Fine, 5 miles west by southwest of; bridge over Greenwood Creek—Greenwood Creek, surface of water under bridge, Sept. 10, 1914	880. 70
Fine, 5.2 miles west by southwest of, 75 feet south of bridge over Greenwood Creek, in top of big stone; chiseled square	875. 0
Fine, 5.9 miles west by southwest of, at Moore's mill, on northeast platform over water slide; copper nail	885. 92
Fine, 6 miles southwest of, 1,000 feet south of Moore's mill, at turnout in road, on big rock; bronze tablet stamped "954"	933. 87
Fine, 7.1 miles southwest of, 1 mile south of Moore's mill, at forks of trail, in root of ash tree; copper nail	954. 457
Fine, 7.7 miles southwest of, 1.6 miles south of Moore's mill, at old cabin, 20 feet south of road, 50 feet from cabin, in root of beach tree; copper nail	1, 040. 38
Fine, 7.8 miles southwest of, 1.7 miles south of Moore's mill, at forks of trails, in top of stone; chisel mark	1, 027. 89
Fine, 8.7 miles southwest of, 0.15 mile south of old cabin, on grade opposite cliff, on east side of road, 50 feet southwest of dead stump, on stone; chisel mark	1, 039. 43
Kalurah railroad station, on east side of road crossing, on south end of tie; copper nail	1, 048. 87
	1, 093. 25

From Alder Bed driving camp west along highway to Middle Branch settlement.

Alder Bed driving camp, 30 feet west of stable, 20 feet southwest of shed, on top of rock; square mark	1, 649. 45
Alder Bed driving camp, 0.25 mile west of, on rock in road; chiseled square	1, 673. 51
Alder Bed driving camp, 1 mile west of, at station 15, on stone in road; square mark	1, 897. 38

	Feet.
Alder Bed driving camp, 1.2 miles west of, at station 17; point on stone	1, 933. 92
Station 24, 25 feet east of; bridge (water runs southwest)	1, 825. 02
Massawepie Lake; surface of water, Sept. 26, 1914	1, 825. 0
Alder Bed driving camp, 2.3 miles west of, 25 feet southeast of old Massawepie camp, at station 28, on north side of trail, on rock; chiseled square	1, 810. 37
Alder Bed driving camp, 2.4 miles west of, at station 29, in center of road; top of rock	1, 793. 73
Alder Bed driving camp, 2.7 miles west of, at station 32, 4 feet north of blazed tree, in top of rock; chiseled square	1, 794. 23
Alder Bed driving camp, 2.9 miles west of, at station 34, on north side of road, in rock; chiseled square	1, 736. 45
Alder Bed driving camp, 3.25 miles west of; point on bridge over creek	1, 595. 14
Surface of water, Sept. 29, 1914	1, 593. 0
Alder Bed driving camp, 3.5 miles west of, at station 40, on stone; chiseled square	1, 619. 79
Alder Bed driving camp, 3.8 miles west of, south of road at station 43, on top of big stone; chiseled square	1, 594. 52
Alder Bed driving camp, 4 miles west of, near station 45, in road, on top of big rock; chiseled square	1, 661. 13
Camp 1, 100 feet northeast of Mannigan's bunk house, on big rock; bronze tablet stamped "1622"	1, 621. 690
Camp 1, 0.6 mile west of, on stone at forks of T road and turn-off road; chiseled square	1, 526. 23
Camp 1, 1.5 miles west of, on north end of corduroy bridge, on rock in creek; chiseled square marked "1520"	1, 519. 87
Camp 1, 1.8 miles west of, at forks of turnout road and main road, at foot of beech tree, on south side of road, on rock; square mark	1, 482. 62
Camp 1, 2.3 miles west of, southeast of Shaws camp, No. 250, on big rock; chiseled square	1, 386. 72
Camp 1, 3.4 miles west of, on north side of road, on east side of creek, 18 feet east of corduroy road, on top of stone; chiseled square	1, 333. 86
Camp 1, 3.9 miles west of, at forks of main trail and road to Wallace camp, in root of beech tree; copper nail	1, 344. 01
Camp 1, 4 miles west of, at forks of main road and turn off, in root of tree; copper nail	1, 239. 19
Camp 1, 4 miles west of, 100 feet east of Cold Spring Creek, on south side of road, on big rock; brönze tablet stamped "1220"	1, 220. 459
Cold Spring Creek (runs southwest); surface of water, Oct. 4, 1914	1, 208. 0
Camp 1, 4.3 miles west of, at forks of main road and cut-off, on root of beech tree; copper nail	1, 254. 94
Camp 1, 5.1 miles west of, on main road south to Mullins camp, 30 feet east of junction of roads, in root of beech tree; copper nail	1, 170. 93
Bryant's bridge, 0.6 mile east of, 11.2 miles west of Alder Bed driving camp, on southwest side of road, in beech tree; copper nail	1, 177. 60
Bryant's bridge, 0.1 mile east of, at junction of road and road south to Sugarbush, on top of stone; chisel mark	1, 063. 89
Bryant's bridge, over Oswegatchie River, on southeast corner of bridge; bolt	1, 015. 70

OSWEGO QUADRANGLE.¹

[Latitude 43° 15'-43° 30'; longitude 76° 30'-76° 45'.]

Primary leveling in 1898 by D. E. Baxter.

From Red Creek northeast to Oswego.

Red Creek, on Second Street, Red Creek Academy, 225 feet north of Rome, Watertown & Ogdensburg R. R., on west side of street; aluminum tablet in stone foundation, stamped "355 Oswego"-----	Feet.
Red Creek, 200 feet west of station, road crossing; top of rail-----	356. 410
Sterling, 2.1 miles southwest of, railroad bridge over highway, fourth step of east wing of north abutment; chiseled square-----	335. 3
Sterling, at crossing of the Rome, Watertown & Ogdensburg and the Lehigh Valley railroads; top of rail-----	339. 48
Hannibal, schoolhouse on Oswego Street, in stone doorsill of north entrance; aluminum tablet stamped "354 Oswego"-----	321. 0
Oswego, 3.5 miles north of, wharf line of south side of basin, 5 feet from east face of old United States stone pier at foot of West Third Street; top of iron bolt flush with top of masonry, stamped "U. S.+B. M."-----	355. 057
Oswego, northeast corner of post-office building, corner of Oneida and West First streets, in water table; aluminum tablet stamped "295 Oswego" -----	251. 898
	295. 753

OVID QUADRANGLE.

[Latitude 42° 30'-42° 45'; longitude 76° 45'-77°.]

Primary leveling in 1899 by C. H. Semper and W. F. Hammond.

From Himrod south along the Fall Brook Ry. to Reading Center.

Himrod, 500 feet north of, on west south abutment of bridge on Northern Central Ry.; chisel mark-----	799. 10
Dundee, on foundation of railway water tank; chisel mark-----	989. 52

From Kendala south along the Lehigh Valley R. R. to Hector.

Kendaia, 40 feet east of railroad on highway, in northwest corner of foundation wall of grain elevator; bronze tablet stamped "614 Oswego 1899" (destroyed 1909)-----	614. 856
Kendaia, 2.2 miles south of, at railroad crossing, in south wall west side of cattle pass; top of iron bolt (No. 329, L. V.)-----	648. 46
Kendaia, 3.5 miles south of, 30 feet east of railroad at road crossing, in masonry road culvert; top of iron bolt (No. 328, L. V.)-----	671. 72
Willard, in masonry on west side of railroad in first highway south of station; top of iron bolt (No. 326, L. V.)-----	709. 09
Willard, 0.8 mile south of, in top of stone cattle pass, northwest side of railroad; top of iron bolt (No. 326, L. V.)-----	722. 15
Willard, 3.2 miles south of, in masonry of overhead bridge on northwest side; top of iron bolt (No. 323, L. V.)-----	774. 17
Lodi, 0.8 mile south of, overhead farm bridge on northwest wing in step; top of iron pin (No. 322, L. V.)-----	801. 22

¹ See Bull. 514, pp. 90-91, for other elevations.

	Feet.
Lodi, 1.9 miles south of, in top of masonry of creek bridge on east side of railroad; top of iron bolt (No. 321, L. V.)-----	817.73
Lodi, 2.9 miles south of, in top of wall of cattle pass on northeast side of railroad; top of iron pin (No. 320, L. V.)-----	829.82
Caywood, 0.2 mile south of, top of stone culvert masonry, on southeast side; top of iron bolt (No. 319, L. V.)-----	839.37
North Hector, 0.5 mile south of station, 0.2 mile west of railroad, in masonry of basket factory, on crossroads; bronze tablet stamped "840 Oswego 1899"-----	840.639

From Fayette south along the Lehigh Valley R. R. to Ovid Center.

Hayt Corners, 2.2 miles north of, on southwest side of railroad, 30 feet west of road; top of iron bolt stamped "B. M. 333" (L. V.)-----	742.53
Hayt Corners, 1.6 miles north of, 1,500 feet east of railroad crossing, 20 feet east of red farm gate; top of iron bolt (B. M. 333 L. V.)-----	740.08

From Trumansburg west to East Steamburg (single-spur line).

East Steamburg, northeast corner of Sherwood's house, 200 feet northwest of northwest corner of crossroads, in east wall; bronze tablet stamped "1544 Oswego"-----	1,544.396
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OWEGO QUADRANGLE.

[Latitude 42°-42° 15'; longitude 76° 15'-76° 30'.]

Precise leveling in 1898 by E. L. McNair.**From Barton northeast along Erie R. R. to Owego.**

Barton, in front of Erie station, westbound track; top of north rail-----	797.6
Barton, 1.2 miles east of, southeast corner of bridge 40, in coping stone of abutment; aluminum tablet stamped "798 A"-----	797.517
Smithboro, in front of Erie station, westbound track; top of south rail-----	798.1
Tioga Center, in front of Erie station, westbound track; top of south rail-----	797.7
Owego, 2.25 miles west of Erie station, southeast corner of bridge 37, in coping stone of abutment; aluminum tablet stamped "815 A"-----	815.028
Owego, 700 feet west of station, westbound track at crossing of Ithaca branch of Lackawanna R. R.; top of north rail-----	816.6
Owego, in front of Erie station, westbound track; top of north rail-----	816.9

Primary leveling in 1898 by W. W. Gilbert and in 1900 by W. E. Green.**From Owego north along railroad to Gridleyville.**

Owego, in northwest corner of foundation wall of courthouse; aluminum tablet stamped "818 Albany"-----	818.387
Catatonk, at road crossing into sawmill yard; top of rail-----	849.8
Candor, at road crossing south of station; top of rail-----	892.8
Gridleyville, 0.3 mile south of bridge 10, in northeast pedestal stone; bronze tablet stamped "919 Albany"-----	919.464
Gridleyville, at road crossing; top of rail-----	928.4

From Owego south along highway to Gibson Corners.

	Feet.
Owego, Main Street road crossing; top of rail.....	807.8
Kile triangulation station, 2.8 miles south of Owego; top of stone monument.....	1,280.349
Gibson Corners, 1.5 feet from south end of schoolhouse, in west side wall; bronze tablet stamped "1531 Albany".....	1,531.558

From Spencer south to Halsey Valley (single-spur line).

Halsey Valley, northwest corner of Dr. H. P. Vosburgh's house; bronze tablet stamped "1065 Albany".....	1,065.618
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From Van Etten east along the Lehigh Valley R. R. to North Candor.

Spencer, Lehigh Valley R. R. crossing; top of rail.....	999.9
Spencer, southwest corner of Main and Tioga streets, in water table on north side of Fisher block; 1 foot east of northwest corner; bronze tablet stamped "A 995".....	995.395
East Spencer, Lehigh Valley R. R. station; top of rail.....	986.3
West Candor, Lehigh Valley R. R. station; top of rail.....	955.9
North Candor, Lehigh Valley R. R. station; top of rail.....	948.7

OXFORD QUADRANGLE.[Latitude $42^{\circ} 15'$ - $42^{\circ} 30'$; longitude $75^{\circ} 30'$ - $75^{\circ} 45'$.]**Primary leveling in 1900 by C. H. Semper and W. E. Green.****From Guilford along the New York, Ontario & Western Ry. to Norwich.**

Summit, in front of station; top of rail.....	1,623.0
Oxford, at road crossing near station; top of rail.....	1,399.1

From Afton north along highway to Coventryville (single-spur line).

Coventryville, William Lyman's store, 8 feet from northeast corner, in foundation wall; aluminum tablet stamped "1435 Albany".....	1,435.291
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From Greene northeast along the Delaware, Lackawanna & Western R. R. to Oxford.

Brisbin, 500 feet west of station, in north end of east abutment of highway bridge over Chenango River; bronze tablet stamped "927 Albany".....	927.277
Coventry, waiting room at station; doorsill.....	959.00
Oxford, Water Street crossing; top of rail.....	969.5
Oxford, southeast corner of Citizens' Opera House, in foundation wall; aluminum tablet stamped "982 Albany".....	982.402

OYSTER BAY QUADRANGLE.[Latitude $40^{\circ} 45'$ - 41° ; longitude $73^{\circ} 30'$ - $73^{\circ} 45'$.]**Primary leveling in 1897 by Clark Brown.****From Mineola northeast via Jericho to East Norwich.**

Jericho, opposite hotel; top of marble highway monument in triangle of roads.....	194.08
Jericho, Jericho pike at forks of road to Oyster Bay and Syosset, retaining wall east of road, 15 feet from driveway to residence; bronze tablet stamped "218 W. P.".....	218.160

From East Norwich west via Roslyn to Bayside:

Roslyn, west side of south front of upper basin on public fountain; bronze tablet stamped "37 W. P."	Feet. 37.452
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PALMYRA QUADRANGLE.¹

[Latitude 43°-43° 15'; longitude 77°-77° 15'.]

Primary leveling in 1898 by C. H. Semper and D. E. Baxter.

From Ontario east along highway to Wallington.

Williamson, in front of station; top of rail.....	420.2
East Williamson, at road crossing; top of rail.....	417.0
Sodus, highway crossing, main track; top of rail.....	428.8
Sodus, southwest corner of Third Methodist Episcopal Church, on Ridge road, in water table; aluminum tablet stamped "457 O".....	458.255
Wallington, on southwest corner of stone foundation of railroad water tank; chiseled square.....	405.90

From Galloway's bridge northeast along highways to East Palmyra.

East Palmyra, 2.3 miles southwest of, Galloway's highway bridge over Erie Canal, east wing of towpath abutment; chiseled square.....	449.57
East Palmyra, Presbyterian Church, in northwest corner of water table; bronze tablet stamped "471 Oswgo".....	471.826

From Williamson south along highway to Marion (single-spur line).

Williamson, Union Academy; northwest corner of building; aluminum tablet stamped "454 Oswgo".....	454.843
Marion, 500 feet north of four corners, Main Street front of the Marion Collegiate Institute; aluminum tablet stamped "462 Oswgo".....	462.813

From Wallington south along the Northern Central Ry. to Newark.

Wallington, 0.9 mile south of, culvert 45, over Salmon Creek, north- west corner of masonry; chiseled square.....	405.90
Sodus Center, 0.3 mile south of, bridge 44, over Salmon Creek, on west wing of south abutment; chiseled square.....	411.03
Zurich, in front of station; top of rail.....	441.5
Fairville, brick schoolhouse, district 2, 475 feet west of Northern Central Ry., in masonry foundation, 7 feet south of front entrance; aluminum tablet stamped "456 Oswgo".....	456.802
Fairville, 0.9 mile south of, railroad bridge 40, over Mud Creek, west end of south abutment; chiseled square.....	414.21
Fairville, 2.9 miles south of, railroad bridge 37, over Mud Creek, west end of south abutment; chiseled square.....	416.35
Newark station of New York Central & Hudson River R. R., Northern Central Ry. bridge over New York Central & Hudson River R. R. tracks, on top step, west end of south abutment; chiseled square.....	434.25
Newark, Charles Street bridge over Erie Canal, towpath side, on bottom step of east wing; chiseled square.....	447.81
Newark, southwest corner of Charles and Miller streets, Miller Street front of Baptist Church, 1 foot from northeast corner, in water table; aluminum tablet stamped "457 Oswgo".....	457.570

¹ See Bull. 514, pp. 92-93, for other elevations.

PENN YAN QUADRANGLE.

[Latitude $42^{\circ} 30'$ - $42^{\circ} 45'$; longitude $77^{\circ} - 77^{\circ} 15'$]

Primary leveling in 1899 by C. H. Semper and W. F. Hammond.

From Bellona south along the Northern Central Ry. to Himrod.

	Feet.
" 1089 Oswego 1899 "	1,089. 814
Penn Yan, in front face of Penn Yan Academy; aluminum tablet stamped " 767 Oswego 1899 "	768. 497
Milo Center, in east side of church on Main Street; tablet stamped " 947 Oswgo 1899 "	947. 809

From Himrod southwest along highway (single-spur line).

Himrod, 4.5 miles southwest of, small bridge 0.75 mile south of forks of road, in face of east wing of north abutment; tablet stamped " 1111 Oswego, 1899 "	1,112. 490
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From Potter Center south via Branchport to Catawba.

Potter Center, in east end of north abutment of iron bridge over Flint Creek; tablet stamped " 893 Oswego 1899 "	893. 490
Friend, on west abutment at north end of bridge; chiseled square	987. 88
Branchport, 1,200 feet east of, in south end of west abutment of highway bridge, road to Penn Yan; tablet stamped " 720 Oswego 1899 "	720, 702
Gulicksville (near Pulteny post office), in west end north wall of iron bridge; aluminum tablet stamped " 733 Oswego 1899 "	733. 615

PHELPS QUADRANGLE.

[Latitude $42^{\circ} 45'$ - 43° ; longitude $77^{\circ} - 77^{\circ} 15'$.]

Primary leveling in 1899 by C. H. Semper.

From Newark south along the Northern Central Ry. to Phelps Junction, thence southeast to East X.

Phelps Junction, 1.2 miles east of, on east end of stone abutment of aqueduct on south side of track, 15 feet from east end of wall; chisel mark	536. 82
Phelps, southwest corner of schoolhouse, corner of Maine and Banta streets; aluminum tablet stamped " 542 Oswego 1899 "	543. 142

From Phelps Junction west along the New York Central & Hudson River R. R. to Manchester.

Phelps Junction, 1.2 miles west of, on south side of railroad, top of stone abutment of creek bridge; chisel mark	565. 49
Clifton Springs, 3.9 miles west of, Lehigh Valley overhead bridge over Auburn branch of New York Central & Hudson River R. R., north abutment; bronze tablet stamped " 611 Oswego 1899 "	612. 031
Manchester, west abutment of Lehigh Valley R. R. bridge; top of bolt (railroad bench mark No. 359)	607. 44

From Phelps Junction south along the Northern Central Ry. to Bellona.

	Feet.
Stanley, in northwest corner of grain elevator at railway station; aluminum tablet stamped "903 Oswego 1899"-----	904.027
Bellona, in southeast corner of Memorial Presbyterian Church on Main Street; aluminum tablet stamped "731 Oswego 1899"-----	732.207

From Stanley southwest along the Lehigh Valley R. R. to Rushville.

Rushville, in northeast corner of Methodist Episcopal Church, in water table; tablet stamped "870 Oswego"-----	871.063
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From Stanley west along the New York Central & Hudson River R. R. to Canandaigua.

[The closure error in this line is excessive.]

Ennerdale (Beula post office), 30 feet south of station building, south side of railroad, on east margin of highway, in large boulder; bronze tablet stamped "851 Oswego"-----	851.393
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PHOENICIA QUADRANGLE.

[Latitude 42°-42° 15'; longitude 74° 15'-74° 30'.]

Primary leveling in 1900 by W. S. D. Moore and George Bailey.

From Boiceville north to Phoenicia.

Mount Pleasant, in front of station; top of rail-----	713.9
Phoenicia, in front of station; top of rail-----	796.2
Phoenicia, Ulster & Delaware R. R. bridge, south pier, top of east end; aluminum tablet stamped "804 Albany"-----	805.171

From Phoenicia northwest along the Ulster & Delaware R. R. to Hightown.

Shandaken, steel bridge at forks of road, top of southwest wing wall; bronze tablet stamped "Albany 1071"-----	1,071.401
Big Indian, at station; passenger-room doorsill-----	1,213.85
Pine Hill, in front of station; top of rail-----	1,661.2

From Shandaken southwest to Big Indian, thence south to Slide Mountain post office.

Slide Mountain, rock at northwest corner of post office; bronze tablet stamped "Albany 1665"-----	1,665.070
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From Shandaken north to Lexington.

West Kill, 1.3 miles south of top of Deep Notch, west side of road, on boulder; aluminum tablet stamped "Albany 1901"-----	1,901.096
West Kill, small steel bridge on south of road, east sill; chisel mark-----	1,464.51

From Phoenicia northeast to Lanesville.

Chichester, in front of station; top of rail-----	1,014.7
Chichester, 1.7 miles northeast of, north abutment of bridge, east end, top stone; chisel mark-----	1,151.45

From Hunter west to Lexington.

Jewett Center, east abutment of East Kill bridge, north end, top stone; aluminum tablet stamped "1405 Albany"	Feet.
	1, 405. 728
Lexington, north pier of Schoharie Creek bridge, west end, top stone; aluminum tablet stamped "1329 Albany"	
	1, 329. 760

From Shandaken along Ulster & Delaware R. R. to Pine Hill.

Shandaken, steel bridge at forks of road, top of southwest wing wall; bronze tablet stamped "1071 Albany"	1, 071. 401
Big Indian, passenger room at station; doorsill	1, 213. 85
Pine Hill, in front of station; top of rail	1, 661. 2

PISECO LAKE QUADRANGLE.[Latitude $43^{\circ} 15'$ - $43^{\circ} 30'$; longitude $74^{\circ} 30'$ - $74^{\circ} 45'$.]**Primary leveling in 1898 by C. H. Semper and in 1902 by J. B. Maguire.****From Oregon north along road to Rudiston.**

Oregon, near northwest corner of schoolhouse, in large boulder on east side of road; bronze tablet stamped "1511 Albany"	1, 511. 201
Oregon, 4.2 miles north of, 300 feet north of Pawley House, east side of road, in large table rock; aluminum tablet stamped "1674 Albany"	1, 674. 064
Rudiston, 1.7 miles south of, in east end of north abutment of high- way bridge over outlet to Piseco Lake at mill; bronze tablet stamped "1666 Albany"	1, 666. 813

From mill south along road to Arietta.

Arietta, 4.7 miles north of, in east side of road at Gus Avery's house, in large rock; bronze tablet stamped "1703 Albany"	1, 703. 252
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**From Morehouseville northeast along roads and trail to Metcalf Lake (single-
spur line).**

Metcalf Lake, on boulder on west side of trail; bronze tablet stamped "2380 Albany"	2, 280. 908
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From Morehouseville east along road to Piseco.

Morehouseville, 2.7 miles east of, 50 feet west of church, south side of road, on rock; chiseled circle, with legend "B. M. G. of N. Y. State Land Survey"	1, 832. 82
Morehouseville, 7.8 miles east of, top of rock south side of road; chiseled circle	1, 865. 34
Piseco, Irondequoit Club house basement; aluminum tablet stamped "1703 A"	1, 702. 803

From Piseco northwest to Spruce Lake.

Piseco, 5 miles north of, 50 feet north of old road running northeast to old lumber camp, in large boulder 10 feet east of road; copper bolt stamped "1964 A"	1, 964. 198
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PITCHER QUADRANGLE.

[Latitude $42^{\circ} 30'$ – $42^{\circ} 45'$; longitude $75^{\circ} 45'$ – 76° .]

Primary leveling in 1900 by W. E. Green.

From Solon southeast along the Erie and New York Central railroads to Willett.

	Feet.
East Freetown, at road crossing; top of rail	1,323.6
Reubens (milk station); top of rail	1,227.3
Whites Mills, in front of station; top of rail	1,169.6
Dutch Hill, road crossing; top of rail	1,131.49

From Cincinnatus northeast along highway to Otselic.

Cincinnatus, in northeast corner of brick building of J. W. Osgood, opposite hotel; bronze tablet stamped "1045 Albany"	1,044.756
North Pitcher, west side of highway, in foundation wall of post office; bronze tablet stamped "1166 Albany"	1,166.612

From Pitcher north to Lincklaen (single-spur line).

Lincklaen, at west corner of First Congregational Church, in front wall; bronze tablet stamped "1192 Albany"	1,192.683
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From Truxton northeast along the Lehigh Valley R. R. to Cuyler.

Cuyler, 0.25 mile east of, 500 feet east of north and south road, 4 feet south of track, in boulder; copper bolt stamped "1256 S"	1,257.305
Cuyler, at road crossing near station; top of rail	1,127.1

PLATTSBURG QUADRANGLE (including Plattsburg Training Camp).

[Latitude $44^{\circ} 30'$ – $44^{\circ} 45'$; longitude $73^{\circ} 15'$ – $73^{\circ} 30'$.]From Plattsburg south along highways to point near Ausable River, thence
southwest to west border of quadrangle.

Primary leveling by Fred W. Crisp in 1916.

Plattsburg, at crossing of Delaware & Hudson R. R. track and Bridge Street, at south dock, in north wall of culvert, in large stone in third course from bottom and fifth from top, five holes in nearly a horizontal line; middle hole filled with lead and marked "U. S." (C. & G. S. b. m.)	109.065
Preliminary unadjusted elevation of same b. m. by C. & G. S. precise level line from Rouses Point in 1916	109.009
Plattsburg, 1 mile south of, on Lake Shore road, in southwest corner of road crossing, 6 feet west of center of line of car tracks and 20 feet south of center of road to southwest, center of top of iron sewer manhole; painted square, painted "T. B. M. 164.85"	164.86
Plattsburg, 1.6 miles south of, on Lake Shore road, 300 feet south of bend in road, just south of barracks, 50 feet east of center line of tracks; copper nail and washer, painted "T. B. M. 159.2"	159.24
Plattsburg, 2.5 miles south of, on Lake Shore road, 50 feet west of end of spur line, 50 feet northwest of wooden bridge, 40 feet east of center of line of car tracks, top of south stone abutment; chis- eled square, painted "T. B. M. 144.6"	144.64
Plattsburg, 2.7 miles south of, on Lake Shore road, 50 feet southeast of crossing of car line and Delaware & Hudson R. R., 100 feet south of road crossing, on north corner of concrete base of crossing signal; painted square, marked "U. S. T. B. M. 127.5"	127.49

Plattsburg, 3.5 miles south of, on Lake Shore road, in northwest corner of crossroads, 400 feet east of Champlain Hotel railroad station, in southwest corner of concrete base of sign "Hotel Champlain"; painted square, marked "El. 164.7"-----	Feet. 164.73
Plattsburg, 4.2 miles south of, on Lake Shore road, opposite golf links, northeast corner of T road east, in stone culvert; chiseled square, marked "140.8"-----	140.81
Plattsburg, 5.1 miles south of, on Lake Shore road, in east side of north end of iron bridge over Salmon River, in concrete guard; chiseled square, marked "113.3"-----	113.34
Plattsburg, 6.2 miles south of, on Lake Shore road, west side of road, 400 feet south of top of hill, 300 feet south of red-brick house on same side of road, top of boulder; chiseled square, marked "157.7"-----	157.77
Plattsburg, 6.8 miles south of, on Lake Shore road, 0.5 mile west of Valcour Landing, in northwest corner of crossroads, in top of concrete culvert, chiseled squares.	
East end of culvert-----	127.76
West end of culvert-----	127.73
Plattsburg, 7.8 miles south of, on Lake Shore road, 1 mile south of Valcour Landing, at T road west, on concrete culvert; chiseled square, marked "121.1"-----	121.15
Plattsburg, 8.8 miles south of, on Lake Shore road, 2 miles south of Valcour Landing, at Delaware & Hudson R. R. crossing, west side of track and north side of road, in end of tie; copper nail and washer, marked "126.9"-----	126.96
Plattsburg, 9.8 miles south of, on Lake Shore road, at iron bridge over Ausable River, top of east side of span; rivet, painted "114.66"-----	114.76
Plattsburg, 10.4 miles south of, on Lake Shore road, 0.7 mile southwest of bridge over Ausable River, at T road north, south, and west, in center of triangle, on boulder; chiseled square, marked "165.2"-----	165.29
Plattsburg, 11 miles southwest of, on Keeseeville earth road, northeast corner of wooden bridge over Dry Mill Creek; copper nail and washer, marked "U. S. G. S. 211.8"-----	211.94
Plattsburg, 12.3 miles southwest of, on Keeseeville earth road, in southeast corner of crossroads, on stump; copper nail and washer, marked "U. S. G. S. 313"-----	313.23
Plattsburg, 13.2 miles southwest of, southeast corner of crossroads, in root of large tree; copper nail and washer, marked "U. S. G. S. B. M. 360.6"-----	360.70

PORTRAGE QUADRANGLE.

[Latitude 42° 30'-42° 45'; longitude 78°-78° 15'.]

Primary leveling in 1903 by George Seidel.

From Nunda west along Pennsylvania R. R. to Portage, thence north along Erie R. R. to Silver Lake Junction, thence northeast along Silver Lake Ry. to Perry, thence west over public road to South Warsaw, thence north along Buffalo, Rochester & Pittsburgh Ry. to Warsaw.

Portageville post office, west end of south abutment of Pennsylvania R. R. bridge across Genesee River; bronze tablet stamped "1131 Albany 1903"-----	1, 131.174
Castile, southwest corner of coping stone of water plug; bronze tablet stamped "1395 Albany 1903"-----	1, 394.847

	Feet.
Castile, in front of station; top of rail-----	1,395.0
Summit, highest point of Erie R. R. (Buffalo division); top of rail-----	1,424.4
Silver Springs, road crossing at station; top of rail-----	1,402.0
Silver Lake Junction, about 500 feet west of, north side of Erie track, in pier of Buffalo, Rochester & Pittsburgh Ry. bridge; bronze tablet stamped "1401 Albany 1903" (on single-spur line)-----	1,401.533
Chace station, road crossing; top of rail-----	1,370.0
Fairview, in front of station; top of rail-----	1,364.0
Perry, road crossing; top of rail-----	1,366.0
Perry, north end of west abutment of railroad bridge at station, in top stone; bronze tablet stamped "1362 Albany 1903"-----	1,362.365
South Warsaw, north end of east abutment of bridge across Oatka Creek; bronze tablet stamped "1066 Albany 1903"-----	1,065.823
Warsaw, road crossing at station; top of rail-----	1,116.0
From South Warsaw west along public road to Wethersfield Springs, thence south via Hardys to Pike, thence east to Portage.	
Wethersfield Springs, culvert at west side of road; top of stone-----	1,720.606
Hermitage, 250 feet north of road leading to Gainesville, 300 feet west of East Koy Creek, 200 feet north of Blodgett's office, in boulder; bronze tablet stamped "1658 Albany 1903"-----	1,658.056
Hardys, in front of station; top of rail-----	1,686.1
Pike Five Corners; west end of south abutment of iron bridge-----	1,595.769
Pike, iron bridge across Wiscoy Creek, about center of east abutment, north side of driveway; bronze tablet stamped "1546 Albany 1903"-----	1,545.986

POR T JERVIS QUADRANGLE.[Latitude $41^{\circ} 15' - 41^{\circ} 30'$; longitude $74^{\circ} 30' - 74^{\circ} 45'$.]**Precise leveling in 1900 by C. H. Semper.**

From Sparrowbush southeast and northeast along Erie R. R. to Otisville.	
Sparrowbush, in front of station, northbound track; top of rail-----	473.4
Port Jervis, Erie R. R. bridge over East Main Street, top of south abutment, west side, first step below bridge seat; bronze tablet stamped "456 Albany 1900"-----	457.077
Guymard, 600 feet north of station, railroad culvert, top of north abutment, west side; bronze tablet stamped "780 Albany 1900"-----	780.914
Otisville, 500 feet west of station, small railroad bridge over private road, west abutment, north side, top of bridge seat; bronze tablet stamped "861 Albany 1900"-----	862.219
Otisville, in front of station, westbound track; top of rail-----	857.5

Primary leveling in 1904 by G. M. Dimmick.

From Pine Island west along highway to Unionville, thence north along New York, Susquehanna & Western R. R. to Johnson.	
Unionville, in foundation wall of Baptist Church, south end of east face; bronze tablet stamped "516 Albany 1903 Adj"-----	516.367
Westtown, in foundation wall of storage building of T. G. Clark, south end of west face; bronze tablet stamped "480 Albany 1903 Adj"-----	480.026
Johnson, in foundation wall of the feed store of Simpson & Manning, north end of east face; bronze tablet stamped "451 Albany 1903 Adj"-----	450.994

From Port Jervis southeast along highway to Unionville.

Greenville, in foundation wall of Methodist Church, south end of east face; aluminum tablet stamped "1043 Albany 1903 Adj" _____ Feet. 1,043. 210

From Otis along highway west to Cuddebackville, thence northwest to Oakland Valley.

Cuddebackville, in foundation wall of Methodist Church, south end of east face; aluminum tablet stamped "522 Albany 1903 Adj" ____ 522. 085

Leveling in 1913 by K. F. Maxcy.**Near Port Jervis.**

Port Jervis, west side of south abutment of Erie R. R. bridge over East Main Street, in top of first step below bridge seat; bronze tablet stamped "456 Albany 1900" _____

457. 077

Port Jervis, in front of station, northbound track; top of east rail _____

439. 3

Port Jervis, east abutment of Pike Street highway bridge over Delaware River, south end, in southeast corner of bridge seat; chiseled circle _____

444. 50

PORTELEYDEN QUADRANGLE.¹

[Latitude 43° 30'-43° 45'; longitude 75° 15'-75° 30'.]

Precise leveling in 1900 by C. H. Semper.

From Leyden along Rome, Watertown & Ogdensburg R. R. to East Martinsburg.

Leyden, in front of station; top of rail _____ 1,007. 4

Port Leyden, Hotel Brunswick, opposite station, front face in brick-work; bronze tablet stamped "897 Albany 1900" _____

898. 400

Lyons Falls, in front of station; top of rail _____

843. 7

Glenfield, railroad station, front face of; bronze tablet stamped "776 Albany 1900" _____

777. 618

East Martinsburg, in front of station; top rail _____

761. 3

Primary leveling in 1902 by J. B. Maguire and in 1905 by R. P. Thompson.

From Glenfield east along highway to Houseville, thence south via Turin to Constableville, thence southeast to Boonville.

Houseville, 180 feet south of crossroads, in northeast corner of south abutment of highway bridge; aluminum tablet stamped "1304 Albany" _____

1,304. 024

Turin, at northwest corner in west side of building owned by J. E. Jones, 50 feet southeast from crossroads; bronze tablet stamped "1264 Adj 1903" _____

1,264. 144

Turin, 2.9 miles south of, 250 feet east of house of S. S. Freeman, 150 feet south of house of C. D. Davis, at east side of three roads intersection, 4 feet east of fence, in large rock; bronze tablet stamped "1277 Adj 1903" _____

1,276. 537

Constableville, in southeast corner in water table of Catholic Church, bronze tablet stamped "1260 Adj 1903" _____

1,259. 926

Constableville, 3.4 miles southeast of, 175 feet west of road, 0.2 mile northwest of three corners and 1.2 miles southwest of four corners, in foundation wall, east face, north corner of barn owned by Carpenter; bronze tablet stamped "1191 Adj 1903" _____

1,190. 281

¹ See Bull. 514, p. 24, for additional elevations.

From Port Leyden northeast along highway to Fowlersville, thence northwest to Brantingham, thence west to Glenfield.

	Feet.
Port Leyden, 3.1 miles northeast of, 30 feet north of center of road, 16 feet 8 inches southeast of pine tree, 17 feet 8 inches southwest of pine tree; iron post stamped "1207 Adj 1903" _____	1, 206. 965
Fowlersville, 50 feet north of northeast abutment of highway bridge over Moose River, 20 feet east of center of highway, in ledge of rock; aluminum tablet stamped "1182 Adj 1903" _____	1, 181. 594
Fowlersville, 3.6 miles northwest of, at Gridles Corners, 23 feet east of road to north, 26 feet north of east and west road, 32 feet from center of crossroads; iron post stamped "1226 Adj 1903" _____	1, 225. 959
Brantingham, in center of south face of foundation wall of T. Hess's barn, 250 feet west of four corners; aluminum tablet stamped "1259 Adj 1903" _____	1, 259. 296
Greig, 0.2 mile south of three corners, 150 feet west of house of L. D. Hires, 20 feet north from center of road, in flat rock; bronze tablet stamped "826 Adj 1903" _____	825. 925
Glenfield, in foundation wall of New York Central & Hudson River depot; bronze tablet stamped "776 Albany 1900" _____	777. 618

POTSDAM QUADRANGLE.

[Latitude $44^{\circ} 30'$ - $44^{\circ} 45'$; longitude $74^{\circ} 45'$ - 75° .]

Primary leveling in 1906 by G. M. Dimmick.

From Norwood via Potsdam to South Colton.

Norwood, 2.6 miles south of, in brickwork of schoolhouse, north end of west face, 30 inches above ground; bronze tablet stamped "401 Adj 1903" _____	401. 349
Potsdam, in third step of main entrance of Clarkson school building; aluminum tablet stamped "433 Adj 1903" _____	433. 470
Potsdam, 3.7 miles south of, in foundation wall of the residence of G. B. Crandall, west end of north face; bronze tablet stamped "544 Adj 1903" _____	544. 093
Potsdam, 6.5 miles south of, in south end of east abutment of highway bridge over Raquette River; bronze tablet stamped "559 Adj 1903" _____	558. 958
Colton, in foundation wall of Catholic Church, west end of south face; aluminum tablet stamped "847 Adj 1903" _____	847. 195
South Colton, in foundation wall of Methodist Church, center of south face; bronze tablet stamped "927 Adj 1903" _____	927. 275

From South Colton via Clear Pond and Parishville to Converse.

South Colton, 3.2 miles northeast of, in large rock 15 feet south of center of highway, 400 feet east of farmhouse, owned by W. P. Lindsay; aluminum tablet stamped "1010 Adj 1903" _____	1, 010. 111
South Colton, 6.5 miles northeast of, 20 feet east of Perkins schoolhouse, district 16, in large rock; aluminum tablet stamped "1304 Adj 1903" _____	1, 304. 629
South Colton, 10.1 miles northeast of (Clear Pond), in foundation of stone building, north end of east face; bronze tablet stamped "1314 Adj 1903" _____	1, 314. 518

South Colton, 13.9 miles northeast of, in rock at primary triangulation station Whites Hill (South), 350 feet west of highway; bronze triangulation tablet stamped "1436 Adj 1903"	Feet. 1,435.837
South Colton, 14.3 miles northeast of, in rock at primary triangulation station Whites Hill (North), 400 feet west of highway; bronze tablet stamped "1427 Adj 1903"	1,427.270
Parishville, in foundation wall of Baptist Church, west end of south face; aluminum tablet stamped "903 Adj 1903"	903.313
Parishville, 3.2 miles northeast of, in brickwork of house owned by Charles Cuttings, west end of north face; bronze tablet stamped "774 Adj 1903"	774.163

From Potsdam east to Converse, thence north to Buckton.

Potsdam, 2.4 miles east of, in brickwork of schoolhouse, center of south face; bronze tablet stamped "469 Adj 1903"	469.564
Potsdam, 5.7 miles east of, in top of south end of west abutment of highway bridge over St. Regis River; bronze tablet stamped "507 Adj 1903"	507.353
Potsdam, 8.2 miles east of, in stonework of stone house owned by H. Converse, west end of north face; aluminum tablet stamped "648 Adj 1903"	648.351
Potsdam, 11.3 miles northeast of, in brickwork of Beechertown schoolhouse, west end of south face, 10 bricks from foundation wall and 16 bricks from southwest corner; bronze tablet stamped "549 Adj 1903"	548.916
Buckton, in brickwork of Methodist Episcopal Church, center of west face, six bricks above foundation wall; bronze tablet stamped "405 Adj 1903"	405.190

POUGHKEEPSIE QUADRANGLE.¹[Latitude $41^{\circ} 30' - 41^{\circ} 45'$; longitude $73^{\circ} 45' - 74^{\circ}$.]**Primary leveling in 1899 by Seth Van Loan.****From Poughkeepsie northeast to Pleasant Valley.**

Poughkeepsie station, second step from east end of column on north side of arch bridge, keyed in fifth stone above ground; brass bolt stamped "+"	43.384
Poughkeepsie, city hall, in front face; aluminum tablet stamped "Albany 173"	172.991
Poughkeepsie, south end of first bridge east of station, over small creek; point on corner first step, east abutment	172.94
Poughkeepsie, northwest end of west abutment of small bridge east of Van Wagner crossing; point on top of stone	243.21
Poughkeepsie, 1 mile west of Pleasant Valley, at Landis place, third step from top, south end, west abutment, cattle pass and bridge; point in corner	232.57
Pleasant Valley, 300 feet east of station, in face of rock north side of track; bronze tablet stamped "Albany 211"	211.416

From Highland south along Erie R. R. to Milton.

Milton, south side of Townsend's store, in window sill; bronze tablet stamped "9 Albany"	9.000
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¹ See Bull. 514, p. 45, for other elevations.

From Highland north to College Point.

	Feet.
Highland, Poughkeepsie bridge, west abutment ,southwest corner, top stone; chiseled mark-----	225. 31
Highland, in front of West Shore R. R. station; top of west rail-----	10. 2
Highland, 2 miles north of, east end of south wall of open culvert; chiseled mark -----	8. 90

PULASKI QUADRANGLE.

[Latitude $43^{\circ} 30'$ - $43^{\circ} 45'$; longitude $76^{\circ} - 76^{\circ} 15'$.]

Primary leveling in 1900 by J. B. Maguire.

At Altmar.

Altmar (sand bank), southeast corner of foundation of Union Free School; aluminum tablet stamped "577 Albany"-----	576. 806
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RAQUETTE LAKE QUADRANGLE.

[Latitude $43^{\circ} 45'$ - 44° ; longitude $74^{\circ} 30'$ - $74^{\circ} 45'$.]

Primary leveling in 1899 by W. W. Gilbert and C. B. Bailey.

From Brandreth station east along road via Brandreth and Raquette lakes to Long Lake.

Brandreth Lake, Brandreth camps, northwest corner of clearing, 10 feet east of road, 40 feet south of edge of woods, south face of boulder; aluminum tablet stamped "1915 Albany"-----	1, 913. 224
Brandreth Lake, foot of, 30 feet west of State road, 12 feet south of Brandreth Outlet, in northeast face of large boulder; aluminum tablet stamped "1884 Albany"-----	1, 882. 656
Raquette Lake, Antlers Hotel, 30 feet west of ice house, in bedrock; aluminum tablet stamped "1811 Albany"-----	1, 809. 926
Raquette, Forked Lake Carry, at southwest corner of Carry and State road, 5 feet from road, 15 feet from Carry, in face of large boulder; aluminum tablet stamped "1796 Albany"-----	1, 796. 420

From Blue Mountain Lake to upper dock of Marion River Carry.

Marion River Carry, opposite upper dock of, in the east face of ledge of rock on north side of road; aluminum tablet stamped "1793 Albany"-----	1, 794. 119
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RATHBONE QUADRANGLE.

[Latitude $42^{\circ} - 42^{\circ} 15'$; longitude $77^{\circ} 15'$ - $77^{\circ} 30'$.]

Precise leveling in 1898 by E. L. McNair.

From Cameron southeast along Erie R. R. to Rathbone.

Adrian, 3.7 miles east of, in face of rock cliff on east side of Erie R. R. and highway, 400 feet northeast of highway bridge across Canisteo River, 25 feet from east rail; bronze tablet stamped "1080 D" (found in 1916 by Schlachter)-----	1, 081. 183
Cameron, in front of Erie station; top of north rail-----	1, 047. 8

Cameron, 180 feet west of Erie station, in stone foundation of rail-	Feet.
road water tank; bronze tablet stamped "1048 D"-----	1,048. 915
Cameron Mills, in front of Erie station; top of north rail-----	1,083. 3
Rathbone, general merchandise store of F. G. Martin (building owned by O. O. Whittemore), foundation stone at right of main entrance;	
bronze tablet stamped "1006 D"-----	1,007. 041
Rathbone, in front of Erie station; top of south rail-----	1,008. 6

Leveling in 1899 by C. H. Semper.**From Addison south along Buffalo & Susquehanna Ry. to Elkland.**

Addison, 0.4 mile east of Erie station, 750 feet northeast of track, at right of main entrance to Union School building; aluminum tab-	
let stamped "1021 D"-----	1,022. 554
Addison, 1.3 miles south of, top of east abutment north side of bridge; chisel mark, marked "988 B. M."-----	987. 55
Freeman, 1.2 miles south of, top of rock on east side of track, marked "1308 B. M."-----	1,308. 50
Nichols, at road crossing; top of rail-----	1,406
Freeman, 4.2 miles south of, top of spike in trestle on east side of railroad, chisel mark "1390 B. M." (this trestle reported removed in 1912; elevation, 1,390.49 feet)-----	1,389. 58
Freeman, 5.1 miles south of, at northeast end of trestle culvert; top of bolt in guard rail, chiseled, marked "1346 B. M."-----	1,345. 43
Freeman, 6 miles south of, top of spike in culvert timber, 50 feet west of Nelson flag station, on east side of track; chiseled, marked "1295 B. M."-----	1,294. 52
Elkland, on West Main Street, in front face of Pattison Bank; tab-	
let stamped "1134 Harrisburg 1899"-----	1,184. 432

Leveling in 1916 by K. E. Schlachter.**From Addison southwest along highways via Woodhull to west border of quad-
rangle.**

Addison station, Erie R. R., top of south rail of westbound track-----	986. 8
Addison, 2 miles south of, along State road to Woodhull, on top of small retaining wall of culvert on north side of road; chiseled circle painted "t. b. m. 1024.5"-----	1,024. 40
Addison, 3.2 miles southwest of, along State road to Woodhull, in north side of culvert; chiseled circle painted "t. b. m. 1039.5"-----	1,039. 42
Addison, 4.2 miles southwest of, along State road to Woodhull, in north side of culvert; chiseled circle painted "t. b. m. 1165.0"-----	1,164. 94
Addison, 5.5 miles southwest of, along State road to Woodhull, in south side of concrete bridge, 900 feet east of "Halfway Bridge"; bronze tablet stamped "1129"-----	1,128. 639
Woodhull, 4.8 miles east of, 300 feet east of corner of road south, on south side of culvert; chiseled circle painted "t. b. m. 1165.2"-----	1,165. 01
Woodhull, 3.6 miles east of, on north side of concrete culvert; chiseled circle painted "t. b. m. 1274.0"-----	1,273. 83
Woodhull, 3.2 miles east of, on south side of concrete bridge, at road north; bronze tablet stamped "1229"-----	1,228. 420
Woodhull, 1.8 miles east of, in north end of west abutment of bridge over Tuscarora Creek; chiseled circle painted "t. b. m. 1263.1"-----	1,262. 84

Woodhull, 1 mile east of, on north side of concrete culvert; chiseled circle painted "t. b. m. 1304.2"	Feet.
	1,303.96
Woodhull, 0.3 mile east of post office, in north end of west abutment of bridge over South Branch of Tuscarora Creek; bronze tablet stamped "1314"	1,314.047
Woodhull, on edge of concrete walk, east of Ren Colvins's store; chiseled cross painted "t. b. m. 1321.1"	1,320.83
Woodhull, 1 mile west of, on south end of west abutment of bridge; chiseled circle painted "t. b. m. 1366.6"	1,366.30
Brown school, in south side of west abutment of bridge near; chiseled circle painted "t. b. m. 1409.6"	1,409.30
Brown school, 0.9 mile northwest of, 0.1 mile east of road to north, in south end of concrete culvert; bronze tablet stamped "1692"	1,691.252
Brown school, 2.1 miles west of, in south end of culvert, 215 feet east of road to north; chiseled circle painted "t. b. m. 1675.2"	1,674.81

From Rathbone southwest along highways to Woodhull.

Rathbone, general store of F. G. Martin, on foundation stone at right of main entrance; bronze tablet stamped "1006 D" (Bull. 281, p. 14)	1,007.041
Rathbone, 1.5 miles south of, at road fork, on flat rock in south margin of road; chiseled circle painted "b. m. 1391.5"	1,391.55
Rathbone, 2.5 miles southwest of, top of concrete step, southeast corner, in front of Charles Miller's house; painted "1429"	1,429.20
Merring School, 0.9 mile northeast of, 275 feet south of corner on north end of west side of bridge; painted bolt, eleventh bolt from bottom on outside row, painted "B. M. 1318.6"	1,318.58
Merring School, 400 feet east of, on ledge, in south margin of road at corner; chiseled square painted "b. m. 1606.5"	1,606.54
Woodhull, 2 miles northeast of, on east side of north abutment of bridge; painted circle painted "B. M. 1440.2"	1,440.20
Woodhull, 1.1 miles northeast of, at road fork east, in root, north side of 12-inch maple tree, 25 feet southeast of fork; copper nail and washer painted "B. M. 1595.1"	1,595.14

From Jasper southeast along highways to Woodhull.

Jasper, 0.9 mile east of, 80 feet east of five corners, on southeast corner of bridge; chiseled square painted "t. b. m. 1542.6"	1,542.09
Jasper, 2.5 miles east of, near corner of Townsley School, in south end of east abutment of bridge over Tuscarora Creek; chiseled square painted "t. b. m. 1461.4"	1,460.91
Woodhull, 2 miles west of, in south end of east abutment of bridge; chiseled square painted "t. b. m. 1394.2"	1,393.69
Woodhull, 1 mile west of, on southeast corner of concrete bridge; chiseled square painted "t. b. m. 1374.8"	1,374.28
Woodhull, 0.6 mile west of, on culvert, north side of road; painted circle	1,335.06

From point 2.6 miles north of Jasper along highways northeast and east to Cameron, thence northwest to permanent bench mark 3.7 miles east of Adrian, erroneously reported destroyed in Bulletin 514.

North Jasper, 1.5 miles west of, 0.25 mile east of four corners, 100 feet east of mail box of Albert Baker, in north end of iron culvert; chiseled cross painted "t. b. m. 2101.4"	2,100.92
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North Jasper, 0.4 mile west of, 20 feet west of house of L. S. Talbot, 105 feet north of road, in boulder at well; bronze tablet stamped "1712"	Feet.
	1,711.973
North Jasper, 1 mile north of, on iron girder at northwest corner of bridge; chiseled square painted "t. b. m. 1681.4"	1,680.82
Brookland school, in west end of stone culvert at corner; chiseled circle painted "t. b. m. 1772.9"	1,772.38
Brookland school, 0.8 mile east of, 300 feet east of house of John Brown, in ledge, north margin of road, 2 feet above ground; bronze tablet stamped "1793"	1,791.960
Cameron, 1.7 miles southwest of, at west end of north abutment of bridge; top of large center bolt painted "1263.2"	1,262.60
Cameron, 0.5 mile west of, in north end of center pier of highway bridge over Canisteo River; chiseled circle painted "t. b. m. 1050.4"	1,049.79
Cameron, 2 miles west of, 600 feet west of road crossing, on base of semaphore 316.1, 2 feet above ditch; top of southeast bolt	1,058.64
Cameron, 3.1 miles west of, on base of semaphore pole 317.1, 2 feet above ditch; top of southeast bolt	1,066.67
Cameron, 4 miles west of, in base of semaphore pole 318.1, 2 feet above ditch; top of southeast bolt	1,070.89

From Cameron along highways north and east to point near Campbell.

Cameron, 850 feet west of Erie R. R. station, in south side of concrete culvert; bronze tablet stamped "1050"	1,049.194
Cameron, 1 mile north of, 400 feet north of large barn, in culvert, east side of road; chiseled circle painted "t. b. m. 1408.9"	1,408.27
Cameron, 2.5 miles north of, in west end of concrete drain pipe at road corner to east; chiseled square pointed "t. b. m. 1763.5"	1,762.79
Cameron Hill school, 0.8 mile west of, in southeast quadrant of four corners on rock, 0.2 feet above ground; chiseled circle painted "T. B. M. 1764.3"	1,763.65
Cameron Hill school, at four corners, in root, west side of large maple tree, in southwest quadrant; copper nail and washer painted "t. b. m. 1726.4"	1,725.72
Cameron Hill Church, in northwest corner of top of concrete steps at front entrance; bronze tablet stamped "1754"	1,753.320
Cameron Hill school, 0.5 mile east of, in ledge in south end of tri- angle at road corner; chiseled circle painted "t. b. m. 1629.0"	1,628.31
Risingville, 1.4 miles west of, on rock in south margin of road, 20 feet east of bridge; chiseled circle painted "t. b. m. 1542.9"	1,542.15
Risingville, 0.3 mile west of, in rock in southeast quadrant of road south; chiseled circle painted "t. b. m. 1553.5"	1,552.74
Risingville, 420 feet west of bridge, in south end of concrete culvert, 40 feet west of road fork; bronze tablet stamped "1331"	1,330.080
Risingville, 1.2 miles east of, on rock on south margin of road, 200 feet west of house on north side of road; chiseled circle painted "t. b. m. 1299.7"	1,298.88
Thurston, at four corners, in south end of east abutment of bridge over Spring Brook; chiseled circle painted "t. b. m. 1265.5"	1,264.66
Thurston, in northwest corner of carriage step of Christian Church; bronze tablet stamped "1244"	1,243.380

REDHOUSE QUADRANGLE.

[Latitude $42^{\circ}42'15''$; longitude $78^{\circ}45'79''$.]

Precise leveling in 1898 by E. L. McNair.

From Little Valley southeast along Erie R. R. to Salamanca.

Little Valley, Cattaraugus County courthouse, foundation wall at southwest corner; aluminum tablet stamped "1593 D"	Feet.
	1,594.244
Little Valley, in front of Erie station; top of rail	1,566.5
Elkdale, in front of station; top of rail	1,464.3
Salamanca, 3.25 miles west of, at southwest corner of iron-girder bridge, bridge seat; bronze tablet stamped "1413 D"	1,413.771

Precise leveling in 1899 by E. L. McNair and in 1902 by D. H. Baldwin.

From Shongo southwest along Pennsylvania R. R. to New York-Pennsylvania State line.

Shongo, in front of station; top of north rail	1,372.0
Redhouse, in front of station, main track; top of south rail	1,345.9
Redhouse, 0.56 mile southwest of, southeast corner of bridge 126, on foundation coping stone; aluminum tablet stamped "1340 Dunkirk 1899"	1,340.904
Cold Spring, in front of signboard; top of south rail	1,327.5
Quaker Bridge, in front of station; top of rail	1,329.4
Quaker Bridge, 1.03 miles southwest of, northeast corner of steel-truss bridge, on foundation coping stone; aluminum tablet stamped "1316 Dunkirk 1899"	1,317.298
Wolf Run, in front of station; top of south rail	1,328.9
Wolf Run, 0.10 mile west of, southeast corner of bridge 121, on parapet of coping stone; chiseled square	1,327.018
Onoville, in front of station; top of west rail	1,306.6
State line, opposite boundary post; top of east rail	1,295.2

Primary leveling in 1903 by George Seidel.

From Kennedy east along railroad to Randolph (single-spur line).

Randolph, west end of north abutment of bridge west of station, top stone; bronze tablet stamped "1298 Dunkirk"	1,298.010
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RED MILLS QUADRANGLE.¹[Latitude $44^{\circ}45'45''$; longitude $75^{\circ}15'75''30''$.]

Primary leveling in 1904 by G. M. Dimmick.

From Red Mills east along highway to Chipman.

Red Mills, 6.93 miles east of, in foundation wall of residence of Alvia Martin, west end of south face; bronze tablet stamped "348 Albany 1903 Adj."	348.175
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¹ See Bull. 514, p. 60, for other elevations.

REMSSEN QUADRANGLE.

[Latitude $43^{\circ} 15'$ - $43^{\circ} 30'$; longitude $75^{\circ} - 75^{\circ} 15'$.]

Precise leveling in 1900 by C. H. Semper.

From Remsen along the Rome, Watertown & Ogdensburg R. R. to Limerick.

Remsen, between lower milldam and Rome, Watertown & Ogdensburg R. R., north end of retaining wall, in end of coping, face near corner; bronze tablet stamped "1172"	Feet.	1, 171. 464
East Steuben, in front of station; top of rail		1, 247. 7
Steuben, at road crossing near station; top of rail		1, 273. 4
Alder Creek, milk station, 100 feet south of railroad station, west side of railroad, in south end (east face) of wall; bronze tablet stamped "1253 Albany 1900"		1, 254. 385

Primary leveling in 1897 by E. L. McNair, Clark Brown, and L. T. Haney.

From South Trenton via Prospect, Hinckley, and Northwood to point near Wilmurt.

Trenton, Rome, Watertown & Ogdensburg R. R. station, south door of waiting room, 0.42 foot west of door jamb; water table	840. 65
Prospect station, Rome, Watertown & Ogdensburg R. R. crossing over highway, just north of, on lower step of south abutment, east side; chiseled square	984. 93
Prospect post office, 0.22 mile north of, in field opposite creamery and east of road, in boulder 3 by 7 by 12 feet; copper bolt stamped "1142 R"	1, 141. 105
Hinckley, 0.25 mile west of Empire Hotel, stone culvert north side of road, on east end of wall; chiseled square	1, 181. 05
Hinckley, 2.3 miles northeast of, and about 1.1 miles west of Oneida-Herkimer county line, in Remsen Township, 55 feet from road center, in pasture, west side of road, in boulder; copper bolt stamped "1262 R"	1, 261. 647
Northwood, on stone abutment at northwest corner of iron bridge over stream at sawmill; chiseled square	1, 207. 49
Northwood, 2.8 miles east of, 3,450 feet west of abandoned house south of road, 7 feet north of center of road, on large boulder; copper bolt stamped "1258 R"	1, 257. 696

From Ohio south to Poland.

Ohio, 2.6 miles southwest of, on stone foundation at northeast corner of iron bridge over Black Creek; chiseled square	1, 236. 15
Cold Brook, 3.4 miles north of, 3.6 miles south of Ohio, 480 feet south of road from southwest and 1 mile south of crossing of Black Creek, in Prussian Township, on west side of road, 3 feet from wire fence; copper bolt stamped "1265 R"	1, 264. 710

From Prospect north along New York Central & Hudson River R. R. to Forestport.

Prospect, 1,000 feet northeast of station, on Hinckley Branch Ry., on parapet north side of culvert, on northwest corner of coping; chisel mark "O. B. M. 55"	1, 146. 83
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Remsen, north end of retaining wall between lower milldam and Rome, Watertown & Ogdensburg R. R., in end of coping near face corner; bronze tablet stamped "1172"	Feet.	1,171.464
Honnedaga station, 0.25 mile north of, 40 feet west of track, opposite cattle guard, in boulder 6 by 15 feet; copper bolt stamped "U. S. G. S. 1209 R"	1,208.354	
Forestport station, 2 miles south of, north end of Black River (reservoir) bridge, on west end of coping of parapet; chiseled square	1,178.95	
Forestport, 0.3 mile north of station, at Meeckville, north end of railroad bridge over Little Woodhull Creek, west end of parapet coping; copper bolt stamped "U. S. G. S. R 1199 Ft. B. M."	1,199.054	

From Forestport along road east to Enos, thence northeast to Atwell.

Enos, 0.7 mile southeast of, Oneida-Herkimer county line, at forks of roads to northeast and to Maple Lake; top of stone	1,387.80
Maple Lake, outlet of, 1 mile southeast of Enos, west abutment of bridge; copper bolt stamped "1318 U"	1,317.970
Reeds Mill, east side of south abutment of bridge over Black River; copper bolt stamped "1598 R"	1,597.267

REXVILLE QUADRANGLE.

[Latitude $42^{\circ}42'15''$; longitude $77^{\circ}30'77''45''$.]

Leveeling in 1916 by K. E. Schlachter.

Along highways near east border of quadrangle.

Jasper, 5 miles south of, at road corners, in root, west side of maple on west margin of road; copper nail and washer painted "t. b. m. 1927.3"	1,926.96
Jasper, 3.8 miles south of, in east end of culvert, 50 feet south of Homer Foster's house; bronze tablet stamped "1826"	1,825.507
Jasper, 1.7 miles south of, on west side of bridge over Middle Branch of Tuscarora Creek; chiseled circle painted "t. b. m. 1708.1"	1,707.69
Jasper, in east end of south abutment of bridge over Tuscarora Creek; bronze tablet stamped "1578"	1,577.619
Jasper, 1 mile north of, at road forks, in east end of culvert; chiseled square painted "t. b. m. 1819.8"	1,819.29
Jasper, 2.1 miles north of, at road corner east, in root on west side of 15-inch maple, 20 feet west of road; copper nail painted "t. b. m. 1902.5"	1,902.02
Jasper, 2.6 miles north of, on top of burnt stump in northwest quadrant of road corner west; copper nail and washer painted "t. b. m. 2054.7"	2,054.16

RHINEBECK QUADRANGLE.¹

[Latitude $41^{\circ}45'42''$; longitude $73^{\circ}45'74''$.]

Primary leveling in 1899-1900 by Seth Van Loan and in 1900 by W. S. D. Moore.

From Pleasant Valley northeast to Clinton Corners, thence south to Washington Hollow.

Salt Point, 1 mile east of, south end of west abutment of Leggetts Bridge; corner second stone from top	267.31
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¹ See Bull. 514, p. 45, for other elevations.

158 SPIRIT LEVELING IN NEW YORK, 1896-1905, 1912-1916.

Clinton Corners, north end of west abutment of bridge over Salt Point Creek, in coping stone; bronze tablet stamped "Albany 244"-----	Feet. 244. 735
Hibernia, south abutment, near end of truss bridge over creek; point on east side-----	251. 43

From College Point north along West Shore R. R. to Kingston.

College Point, 180 feet north of "Watchman's Box," on east end of north wall of culvert; chisel mark-----	65. 42
West Park, West Shore R. R. station, in north wall at northwest corner; bronze tablet stamped "113 Albany"-----	113. 842
Esopus, at crossing; top of rail-----	117. 3
Esopus, 0.7 mile north of, south abutment, on east end of bridge; chiseled mark-----	122. 16
Ulster Park, 300 feet south of station, at crossing; top of rail-----	149. 7
Port Ewen, 500 feet south of station, at crossing; top of east rail-----	160

RICHFIELD SPRINGS QUADRANGLE.

[Latitude $42^{\circ} 45' - 43^{\circ}$; longitude $74^{\circ} 45' - 75^{\circ}$.]

Primary leveling in 1899 by A. W. Gill and W. W. Gilbert.

From Mohawk southeast to Paines Hollow, thence east to Newville, thence via Indian Castle to Little Falls.

Mohawk, 3.9 miles southeast of, Gilbert Day's stable, southwest corner of foundation; aluminum tablet stamped "719 Albany"-----	719. 230
Paines Hollow, 0.1 mile west of post office, southwest corner of Dr. Henry Green's stable; aluminum tablet stamped "1133 Albany"-----	1, 133. 300
Newville, southeast corner of stone mill belonging to Messrs. Lewis & Spoor; aluminum tablet stamped "552 A"-----	552. 700

From Paines Hollow south through Jordanville to Richfield Springs.

Richfield Springs, 1 mile northeast of, highway bridge at three corners, at center of east parapet wall, on coping stone; chisel mark-----	1, 329. 35
Richfield Springs, northwest corner of Gould Avenue and Church Street, southeast corner of Universalist Church; aluminum tablet stamped "1327 Albany"-----	1, 327. 556

From Richfield Springs east via Warren to East Springfield.

Springfield Center, foundation of Baptist Church; aluminum tablet stamped "1257 Albany"-----	1, 257. 736
East Springfield, west side of stone building used as post office; aluminum tablet stamped "1324 Albany"-----	1, 324. 721

From Newville via Starkville to East Springfield.

Starkville, Abram De Gorno's mill, in wall 1 foot east of northwest corner of building, 4 feet above ground; aluminum tablet stamped "692 Albany"-----	692. 500
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RICHMONDVILLE QUADRANGLE.

[Latitude $42^{\circ} 30'$ - $42^{\circ} 45'$; longitude $74^{\circ} 30'$ - $74^{\circ} 45'$.]

Precise leveling in 1898 by E. L. McNair.

From Worcester northeast along Delaware & Hudson R. R. to Cobleskill.

	Feet.
Worcester, in front of Delaware & Hudson station; top of north rail	1,306.4
East Worcester, 0.75 mile west of, north end of center pier of railroad bridge or large culvert; aluminum tablet in capstone stamped "1406 A"	1,405.207
East Worcester, in front of Delaware & Hudson station; top of north rail	1,434.5
Richmondville, 0.6 mile west of, northeast corner of Delaware & Hudson R. R. bridge No. 31, in coping stone of east abutment wall; bronze tablet stamped "1224 A"	1,223.062
Richmondville, in front of Delaware & Hudson station; top of south rail	1,185.9
Cobleskill, 1 mile west of, south end of culvert at west side of road crossing; chiseled square	949.23

Primary leveling in 1901 by William Kelley and in 1902 by W. E. Green.

From North Kortright northwest to Fergusonville, thence northeast to Charlotteville, thence north to East Worcester.

South Worcester, 6 feet north of southeast corner of Olmstead & Sturges's store, east side of foundation wall; aluminum tablet stamped "1873 Albany 1901"	1,374.016
East Worcester, in front of station; top of east rail	1,427.63
East Worcester, 0.75 mile west of station (precise line), north end of culvert; tablet stamped "1406 Albany 1901"	1,405.207

From Charlotteville northeast to Summit, thence south to Stewart post office (single-spur line).

Summit, south side wall of Jump & Havens's drug store; bronze tablet stamped "2108 Albany 1902"	2,108.96
Stewart, in southeast corner of post office (Martin Vroman's house); bronze tablet stamped "1364 Albany 1902"	1,364.230

From Cobleskill northwest along the Cherry Valley branch of Delaware & Hudson R. R. via Hyndsville and Seward to Sharon Springs.

Hyndsville, in front of passenger room; top of high rail	1,115.6
Seward, in front of passenger-room door; top of rail	1,181.5
Seward, in front of wall of general store; bronze tablet stamped "1186 Albany 1902"	1,186.486
Hanson's crossing; top of rail	1,217.0

From Seward west along public road to South Valley (single-spur line).

South Valley, Christian Church; bronze tablet stamped "1563 Albany 1902"	1,563.183
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RIDGEWAY QUADRANGLE.

[Latitude $43^{\circ} 15'$ - $43^{\circ} 30'$; longitude $78^{\circ} 15'$ - $78^{\circ} 30'$.]

Primary leveling in 1896 by E. L. McNair.

On circuits tied to canal bench marks.

Jeddo, 153 feet from doorway of Adventist Church, 50 feet from doorway of schoolhouse, in road corners, in top of boulder 3.3 feet high; copper bolt stamped "421"-----	Feet. 419. 927
Oak Orchard, 6 feet from southwest corner of iron bridge across Oak Orchard Creek, 1,000 feet east of post office, in abutment; copper bolt stamped "370"-----	369. 588
Eagle Harbor, Gaines Town, Erie Canal bridge 131, in lower step of east wing, towpath side; copper bolt stamped "516" (Barge canal 516.899) -----	515. 715

RIVERHEAD QUADRANGLE.

[Latitude $40^{\circ} 45'$ - 41° ; longitude $72^{\circ} 30'$ - $72^{\circ} 45'$.]

Primary leveling in 1903 by George Seidel.

From Riverhead southwest to Eastport.

Riverhead, northeast corner of courthouse, in brick foundation; aluminum tablet stamped "28 Willets Pt."-----	27. 862
Eastport, 225 feet north of railroad station, south side of road to Speonk; iron post stamped "29 Willets Pt."-----	29. 780

ROCHESTER QUADRANGLE.¹[Latitude 43° - $43^{\circ} 15'$; longitude $77^{\circ} 30'$ - $77^{\circ} 45'$.]

Precise leveling in 1901-2 by D. H. Baldwin.

From Charlotte south along New York Central & Hudson River R. R. to Rochester.

Charlotte, 0.22 mile northeast of New York Central station, old lighthouse, upper side of water table at south-southeast angle, east of the south window; chiseled cross (U. S. L. S. B. M.)-----	283. 168
Barnard, crossing; top of northwest rail-----	401. 4
Little Ridge crossing; top of west rail-----	432. 1
Rochester, Ridgeway Avenue, or Big road crossing; top of west rail-----	472. 1
Rochester, highway bridge 87, over barge canal, south abutment, east wing; chiseled square on lowest step-----	512. 22
Rochester (State engineer's bench mark 457), Rowe Street bridge 86, near towpath, on foundation under east tower; chiseled square-----	512. 64
Rochester, Rowe Street bridge (Buffalo, Rochester & Pittsburgh Ry.), southwest corner, on parapet stone; chiseled square-----	527. 10
Rochester, Buffalo, Rochester & Pittsburgh Ry. bridge over Niagara Falls R. R., southwest corner, on parapet wall; chiseled square-----	548. 81
Rochester, Buffalo, Rochester & Pittsburgh Ry. bridge over New York Central R. R.; top of west rail-----	561. 5
Rochester, grade crossing of Buffalo, Rochester & Pittsburgh main line over Pennsylvania (branch) R. R.; top of rail-----	543. 4

¹ See Bull. 514, pp. 94-95, for other elevations.

South along Pennsylvania R. R. to Scottsville.

	Feet.
Rochester, 0.22 mile south of, Buffalo, Rochester & Pittsburgh Ry. crossing, west of track, near north end of stone culvert; chiseled square	538.32
Genesee Junction, West Shore R. R. bridge, northeast corner, near northwest corner of parapet stone; chiseled square	524.75
Genesee Junction, in front of station; top of east rail	526.0
Genesee Junction, 1.49 miles south of, southeast corner of small bridge over old canal, coping of foundation wall; chiseled square	525.90
Whites, road crossing, near flag station; top of east rail	527.1
Whites, 0.72 mile south of, old lock, west side wall, south quoin between anchors; chiseled square	530.93
Severance, in front of flag station; top of east rail	532.6
Severance, 640 feet south of, northwest corner of bridge over canal, on coping stone; chiseled square	531.38
Severance, 2.23 miles south of, northeast corner of highway bridge over canal, on coping stone; chiseled square	534.53
Scottsville, 800 feet north of station, south side of creek overflow dam, on top of stone pier; bronze tablet stamped "537 Rochester 1902"	535.447
Scottsville, in front of station, main track; top of west rail	538.4

Primary leveling in 1898 by C. H. Semper.

From Charlotte east along the Rome, Watertown & Ogdensburg R. R. to Forestlawn.

Charlotte, upper side of water table of old lighthouse, at southeast angle east of the south window; chiseled circle (U. S. Engineer Corps bench mark No. 1)	288.168
Charlotte, Genesee River, railroad swing bridge over, on southwest corner of west abutment of bridge, on top of parapet wall; chiseled square	257.16
Windsor, station of Rome, Watertown & Ogdensburg R. R., cement foundation of first post of building east of station; chiseled square	278.46
Irondequoit, in front of Lake Shore Hotel; top of rail	270.2
Irondequoit Bay, Rome, Watertown & Ogdensburg R. R. bridge over outlet of, fourth step of east abutment, north side of track, on northeast corner; chiseled square	252.23
Forestlawn, 0.8 mile west of, railroad bridge over Webster road, on west abutment, north side of top step; chiseled square	266.40

ROSENDALE QUADRANGLE.

[Latitude $41^{\circ} 45' - 42^{\circ}$; longitude $74^{\circ} - 74^{\circ} 15'$.]

Primary leveling in 1900 by W. S. D. Moore and in 1901 by W. E. Greene.

From Kingston west along the Ulster & Delaware R. R. to Brodhead.

Kingston, city hall, in center of face of wall of front portico; aluminum tablet stamped "223 Albany"	223.760
Bridge 6, Ulster & Delaware R. R., east abutment, north end, on top stone; chisel mark	155.94
Kingston Creek bridge, on north end of west abutment; chisel mark	165.01

	Feet.
Stony Hollow, 0.25 mile north of, bridge 12, east abutment, south end, top stone; chisel mark	459. 34
West Hurley, 0.5 mile east of railroad station, 100 feet northwest of road crossing on south side of highway; bronze tablet stamped "546 Albany"	546. 312
West Hurley, in front of station; top of rail	531
Olive Branch, in front of station; top of rail	515. 2
Olive Branch, 400 feet west of station, bridge 17, west abutment, north end, top stone; chisel mark	512. 22
Olive Branch, 2.5 miles west of, bridge 20, east abutment, south end, top stone; chisel mark	506. 37
Brodhead bridge, east abutment, north end; chisel mark	502. 21
Brodhead, at Ulster & Delaware R. R. crossing; top of rail	503. 4

From Shokan southeast along public road to Alligerville.

Krumville, 1.5 miles southeast of, at L. D. Christiana's house, in northeast corner of foundation wall; bronze tablet stamped "827 Albany 1902"	827. 287
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From Alligerville northeast via Rosendale to Rifton.

Alligerville, iron bridge over Rondout Creek, east end of south abutment; bronze tablet stamped "220 Albany 1901"	220. 405
Rosendale, road crossing at station; top of rail	182. 5
Rifton, 150 feet from post office, east side of road, rock ledge; bronze tablet stamped "170 Albany 1901"	169. 887

From Rosendale south along Wallkill Valley R. R. to Newpaltz.

Springtown, farm crossing at station; top of rail	188. 4
Newpaltz, 150 feet north of station, at road crossing; top of rail	207. 5

From Rosendale along Wallkill Valley R. R. to Kingston.

Binnewater, road crossing; top of rail	206. 1
Whiteport, in front of station; top of rail	180. 4

RUSSELL QUADRANGLE.

[Latitude 44° 15'-44° 30'; longitude 75°-75° 15'.]

Leveling in 1914 by K. E. Schlachter.

From point near Hermon southeast along highways to Dranes Corners, thence south to Fine.

Hermon, 0.5 mile west of, at first crossroad out of town, 25 feet south of intersection, 12 feet east of road; bronze tablet stamped "497"	496. 678
Hermon, 1 mile southeast of, along State road to Russell, on top of Fordham Hill, in south side of concrete culvert; chiseled square	658. 12
Hermon, 1.9 miles southeast of, along State road to Russell, in ledge on south side of road; chiseled circle	741. 41
Mott school, 0.8 mile east of, on Gibbons Hill, 200 feet east of house, in north side of concrete culvert; bronze tablet stamped "708"	707. 713

	Feet.
Russell, 1.7 miles northwest of, along State road to Hermon, 350 feet east of water trough, in south side of concrete culvert; chiseled square-----	617. 01
Russell, 0.9 mile west of, along State road to Hermon, in north side of concrete culvert; chiseled square-----	571. 50
Russell, in bridge over Grass River, in east side of center pier; bronze tablet stamped "580"-----	579. 804
Palmerville (Gate's mill), 350 feet north of bridge over Plum Creek, in east side of concrete culvert; top of pebble in chiseled circle-----	592. 63
Palmerville (Gate's mill), 1.4 miles south of, 500 feet south of road fork, in west side of concrete culvert; chiseled square-----	629. 82
South Russell, 2.7 miles north of, at road forks, 6 feet inside fence, in ledge east of road; bronze tablet stamped "645"-----	644. 354
South Russell, 0.9 mile north of, 280 feet south of corner, in east side of concrete culvert; chiseled square-----	697. 02
South Russell post office, 200 feet south of, at road corner, in south-east corner of boulder; bronze tablet stamped "Prim. Trav. Sta. 715"-----	714. 674
South Russell, 0.9 mile south of, at Silverhill Road corner (Offutt's Corner), on west side of road, 7 feet south of concrete culvert, on rock; chiseled circle-----	718. 20
Offutt's Corner, 0.8 mile south of, 350 feet south of road, on boulder on east margin of road; chiseled circle-----	786. 63
School 5 (Russell), 1.5 miles north of, on boulder in west margin of road; chiseled square-----	920. 71
School 5 (Russell), 1 mile north of, at corner, on rock; painted circle-----	903. 93
School 5 (Russell), 600 feet south of, 90 feet south of house, in rock in west margin of road; chiseled square-----	1, 003. 84
Dranes Corner, 0.4 mile north of, in boulder in west margin of road; bronze tablet stamped "1014"-----	1, 013. 081
Dranes Corner, in southwest abutment of bridge over Plum Creek; chiseled square-----	1, 011. 77
Dranes Corner, 1.6 miles south of, 100 feet north of divide, in boulder in east margin of road; bronze tablet stamped "1104"-----	1, 102. 705
Square House Corner, 1.1 miles north of, at road fork, on boulder in fork; chiseled circle-----	1, 027. 88
Square House Corner, 1 mile east of Fine, on boulder opposite T road; painted circle-----	1, 014. 98

From point 3 miles south of Russell southwest along highway to Edwards.

Hughesville school (Russell 4), 0.5 mile west of, on boulder in north margin of road; chiseled circle-----	696. 12
Belleville Corner, 0.9 mile east of, in ledge in south margin of road; chiseled square-----	687. 60
Belleville Corner, 0.6 mile east of, at road south, 150 feet south of intersection, in west side of concrete culvert; bronze tablet stamped "687"-----	686. 220
Edwards, 3 miles northeast of, 700 feet south of road west, on ledge in west margin of road; chiseled circle-----	649. 44
Edwards, 1 mile northeast of, on boulder in east margin of road; chiseled circle-----	653. 24

From Hermon along highways east to point near West Pierpont, thence south to Degrasse, thence southwest to point near Russell school.

Hermon, 1 mile east of, 400 feet east of house, on boulder in north margin of road; chiseled circle-----	Feet. 632. 38
Brownsville, Wood Bridge (2.4 miles east of Hermon), in south side of center pier of bridge over Grass River; bronze tablet stamped "532"-----	531. 709
Gibbs school, 0.2 mile west of, 250 feet east of cheese factory, in boulder in north margin of road; chiseled circle-----	674. 37
Moore's Corner, 1.1 miles west of, 350 feet east of crossroad, in boulder in south margin of road; chiseled circle-----	741. 27
Moore's Corner, 0.4 mile west of, in boulder in south margin of road; bronze tablet stamped "Prim. Trav. Sta. No. 5, 673"-----	673. 089
Moore's Corner, in ledge opposite T road; chiseled circle-----	687. 57
Star school, 0.9 mile southwest of, at corner, 20 feet north of T road, on small boulder 50 feet west of intersection; chiseled square-----	739. 65
Star school, 0.25 mile southwest of, at corner, 50 feet south of intersection, in boulder in west margin of road; bronze tablet stamped "761"-----	761. 287
Stone school, in southwest corner of crossroads at, in boulder; chiseled circle-----	872. 32
Clare Town Hall, 1 mile north of, 0.4 mile north of road west, in boulder in east margin of road; bronze tablet stamped "877"-----	876. 509
Clare Town Hall, 150 feet north of, in southeast abutment of bridge over Buck Brook; chiseled circle-----	803. 80
Clare Town Hall, 0.7 mile south of, 800 feet south of church, in west side of concrete culvert; chiseled square-----	808. 71
Clare cheese factory, 850 feet south of, 75 feet north of road west, in west side of concrete culvert; bronze tablet stamped "816"-----	815. 798
Clare school 1, 100 feet south of, on west side of concrete culvert; chiseled square-----	815. 47
Clare, 650 feet north of Middle Branch bridge, in east side of concrete culvert; bronze tablet stamped "Prim. Trav. Sta. No. 7, 829"-----	828. 534
Degrasse, at road fork, 0.1 mile north of bridge over Grass River, on ledge; chiseled circle-----	854. 36
Degrasse, at crossroads, 200 feet west of school, on north side of concrete culvert; chiseled square-----	868. 12
Degrasse, 0.7 mile south of, at corner, on rock in west margin of road chiseled circle-----	928. 27
Degrasse, 1.7 miles southwest of, in southeast abutment of bridge over Plum Creek; bronze tablet stamped "904"-----	903. 922

From Degrasse southeast along highway to point 0.9 mile east of Clifton.

Degrasse, 1.6 miles southeast of, along road to Newbridge, on boulder in north margin of road; chiseled circle-----	946. 92
Clifton, 0.1 mile southeast of, in south side of concrete culvert; bronze tablet stamped "963"-----	963. 223
Clifton, 0.9 mile southeast of, in north side of concrete culvert; chiseled square-----	1,035. 40

Near Edwards.

	Feet.
Edwards, 1.08 miles northeast of post office, on boulder 20 feet east of center of road; chiseled square-----	653. 24
Edwards, 2.23 miles northeast of, in front yard of James W. Davis's residence, in granite boulder, 30 feet from road; bronze tablet stamped "634"-----	634. 206
Edwards, 3.4 miles northeast of, on rock midway between road and E. Bancroft's barn; chiseled square-----	729. 45

From point near Trout Lake to point near Hermon.

Trout Lake, 1.91 miles northeast of schoolhouse, 260 feet north of E. Taylor's house, 6 feet east of road, on granite ledge; chiseled square-----	704. 30
Hermon, 3 miles south of, at Porter Hill crossroads, 35 feet south of intersection, 6 feet west of road, in granite outcrop; bronze tablet stamped "701"-----	700. 934
Marshville, 0.8 mile south of, 375 feet north of road to east, on rock, 6 feet east of road; chiseled square-----	585. 58
Marshville, 450 feet north of crossroads, on west side of concrete culvert; chiseled square-----	493. 32
Hermon, 0.5 mile west of, at first crossroads out of town, 25 feet south of intersection, 12 feet east of road; bronze tablet stamped "497"-----	496. 678

Leveling in 1916 by F. L. Shalibo.

From near Sellecks Corners southwest along highways to Clare.

Sellecks Corners, 1.6 miles west of, at east edge of bog, on northwest side of road, in rock; chiseled square marked "t. b. m. 958.3"-----	958. 79
Sellecks Corners, 2.7 miles southwest of, at three corners, in front of M. Austin's residence, in large rock; bronze tablet stamped "P. B. M. 1013"-----	1, 013. 652
Sellecks Corners, 3.7 miles southwest of, at foot of hill, on cement culvert; chiseled square marked "t. b. m. 828.1"-----	828. 68
Sellecks Corners, 4.6 miles southwest of, 100 feet below A. Garnard's residence, on opposite side of road, in rock; chiseled square marked "t. b. m. 823.6"-----	824. 14
Clare, 150 feet north of Town Hall, in southeast abutment of bridge over Book Brook; chiseled circle marked "t. b. m. 803.8"-----	803. 80

ST. REGIS QUADRANGLE.

[Latitude 44° 15'-44° 30'; longitude 74° 15'-74° 30'.]

Precise leveling in 1900 by C. H. Semper.

From Blue Pond along New York & Ottawa R. R. to Brandon.

Blue Pond, in front of station; top of rail-----	1, 552. 7
Blue Pond, 5 miles north of, 1,300 feet north of milepost "T. 18 & O. 110," in large boulder 10 feet west of track; bronze tablet stamped "1551 Albany 1900"-----	1, 551. 259
Brandon, in front of station; top of rail-----	1, 603. 4
Brandon, 1 mile north of, 0.4 mile north of milepost "T. 23 & O. 105," in large boulder 10 feet west of track; bronze tablet stamped "1595 Albany 1900"-----	1, 594. 129

Primary leveling in 1901 by C. H. Semper and in 1902 by George Seidel.

From Saranac Junction southwest along the New York Central R. R. to Tupper Lake Junction.

	Feet.
Saranac Inn, in front of station; top of rail	1, 622. 3
Saranac Inn, 1.7 miles west of, 200 feet south of milepost (Herkimer 146), in middle of rock cut; aluminum tablet stamped "1632 Ft. Covington 1901"	1, 631. 920
Floodwood, at road crossing; top of rail	1, 594. 0

From Paul Smith station west along public roads via Paul Smith post office to Brandon.

Paul Smith post office (Corning Point), 900 feet south of store, in boulder, aluminum tablet stamped "1632 Ft. Covington"	1, 631. 943
Paul Smith post office, 2.8 miles west of, at power house; northeast corner of concrete dam	1, 620. 77
Brandon, in front of station; top of rail	1, 603. 3

At Wawbeek.

Wawbeek, 100 feet west of road corners, at south side of road, in boulder; aluminum tablet stamped "1650 A"	1, 650. 771
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SALAMANCA QUADRANGLE.

[Latitude 42°-42° 15'; longitude 78° 30'-78° 45'.]

Precise leveling in 1898 by E. L. McNair.

From West Salamanca southeast along Erie R. R. to Allegany.

West Salamanca, in front of flag station; top of rail	1, 372. 6
Salamanca, in front of Erie station; top of rail	1, 387. 5
Salamanca, Union School building on Maple street, in water table at right of entrance; aluminum tablet stamped "1391 Dunkirk 1899"	1, 391. 485
Killbuck, in front of flag station; top of rail	1, 385. 6
Carrollton, in front of station; top of rail	1, 391. 0
Carrollton, 475 feet east of Erie station, west pier of Buffalo, Rochester & Pittsburgh Ry. iron bridge crossing over Erie tracks; bronze tablet stamped "1393 D"	1, 394. 641
Vandalia, in front of Erie station; top of rail	1, 407. 8
Allegany, 1.8 miles west of Erie station, on stone arch culvert under Erie R. R., 75 feet east of road crossing, south end of next to top step; bronze tablet stamped "1408 D"	1, 408. 938

Primary leveling in 1897 by E. L. McNair.

From South Vandalia southeast through Chipmunk oil fields to Knapp Creek.

Chipmunk, 0.8 mile south of, 55 feet south of road east and 140 feet north of M. Kelly's white house, 2 feet outside of fence on west side of road; copper bolt in boulder stamped "1529 Ft. S"	1, 524. 144
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Carrollton south via Limestone to New York-Pennsylvania State line.

South Carrollton, 1.2 miles south of, iron highway bridge crossing Allegheny River, on bridge abutment 8 feet from southeast corner; chiseled square	1, 397. 23
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South Carrollton, 2 miles south of, 4 miles north of Limestone, in large boulder nearly buried in ground on west side of road, between it and ditch, near entrances to pasture fields on each side of road; copper bolt stamped "1410 Ft. S"	Feet. 1, 405. 718
Limestone, 2 miles south of, 9 feet from southwest corner of iron bridge over stream just inside State line, in stone abutment; chiseled square	1, 413. 47
Limestone, 2.3 miles south of, on west side of road, near oil derrick, opposite telephone pole 6050, on top of State-line monument; chiseled square	1, 450. 83

Killbuck northeast to Great Valley, thence east to Humphrey.

Killbuck, 3.9 miles north of, at southwest corner of iron bridge across Wrights Creek at about 0.25 mile above its junction with Great Valley Creek, in stone abutment; copper bolt stamped "1456 Ft. S"	1, 451. 923
Great Valley, 2.52 miles southeast of, northwest corner of iron bridge across Wrights Creek, near a white church, on stone abutment; chiseled square	1, 513. 61
Humphrey, 1.7 miles west of, 4 feet from southeast corner of iron bridge across Wrights Creek, on stone abutment; chiseled square	1, 548. 98
Humphrey, W. J. Sherman's hotel, in stone doorstep in front of porch, west side; copper bolt stamped "1626 Ft. S."	1, 621. 444

SANGERFIELD QUADRANGLE.

[Latitude 42° 45'-43°; longitude 75° 15'-75° 30'.]

Precise leveling in 1901 by D. H. Baldwin.

From Richfield Junction south along Delaware, Lackawanna & Western R. R. to Bridgewater, thence along Unadilla Valley Ry. to West Edmeston.

Richfield Junction, 2.84 miles south of, at North Bridgewater crossing near old milk station, top of east rail	1, 235. 9
Bridgewater, in front of station; top of east rail	1, 198. 1
Leonardsville, at southeast corner of milk station, in face of corner stone of foundation; aluminum tablet stamped "1152 Albany 1901"	1, 152. 551
Leonardsville, at crossing near station; top of east rail	1, 148. 7
West Edmeston, crossing; top of east rail	1, 138. 8
West Edmeston, northeast corner of highway bridge, on coping stone of east abutment; chiseled square	1, 134. 21

Primary leveling in 1904-5 by G. M. Dimmick.

From Richfield Junction along Delaware, Lackawanna & Western R. R. southwest via Waterville and New Brookfield to Poolville.

Paris station, in foundation wall of the residence of J. W. Pugh, east end of north face; bronze tablet stamped "1423 1903 Adj"	1, 423. 286
Waterville, 150 feet west of station, in foundation wall of N. C. Bohn & Son's shoe shop, south end of east face; aluminum tablet stamped "1237 Albany Adj"	1, 237. 417
Sangerfield, 200 feet east of station, in foundation wall of residence of M. L. Williams; bronze tablet stamped "1250 Albany 1903 Adj"	1, 250. 190

North Brookfield, in foundation wall of Cedar Valley Hotel, north end of west face; aluminum tablet stamped "1201 Albany 1903 Feet. Adj" _____ 1, 200. 680

Hubbardsville, in foundation wall of Hotel Green, east end of north face; bronze tablet stamped "1202 Albany 1903 Adj" _____ 1, 202. 113

From Bouckville northeast along New York, Ontario & Western Ry. to Deansboro, thence southeast to Waterville.

Oriskany Falls, in foundation wall of the store of E. McGlynn, east end of south face; bronze tablet stamped "978 Adj 1903" _____ 978. 320

Deansboro, in foundation wall of the United States milk condensery, east end of south face; bronze tablet stamped "795 Adj 1903" _____ 795. 020

Forge Hollow, 0.51 mile southeast of, in foundation wall of stone schoolhouse, south end of east face; aluminum tablet stamped "987 Adj 1903" _____ 986. 810

From Richfield Junction south along Delaware, Lackawanna & Western R. R. to Bridgewater.

Bridgewater, in foundation wall of Congregational Church, north end of east face; bronze tablet stamped "1215 Albany 1903 Adj" _____ 1, 215. 112

SANTA CLARA QUADRANGLE.¹

[Latitude 44° 30'-44° 45'; longitude 74° 15'-74° 30'.]

Precise leveling in 1900 by C. H. Semper.

From Leboeuf along New York & Ottawa R. R. to Santa Clara.

Leboeuf, 0.3 mile north of, in large rock 125 feet north of section post 14-15, and 50 feet east of railroad; bronze tablet stamped "1556 Albany 1900" _____ 1, 555. 690

Spring Cove, in front of station; top of rail _____ 1, 342. 6

Santa Clara, in front of station; top of rail _____ 1, 337. 4

Santa Clara, 0.7 mile north of, 750 feet north of milepost "T. 37 & O. 91," in large rock 10 feet east of railroad; bronze tablet stamped "1306 Albany 1900" _____ 1, 306. 086

SANTANONI QUADRANGLE.

[Latitude 44°-44° 15'; longitude 74°-74° 15'.]

Primary leveling in 1901 by C. H. Semper.

From Axton via Ampersand and Preston Ponds to Averyville.

Axton, 6.5 miles east of, 0.7 mile southwest of Ampersand Lake, 450 feet west of old lumber camp, 10 feet south of road, on large rock 20 by 15 feet; bronze tablet stamped "1917 Ft. Covington 1901" _____ 1, 917. 438

Averyville, 550 feet south of school, 20 feet west of west margin of road, in large boulder 8 feet square; bronze tablet stamped "2069 Ft. Covington 1901" _____ 2, 069. 446

From Averyville via Lake Placid and along the Chateaugay R. R. to Lake Placid.

Averyville, 1.9 miles northeast of, iron bridge over river, west side of north abutment, on top of bridge seat; chiseled square _____ 1, 817. 88

¹ See Bull. 514, p. 13, for other elevations.

From Newcomb north along road toward Cold River (single-spur line).

Newcomb, 7.8 miles north of, 0.8 mile west of Moose Pond, on road to
Cold River at top of hill, 30 feet east of road, on large rock; bronze Feet.
tablet stamped "1910 Ft. Covington 1901"----- 1, 909. 615

**From Preston Ponds south along trail and public roads via Upper Iron Works
to Tahawas.**

[Excessive error distributed in this line.]

Preston Ponds, 800 feet south of Upper Pond, on east margin of trail
between Upper Pond and Henderson Lake, in face of rock; bronze
tablet stamped "2180 Ft. Covington 1901"----- 2, 179. 791
Upper Iron Works, opposite Tahawas Club house, 65 feet east of
road; on large rock; bronze tablet stamped "1771 Ft. Covington
1901"----- 1, 770. 881

SARANAC QUADRANGLE.

[Latitude 44° 15'-44° 30'; longitude 74°-74° 15'.]

**Primary leveling in 1901 by C. H. Semper, in 1902 by George Seidel and A. P.
Meade, jr.****From Lake Placid along railroad to Saranac Lake.**

Lake Placid, 2.8 miles west of, north end of west abutment of stone
culvert; top of bridge seat, chiseled square----- 1, 631. 88
Lake Placid, 4.5 miles west of, north end of east abutment of stone
culvert; top of parapet wall, chiseled square----- 1, 570. 97
Ames Mills, at road crossing; top of rail----- 1, 569. 0
Saranac Lake, stone building formerly the Baptist Church, opposite
Grand Union Hotel, in north face of foundation wall; aluminum
tablet stamped "1549 Ft. Covington 1901"----- 1, 548. 97

**From Saranac Lake northwest along New York Central R. R. via Lake Clear
to Saranac Junction.**

Saranac Lake, in front of New York Central R. R. station; top of
rail----- 1, 574. 0
Lake Clear (Saranac Junction), in front of station; top of rail----- 1, 632. 7
Lake Clear (Saranac Junction), 800 feet south of station, railroad
water tank, on top of southeast foundation stone nearest track;
chiseled square ----- 1, 630. 25

**From Saranac Lake southwest along State road via Ampersand Hotel to
clearing (single-spur line).**

Saranac Lake, 6.4 miles southwest of, on north edge of clearing, on
face of large rock; aluminum tablet stamped "1678 Ft. Covington
1901" ----- 1, 678. 218

**From Saranac Junction northeast along New York Central & Hudson River
R. R. via Paul Smith station to Onchiota.**

Saranac Junction, west side of railroad, southeast corner of founda-
tion stone of water tower; aluminum tablet stamped "1630 Ft.
Covington"----- 1, 630. 474
Paul Smith station, road crossing at station; top of rail----- 1, 701. 2

Paul Smith station, 665 feet west of track, 225 feet north of road to post office, in boulder; bronze tablet stamped "1704 Ft. Covington" _____ Feet. 1,703.800

Rainbow Lake, road crossing at station; top of rail _____ 1,708.5

Onchiota, 200 feet south of station, east side of track, in big boulder; aluminum tablet stamped "1710 Ft. Covington" _____ 1,710.514

From Paul Smith station east along public roads to Bloomingdale, thence north via Vermontville to Onchiota.

Bloomingdale station, road crossing; top of rail _____ 1,555.8

Bloomingdale station, iron bridge, 70 feet east of north side of road, in large boulder; aluminum tablet stamped "1530 Ft. Covington" _____ 1,529.666

Vermontville, 5.6 miles north of, road crossing, in large boulder; aluminum tablet stamped "1776 Ft. Covington" _____ 1,776.288

SARATOGA QUADRANGLE.

[Latitude 43°-43° 15'; longitude 73° 45'-74°.]

Precise leveling in 1899 by E. L. McNair.

From Ballston Spa north along Delaware & Hudson R. R. to Kings.

Ballston Spa, Saratoga County courthouse, foundation stone 4 feet left of main entrance; aluminum tablet stamped "320 Albany" _____ 320.848

Saratoga Springs, Loughberry Lake, surface of water _____ 283.0

Saratoga Springs, Delaware & Hudson R. R. station, 1,500 feet south of, at east end of north abutment of steel-girder bridge over Congress Street, in coping stone; aluminum tablet stamped "314 Albany 1899" _____ 314.410

Greenfield station, 0.33 mile north of, at southeast corner of stone culvert under railroad, in coping stone; aluminum tablet stamped "596 Albany 1899" _____ 596.343

Kings, 0.8 mile north of station, at northeast corner of stone culvert under railroad, in coping stone; aluminum tablet stamped "602 Albany 1899" _____ 602.834

Primary leveling in 1899 by J. E. Thomas.

From Ballston Spa via Factory village to Middlegrove.

Factory village, east abutment of bridge over creek; bench mark at southwest corner _____ 354.48

Rock City Falls, on wall of flume at Pioneer Mills, 50 feet south of track; chisel mark _____ 400.49

Rock City Falls, southeast corner of mill, 40 feet east of stone bridge; aluminum tablet stamped "445 Albany" _____ 445.760

From East Galway east to South Greenfield.

East Galway, in east side of foundation wall of Baptist Church; bronze tablet stamped "889 Albany" _____ 889.598

Rock City Falls, 2.5 miles northwest of, near gristmill at Middlegrove; northwest corner of west abutment to iron bridge over Kayaderosseras Creek _____ 523.56

Middlegrove, in east end of south abutment of iron bridge over Kayaderosseras Creek; bronze tablet stamped "523 Albany" _____ 523.515

From Hadley south to Corinth (single-spur line).

Corinth, in northwest corner of Baptist Church; bronze tablet stamped "626 Albany" ----- Feet.
626. 057

SCHENECTADY QUADRANGLE.¹

[Latitude $42^{\circ} 45' - 43^{\circ}$; longitude $73^{\circ} 45' - 74^{\circ}$.]

Precise leveling in 1899 by E. L. McNair.

From Schenectady north along Delaware & Hudson R. R. to Ballston Lake.

Ballston Lake, 0.75 mile north of, coping stone at west end of stone culvert under railroad; aluminum tablet stamped "269 Albany 1899" (mutilated) ----- 269. 116

Precise leveling in 1898 by E. L. McNair.

From Schenectady east along Erie Canal to point 6.5 miles east of Rexford.

Schenectady, New York Central & Hudson River R. R. bridge over Erie Canal, northeast corner of coping stone of abutment wall; bronze tablet stamped "242 A" ----- 241. 195
 Schenectady, 4 miles east of, Rexford Feeder bridge, Erie Canal; coping 1.5 feet from south corner west abutment ----- 217. 244
 Rexford, 3.5 miles east of; coping stone on south corner of east wall of west lock 20 ----- 208. 305
 Rexford, 3.5 miles east of; top of screw bolt fastening down collar of southwest gate of west lock 20 ----- 208. 396
 Rexford, 6.5 miles east of; top of projection of stone on second course of masonry at east corner of south abutment of second canal bridge below lock 19 ----- 190. 870

SCHOHARIE QUADRANGLE.

[Latitude $42^{\circ} 30' - 42^{\circ} 45'$; longitude $74^{\circ} 15' - 74^{\circ} 30'$.]

Precise leveling in 1898 by E. L. McNair.

From Cobleskill northeast along Delaware & Hudson R. R. to Esperance.

Cobleskill, Union school building, stone foundation at northwest corner; bronze tablet stamped "930 A" ----- 929. 604
 Cobleskill, in front of Delaware & Hudson station; top of north rail ----- 909. 1
 Barnerville, crossing, on rock 50 feet north of railroad; chiseled square ----- 903. 833
 Barnerville, crossing, in front of station; top of north rail ----- 906. 1
 Howe Cave, in front of Delaware & Hudson station; top of south rail ----- 795. 4
 Howe Cave, 1.2 miles east of, bridge seat at northwest corner of small bridge or open culvert; bronze tablet stamped "731 A" ----- 730. 725
 Central Bridge, in front of Delaware & Hudson station; top of north rail ----- 621. 1
 Schoharie Junction, in front of Delaware & Hudson station; top of north rail ----- 598. 8
 Esperance, 1,250 feet west of Delaware & Hudson station, north end of stone culvert under Delaware & Hudson R. R., in coping stone; bronze tablet stamped "758 A" ----- 752. 440
 Esperance, in front of Delaware & Hudson station; top of north rail ----- 768. 0

¹ See Bull. 514, pp. 65-67, for other elevations.

Primary leveling in 1898 by Clark Brown.

From Shutts Corners to Barnerville.

	Feet.
Shutts Corners, schoolhouse; east end of doorsill.....	1,145.97
Barnerville, 200 feet west of covered bridge, 100 feet north of Main Street, at iron bridge over mill race, south abutment, east wing; aluminum tablet stamped "A 827".....	827.253

From Barnerville east to Schoharie, thence south to Middleburg.

Schoharie, courthouse, south side of south door in west front, beveled jamb; aluminum tablet stamped "A 611".....	611.077
Schoharie, 1.25 miles south of Bridge Street, on railroad bridge, north abutment, west wing, second step, domelike fossil 6 inches from face.....	609.43
Middleburg, schoolhouse, east front, south of entrance, in foundation wall; aluminum tablet stamped "A 649".....	649.551
Breakabeen, Lutheran Church, in west foundation, 5 feet from corner; aluminum tablet stamped "A 754".....	754.323
West Fulton, iron bridge across Panther Creek, south abutment, east end, in coping; aluminum tablet stamped "A 1156".....	1,157.150
Vintonton, 0.25 mile south of, schoolhouse; south end of doorsill.....	1,390.44

From Middleburg south to Franklinton.

Middleburg, 1.75 miles southeast of, iron bridge, north abutment, east wing, on bridge seat; chiseled square.....	743.47
Franklinton, schoolhouse, southwest corner of foundation; aluminum tablet stamped "A 1215".....	1,214.907

SCHROON LAKE QUADRANGLE.

[Latitude $43^{\circ} 45' - 44^{\circ}$; longitude $73^{\circ} 45' - 74^{\circ}$.]

Primary leveling in 1896 by A. F. Krause.

From North Creek north via Minerva to Aiden Lair.

Minerva, in north end of picket fence southeast of Kellogg House, in large boulder 15 feet to right and 1.5 feet above road; copper bolt stamped "U. S. G. S. 1393 Ft. B. M.".....	1,389.009
Minerva, 1.75 miles north of, 80 feet east of Kellogg House, at junction of road to North Woods Club, south of schoolhouse, 26 feet to right of and 7.3 feet above center of road, in outcrop; copper bolt stamped "U. S. G. S. 1742 Ft. B. M.".....	1,737.854

SCHUNEMUNK QUADRANGLE.

[Latitude $41^{\circ} 15' - 41^{\circ} 30'$; longitude $74^{\circ} - 74^{\circ} 15'$.]

Primary leveling in 1899 by Seth Van Loan.

From Cornwall via Newburg Junction along the Erie R. R. to Oxford.

Cornwall, 600 feet north of, New York, Ontario & Western Ry. bridge, in face of west abutment; bronze tablet stamped "Albany 271".....	273.714
Mountaintown, 0.5 mile north of, west end of south abutment of railroad bridge; point on bridge seat.....	229.58

	Feet.
Woodbury, 200 feet south of station; point on northeast foot block at end of truss bridge-----	435. 90
Central Valley, 200 feet north of station, south abutment, east end bridge seat; point on stone-----	484. 20
Central Valley, west of Noxon's store, in large stone in retaining wall of Finken's place; bronze tablet stamped "Albany 488" (loose)-----	489. 334
Newburg Junction, 0.5 mile north of, east end of south abutment of railroad bridge; point on bridge seat-----	518. 22
Arden, 300 feet north of, north abutment of bridge over stream; point on top, east end, chisel mark-----	522. 16
Arden, 300 feet north of station, railroad bridge over stream, in pier top, east end; bronze tablet stamped "Albany 519" (covered by dirt)-----	520. 695
Doyles, 0.25 mile east of, face of large boulder in road; bronze tablet stamped "Albany 718" (reported destroyed)-----	719. 921
Turners, 300 feet west of, west abutment of bridge, on north end; chisel mark-----	554. 78
Monroe, 0.5 mile east of, west abutment of culvert; point on top of north end-----	592. 32
Oxford, 300 feet east of, east abutment of overhead bridge; point on north end-----	531. 92

From Oxford north to Burnside, thence east to Cornwall.

Craigville, 300 feet north of, south abutment, east end of cattle pass; point second step from top-----	423. 42
Farmingdale, 500 feet north of, south abutment, east end of cattle pass; point on top-----	379. 27
Elsmere, 0.5 mile south of, west of north abutment of cattle pass; point on second step from top-----	372. 80
Burnside, 1.25 miles east of, in west face of east abutment of concrete-arch railroad bridge 35; bronze tablet stamped "359 Albany"-----	358. 823
Meadowbrook, 400 feet east of; point on north end of east abutment of culvert-----	337. 2
Cornwall, 0.4 mile east of, south abutment of Erie R. R. bridge; point on coping at west end-----	338. 34
Cornwall, west abutment of New York, Ontario & Western Ry. bridge; point on step, north end-----	271. 82

SCHUYLERVILLE QUADRANGLE.¹

[Latitude 43°-43° 15'; longitude 73° 30'-73° 45'.]

Primary leveling in 1898 by Clark Brown.

From Schuylerville via Burgoyne and Stafford to Saratoga.

Schuylerville, in front of station; top of rail-----	175. 0
Schuylerville, corner of College and Green streets, school building, under second window from west corner; bronze tablet stamped "216 A"-----	215. 149
Victory Mills, in front of station; top of rail-----	192. 7
Victory Mills, southwest corner of Gates Avenue and Pine Street, southeast corner of foundation of hotel, on projecting stone; chisel mark-----	200. 64
Gates in front of station; top of rail-----	234. 0

¹ See Bull. 514, pp. 53-55, for additional elevations.

Burgoyne, bridge over Saratoga Lake outlet, north abutment, east face, corner of coping; chiseled square	Feet.
	210. 75
Burgoyne, road crossing at station; top of rail	
	217. 0
Stafford, in front of station; top of rail	
	209. 9
Schuyler Junction, 1.5 miles west of, double-span bridge, center pier, southwest corner, coping; chiseled square	
	225. 14

From Saratoga along Fitchburg and Delaware & Hudson railroads northeast via Gansevoort to Fort Edward.

Saratoga, 5.5 miles northeast of, South Wilton Church, south side near front, in foundation; bronze tablet stamped "327 A" (reset 1913, elevation doubtful)	326. 192
Gansevoort, 3.75 miles south of, railroad bridge over road, outside anchor; bolt in southeast wall plate	308. 90
Gansevoort, Empire House, south side, near front, in brickwork; bronze tablet stamped "246 A"	245. 213

From Schuylerville to Champlain Canal bridge 56.

Schuylerville, Ferry Street canal bridge, towpath abutment, north wing, face corner, second step from bottom; chiseled cross in circle (canal bench mark 42)	105. 90
Schuylerville, 2 miles south of canal bridge 56; towpath abutment, north wing, face corner; chiseled cross in circle (canal bench mark 41)	107. 15

From Schuylerville east to Bald Mountain, thence south to Easton Corners, thence west to Sarles Ferry.

Schuylerville, 1.5 miles north of, canal bridge 63, towpath abutment, south end, lower step, face corner; chiseled cross in circle (canal bench mark 45)	107. 36
Schuylerville, 1.75 miles north of, lock 10, coping, southeast anchor; chiseled cross in circle (canal bench mark 46)	109. 05
Middle Falls, south bank of creek, 75 feet east of covered bridge, southeast corner of brick gristmill; bronze tablet stamped "303 A"	302. 767
North Easton (Easton Corners), 0.1 mile north of, 10-foot arch culvert, southwest wing, first stone back of arch on level with base; bronze tablet stamped "332 A"	331. 719

From Sarles Ferry northeast via Quaker Springs to Staffords Bridge.

Sarles Ferry, opposite, on Champlain Canal, waste weir 7, north wing, southeast corner of coping; painted cross in circle (Canal bench mark 37 and Deep Waterways bench mark)	103. 195
Quaker Springs, 600 feet west of crossroads, north side of road, in outcrop; bronze tablet stamped "321 A"	320. 234
Schuylerville, Staffords Bridge, east end of north abutment, back corner of coping; chiseled square	208. 37

From Bald Mountain north via Durkeetown to Fort Edward.

Durkeetown Church, south side, 10 feet from rear corner, in stone foundation; bronze tablet stamped "171 A"	169. 928
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SETAUKEET QUADRANGLE.

[Latitude $40^{\circ} 45' - 41'$; longitude $73^{\circ} - 73^{\circ} 15'$.]

Primary leveling in 1902 by A. P. Meade.

From Kings Park east along Long Island R. R. to Port Jefferson, thence along highways south to Holtsville, thence west to Brentwood.

Smithtown, southwest wing wall of big railroad bridge, cement pier, west end of bridge; bronze tablet stamped "26 Willets" _____	Feet. 25. 740
Stony Brook, 300 feet east of station, 30 feet north of track, at foot of triple tree; top of big rock, chiseled square_____	111. 26
Setauket, 100 feet west of station, north side of east abutment of railroad bridge; top of first step below coping_____	80. 70
Port Jefferson, at east end of station, railroad crossing; top of north rail_____	191. 7
Port Jefferson, railroad crossing, 6 feet north of track, west side of highway crossing, 25 feet east of freight station; iron post stamped "192 Willets" _____	192. 078
Selden, northwest corner of Methodist Church, in brick foundation; bronze tablet stamped "108 Willets" _____	107. 61
Ruland Hill, Coast and Geodetic Survey triangulation station, 1.9 miles south of Selden; top of east stone reference post_____	332. 86
Holtsville, north face of brick house south of track, 150 feet east of station; bronze tablet stamped "104 Willets" _____	103. 728
Ronkonkoma, east end of station, in grass plot, south of highway, north of track; iron post stamped "108 Willets" _____	108. 300

From point 1.4 miles east of Brentwood north along highway to Smithtown branch.

Hauppauge, in front of post office, road crossing; top of big milestone. Smithtown branch railroad crossing, south side of track, east side of highway, west end of station; spike in telegraph pole_____	59. 06
_____	63. 64

From Patchogue north to Holtsville.

Patchogue, Coast and Geodetic Survey gage bench mark 1, about 80 yards from shore, west of Ocean Avenue; 4 spikes in twin cedar tree (elevation given by Coast Survey) _____	5. 70
Patchogue, railroad freight station, north side of track, in northeast corner of brick wall; aluminum tablet stamped "15 Willets Pt." _____	15. 540

SILVER CREEK QUADRANGLE.

[Latitude $42^{\circ} 30' - 42^{\circ} 45'$; longitude $79^{\circ} - 79^{\circ} 15'$.]

Precise leveling in 1902 by D. H. Baldwin.

From Angola southwest along Lake Shore & Michigan Southern Ry. to Silver Creek.

Angola, 1.69 miles northeast of, northeast corner of trestle over cattle pass, 1 foot above track, on coping stone of wing wall; chiseled square_____	677. 16
Angola, 0.51 mile northeast of, southwest corner of truss and stone-arch bridge 228, near northwest corner of coping stone; chiseled square_____	680. 06
Angola, in front of station; top of rail_____	690. 0

	Feet.
Farnham, southeast corner of bridge 220, in east face of parapet coping stone; bronze tablet stamped "633 Rochester 1902"-----	632. 956
Farnham, in front of station; top of rail-----	632. 3
Farnham, 1.21 miles southwest of, northeast corner of culvert 218, on coping stone; chiseled square-----	610. 15
Irving, in front of station; top of rail-----	601. 7
Silver Creek, southeast corner of bridge 207 over Dunkirk Street, near east corner of parapet wall; chiseled square-----	622. 10
Silver Creek, in front of station; top of rail-----	625. 5
Silver Creek, 1.58 miles southwest of, southeast corner of bridge 204 (A52), near southeast corner of parapet stone; chiseled square-----	628. 02

SKANEATELES QUADRANGLE.

[Latitude 42° 45'-43°; longitude 76° 15'-76° 30'.]

Primary leveling in 1896 by A. B. Pomme.

From Skaneateles south along highway to Owasco, thence southeast to Glenhaven.

Skaneateles, in west wing of wall of State dam, first step from top; copper bolt stamped "U. S. G. S. B. M. 870 ft."-----	866. 648
Owasco, brook north of, on northwest seat of iron bridge; chiseled square-----	792. 47
Owasco, 0.25 miles southeast of, on road to Twelve Corners, in fifth foundation stone from south end of dry wall on east side of north approach to small iron bridge; copper bolt stamped "U. S. G. S. B. M. 853 ft."-----	849. 588
Owasco, 2 miles from, on north wing stone, southwest end of culvert, at forks of road; chiseled square-----	1, 175. 88
Twelve Corners, house in northeast corner of road crossing, on boulder in front yard; chiseled square-----	1, 391. 91
Kelloggsville, opposite road from Twelve Corners, west side of maple tree and scales in front of W. D. Sayle's store, in boulder; copper bolt stamped "U. S. G. S. B. M. 1424 ft."-----	1, 421. 185
Sayles Corners, at south end of culvert across road from east; chiseled square-----	1, 587. 33
Skaneateles Lake, bridge over south inlet at intersection of roads southwest and north and south, on stone 3 feet east of southwest bridge seat; chiseled square-----	976. 17
Glenhaven, iron bridge at south inlet of Skaneateles Lake, on northwest bridge seat; chiseled square-----	868. 95

From Marcellus station south to Marcellus.

Marcellus station, road culvert west of; southeast corner of coping stone on south wing wall-----	431. 58
Limekiln, bridge across mill race opposite, on coping stone of north end of northeast wall; chiseled square-----	470. 52
Marcellus Falls, at road running east, stone arch over creek, on coping stone at west end of parapet wall; chiseled square-----	513. 17
Marcellus powder works, iron bridge south of, on southeast bridge seat; chiseled square-----	611. 03
Marcellus, stone arch over Otisco Lake outlet (Ninemile Creek), on coping stone north of parapet wall; chiseled square-----	651. 21

Marcellus, Main street, stone arch over Otisco Lake outlet (Ninemile Creek), in fourth coping stone east from angle at west end of north parapet wall, a little west of center; copper bolt stamped "U. S. G. S. B. M. 655 ft."-----	Feet. 651. 221
From Skaneateles southeast along highway to Marietta, thence south to Glenhaven.	
Clintonville, culvert under road from south, on stone at southeast end; chiseled square-----	1, 087. 37
Marietta Hotel, at corner of roads to Clintonville and Rose Hill, on foundation stone north corner of plaza; chiseled square-----	796. 15
Otisco Lake, highway bridge below State dam, on road from Marietta to Amber, southwest corner of bridge seat; chiseled square-----	776. 86
Otisco Lake outlet, at west end of State dam, close to gate chamber; crest of spillway-----	782. 62
Otisco Lake outlet, east wing of State dam, in south coping stone; copper bolt stamped "U. S. G. S. B. M. 789 ft." ¹ -----	786. 230
Borodino, 0.5 mile north of, Thorn Hill road, 215 feet south of intersection of first road running east, in sandstone boulder on east side of driveway; copper bolt stamped "U. S. G. S. B. M. 1021 ft."-----	1, 017. 634
Spafford, in northwest corner of road crossing; water table at southeast corner of church-----	1, 691. 74
Spafford, 0.5 mile south of, in Bruce Norton's lot, 200 feet from fence on bank of small brook, east side of road; copper bolt stamped "U. S. G. S. B. M. 1654 ft."-----	1, 650. 831

From Moravia north to Cascade.

Cascade Hotel, 1.25 miles northwest of, in limestone boulder 10 feet southwest of bridge over small brook, on road running north and south; copper bolt stamped "U. S. G. S. B. M. 1091 ft."-----	1, 088. 284
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SLIDE MOUNTAIN QUADRANGLE.

[Latitude 41° 45'-42°; longitude 74° 15'-74° 30'.]

Primary leveling in 1903 by G. M. Dimmick and in 1900 by W. S. D. Moore.

From Brodhead northwest to Boiceville.

Shokan, 0.2 mile east of station, west abutment of bridge 22, north end, bedplate; bronze tablet stamped "532 Albany"-----	533. 351
From Shokan to Olive City, thence southwest along highway to Samsonville, thence south to Kerhonkson, thence along railroad southwest to Napanoch.	
Samsonville, 50 feet south of Methodist Church, in limestone outcrop; bronze tablet stamped "855 Albany 1903"-----	855. 411
Kerhonkson, in water table at center of east face of New York, Ontario & Western depot; aluminum tablet stamped "254 Albany 1903"-----	253. 769

¹ Found necessary to establish a new bench mark at Otisco Lake outlet; old bench mark still in same position, but owing to rise in surface of water it is at times inundated. New bench mark on southwest abutment of new dam about 12 inches from batter line. Mark is 1-inch copper bolt marked "B. M." elevation 790.15 feet. Spillway elevation of new dam is 786.6 feet.

From Napanoch northwest along highway to Eureka, thence northeast to Sundown (single-spur line).

Lackawack, 0.3 mile northwest of, in foundation wall of Methodist Church, east face, 5 feet from southeast corner; bronze tablet stamped "691 Albany 1903"	Feet. 691. 304
Lackawack, 3.61 miles northwest of, highway bridge over small stream; point on top of west end of south abutment	760. 32
Sundown, in foundation wall of Methodist Church, north end of west face; bronze tablet stamped "993 Albany 1903"	993. 485

From point west of Sundown north along highway to Denning (single-spur line).

Denning, in foundation wall of Hotel Erts, east end of south face; aluminum tablet stamped "1965 Albany 1903"	1, 964. 941
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STARK QUADRANGLE.

[Latitude $44^{\circ} 15'$ - $44^{\circ} 30'$; longitude $74^{\circ} 45'$ - 75° .]

Leveling in 1914 by K. E. Schlachter.

From point near Clifton south along highway and log railroad to point north of Newton Falls.

Newbridge, 3.2 miles northwest of, 50 feet west of Bristol camp, on north side of concrete culvert; chiseled square	1, 258. 63
Newbridge, 2.4 miles northwest of, at camp, in north side of concrete culvert; bronze tablet stamped "1222"	1, 221. 388
Newbridge, 250 feet southeast of company's store, in granite boulder; bronze tablet stamped "1237"	1, 236. 822
Newbridge, 1.3 miles south of, in east margin of track, in boulder; chiseled circle	1, 353. 51
Newbridge, 3 miles south of, on large boulder on east edge of track; chiseled circle	1, 406. 86

Leveling in 1916 by F. L. Shalibo.

Along highways near south border of quadrangle.

Carter station, 0.7 mile west of, 3 miles east of Cranberry Lake, 1,300 feet east of bridge over Grass River, 20 feet north of Grass River R. R. track, in large boulder; bronze tablet stamped "Prim. Trav. Sta. No. 5, 1916, Elev. 1417"	1, 416. 635
Carter station, 0.4 mile west of, at road crossing; top of rail	1, 444. 46
Carter station, at southeast corner of, in root of stump; copper nail marked "t. b. m. 1474.2"	1, 474. 26
Brandy Brook station, 350 feet west of, in foundation of switch lever at east end of Y; copper nail marked "1469.6"	1, 469. 61
Brandy Brook station, 1.1 miles east of, on south side of track, 100 feet west of barn of lumber camp, in root of old stump; copper nail marked "t. b. m. 1501.1"	1, 500. 16

From center of east border of quadrangle northwest along highways to South Colton.

Hollywood, 3.8 miles north of, at Carry Falls road, on east side in large boulder; chiseled square marked "t. b. m., also primary traverse point 1376.1"	1, 376. 25
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McKizer's Hotel, 100 feet northeast of, in large boulder; bronze tablet stamped "Prim. Trav. Sta. 1356"	feet.
	1,356.044
McKizer's Hotel, 0.7 mile northwest of, at forks of road leading to Joe Indian Pond, on southwest side of road, in wooden stake; copper nail marked "t. b. m. 1286.6"	1,286.75
McKizer's Hotel, 1.9 miles northwest of, at junction of road leading to Sisson's residence, on southwest side of road, in root of tree; copper nail marked "t. b. m. 1222.7"	1,222.79
McKizer's Hotel, 3.1 miles northwest of, in southeast corner of foundation of George Rodwell's residence; bronze tablet stamped "Prim. Trav. Sta. 1208"	1,207.712
McKizer's Hotel, 3.6 miles northwest of, on northeast side of cement culvert over Cold Brook; chiseled square marked "t. b. m. 1174.2"	1,174.31
McKizer's Hotel, 4.7 miles northwest of, 500 feet southeast of Ed Cayey residence, on northeast side of road, in root of tree; copper nail marked "t. b. m. 1147.7"	1,147.90
McKizer's Hotel, 4.9 miles northwest of, 130 feet northwest of corner, in cement culvert on southwest side of road; chiseled square marked "t. b. m. 1092.3"	1,092.48
McKizer's Hotel, 5.3 miles northwest of, 100 feet southwest of Cold Brook school district 3, in large rock; bronze tablet stamped "1053"	1,053.326
McKizer's Hotel, 6.4 miles northwest of, in base of cement bridge over Cold Brook; chiseled square marked "t. b. m. 979.6"	979.70
McKizer's Hotel, 6.9 miles northwest of, on base of cement bridge over Cold Brook; chiseled square marked "t. b. m. 933.1"	933.25
South Colton, 0.25 mile southeast of bridge over Racquette River at road forks, on cement culvert; chiseled square marked "t. b. m. 948.3"	948.44
South Colton, on northeast corner of road opposite Catholic Church, in rock; chiseled square, marked "t. b. m. 912.2"	912.33
South Colton, in foundation wall of Methodist Church, center of south face; bronze tablet stamped "A. D. J. 927 (B. 514, p. 17, elev. +0.35 foot correction)	927.275

From Colton west along highways to Sellecks Corners and 1 mile south.

South Colton, 1.2 miles west of, at road corners on south side of road, near small stream, in rock; chiseled square marked "t. b. m. 885.5"	885.89
South Colton, 2.5 miles west of, at four corners opposite Littlejohn schoolhouse, in bedrock; chiseled square marked "t. b. m. 994.9"	995.32
South Colton, 3.3 miles west of, 50 feet from road on south side, at three corners, in large boulder; bronze tablet stamped "980 P. B. M."	980.850
Philips Corners, three corners, on south side of road, in rock; chiseled square marked "t. b. m. 1026.2"	1,026.66
Philips Corners, 0.7 mile west of, 420 feet south of Philips tenant house, on east side of road, in large boulder; chiseled square marked "t. b. m. 1014.7"	1,015.17
Plumbs Corners, 1.1 miles west of Philips Corners, 300 feet south of M. W. Davis's house, at southwest corner, in rock; chiseled square marked "t. b. m. 1087.2"	1,087.64

Sellecks Corners, 140 feet east of, in yard of A. Rexford's residence, in large rock; bronze tablet stamped "P. B. M. 1014."	Feet.
Sellecks Corners, 1.1 miles south of, on flat, at top of hill, east side of road in rock; chiseled square marked "t. b. m. 1,073.0"	1,014.843 1,073.54

STARRUCCA QUADRANGLE.[Latitude $41^{\circ} 45' - 42^{\circ}$; longitude $75^{\circ} 15' - 75^{\circ} 30'$.]

Precise leveling in 1901 by D. H. Baldwin.

From Cadosia to Hancock.

Hancock, in front of Erie station, northbound track; top of north rail	923.7
Hancock, southeast corner of bridge 18, on foundation stone; chis- eled square	912.74
Hancock, 0.75 mile north of, southeast corner of large steel bridge 19, top of parapet wall, 6 feet east of rail; bronze tablet stamped "924 Albany 1900"	924.721

From Hancock south along Erie R. R. to Stockport.

Hancock, in front of station, northbound track; top of rail	923.7
Stockport, in front of station, northbound track; top of rail	891.9
Stockport, 1.1 miles south of bridge 17, west abutment, south side, on top of second step; bronze tablet stamped "882 Albany 1900"	882.904

Leveling in 1915 by K. E. Schlachter.

At Cadosia.

Cadosia, New York, Ontario & Western Ry. (Scranton branch) bridge B1, in southeast corner of concrete abutment; bronze tab- let stamped "990" (set by New York, Ontario & Western Ry. in 1912, when bridge was rebuilt; the old tablet described in Bull. 281, p. 20, was destroyed)	990.147
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STONY CREEK QUADRANGLE.[Latitude $43^{\circ} 15' - 43^{\circ} 30'$; longitude $74^{\circ} - 74^{\circ} 15'$.]

Primary leveling in 1896 by Clark Brown and in 1904 by L. E. Tucker.

From Batchellerville north along road via Mud Lake to West Stony Creek,
thence northeast to Knowelhurst.

West Stony Creek, 4.2 miles south of, at outlet of Mud Lake, 135 feet west of log camp, on north side of road, in boulder; bronze tablet stamped "1689 Albany Adj 1903"	1,689.369
West Stony Creek, 60 feet southeast from large stone chimney on south end of hotel, 20 feet southwest of southwest corner of ice house, in rock; bronze tablet stamped "1552 Albany 1903 Adj"	1,552.773
Knowelhurst, southeast corner of foundation of Methodist Episcopal Church; bronze tablet stamped "1583 Albany"	1,584.375

From West Stony Creek west via Wilcox Lake to Wells-Hope road.

West Stony Creek, 3.7 miles west of, 20 feet east of south end of Bakertown flow dam, north side of road, in boulder; aluminum tablet stamped "1355 Albany 1903 Adj"	1,355.079
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From Gilman Lake northeast along highway to Griffin.

Griffin, 30 feet above milldam, 5 feet north of road, 5 feet south of river; copper bolt in rock, stamped "U. S. G. S. B. M. 1280 Ft." - 1,275.948

SYRACUSE QUADRANGLE.¹

[Latitude $43^{\circ}43'15''$; longitude $76^{\circ}76'15''$.]

Primary leveling in 1897 by Clark Brown and in 1902 by J. B. Maguire.

From Syracuse south to East Onondaga.

Syracuse, at Weigh lock, canal collector's office, at right of west entrance door, in water table; bronze tablet stamped "404 S"-----	404. 320
Syracuse, Geddes Street bridge 90, pier at foot of west towpath stairs, at southwest corner of stairway landing; copper plug (State engineer's bench mark 305)-----	406. 230
Syracuse, station of Delaware, Lackawanna & Western R. R.; top of rail-----	389. 3
Syracuse, West Colvin Street bridge over Onondaga Creek, north end of west abutment, northwest corner of top stone; chiseled square-----	405. 54
Syracuse, northeast corner of South Salina Street and Matson Avenue, on stone monument; chiseled cross-----	418. 31
East Onondaga, northwest wing of bridge over Onondaga Creek, in coping; copper bolt stamped "S 422"-----	422. 129

From Oran northwest to Limestone Creek Aqueduct.

Manlius, 1.5 miles northwest of, at High Bridge (double-arch), over Limestone Creek, in coping 5 feet from end of southwest wing; copper bolt stamped "S 507"-----	507. 550
Erie Canal, Limestone Creek Aqueduct, southwest coping parapet on west wing, towpath side; copper bolt (State engineer's bench mark 286)-----	434. 207

At Constantia.

Constantia, road crossing at station; top of rail-----	394
Constantia, northwest corner of foundation of Presbyterian Church; bronze tablet stamped "389 Albany 1903"-----	389. 508

TABERG QUADRANGLE.

[Latitude $43^{\circ}15'43^{\circ}30'$; longitude $75^{\circ}30'75^{\circ}45'$.]

Primary leveling in 1902 by J. B. Maguire.

From Camden southeast along railroad to Rome.

Camden, southwest corner of water table of town hall; aluminum tablet stamped "520 Albany"-----	519. 966
Blossvale, I. J. White's store, opposite station, in southeast corner of foundation; aluminum tablet stamped "420 Albany"-----	420. 230

¹ See Bull. 514, pp. 83-84, for other elevations.

From Blossvale northeast along road to West Leyden.

Point Rock, in northwest corner of foundation of post office and general store; bronze tablet stamped "1017 Albany"-----	Feet. 1,016.596
Point Rock, about 4 miles north of, West Leyden road, in northwest wall of Jacob Kirk's house, facing road; bronze tablet stamped "1493 Albany"-----	1,492.340

THERESA QUADRANGLE.

[Latitude 44° 44' 15"; longitude 75° 45'-76°.]

Precise leveling in 1900 by C. H. Semper.**Near Felts Mills.**

Felts Mills, south abutment of Island Bridge over north channel of Black River, on east end of bridge seat; bronze tablet stamped "583 Cape Vincent"-----	582.456
Black River, in front of station; top of rail-----	564.5

Primary leveling in 1900 by William Kelley.**From Limerick east via Brownville to Felts Mills.**

Brownville, in front of station; top of rail-----	324.8
Brownville, brick schoolhouse at five corners, midway of front building and 3.2 feet above surface of ground, in limestone foundation wall; bronze tablet stamped "355 Cape Vincent"-----	354.243
Sanford, in front of station; top of rail-----	470.3
Felts Mills, bridge over north channel of Black River, on east end of south abutment (Island abutment); bronze tablet stamped "583 Cape Vincent"-----	582.456

From Felts Mills north to Evans Mills (single-spur line).

Evans Mills, at southeast corner of crossroads, in north face of limestone building of Wesley Rulison (post-office building), 2.3 feet east of northwest corner; bronze tablet stamped "431 Cape Vincent"-----	430.88
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From Lafargeville east to Theresa.

Lafargeville, Orleans Hotel (stone building), in southeast corner; aluminum tablet stamped "381 Cape Vincent"-----	380.461
Theresa, stone high school on Main Street, in water table in north face and near northwest corner of belfry tower; aluminum tablet stamped "376 Cape Vincent"-----	375.915

From Perch River northeast to Stone Mill post office (single-spur line).

Stone Mill post office, north side of limestone store and dwelling of John Irwin, about 2.6 feet west of northeast corner; bronze tablet stamped "359 Cape Vincent"-----	358.293
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THIRTEENTH LAKE QUADRANGLE.

[Latitude $43^{\circ} 30' - 43^{\circ} 45'$; longitude $74^{\circ} - 74^{\circ} 15'$.]

Primary leveling in 1896 by Clark Brown and A. F. Krause.

From North Creek northwest to North River.

North River, 40 feet west of northwest corner of Thirteenth Creek bridge, 30 feet east of corner of house; copper bolt stamped "U. S. G. S. 1076"	Feet. 1,072.257
North River, 300 feet west of bridge at; top of copper bolt of Adirondack Survey triangulation station 118, 1882 (said to mark Warren-Essex county line)	1,080.929

From North Creek southwest via Sodom and Bakers Mills to Mountain House.

Bakers Mill Pond, under southwest corner of bridge over North Creek; southwest edge of casting	1,016.86
Bakers Mills, 50 feet north of blacksmith shop and 25 feet west of road, in boulder 6 feet broad and 2 feet above ground; copper bolt stamped "U. S. G. S. B. M. 1585 Ft"	1,581.042

From Griffin to Mountain House.

Oregon, 2.5 miles southwest of, 300 feet northeast of Stuarts Creek and east of Sacandaga River, point 5 feet west of road on outcrop; copper bolt stamped "U. S. G. S. 1377 Ft. B. M."	1,373.140
Oregon, 1,000 feet northeast of the North House (McKlosky's) and 150 feet north of curve to right in road, boulder 5 by 10 feet to right of road; copper bolt stamped "U. S. G. S. B. M. 1435 Ft"	1,431.005

From Mountain House northwest via Thirteenth Lake and Kings flow dam to Indian Lake.

Big Shanty dam, 200 feet southeast from east end of, in boulder 3 feet high and 8 feet broad; copper bolt stamped "U. S. G. S. 1666 Ft. B. M."	1,662.383
Thirteenth Lake House, 75 feet in front of, in low flat outcrop; copper bolt stamped "U. S. G. S. 1874 Ft. B. M."	1,869.761
Kings flow dam, 500 feet northwest of bridge at, 10 feet to right of and 1 foot above road; copper bolt stamped "U. S. G. S. 1724 Ft. B. M."	1,720.016

TROY QUADRANGLE.¹[Latitude $42^{\circ} 30' - 42^{\circ} 45'$; longitude $73^{\circ} 30' - 73^{\circ} 45'$.]

DATA CONCERNING THE GREENBUSH BENCH MARK AND THE ELEVATION OF HUDSON RIVER AT ALBANY.

The Greenbush bench mark, otherwise known as the "Gristmill" bench mark, was established by the Coast and Geodetic Survey in 1857. It is a cross cut in the face of the cellar wall of an old gristmill at Greenbush, opposite Albany, and has been an important reference mark of several Government and State surveys. The elevation of this bench mark is now accepted as 13.863

¹ See Bull. 514, pp. 48-50, for other elevations.

184 SPIRIT LEVELING IN NEW YORK, 1896-1905, 1912-1916.

feet, as determined by precise leveling of the Coast and Geodetic Survey in 1902 from Dobbs Ferry and not changed by the 1907 or 1912 adjustment of precise leveling. Other elevations that have been determined for this bench mark at various times previously are given in the following table taken from the 1901 Report of the State Engineer:

TABLE No. 5.—*Elevations of the Greenbrush bench mark.*

Date.	Authority.	Location of reference gage.	Elevation (feet).
1857-58...	Mr. J. B. Vose, Coast and Geodetic Survey.....	Governors Island.....	15.37
1875.....	Lieut. J. B. Willard, Corps of Engineers.....	Governors Island.....	15.37±0.50
1877.....	O. H. Tittman, Coast and Geodetic Survey.....	Weehawken.....	14.728
1889.....	Deduced from West Shore R. R. levels.....	Boston.....	16.01
1894.....	Coast and Geodetic Survey (mean of two following lines).....	Sandy Hook.....	13.64
1893-1895.	Coast and Geodetic Survey from Boston.....	From an adjusted net.....	14.07
1893-1895.	Coast and Geodetic Survey from Sandy Hook.....	do.....	13.22
1898-99....	Coast and Geodetic Survey Report Appendix 8, p. 414.		13.732
1898-99....	Coast and Geodetic Survey Report Appendix 8, p. 540.		13.577

The elevation used for this bench mark by the U. S. Lake Survey in determination of the elevations of the Great Lakes, as published in Professional Papers No. 24, Corps of Engineers, United States Army, page 609, 1888, was 14.73 feet, which is also the value used for it by the Coast and Geodetic Survey between 1877 and 1900, by the Deep Waterway Survey in 1898-99, and by the Barge Canal Survey since 1900. The elevations given in the Report of the State Engineer for 1901 as "above mean tide New York," include this value for the Greenbrush bench mark, therefore at Albany they are subject to a correction of minus 0.867 foot to accord with the 1912 adjustment value.

The elevation of Hudson River at Albany was determined from the lower miter sill of lock 1, which is reported to be a reliable reference mark. The height of mean low water above this point is given in the Report of the State Engineer for 1888, page 97, as 7.443 feet. The elevations in that report, as in the report for 1877, are based upon mean low water. The elevation of canal bench mark 4a, on lock 1, above the lower miter sill, was determined in 1901 as 23.855 feet (see elevations of these points, pages 657 and 709, Report of the State Engineer and Surveyor, 1901) and the accepted elevation of bench mark 4a, determined by precise leveling of the Lake Survey in 1902, as adjusted by the Coast and Geodetic Survey in 1903, is 16.824 feet. Mean half-tide range at Albany from Tide Tables, published by the Coast and Geodetic Survey, is 1.2 feet. Mean half-tide level at Albany is therefore $16.824 - 23.855 + 7.443 + 1.2 = 1.612$ feet above mean sea level.

TULLY QUADRANGLE.

[Latitude $42^{\circ} 45' - 43^{\circ}$; longitude $76^{\circ} - 76^{\circ} 15'$.]

Primary leveling in 1897 by Clark Brown.

From East Onondaga south up Onondaga Valley to Tully.

	Feet.
Onondaga Castle, 30 feet north of hotel, 30 feet east of road, on well curb; chiseled square.....	519.83
Onondaga Indian Village, 0.25 mile south of road leading to South Onondaga, 900 feet south of cemetery and 40 feet south of small brook, in boulder 3 feet from west road fence; copper bolt stamped "S 469"	468.705

Solvay water tank, west side of road, opposite tank; chiseled square on north side of rim of valve casing-----	Feet.
	567. 57
Cardiff, 0.12 mile east of road, back of hotel, 75 feet south of brook, boulder 6 feet broad and 2 feet high; copper bolt stamped "S 676"-----	676. 192
Tully Center, 1.5 miles north of, 700 feet north of road west to Vesper, 500 feet south of curve in road, on boulder in southwest corner of barnyard, west side of road; copper bolt stamped "S 819"-----	819. 617
Tully, 200 feet north of Hotel Slayton, in water table of brick house on west side of road, at southeast corner of front of house; bronze tablet stamped "1251 S"-----	1, 251. 670

From Tully north to Jamesville, thence west to East Onondaga.

Apulia station, 1 mile north of, on road to Syracuse, 500 feet north of white house on west side of road, 125 feet north of road summit; copper bolt in boulder, stamped "1292 S"-----	1, 292. 510
Onativia (0.8 mile east of Lafayette), engine water column at railway station; top of anchor bolt in northwest corner of base plate-----	992. 25
Jamesville, 0.75 mile south of, at east end of reservoir dam, in coping; cross mark on bronze tablet stamped "S 645"-----	645. 493

TUPPER LAKE QUADRANGLE.

[Latitude $44^{\circ} 44' 15''$; longitude $74^{\circ} 30' - 74^{\circ} 45'$.]

Primary leveling in 1899 by W. W. Gilbert and C. B. Bailey.

From Nehasane northeast along railroad to Long Lake West.

Bog Lake, 1.25 miles north of, 35 rail lengths north of milepost 81 miles from Malone, 35 feet west of track, in east face of large boulder; stamped "1764 Albany"-----	1, 762. 673
Long Lake West, 215 feet north of People's Hotel, 30 feet east of track, in west face of outcrop of rock; aluminum tablet stamped "1789 Albany"-----	1, 787, 787

From Long Lake West northeast along New York Central & Hudson River
R. R. to Tupper Lake.

Horseshoe station, 50 feet north of, 50 feet west of track, in east face of large boulder 1 foot above ground; aluminum tablet stamped "1739 A"-----	1, 738. 177
Childwood, 40 rail lengths south of station on left of track, in face of rock cut; aluminum tablet stamped "Albany 1713"-----	1, 713. 164

From Long Lake West southeast via Little Tupper Lake to Long Lake.

Long Lake West, 4 miles east of, opposite 15-mile post, 10 feet from road, in southeast face of large boulder; aluminum tablet stamped "1839 Albany"-----	1, 838. 171
Little Tupper Lake, head of, at Loomis's camp, 150 feet southeast of camp, 25 feet from barn, north face of large boulder; aluminum tablet stamped "1760 Albany"-----	1, 758. 446
Little Tupper Lake, 0.12 mile east of, 115 feet west of 10-mile post, 8 feet north of road, 25 feet west of blacksmith shop at Moynihan's lumber camp, west face of large boulder; aluminum tablet stamped "1739 Albany"-----	1, 738. 170

UNADILLA QUADRANGLE.

[Latitude $42^{\circ} 15'$ - $42^{\circ} 30'$; longitude $75^{\circ} 15'$ - $75^{\circ} 30'$.]

Precise leveling in 1898 by E. L. McNair.

From Bainbridge east along Delaware & Hudson R. R. to Unadilla.

	Feet.
Bainbridge, 2 miles south of, northeast corner of small cattle-pass opening, in foundation stone; bronze tablet stamped "978 A"-----	977. 676
Bainbridge, in front of station; top of north rail-----	1, 006. 2
Bainbridge, 2.75 miles east of, southwest corner of bridge 84, in coping stone of abutment; bronze tablet stamped "989 A"-----	989. 674
Sidney, 0.25 mile west of Delaware & Hudson station, at crossing of Delaware & Hudson and New York, Ontario & Western railroads; top of rail-----	990. 9
Sidney, in front of Delaware & Hudson station; top of south rail-----	993. 1
Unadilla, in front of Delaware & Hudson station; top of south rail-----	1, 025. 0
Unadilla, Union School building, foundation wall at left of main entrance; aluminum tablet stamped "1024 A"-----	1, 023. 325

Precise leveling in 1901 by D. H. Baldwin.

From Holmesville south along New York, Ontario & Western Ry. to Sidney, thence east to Maywood (Sidney Center).

Holmesville, 1.77 miles south of, southeast abutment of wooden railroad bridge; chiseled square-----	1, 054. 54
White's Store, in front of station; top of east rail-----	1, 072. 8
Lathams Corners, at north crossing; top of east rail-----	1, 049. 9
Rockwells Mills, at crossing near station, main track; top of east rail-----	1, 055. 4
Mount Upton, Methodist Church, north side of front (east) entrance, in third course of foundation stone above ground; aluminum tablet stamped "1035 Albany 1901"-----	1, 035. 710
Mount Upton, in front of station; top of east rail-----	1, 047. 2
Mount Upton, 2.38 miles south of, northwest corner of large iron highway bridge over Unadilla River, 150 feet east of track, on coping; chiseled square-----	1, 017. 07
Rockdale, in front of station; top of east rail-----	1, 020. 18
New Berlin Junction, at highway crossing, on New York, Ontario & Western Ry., top of east rail, main line-----	1, 084. 4
Sidney at junction, grade crossing of Delaware & Hudson and New York, Ontario & Western railways, top of rail-----	990. 9
South Unadilla, in front of station; top of east rail-----	1, 159. 3
Youngs, in front of station; top of north rail-----	1, 238. 3
Maywood, in front of station, top of east rail-----	1, 386. 5
Maywood (Sidney Center), trestle 216, under north side of third trestle tower from east end, in top of old pier, aluminum tablet stamped "1344 Albany 1901"-----	1, 344. 405

Primary leveling in 1900 by W. E. Green.

From Sidney northwest along New York, Ontario & Western Ry. to Guilford.

New Berlin Junction, north side of station at railroad crossing; top of east rail-----	1, 084. 4
Parker, at road crossing near station; top of rail-----	1, 423. 0

	Feet.
Guilford, at road crossing by station; top of rail.....	1, 520. 6
Guilford, northwest corner of Episcopal Church, front face; aluminum tablet stamped "1511 Albany".....	1, 511. 722

• Leveling in 1915 by K. E. Schlachter.

From Mount Upton northeast along highway to Maple Grove.

Mount Upton, Methodist Church, in north side of front entrance, in third course of foundation stone above ground; aluminum tablet stamped "N. Y. 1035" (Bull. 281, p. 19).....	1, 035. 710
Mount Upton, 1 mile southeast of, at road fork, in east side of concrete culvert; chiseled circle painted "t. b. m. 1058.9".....	1, 058. 93
Mount Upton, 2 miles northeast of, in west side of concrete culvert, 300 feet north of milestone; chiseled circle painted "t. b. m. 1036.3".....	1, 036. 27
Gilbertsville, 2 miles south of, in west side of concrete culvert, 50 feet south of milestone; bronze tablet stamped "N. Y. 1091".....	1, 091. 260
Gilbertsville, 1 mile south of, 75 feet north of milestone, in west side of concrete culvert; chiseled circle painted "t. b. m. 1122.9".....	1, 122. 83
Gilbertsville, in face of east wall of bridge over Millard's Brook, at park, near Major's Inn; bronze tablet stamped "N. Y. 1108".....	1, 107. 708
Gilbertsville, 1.25 miles east of, on crossroad, in southeast abutment of bridge over Cahoon Brook; chiseled circle painted "t. b. m. 1088.7".....	1, 088. 68
Maple Grove, 2 miles west of, at road fork, in boulder 3 feet inside of wall, in triangle 200 feet east of corner; bronze tablet stamped "N. Y. 1283".....	1, 282. 506
Gilbertsville, 3.9 miles east of, at road corner north, in north side of stone culvert; chiseled circle painted "t. b. m. 1359.8".....	1, 359. 72
Maple Grove, 0.9 mile south of, 150 feet west of three corners, on north side of road; bronze tablet stamped "1470" (set 1914).....	1, 469. 602

Leveling in 1914 by F. L. Shalibo.

Near Wells Bridge.

Wells Bridge, 1.1 miles north of, in front of O. Morgan's residence, in fence corner, in stone; chiseled square marked "U. S. T. B. M. 1200".....	1, 200. 20
Wells Bridge, 2.1 miles north of, in front of Briar Creek Creamery, in cement culvert; chiseled square marked "U. S. G. S. T. B. M. 1183".....	1, 183. 30
Wells Bridge, 2.9 miles north of, 0.50 mile north of four corners at top of hill, in stone on west side of road; chiseled square marked "U. S. T. B. M. 1373".....	1, 373. 08
Wells Bridge, 4 miles north of, 200 feet north of J. B. Wickham's residence, on west side of road, in stone; chiseled square marked "U. S. T. B. M. 1325".....	1, 325. 45
Hughston Corners, in front of Hughston residence, on west side of road, in rock; bronze tablet stamped "1379".....	1, 378. 925

UTICA QUADRANGLE.¹

[Latitude 43°-43° 15'; longitude 75°-75° 15'.]

Precise leveling in 1901 by D. H. Baldwin, based on Deep Waterways and State Engineer's bench marks.

In Utica.

Utica, Deep Waterways bench mark, about 50 feet north of north bank of Mohawk River and about 830 feet northeast from northeast corner of railroad bridge over Mohawk River, Black River branch of the New York Central & Hudson River R. R.; copper nail in root of elm tree-----

Feet.
405.083

Utica, post office, west side of eastern of two rear entrances in basement area on building wall; bronze tablet stamped "419 feet"-----

417.207

Utica, Seneca Street bridge, southeast corner of lower step, west wing towpath (north) abutment; chiseled square-----

430.14

Utica, Whitesboro Street bridge, old bench mark in new position on top of southeast corner of stone platform at base of east stairs, towpath abutment, about 3 feet above towpath; chiseled circle stamped "B. M." on south face-----

431.56

Utica, Whitesboro Street bridge (State engineer's b. m. 222), southwest corner of stone platform base of west stairs, towpath abutment, 3 feet above towpath; copper bolt-----

431.637

Utica, lock 46 (State engineer's b. m. 223), northeast hollow quoin, towpath lock, between anchors; copper bolt-----

430.410

Primary leveling in 1896 by A. B. Pomme.

Utica, Turner Street, Herkimer-Oneida county line, on fence line between the New York Central & Hudson River R. R. and trolley tracks; bronze meridian tablet-----

466.329

Utica, Albany Street, Starch Factory Creek, stone-arch bridge, north abutment, west wing; northeast corner of top step-----

522.90

Utica, the Delaware, Lackawanna & Western and Rome, Watertown & Ogdensburg railroads; northwest corner of foundation of northwest pier (New York Central & Hudson River R. R. bench mark)-----

408.70

From Stewarts Corners via Moyer Creek to Frankfort.

Rushmer road, first barn east of Stewarts Corners, between third and fourth telegraph poles Nos. 9588 and 9587 east of barn, on boulder half in road and half in field; copper bolt stamped "U. S. G. S. 1380 feet B. M."-----

1,378.477

Lock 45, canal engineer bench mark 204, at coping at end of northeast gate; towpath lock, stamped "⊕"-----

427.326

From Sauquoit east along highway to Norwich Corners.

Norwich Corners, south face near east end of residence of H. A. Smith, in foundation wall; aluminum tablet stamped "1318 Adj 1903"-----

1,318.155

¹ See Bull. 514, pp. 74-76, for additional elevations.

From Utica north via Trenton plank road to South Trenton.

	Feet.
Deerfield, J. A. Auert's brick building, middle door; north corner of stone doorsill-----	427. 68
Salem, Welsh Church, Trenton plank road, 600 feet west from plank road, on foundation stone at southeast corner; chisel mark-----	815. 70
Ninemile Creek bridge, Trenton plank road, on west bridge seat, north abutment; chiseled square-----	755. 82
South Trenton, north side of road opposite west gate of cemetery, on boulder; copper bolt stamped "U. S. G. S. B. M. 806 Ft."-----	803. 938

From South Trenton east via North Gage to Poland, thence southeast to Newport.

North Gage Church, on southeast corner of stone step; chiseled square-----	986. 00
Poland, Main Street, center of stone arch over Cold Brook, on west coping; chiseled square-----	720. 38
Poland, first iron bridge over Cold Brook northeast of village, in foundation stone, east abutment, north wing; copper bolt stamped "U. S. G. S. B. M. 800 Ft."-----	798. 841
Poland, 0.5 mile south of, north wing of iron highway bridge over West Canada Creek, on east abutment bridge seat; chiseled square-----	690. 86
Newport, northeast corner of Newport Bank building; water table-----	657. 59
Newport, stone bridge over West Canada Creek, in north coping over center pier, 6 inches south of square chisel mark and flush with coping; copper bolt stamped "U. S. G. S. 658 Ft. B. M." (reported destroyed, 1910)-----	656. 450
Ilion, Steel Creek Aqueduct, Erie Canal, in center of third coping stone from west end, parapet wall, towpath side; copper bolt stamped "U. S. G. S. B. M. 410 Ft." (0.027 foot higher than State engineer's b. m. 197)-----	408. 574

From Frankfort to point 5.6 miles north of Frankfort in town of Schuyler.

West Shore R. R. crossing; top of south rail-----	400. 4
Frankfort station, Mohawk River bridge, near north abutment, east wing, on bridge seat; chiseled square-----	398. 57
Frankfort, near station, New York Central R. R. crossing; top of south rail-----	400. 00
Frankfort, 5.6 miles north of, at southwest corner of road crossing; iron post stamped "U. S. G. S. B. M. 580 Ft."-----	577. 793

WADDINGTON QUADRANGLE.¹

[Latitude $44^{\circ} 45' - 45^{\circ}$; longitude $75^{\circ} - 75^{\circ} 15'$.]

Primary leveling in 1904 by G. M. Dimmick.

From Chipman southeast to Madrid.

Chipman, in foundation wall of Scotch Presbyterian Church, center of north face; bronze tablet stamped "355 Albany 1903 ADJ"-----	354. 953
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¹ See Bull. 516, p. 60, for other elevations.

Madrid northeast to Raymondsville.

Madrid, 3.95 miles north of, in foundation wall of residence of N. J. Abernathy, center of east face; bronze tablet stamped "349 Albany 1903 Adj"	Feet. 348.942
Chases Mill (8 miles north of Madrid), in foundation wall of Hotel Creighton, center of south face; bronze tablet stamped "272 Albany 1903 Adj"	271.453

WALTON QUADRANGLE.

[Latitude $42^{\circ} - 42^{\circ} 15'$; longitude $75^{\circ} - 75^{\circ} 15'$.]

Precise leveling in 1901 by D. H. Baldwin.

From Walton south along New York, Ontario & Western Ry. to Rock Rift.

Northfield, 5.95 miles southeast of, southeast corner of bridge, on foundation stone; chiseled square	1, 312.68
Walton, in front of station; top of rail	1, 233.4
Walton, southwest corner of North and Gardiner streets, northeast corner of Ogden Free Library, east face of corner of water table; aluminum tablet stamped "1215 Albany 1901"	1, 216.051
Pine, switch crossing; top of southeast rail	1, 201.1
Beerston, at crossing, main track; top of south rail	1, 181.3
Rock Rift, 0.5 mile north of, 150 feet south of crossing, on east side of track, 4 feet above rail, on face of ledge; aluminum tablet stamped "1214 Albany 1901"	1, 214.760
Rock Rift, in front of station; top of east rail	1, 226.8

Leveling in 1915 by K. E. Schlachter.

From Hamden west along New York, Ontario & Western Ry. to Walton.

Hawleys station; top of west rail with painted arrow, painted "t. b. m. 1,259.9"	1, 259.95
Hawleys station, 0.5 mile southwest of, on ledge in east margin of track; chiseled circle painted "t. b. m. 1,260.9"	1, 260.94
Hawleys station, 1.6 miles southwest of, in west side of concrete culvert 11; bronze tablet stamped "N. Y. 1251"	1, 250.928
Hawleys station, 3.2 miles southwest of, 525 feet south of mile post "N. Y. 184" on east side of stone culvert; chiseled circle painted "t. b. m. 1,235.0"	1, 235.06
Colchester station, 0.25 mile northeast of, in ledge, west side of track; bronze tablet stamped "N. Y. 1254"	1, 253.855
Colchester, in front of station; top of rail	1, 265.3
Walton, 1.5 miles north of, in south side of track, on stone culvert; chiseled square painted "t. b. m. 1,248.1"	1, 248.13
Walton, in southwest corner of North and Gardiner streets, in northeast corner of Ogden Free Library, east face of water table; aluminum tablet stamped "N. Y. 1215" (Bull. 281, p. 20)	1, 216.051

From East Branch along Delaware & Northern R. R. to Downsville.

East Branch, in northeast corner of concrete foundation of railroad water tank; bronze tablet stamped "N. Y. 1,007"	1, 007.124
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East Branch, 1 mile north of, along Delaware & Northern R. R., in ledge, in northeast corner of intersection with highway; chiseled circle painted "t. b. m. 1,032.0"	Feet. 1,032.24
Harvard station, 0.4 mile south of, in ledge, in east margin of track; chiseled circle painted "t. b. m. 1,057.3"	1,057.51
Harvard, in front of station; top of rail	1,066.1
Harvard station, 160 feet east of, in ledge, south margin of track; bronze tablet stamped "N. Y. 1067"	1,066.752
Harvard, 1.2 miles northeast of, in concrete culvert, south side of track, 110 feet south of farm road crossing; chiseled circle painted "t. b. m. 1,099.7"	1,099.95
Harvard station, 2.2 miles northeast of, on ledge in south margin of track; chiseled square painted "t. b. m. 1,104.6"	1,104.85
Long Flat station, 110 feet east of, in south end of east abutment of railroad bridge 31; bronze tablet stamped "N. Y. 1102"	1,102.685
Shinhopple, 0.9 mile southwest of, in ledge on east margin of track, at farm road crossing; chiseled square painted "t. b. m. 1,095.0"	1,095.23
Shinhopple, in front of station; top of rail	1,096.5
Shinhopple station, 1 mile northeast of, 360 feet west of concrete culvert in boulder, south margin of track; bronze tablet stamped "N. Y. 1088"	1,088.116
Gregorytown, in front of station; top of rail	1,092.3
Corbett station, 0.8 mile southwest of, on boulder in east margin of track; chiseled square painted "t. b. m. 1094.5"	1,094.75
Corbett station, 450 feet northeast of, in southwest abutment of railroad bridge 26; bronze tablet stamped "N. Y. 1105"	1,104.986
Colchester station, on northwest abutment of Delaware & Northern R. R. bridge 24; chiseled circle painted "t. b. m. 1,096.1"	1,096.29

WATERTOWN QUADRANGLE.[Latitude $43^{\circ} 45' - 44^{\circ}$; longitude $75^{\circ} 45' - 76^{\circ}$.]**Precise leveling in 1900 by C. H. Semper.****Near Watertown.**

Watertown, 2 miles west of, 100 feet north of railroad and 600 feet south of paper mill, stone culvert under railroad, top of masonry, north end; chiseled square	381.77
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Primary leveling in 1900 by William Kelley.**From Brownville southeast to Watertown (single-spur line).**

Watertown, Arsenal Street, State armory, front face, west end; aluminum tablet stamped "479 Cape Vincent"	478.087
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WATKINS QUADRANGLE.[Latitude $42^{\circ} 15' - 42^{\circ} 30'$; longitude $76^{\circ} 45' - 77^{\circ}$.]**Primary leveling in 1898 by W. W. Gilbert.****From Millport to Burdett.**

Millport, highway bridge over Catherine Creek at Millport House, in face of abutment at southwest corner; bronze tablet stamped "709 D"	710.627
Millport, at north line of station; top of rail	750.5

Montour Falls, 1.37 miles south of, south abutment of Northern Central Ry. bridge over highway, on top stone; chisel mark	Feet. 509.77
Montour Falls, opposite north line of station; top of rail	457.8
Montour Falls, old Schuyler County courthouse, on foundation (base) of east pillar, front of courthouse; chisel mark	467.23
Watkins, 0.5 mile south of station, on southeast corner of north abutment of Northern Central Ry. bridge over Glen Creek; chisel mark	461.47
Watkins, Schuyler County courthouse, in foundation at front, second course of stone from top, 3 feet south of northwest corner; bronze tablet stamped "476 D"	477.403
Burdett, at south line of station, Lehigh Valley R. R.; top of rail	1,003.3
From Burdett southeast along the Lehigh Valley R. R. to Odessa, thence southwest to Millport.	
Burdett, 600 feet south of station; in north end of coping, west end of culvert under Lehigh Valley R. R.; copper bolt stamped "1002 D"	1,003.437
Burdett station, north end of coping, west end of culvert under Lehigh Valley R. R.; iron bolt (Lehigh Valley bench mark 309)	1,003.592
Burdett station, 1.37 miles south of, in top course of west end of south abutment of railroad bridge over intersection of highways; iron bolt (Lehigh Valley bench mark 307)	1,019.80
Burdett station, 3 miles south of, 150 feet north of milepost 307, in top stone of east end of small culvert under railroad; iron bolt (Lehigh Valley bench mark 306)	1,041.73
Burdett station, 4.12 miles south of, in face of west abutment of highway bridge over railroad, near north end of abutment, 0.12 mile south of milepost 306; iron pin (Lehigh Valley bench mark 305)	1,060.43
Odessa, 2 miles north of, in top stone at east end of culvert under railroad, 450 feet south of milepost 305; iron bolt (Lehigh Valley bench mark 304)	1,071.01
Odessa, 1.12 miles north of, in top stone at east end of culvert under railroad, 250 feet north of milepost 304; iron pin (Lehigh Valley bench mark 303)	1,078.48
Odessa, 0.12 mile north of, in coping of west end of south abutment of railroad bridge over highway; iron bolt (Lehigh Valley bench mark 302)	1,090.62
Odessa, at south end of station; top of east rail, west track	1,093.8
Odessa, 550 feet south of station, on west end of culvert under Lehigh Valley R. R., in face of coping near north end; bronze tablet stamped "1053 D"	1,054.623
From Watkins west via Watkins station of the Fall Brook division New York Central R. R. to Townsend, thence south to Beaverdams, thence east to Millport.	
Watkins, 0.5 mile north of post office, Steuben Street, on northwest corner of south abutment of bridge over stream; chiseled cross	624.87
Watkins, opposite south line of station; top of rail	1,003.4
Watkins Glen station, at south line of; top of rail	1,009.1
Watkins Glen station, railroad bridge over Glen Creek, on southeast corner of north abutment; chisel mark	1,009.42
Townsend, 2 miles south of, house of W. T. Beebe on east side of Beaverdams road, on northeast corner of top step of a flight of stone steps leading from the house to the road; chisel mark	1,342.56

Beaverdams, 0.75 mile south of, on abutment at northwest corner of iron highway bridge over small stream; chisel mark	Feet. 1,234.32
Beaverdams, in foundation of house of David Beardsley, center of front, second course from top; aluminum tablet stamped "1262 D"	1,263.179
Kendalls, 1 mile northeast of, abutment at north corner of iron highway bridge over East Creek; chisel mark	1,260.93
Millport, 2.5 miles west of, schoolhouse 9, Catlin Township, at southwest corner of building, on footing course of foundation; chisel mark	1,050.75

From Watkins station north along highway to Reading Center.

Reading Center, in foundation south side of Baptist Church, 4.5 feet from southeast corner, fourth course from top; bronze tablet stamped "1253 D"	1,253.894
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From Burdett north along the Lehigh Valley R. R. to Hector.

Burdett station, 2.75 miles north of, east side of water tank, north pier west of track; iron bolt (Lehigh Valley bench mark 312)	963.81
Burdett station, 4 miles north of, in west end of south abutment of Lehigh Valley R. R. bridge over small stream, 100 feet north of milepost 314, back of house of J. B. Erway; copper bolt stamped "939 D"	940.461
Burdett station, 4 miles north of, in west end of south abutment of bridge over small stream; iron bolt (Lehigh Valley bench mark 313)	940.582

WAVERLY QUADRANGLE.

[Latitude 42° 42' 15"; longitude 76° 30'-76° 45'.]

Precise leveling in 1898 by E. L. McNair.**From Wellsville east along Erie R. R. to Waverly.**

Wellsville, 1,800 feet west of station, at southeast corner of bridge 55, in coping stone of abutment; aluminum tablet stamped "824 A" (probably destroyed, 1917)	823.204
Wellsville, in front of station, east-bound track; top of south rail	825.2
Chemung, 1 mile west of station, at northeast corner of bridge 53 across Chemung River, in coping stone of abutment; aluminum tablet stamped "804 A"	803.077
Chemung, in front of Erie Station, westbound track; top of north rail	811.3
Waverly, in front of Erie Station, westbound track; top of north rail	829.9
Waverly, city hall building on Broad Street, stone column between doorways; aluminum tablet stamped "840 A"	839.336

Primary leveling in 1898 by W. W. Gilbert.

From Wellsville north along highway to Breesport, thence east along Lehigh Valley R. R. to Erin, thence north to Park, thence southeast to Van Etten, thence south to Waverly.

Breesport, county buildings, on west face of foundation of brick structure, 3 feet above ground and 25 feet south of northwest corner, between second and third cellar windows; aluminum tablet stamped "A 1160"	1,160.580
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Erin station, Lehigh Valley R. R.; chiseled mark on top of foundation, 6 feet south of northeast corner	Feet.
	1,247.56
Erin station, in front of east line of; top of rail	1,247
Park station, south side of water tank; iron pin in foundation (Lehigh Valley R. R. bench mark)	1,500.39
Park station, at highway crossing; top of rail	1,506.5
Park station, 1 mile east of, on Lehigh Valley R. R.; iron pin in top at center of east abutment of trestle (Lehigh Valley R. R. bench mark 18)	1,391.84
Park Station, 1.75 miles east of, on Lehigh Valley R. R.; iron pin in top of south end of east abutment of trestle (Lehigh Valley R. R. bench mark 19)	1,304.57
Swartwood, east corner of water tank; iron pin in foundation (Lehigh Valley R. R. bench mark 21)	1,058.60
Swartwood, in front of station, opposite north line; top of rail	1,053.3
Swartwood, front of residence of Benjamin Barnes, center of foundation, north wing; aluminum tablet stamped "A 1054"	1,054.479
Van Etten, Warner Street crossing of Lehigh Valley R. R., Elmira & Cortland branch; top of rail	1,005.69
Van Etten, southeast corner of Waverly and Warner streets; water table at northwest corner of new brick building	1,018.84
Van Etten Junction, crossing of Elmira & Cortland branch of Lehigh Valley R. R.; top of rail	992.2
Van Etten Junction, 0.87 mile south of, southeast abutment of iron highway bridge over Cayuta Creek, 200 feet west of Lehigh Valley R. R.; iron pin (Lehigh Valley R. R. bench mark)	970.32
Reniff, southeast corner of highway bridge over Cayuta Creek; chisel mark on shoe	916.94

WAYLAND QUADRANGLE.

[Latitude 42° 30'-42° 45'; longitude 77° 30'-77° 45'.]

Primary leveling in 1901 by C. H. Semper.**From South Livonia along Erie R. R. to Wayland, thence east to Atlanta.**

Webster Crossing, 900 feet north of station, road crossing; top of rail	1,339.1
Webster Crossing, Hill & Webster's general store, north face near northeast corner; bronze tablet stamped "1363 Rochester 1901"-	1,362.428

From point 2 miles east of Hemlock south along highway to Springwater.

Canadice, northwest corner of church sheds, at margin of roads, on large rock foundation; aluminum tablet stamped "1569 Rochester 1901"	1,568.855
Tabor Corners, in west face of schoolhouse, aluminum tablet stamped "1863 Rochester 1901"-	1,862.338
Springwater, schoolhouse on road to station, in front face at northeast corner; aluminum tablet stamped "970 Rochester 1901"-	969.707

From Wayland west along Delaware, Lackawanna & Western R. R. to Groveland.

Wayland, in sidewalk in front of Lackawanna schoolhouse; aluminum tablet stamped "1372 Rochester 1901"-	1,361.33
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Wayland, road crossing near Delaware, Lackawanna & Western station; top of rail	Feet.	1,360.5
Dansville, in front of station; top of rail		1,025.1
Dansville, station of Delaware, Lackawanna & Western R. R., southeast corner of foundation; aluminum tablet stamped "1024 Rochester 1901"		1,022.980

WEEDSPORT QUADRANGLE.¹[Latitude $43^{\circ}43'15''$; longitude $76^{\circ}30'76^{\circ}45'$.]

Primary leveling in 1898 by D. E. Baxter.

From Sterling station south along the Lehigh Valley R. R. to Cato, thence southwest along highway to Conquest, thence south to Port Byron.

Ira, highway crossing 200 feet north of station; top of east rail, main track	419.7
Ira station, about 700 feet southwest of station, in northeast corner of water table of brick house; bronze tablet stamped "430 Oswego"	431.585
Cato, highway crossing 200 feet north of station; top of east rail, main track	419.0
Cato, northwest corner of Main and North streets, southeast corner of water table of brick building; aluminum tablet stamped "461 Oswego"	462.811
Conquest, 0.6 mile south of, east side of road, in south side front of brick house, in water table; bronze tablet stamped "449 A"	450.454
Port Byron, West Shore R. R.; top of north rail	396.8
Port Byron, Canal Street highway bridge over Erie Canal, east wing of towpath abutment; copper bolt	406.63
Port Byron, highway bridge just east of Canal Street, east wing of towpath abutment; copper bolt	407.54
Port Byron, lock 52, fourth step from west end of north side lock pier; copper bolt (N. Y. 352)	403.279
Port Byron, lock 52, east hollow quoin south side of lock; head bolt stamped "404 A"	406.005

From Montezuma and Weedsport, set from State engineer's bench mark.

Montezuma, in northeast corner of Methodist Church, Auburn Street, in foundation masonry; bronze tablet stamped "417 Oswego"	417.449
Weedsport, Methodist Episcopal Church, on south side of Brutus Street, in front face of east end of foundation wall; bronze tablet stamped "433 Oswego"	433.256

WELLSVILLE QUADRANGLE.

[Latitude $42^{\circ}42'15''$; longitude $77^{\circ}45'78^{\circ}$.]

Precise leveling in 1898 by E. L. McNair.

From Scio east along Erie R. R. to Tip Top summit.

Scio, in front of Erie station; top of south rail	1,454.2
Wellsville, at east end of Erie station; top of north rail	1,519.6
Wellsville, Union School building, in footstone of arch over northeast corner entrance; aluminum tablet stamped "1516 D" (reset)	1,517.514

¹ See Bull. 514, pp. 88-90, for other elevations.

Andover, 3 miles west of, stone steps of iron-girder railroad bridge 8;	Feet.
bronze tablet stamped "1573 D"	1, 574. 208
Andover, in front of Erie station, main track; top of south rail	1, 650. 2
Andover, 2 miles north of, stone foundation at southeast corner of small railway bridge; bronze tablet stamped "1675 D"	1, 676. 105
Tip Top summit, opposite water tank; top of south rail	1, 773. 2

WEST CANADA LAKES QUADRANGLE.[Latitude $43^{\circ} 30' - 43^{\circ} 45'$; longitude $74^{\circ} 30' - 74^{\circ} 45'$.]**Primary leveling in 1898 by C. H. Semper and M. S. McDiarmid.****From Honnedaga northeast via West Canada Lakes and Cedar Lakes to Little Moose Lakes.**

Honnedaga, 7.8 miles east of, 250 feet east of ford of West Canada Creek, near head of Second Stillwater, in boulder; aluminum tablet stamped "2168 A"	2, 168. 067
Mud Lake dam, 125 feet north of sluice of, 100 feet north of Indian hut, in large white boulder; aluminum tablet stamped "2356 A"	2, 355. 722
Buck, 400 feet east of Cedar Lake, on trail to Speculator, northwest corner of camp; copper bolt stamped "U. S. G. S. B. M. 2472 Ft. A"	2, 472. 429

From Little Moose Lake west to Fawn Lake.

Little Moose Lake, 200 feet from, in rear of log house, in large rock; copper bolt stamped "2143 A"	2, 144. 184
Little Moose Lake, 4.5 miles west of, on road to Kenwells, 0.3 mile west of Silver Run, at summit of hill, in large rock 5 feet south of road; aluminum tablet stamped "2049 A"	2, 049. 583
Kenwells, 3,150 feet northeast of, north side of road to Fourth Lake and Wakely dam, in large rock; aluminum tablet stamped "1854 A"	1, 855. 475

From Third Stillwater, West Canada Creek, southeast to Spruce Lake.

Spruce Lake, east side of, at Clark's camp, in large boulder; copper bolt stamped "2382 A"	2, 382. 139
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WESTFIELD QUADRANGLE.[Latitude $42^{\circ} 15' - 42^{\circ} 30'$; longitude $79^{\circ} 30' - 79^{\circ} 45'$.]**Primary leveling in 1898 by E. L. Faison.****From Mayfield north to Prospect, thence west to Westfield, thence northeast to West Portland.**

Prospect, foundation of Western New York & Pennsylvania Ry. station, in northeast corner; bronze tablet stamped "1213 D"	1, 214. 183
Westfield, in northwest corner of masonry foundation of public-school building, 2.5 feet above ground; bronze tablet stamped "748 D"	748. 900

From Mayville west to Volusia.

Volusia, foundation of Methodist Church, in front of south side; bronze tablet stamped "1557 Dunkirk 1902"	1 556. 785
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WHITE LAKE QUADRANGLE.

[Latitude $41^{\circ} 30'$ - $41^{\circ} 45'$; longitude $74^{\circ} 45'$ - 75° .]

Primary leveling in 1904 by G. M. Dimmick.

From Forestburg south to Mongaup.

Forestburg, in foundation wall of Catholic Church, south end of east face; bronze tablet stamped "1241 Albany 1903 Adj" _____ 1, 240. 525

WILMURT QUADRANGLE.

[Latitude $43^{\circ} 15'$ - $43^{\circ} 30'$; longitude $74^{\circ} 45'$ - 75° .]

Primary leveling in 1897 by E. L. McNair and in 1898 by M. S. McDiarmid.

From Hubbard Hotel south to Ohio.

Wilmurt, 3 miles west of, 0.18 mile east of Hubbard Hotel, 60 feet south of road, 25 feet east of fence, in meadow; chiseled point on painted boulder marked "E" (State bench mark) _____ 1, 276. 32
 Ohio, 750 feet west of corner near church, 1,200 feet east of school-house and 80 feet north of road, in field belonging to G. Johnson; copper bolt stamped "1374 R" _____ 1, 373. 89

From near Wilmurt northeast via Nobleboro to Honnedaga Lake.

Wilmurt, 0.7 mile west of, 165 feet east of Henry Paull's hotel, in pasture, 70 feet south of center of road; bronze tablet stamped "1402 Ft. R" _____ 1, 401. 249
 Nobleboro, 225 feet east of hotel, 4 feet from fence on north side of road, on small boulder; chiseled square _____ 1, 418. 71
 Nobleboro, 2.4 miles north of, 225 feet west of Haskell Hotel, 8 feet south of center of road, on large boulder; chiseled point (State bench mark 9) _____ 1, 574. 23

From Salisbury Center north along road to Morehouseville.

[The error distributed in this line is excessive.]

Jerseyfield Lake, 200 feet west of outlet, 100 feet south of lake, in yard of Mrs. Williams's tenant house, on large boulder; tablet stamped "1941 A" _____ 1, 941. 916

From Nobleboro to Morehouseville.

Morehouseville, 940 feet east of road south from post office, 425 feet east of schoolhouse, 15 feet south of center of road to Piseco Lake, in flat ledge; copper bolt stamped "1909 Ft. B. M." (reset 1912) ____ 1, 909. 720

WINFIELD QUADRANGLE.

[Latitude $42^{\circ} 45'$ - 43° ; longitude $75^{\circ} - 75^{\circ} 15'$.]

Precise leveling in 1901 by D. H. Baldwin.

From Clayville south along Delaware, Lackawanna & Western R. R. to Richfield Junction.

Clayville, in front of station; top of east rail _____ 985. 4
 Richfield Junction, in front of new station; top of east rail, main track _____ 1, 176. 7

Richfield Junction, 0.36 mile south of, on south end of foundation wall of wooden trestle bent under overhead highway bridge, west side of track, aluminum tablet stamped "1221 Albany 1901"-----	Feet. 1, 221. 512
Richfield Junction, 1.15 miles south of, about 250 feet north of red tool house, summit of railroad; top of east rail-----	1, 271. 6

Primary leveling in 1909 by G. M. Dimmick.**From Bridgewater east along the Delaware, Lackawanna & Western R. R. to
Richfield Springs.**

West Winfield, 134 feet east of station and on line with south end of same and 19 feet north measured at right angles from center line of present main track, in east concrete monument, 6 inches in diameter in center of park at station; bronze tablet stamped "1182 Albany 1903 Adj"-----	1, 182. 308
East Winfield, 880 feet east of station; top of railroad milepost 298-----	1, 214. 16
Cedarville, in foundation wall of station, east end, north face; bronze tablet stamped "1292 Albany 1903 Adj"-----	1, 291. 955
Millers Mills, in foundation wall of station, north end, east face; bronze tablet stamped "1410 Albany 1903 Adj"-----	1, 409. 826
Millers Mills, 2.64 miles east of; top of milepost 304-----	1, 472. 14
South Columbia, in foundation wall of Methodist Church; bronze tab- let stamped "1476 Albany 1903"-----	1, 476. 007
South Columbia, 2.02 miles east of, top of railroad iron milepost 808-----	1, 343. 49

From Norwich Corners southeast to Millers Mills.

Jerusalem Hill, in foundation wall of Jerusalem Church, 24 inches above ground; bronze tablet stamped "1532 Adj 1903"-----	1, 531. 843
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From Millers Mills northeast along highway via Columbia Center to Mohawk.

Columbia Center, 4.16 miles east of Cedarville, in foundation wall of Methodist Church, south end of west face, bronze tablet stamped "1532 Adj 1903"-----	1, 532. 466
Denison Corners, in foundation wall of the residence of A. A. Wolleber, south end of west face; bronze tablet stamped "1315 Adj 1903"-----	1, 315. 560

From West Winfield southeast along highway to Schuyler Lake.

Plainfield Center, in foundation wall of the Congregational parsonage, west end of south face; bronze tablet stamped "1756 Adj 1903"---	1, 755. 843
West Exeter, in foundation wall of the store of Denis Harrington, north end of west face; bronze tablet stamped "1320 Adj 1903"---	1, 319. 666
Exeter, in wall of stone store occupied by P. J. Horan, north end of west face; bronze tablet stamped "1656 Adj 1903"-----	1, 655. 488
Schuyler Lake, in wall of Universalist Church, south end, west face; aluminum tablet stamped "1313 Adj 1903"-----	1, 312. 548

INDEX.

A.	Page.	B.	Page.
Addison.....	54, 56, 152	Aurelius.....	18
Adrian.....	86, 151	Auriesville.....	71
Afton.....	122	Aurora.....	18
Aiden Lair lodge.....	119	Ausable River.....	146
Alabama.....	110	Averyville.....	168
Albion.....	12	Avon.....	29, 30
quadrangle.....	12	Axtion.....	168
Alburg.....	113		
Alden.....	65	Babylon.....	19
Alder Bed driving camp.....	134, 135, 136, 137	quadrangle.....	19
Alder Creek.....	156	Bacon.....	91, 92, 132
Alderbrook.....	103	Bailey, C. B., leveling by.....	99, 151, 185
Aldrich.....	133	Bailey, George, leveling by.....	20,
Alexandria Bay.....	12	36, 53, 74, 89, 90, 110, 124, 143	
quadrangle.....	12-13	Bainbridge.....	186
Alfred.....	32, 34	Bakers Mills.....	183
Allegany.....	127, 166	Bakertown flow dam.....	180
Allegheny River.....	128	Baldwin, D. H., leveling by ..	28, 29, 32, 66, 67, 68, 84,
Allen Center.....	16	118, 124, 129, 131, 155, 160,	
Alligerville.....	162	167, 175, 180, 186, 188, 190, 197	
Almond.....	85	Baldwinsville.....	20
Altamont.....	21, 22	quadrangle.....	19-20
Altay.....	81	Bailston Lake.....	171
Altmar.....	151	Ballston Spa.....	170
Alton.....	51	Balmville.....	119
Amboy.....	90	Bangor.....	105
Amenia.....	111	Barbers Corners.....	18
Ames Mills.....	169	Barker.....	80
Ampersand Lake.....	168	Barnard.....	160
Amsterdam quadrangle.....	13	Barnerville.....	171, 172
Ancram.....	54	Barre Center.....	12
Andes.....	14	Barton.....	139
quadrangle.....	13-15	Batavia.....	20
Andover.....	196	Creek.....	74
Angelica.....	16	quadrangle.....	20
quadrangle.....	15-16	Batchellerville.....	27
Angola.....	175	Baxter, D. E., leveling by ...	19, 51, 72, 138, 141, 195
Antwerp quadrangle.....	16	Bay View.....	42
Apalachin quadrangle.....	16-17	Bear Lake.....	132
Apex.....	66	Beaver Brook.....	88
Apulia.....	185	Beaver Dam.....	118
Arcade.....	17	Beaver Kill.....	96, 97
Arden.....	173	Beaver Meadow.....	123
Arena.....	108	Beaver River	23
Arietta.....	94, 144	Beaverdams.....	193
Arkport.....	86, 88	Beechertown School.....	150
Arkwright Center.....	43	Beerston.....	190
Arnolds Corner.....	46	Belfast.....	16
Artist Lake.....	116	Bellevue.....	42
Ashantee.....	30	Belleville Corner.....	163
Ashville.....	42	Bellona.....	143
Athol Springs.....	29, 68	Belmont.....	21
Atlanta.....	117	Center.....	40
Attica.....	17	quadrangle.....	21
quadrangle.....	17-18	Belvidere.....	15, 16
Atwell.....	104, 127	Bemus Point.....	42
Auburn.....	18, 19	Bench marks, forms.....	6-7
quadrangle.....	18-19		

	Page.		Page.
Bench marks, plate showing.....	5	Breakabeen.....	172
Bennett.....	33	Breesport.....	193
Benson.....	75	Brentwood.....	123
Center.....	75	Bridgewater.....	167, 168
Corners.....	115	Brierhill quadrangle.....	26
Mines.....	59, 60, 133	Briggs.....	132, 133
Benton.....	142	Brisbin.....	140
Berea.....	119	Bristol Center.....	31
Bergen.....	28	Broadalbin.....	26, 76
Berkshire.....	82	quadrangle.....	26-27
Berne.....	21	Brockport.....	27, 28
quadrangle.....	21-22	quadrangle.....	27-28
Berry Brook School.....	15	Brocton.....	68
Besemer.....	66	Brodhead.....	162
Bethel.....	111	Bronx Borough.....	121
Beula.....	143	Brookland School.....	154
Big Brook.....	99	Brooklyn.....	121
Big Choconut Creek.....	17	Brown, Clark, leveling by.....	23, 26, 30,
Big Creek.....	87	37, 45, 75, 83, 88, 93, 95, 103, 116, 126,	
Big Flats.....	70	140, 156, 172, 173, 180, 181, 183, 184	
Big Indian.....	143, 144	Brown school.....	153
Big Moose.....	23	Brown's Crossing.....	57
quadrangle.....	23	Brownsville.....	164
Big Shanty dam.....	183	Brownville.....	182
Binghamton.....	23, 24	Brushton.....	112
quadrangle.....	23-24	Bryant's bridge.....	137
Binnewater.....	162	Buck.....	196
Birdsall.....	33	Buckbee Corner.....	28
Bisby lodge.....	127	Buckton.....	109, 150
Black Brook.....	68	Buffalo.....	28, 29
Black Creek.....	16	Creek.....	29
Black River.....	35, 157, 182	quadrangle.....	28-29
Black Rock.....	74	Buffalo & Susquehanna Ry.....	152
Blaine.....	31	Buffalo, Rochester & Pittsburgh Ry. 20, 146, 147, 166	
Bleecker Village.....	75	Bullville.....	70
Blenheim.....	75	Burdett.....	192, 193
Blinn's Four Corners.....	33	Burgoyne.....	174
Blodgett Mills.....	58	Burke.....	38, 39, 40
Bloomingburg.....	70	Burnetts switch.....	91
Bloomingdale.....	170	Burns.....	86
Blossom.....	65	Burnside.....	173
Blossvale.....	181	Bushnell Basin.....	103
Blue Mountain Lake.....	25		C.
Blue Mountain quadrangle.....	24-25	Cabin Hill.....	14
Blue Pond.....	165	Cadosia.....	98, 180
Bog Lake.....	185	Cadyville.....	63
Bombay.....	112, 114	Caledonia.....	30
Borden condensed-milk factory.....	119	quadrangle.....	29-30
Borodino.....	177	Callicoon.....	98
Boston.....	52	Camden.....	181
Corners.....	53, 54	Cameron.....	151, 152, 154
Boonville.....	25	Hill.....	154
quadrangle.....	25-26	Camp Comfort.....	88
Bouckville.....	117	Camp 1.....	137
Bowens Corners.....	73	Camp Perkins.....	88
Bradford.....	81	Campbell.....	55, 56, 58, 81
Bradley Pond switch.....	101	Hall.....	76
Branchport.....	142	Campville.....	16
Brandon.....	165, 166	Canadaway Creek.....	68
Center.....	106	Canadice.....	194
Brandreth Lake.....	151	Canajoharie.....	30
Brandy Brook.....	178	quadrangle.....	30-31
Brantingham.....	149	Canandaigua.....	31
Brasher Center.....	109	Lake.....	31, 32
Brasher Iron Works.....	113, 114	quadrangle.....	31-32

Page.		Page.	
Canaseraga.....	32	Chazy River, North Branch of.....	50
quadrangle.....	32-34	Chemung.....	193
Canastota.....	45	River.....	70
Candor.....	139	Chenango Bridge.....	24
Caneadea.....	16	Chenango Forks.....	24
Canisteo.....	85, 87	Chenango River.....	140
River.....	151	Cherry Creek.....	43
Canton.....	34, 35	quadrangle.....	43
quadrangle.....	34-35	Chester.....	76
Canyon Brook.....	95	Chichester.....	143
Cardiff.....	185	Childwold.....	44, 185
Caroga Corners.....	75	quadrangle.....	43-45
Caroline.....	67	Chili.....	28
Carrollton.....	166	Chiloway.....	98
Carter.....	178	Chipman.....	189
Carthage.....	35	Chipmunk.....	166
quadrangle.....	35-36	Chippewa.....	13
Cascade.....	18, 177	Chittenango quadrangle.....	45-46
Case Hill Corner.....	130	Churchville.....	28
Castile.....	146, 147	Churubusco.....	49
Castorland.....	35	quadrangle.....	46-50
Catatonk.....	139	Cincinnatus.....	145
Catherine Creek.....	191	Circleville.....	70
Cattin Lake.....	99	City Brook.....	95
Cato.....	195	Clare.....	164, 165
Caton.....	57	Clarence.....	65
Catskill quadrangle.....	36	Clarendon.....	12
Cattaraugus.....	36	Clarksville.....	21
County courthouse.....	155	Claverack.....	54
quadrangle.....	36	Creek.....	54
Cayadutta Creek.....	71	Clayburg.....	102
Cayuga.....	19	Clayton.....	50
Caywood.....	139	quadrangle.....	50
Cazenovia.....	38	Clayville.....	197
quadrangle.....	37-38	Clear Pond.....	149
Cedar Lake.....	196	Clearwater.....	23
Cedar River.....	120	Clemens Corners.....	83
Cedar River House.....	25	Cleveland.....	46
Cedarville.....	198	Clifton.....	164
Center.....	33	Springs.....	142
Center Moriches.....	116	Clinton Corners.....	158
Centerville.....	122	Clinton Mills.....	49
Central Bridge.....	171	Clintondale.....	119
Central New England Ry.....	54, 112, 118	Clintonville.....	177
Central Valley.....	173	Clockville.....	45
Chace.....	147	Clove quadrangle.....	51
Chadwick.....	131	Clyde.....	51
Chain Lakes.....	120	quadrangle.....	51
Champion.....	36	Clymer.....	51, 52
Champlain Canal.....	174	quadrangle.....	51-52
Charley Lake.....	94	Cobleskill.....	159, 171
Charlotte, Rochester quadrangle.....	160, 161	Cochecton.....	62
Charlotte Center, Cherry Creek quadrangle.....	43	Coe, Robert, leveling by.....	54
Chases Mill.....	190	Coffins Mills.....	133
Chasm Falls.....	41	Cohocton.....	86, 87, 117
Chateaugay.....	38, 46	River.....	54, 81
Lake.....	40, 41, 48	Cohoes.....	52
quadrangle.....	38-41	quadrangle.....	52
Chateaugay R. R.....	168	Colburns.....	42
Chatham.....	90	Colchester.....	100, 191
Chamont.....	50	Cold Brook (to Saranac River).....	102
Chautauqua Lake.....	52	(to West Canada Creek).....	189
Chautauqua Outlet.....	42, 88	Cold Brook, Utica quadrangle.....	150
Chautauqua Point.....	42	School, Stark quadrangle.....	179
Chautauqua quadrangle.....	42	Cold Spring, Northport quadrangle.....	123
Chazy Lake.....	101	Redhouse quadrangle.....	155

Page.	D.	Page.	
Cold Spring Creek.....	137	Dale.....	20
Colden quadrangle.....	52	Damascus quadrangle.....	62
Coldenham.....	119	Dannemora.....	63
Coleman.....	111	quadrangle.....	62-64
Cole's switch.....	77	siding.....	47
College Point.....	158	Dansville.....	195
Colliers.....	64	Darien.....	18
Collins.....	36	Datum, inland.....	7
Colton.....	149	Davis.....	118
Columbia Center.....	198	Day Center.....	100
Commack.....	123	Dayton.....	36
Conesville.....	75	De Kalb.....	78, 126
Conewango.....	89	Junction.....	126
Conklingville.....	100	De Peyster.....	128
Conquest.....	195	Deadmans Gulch.....	127
Constable.....	39, 104	Deansboro.....	168
Constableville.....	148	Deep Notch.....	143
Constantia.....	181	Deer Creek, West Branch of.....	107
Cook Corners, Malone quadrangle.....	106, 107	Deer River (to Black River).....	85, 86
Cooks Corners, Cranberry Lake quadrangle.....	61	(to St. Regis River).....	113
Oneonta quadrangle.....	129	Deerfield.....	189
Cooks Falls.....	96	Deerpark.....	123
Coons bridge.....	110	Degrasse.....	164
Coopers Plains.....	55, 56, 81	Delancey.....	13, 14
Cooperstown.....	53	Delanson.....	21
Junction.....	64	Delaware & Hudson R. R.	13, 21,
quadrangle.....	53	24, 53, 62, 64, 100, 101, 121, 122,	
Copake.....	54	128, 145, 159, 170, 171, 174, 186	
Ironworks.....	53	Delaware & Northern R. R.	14, 15, 108, 190, 191
quadrangle.....	53-54	Delaware County courthouse	65
Copenhagen.....	36	Delaware, Lackawanna & Western R. R.	18, 24,
Corbett.....	191	29, 30, 58, 66, 70, 80, 82, 123, 124,	
Corfu.....	18	131, 140, 167, 168, 194, 197, 198	
Corinth.....	171	Delaware River	97, 98
Cornell University.....	67	East Branch of.....	14
Corning.....	54, 55, 57	Delaware-Ulster county line.....	108
Point.....	166	Delhi.....	64, 65
quadrangle.....	54-58	quadrangle.....	64-65
Cornwall.....	172, 173	Delta.....	26
Corrections to Bulletin 514.....	5-6	Denison Corners.....	198
Cortland.....	58, 59	Denning.....	178
quadrangle.....	58-59	Depauville.....	50
Cottage City.....	32	Depew quadrangle.....	65
Cotton.....	45	Deposit.....	66
Countryman.....	96	quadrangle.....	66
County House.....	33	Derby.....	69
Coventry.....	140	Deruyter.....	37
Coventryville.....	140	Devereaux.....	94
Covert.....	74	Dewittville.....	42
Coxsackie quadrangle.....	59	Dexter.....	50
Craigie Clair School.....	97	Diana.....	91
Craigs.....	30	Dickinson Center.....	112, 121
Craigville.....	173	Dimmick, G. M., leveling by.....	26, 34,
Cranberry Creek.....	27	42, 51, 69, 76, 83, 88, 89, 109,	
Cranberry Lake.....	61, 62	110, 111, 112, 114, 116, 122, 125, 131,	
quadrangle.....	59-62	147, 149, 155, 167, 177, 189, 197, 198	
Crary Mills.....	35	Disco.....	62, 102
Craryville.....	53	Divided Brook.....	48
Crawford Junction.....	70	Dover Plains.....	51
Creedmoor.....	83	Downsville.....	15
Crisp, Fred W., leveling by.....	64, 145	Doyles.....	173
Crittenden.....	17, 65	Dranes Corner.....	163
Croton Aqueduct.....	121	Dresserville.....	115
Crystal Run.....	76	Driftwood.....	42
Cuba.....	128	Dry Brook.....	108
Cuddebackville.....	148	Dry Mill Creek.....	146
Cuyler.....	37, 145	Dryden.....	67
Cuylerville.....	30		

	Page.		Page.
Dryden quadrangle	66-67	Elkland	152
Duane	21	Ellenburg	47
Duanesburg	13	Center	46
Dunbar	51	Corners	47
Dundee	138	Ellenville	69
Dunkirk	67, 68	quadrangle	69-70
Dunkirk, Allegheny Valley & Pittsburgh R. R.	67, 89	Ellery	42
Dunkirk quadrangle	67-68	Ellington	89
Dunraven	108	Ellsworth	74
Durkeetown	174	Elm Lake	88
Dutch Hill	145	Elma	65
Dwaarkill	70	Elmira	70, 71
Dysinger Corners	97	quadrangle	70-71
E.		Elpis	90
Eagle Harbor	160	Elsmere	173
Earlvile	123	Elting	119
East Amherst	97	Emeryville	79
East Aurora	65	Ennerdale	143
East Berne	21	Enos	157
East Bloomfield	31	Erie Canal	12, 20, 27, 31, 52, 95, 97, 103, 110, 160, 171, 181, 188, 189, 195
East Boylston	131	Erie R. R.	16,
East Branch	98, 190, 191	17, 20, 21, 24, 29, 30, 32, 36, 42, 43, 54, 58, 62, 65, 69, 70, 76, 81, 85, 86, 88, 97, 117, 122, 124, 127, 139, 145, 146, 147, 148, 150, 151, 152, 154, 155, 166, 172, 180, 193, 194, 195	
East Campbell	55, 56	Erieville	37, 38
East Clarence	97	Erin	194
East Corning	54	Erwins	54
East Freetown	145	Esperance	171
East Gaines	125	Essex-Hamilton county line	25
East Galway	170	Etna	67
East Homer	58	Evans Mills	182
East Ithaca	66, 67	Exeter	198
East Kill	144	F.	
East Koy Creek	147	Fabius	37
East Martinsburg	148	Factory village	170
East Northport	123	Fair Oaks	70
East Oakfield	12	Fairfield	95
East Onondaga	181	Fairhaven	125
East Palmyra	141	Fairport	103
East Pembroke	110	Fairview	147
East Pharsalia	124	Fairville	141
East River	58	Faison, E. L., leveling by	43, 67, 95, 196
East Shelby	110	Falconer	89
East Spencer	140	Fall Brook Ry.	138
East Springfield	158	Farmer	73
East Steamburg	139	Farmingdale, Babylon quadrangle	19
East Steuben	156	Schunemunk quadrangle	173
East Williamson	141	Farnham	176
East Windsor	122	Fawn Lake	127
East Winfield	198	Fay	107
East Worcester	159	Fayette	73
East X	73	Felts Mills	182
Easton Corners	174	Fenner	38
Eastport	160	Fentonville	89
Ebenezer	29	Fillmore	16
Eden Center	69	Finch Creek	52
Eden quadrangle	68-69	Findley Lake	52
Eden Valley	69	Fine	136
Edenville	76	Fishers Landing	13
Edgewood, Kaaterskill quadrangle	89	Fishing Brook	25
Northport quadrangle	123	Fish's Eddy	98
Edwards	79, 163, 165	Fitchburg R. R.	174
Edwardsville	26	Fitzgerald	91
Elba	12	Five Corners	34
Elk Brook	98		
Elkdale	155		

Page.	Page.		
Fleischmans.....	108	Geneva.....	73
Fleming.....	19	quadrangle.....	73
Flint Creek.....	142	Geona.....	74
Flockville.....	125	quadrangle.....	73-74
Floodwood.....	166	Georgetown.....	116
Florence.....	90	Gerry.....	89
Fluvanna.....	42	Ghent.....	90
Fonda County courthouse.....	71	Gibbons Hill.....	162
Fonda, Johnstown & Gloversville R. R.	71, 76	Gibbs School.....	164
Fonda quadrangle.....	71	Gibson Corners.....	140
Forest Glen.....	119	Gibsonville.....	125
Forest House.....	25	Giffords.....	42
Forestburg.....	197	Gilbert, W. W., leveling by.....	23, 53, 66, 71, 93,
Forestlawn.....	161		99, 116, 139, 151, 158, 185, 191, 193
Forestport.....	157	Gilbert Mills.....	72
Forestville.....	43	Gilbertsville.....	187
Forge Hollow.....	168	Gilboa.....	74
Forked Lake Carry.....	151	quadrangle.....	74-75
Forks.....	29	Gill, A. W., leveling by.....	53, 116, 158
Fort Covington.....	112	Gilman Lake.....	94
Center.....	107	Glen, The.....	122
Fort Edward.....	75	Glenco Mills.....	54
Fort Plain.....	31	Glendale Farm.....	87
Fosterville.....	19	Glenfield.....	148, 149
Fourth Lake.....	23	Glenhaven.....	176
Fowler, A. T., leveling by.....	43	Glens Falls quadrangle.....	75
Fowlerville, Caledonia quadrangle.....	29	Gloversville.....	76
Fowlerville, Port Leyden quadrangle.....	149	quadrangle.....	75-76
Francis camp.....	134	Goodriches Mills.....	102
Frankfort.....	189	Goshen.....	76
Franklin.....	129	quadrangle.....	76-77
Franklinton.....	172	Gouverneur.....	77, 78, 79, 81
Franklinville quadrangle.....	71	quadrangle.....	77-79
Fraser.....	13, 64	Grand Gorge.....	84
Fredonia.....	68	Grand Trunk Ry.....	109, 112, 114
Freeman.....	152	Granite Brook.....	35
Freeville.....	115	Grant Mills.....	108
Frenchville.....	26	Grass River.....	44, 163, 164, 178
Friend.....	142	Graves Brook.....	47
Friendship.....	21	Great Bend.....	16
Fulton.....	72, 73	Great Valley.....	167
Chain.....	23, 104, 126	Green, W. E., leveling by.....	17, 24,
quadrangle.....	72-73		58, 80, 82, 108, 117, 139
Fultonville.....	71		140, 145, 159, 161, 186
G.		Greenboro.....	131
Gaines Town.....	160	Greenbush.....	183-184
Gale Corners.....	44	Greene.....	80
Galena.....	123	quadrangle.....	80
Gallatinville.....	54	Greenfield.....	170
Gallupville.....	21	Greenhurst.....	42
Galway.....	26	Greenville.....	148
Gansevoort.....	174	Greenwood Creek.....	136
Gardenville.....	29	Gregorytown.....	191
Gardiner.....	119	Greig.....	149
Gardners Corners.....	36	Greigsville.....	30
Garwood.....	32	Greycourt.....	76
Gasport.....	97	Gridles Corners.....	149
Gates.....	173	Gridleyville.....	139
Gate's mill.....	163	Griffin.....	181
Geer's Corners.....	92	Griffith.....	42
Genesee Junction.....	161	"Gristmill" bench mark.....	183-184
Genesee River.....	146	Griswold.....	18
Genesee Valley Junction.....	84, 85	Groton City.....	116
Geneseeo.....	30	Grove.....	32, 33
		siding.....	96

	Page.		Page.
Groveland.....	124, 125	Herkimer-Oneida county line.....	156, 188
Guilford.....	187	-St. Lawrence county line.....	134
Gulf Summit.....	122	Hermitage.....	147
Gulicksville.....	142	Hermon.....	79, 162, 164, 165
Gull Lake.....	60, 61	Hessville.....	31
Gull Pond.....	60	Heuvelton.....	125
Guymard.....	147	Hibernia.....	158
H.		High Falls.....	60
Hadley.....	100	Highland.....	151
Hagedorn's Mills.....	27	Highmarket quadrangle.....	83-84
Hailesboro.....	79	Hilton.....	80
Halcottsville.....	108	Himrod.....	138, 142
Hales Eddy.....	66	Hinmansville.....	19
Half Acre.....	18	Hinckley.....	156
Hall's Bridge.....	108	Hinsdale.....	127, 128
Hallsville.....	31	Hobart.....	84
Halsey Valley.....	140	quadrangle.....	
Hamburg.....	69	Hodges, J. H., leveling by.....	21
Hamden.....	13	Hodges, J. W., leveling by.....	23
Hamilton.....	117	Hogansburg.....	112
Hamilton-Essex county line.....	25	Holecomb.....	31
Hamilton-Herkimer county line.....	127	Holley.....	12
Hamlin.....	80	Holliday's Brook School.....	15
quadrangle.....	80	Hollywood.....	45, 178
Hammond, W. F., leveling by.....	31, 54, 73, 81, 138, 142	Holmesville.....	118, 186
Hammond quadrangle.....	81-82	Holtsville.....	175
Hammondsport.....	81	Homer.....	58
quadrangle.....	81-82	Honeoye.....	85
Hancock.....	180	Falls.....	85
Haney, L. T., leveling by.....	156	Junction.....	84
Hankins.....	98	quadrangle.....	84-85
Hannibal.....	138	Honnedaga.....	127, 157, 196
Hanson's crossing.....	159	Forest Lodge.....	127
Hardys.....	147	Lake.....	127
Harford.....	82	Hooker.....	84
Mills.....	82	Hooper.....	17
quadrangle.....	82	Hope School.....	93
Harkness.....	63	Horn Tavern.....	116
Harlem quadrangle.....	82	Hornby.....	56
Harlem R. R.....	111	Hornell.....	85, 86, 87, 88
Harpersville.....	121, 122	quadrangle.....	85-88
Harrigan Corners.....	48	Horseheads.....	70, 71
Harris.....	17	Horseshoe.....	185
Harrisville.....	91, 92, 93	Horton.....	96, 98
Hartfield.....	68	Hotel Champlain.....	146
Hartland.....	126	Houghton.....	16
Hartwick.....	53	Houseville.....	148
quadrangle.....	83	Howard.....	87, 88
Hartwood.....	114	Howe Cave.....	171
Harvard.....	191	Howells.....	76
Haskinsville.....	87	Hoy, Fred, tote road.....	41
Hastings.....	111	Hubbardsville.....	168
Hauppauge.....	175	Hudson.....	36, 59
Havens, A. S., leveling by.....	25	River.....	120
Hawkeye.....	102, 103	Hughesville School.....	163
Hawleys.....	190	Hughton Corners.....	129, 187
Hawleyton.....	24	Humphrey.....	167
Hayt Corners.....	139	Hunter.....	89
Helena.....	112, 114	Huntington.....	123
Hemlock.....	85	Hyndsville.....	159
Hempstead quadrangle.....	83	I.	
Herkimer.....	96	Idlewood Creek.....	69
County poorhouse.....	96	Ilion.....	189
-Hamilton county line.....	127	Indian Lake.....	24, 120
Landing.....	127	quadrangle.....	88

	Page.		Page.
Indian River (to Oswegatchie River).....	91, 93	Kinderhook.....	90
(to Hudson River).....	120	quadrangle.....	90
Inghams Mills.....	95	Kings.....	170
Ira.....	195	flow dam.....	183
Irondequoit.....	161	Park.....	123
Bay.....	161	Kingston.....	161
Irving.....	176	Creek.....	161
Italy.....	117	Kingville.....	40, 41
Ithaca.....	67	Kipps.....	76
		Kirk's, Jacob, house.....	182
J.		Kirkwood.....	24
Jacksonburg siding.....	14	Knapps.....	109
Jamestown.....	42, 88	Knowelhurst.....	180
Chautauqua & Lake Erie Ry.....	42, 68	Knox.....	21
Junction.....	68	Krause, A. F., leveling by	24, 71, 75, 89, 119, 172, 183
quadrangle.....	88-89	Krumville.....	162
Jamesville.....	185		
Jasper.....	153, 157	L.	
Jayville.....	132	Lackawack.....	178
Jeddo.....	160	Lackawanna. <i>See</i> West Seneca.	
Jenkins Pond.....	99	Lafargeville.....	182
Jerdon Falls.....	93	Lafayette.....	116
Jericho.....	140	Lake.....	76
Jerseyfield Lake.....	197	Bonaparte.....	91
Jerusalem Hill.....	198	Bonaparte quadrangle.....	91-93
Jessups River.....	8	Clear.....	189
Jewett Center.....	4	Como.....	116
John Boyd Thacher Park triangulation		Keuka.....	81
station.....	22	Massawepie.....	43, 44
Johnson.....	147	Placid.....	93, 169
Johnstown.....	76	Placid quadrangle.....	93
Jordan.....	20	Pleasant.....	93
		Pleasant quadrangle.....	93-94
K.		Lake Shore & Michigan Southern Ry. 28, 67, 68, 175	
Kaaterskill quadrangle.....	89	Lake View.....	68
Kalurah.....	132, 136	Lakeside.....	103
Karter switch.....	91	Lakewood.....	42
Kasoag.....	89	Langdon.....	24
quadrangle.....	89-90	Laona.....	68
Kaufman's.....	14	Lassellsville.....	94
Kavanagh, A. J., leveling by		quadrangle.....	94
16, 32, 38, 46, 77, 80, 86, 104		Lathams Corners.....	186
Kayaderosseras Creek.....	170	Lawrenceville.....	113
Keenes.....	80, 81, 92	Lawrenceville, Pa.....	55
Keeney, Cazenovia quadrangle.....	37	Lawton.....	69
Keeneys, Margaretville quadrangle.....	108	Lebanon.....	116
Keepawa.....	23	Leboeuf.....	168
Keesler's siding.....	64	Ledgers Corner.....	47
Kelley, William, leveling by		Lehigh & Hudson River Ry.....	76
12, 30, 50, 75, 84, 94, 108, 159, 182, 191		Lehigh Valley R. R.....	17,
Kelleys.....	13	18, 28, 31, 38, 45, 58, 59, 66, 73, 82, 84, 85, 115,	
Kelley's camp.....	135	138, 139, 140, 142, 143, 145, 192, 193, 194, 195	
Kelley's Corners.....	108	Leicester.....	30
Kellogg's Corners.....	92	Leonards Brook.....	35
Kelloggsville.....	176	Leonard's Corners.....	92
Kendaia.....	138	Leonardsville.....	167
Kendalls.....	193	Leroy.....	20, 30
Kennedy.....	89	Lestershire.....	23
Kenwells.....	196	Leveling, precise, standard of.....	6
Kerhonkson.....	177	primary, standard of.....	6
Kiantone.....	89	Lewey Lake.....	88
Kiger, R. A., leveling by.....	46	Lewis-Oswego county line.....	131
Kildare.....	43	Lexington.....	74, 144
Kile triangulation station.....	140	Leyden.....	148
Killawog.....	82	Liberty Pole School.....	57, 58
Killbuck.....	166, 167	Lillydale.....	68

	Page.		Page.
Lima.....	85	McNalls Corners.....	97
Limekiln.....	176	Madrid.....	34, 35, 190
Limerick.....	50	Maguire, J. B., leveling by.....	36,
Limestone.....	167		45, 83, 122, 131, 144, 148, 151, 181
Creek.....	181	Maine.....	17
Lincklaen.....	145	Malone.....	105, 106
Lindley.....	55, 57	Junction.....	39, 104, 105
Lines.....	62	quadrangle.....	104-107
Linwood.....	30	Mamakating.....	70
Lisbon.....	35, 125	Manchester.....	142
Lisle.....	82	Manheim.....	95
Little Falls.....	95	Manlius.....	181
quadrangle.....	95-96	Mannigan's bunk house.....	137
Little Moose Lake.....	196	Manorkill.....	75
Little Ridge crossing.....	160	Manorville.....	116
Little River.....	133	Maple Grove.....	187
Little Salmon River.....	106	Maple Lake.....	157
Little Tupper Lake.....	185	Maple Ridge.....	78
Little Valley.....	155	Maps, topographic.....	7-11
Little Woodhull Creek.....	157	Marathon.....	82
Little York.....	58	Marcellus.....	176, 177
Livingston Manor quadrangle.....	96-97	Falls.....	176
Livingstonville.....	75	Margaretville.....	108
Livonia.....	85	quadrangle.....	108
Center.....	85	Marietta.....	177
Lloyd.....	119	Marion.....	141
Locke.....	115	Marion River Carry.....	151
Lockport.....	97	Marshville, Canajoharie quadrangle.....	30
quadrangle.....	97	Russell quadrangle.....	165
Lodi.....	138, 139	Martindale.....	53
Long Eddy.....	97	Martins Township.....	36
quadrangle.....	97-98	Marvin, C. W., leveling by.....	80
Long Flat.....	191	Marvin.....	52
Long Island R. R.....	116, 123, 175	Maryland.....	53
Long Island City.....	121	Massachusetts Topographical Survey Com-	
Long Lake.....	25, 99	mission, leveling by.....	90
quadrangle.....	99	Massawepie Lake.....	137
Long Lake West.....	185	Masena.....	109
Loomis's camp.....	185	quadrangle.....	109
Loon Lake.....	86	Springs.....	109
Lordville.....	97	Maxcy, K. F., leveling by.....	148
Lorraine Township.....	131	Maybury.....	58
Lowville.....	99	Mayfield.....	76
quadrangle.....	99	Mays Point.....	73
Ludlowville.....	74	Mayville.....	52, 68
Luzerne.....	100	Maywood.....	186
quadrangle.....	100	Mead Creek.....	56
Lye Creek.....	73	Meade, A. P., jr., leveling by.....	91, 132, 160, 175
Lyon Mountain.....	40, 46, 47, 48, 101	Meadowbrook.....	173
quadrangle.....	101-103	Mechanicstown.....	76
Lyons.....	51	Medina.....	110
Falls.....	148	quadrangle.....	110
M.			
McDiarmid, M. S., leveling by.....	95, 196, 197	Meekville.....	157
McDonough.....	80	Merrick.....	83
Macedon quadrangle.....	103	Merrickville.....	129
McGrawville.....	58	Merrillville.....	102
McIntyre.....	112	Merring School.....	153
McKeever.....	104	Messengerville.....	82
quadrangle.....	103-104	Metcalf Lake.....	144
McKizer's Hotel.....	179	Mexico.....	110
McLean.....	59, 115, 116	quadrangle.....	110-111
McMaugh, F. J., leveling by.....	22	Michigan Mills.....	83
McNair, E. L., leveling by.....	12, 13, 15, 16,	Middle Branch.....	164
21, 23, 27, 32, 36, 43, 52, 53, 54, 64, 67, 70, 80, 85,		Middle Branch School.....	93
97, 100, 110, 121, 122, 125, 126, 127, 128, 139, 151,		Middle Falls.....	174
155, 156, 159, 160, 166, 170, 171, 186, 193, 195, 197		Middle Island.....	116
		Middleburg.....	172
		Middlegrove.....	170

Page.	Page.
Middleport.....	110
Middlesex.....	117
Middletown.....	76
Middleville.....	95, 96
Midway, Chautauqua quadrangle.....	42
Grove.....	42
Midway, Moravia quadrangle.....	115
Milford, Cooperstown quadrangle.....	53
Milford quadrangle.....	111
Millard's Brook.....	187
Millbrook.....	111
quadrangle.....	111-112
Millers Crossing.....	132
Millers Mills.....	198
Millers Pond.....	54
Millerton.....	111
Millgrove.....	65
Millport.....	191, 193
Mills, G. C., leveling by.....	53
Milo Center.....	142
Milton.....	150
Mineola.....	83
Minerva.....	172
Minetto.....	72
Minnebaha.....	104
Mitchell.....	73
Modena.....	118
Moffitsville.....	101, 102
Mohawk.....	158
Aqueduct.....	52
Mohawk River.....	25, 26, 188
West Branch of.....	25
Moira.....	112, 113
quadrangle.....	112-114
Mongaup.....	111
Monroe.....	173
Monterey.....	81, 82
Montezuma.....	195
Monticello quadrangle.....	114
Montour Falls.....	192
Montville.....	115
Moore, W. S. D., leveling by. 74, 89, 143, 157, 161, 177	
Moore's Corner.....	164
Moore's Mill.....	136
Moose Pond.....	169
Club.....	120
Moose River.....	149
South Branch of.....	127
Moravia.....	115
quadrangle.....	115-116
Morehouseville.....	144, 197
Moriches quadrangle.....	116
Morrisonville.....	63
Morrisstown.....	26
Morrisville.....	116
quadrangle.....	116-117
Mortons Corners.....	69
Mott School.....	162
Mount Morris.....	124, 125
Mount Pleasant.....	143
Mount Riga.....	53
Mount Upton.....	186, 187
Mountainville.....	172
Mowbray.....	119
Moynihan's lumber camp.....	185
Mud Creek Aqueduct.....	103
Mud Lake, Stony Creek quadrangle.....	180
N.	
Mud Lake, West Canada Lakes quadrangle.....	196
Mud Pond.....	23
Mulholland.....	55
Munnsville.....	117
Murray.....	125
N.	
Nanticoke.....	82
Creek.....	17
Naples.....	117
quadrangle.....	117
Narrowsburg.....	62
Natural Bridge.....	91
Neelytown.....	118
Nehasane.....	23, 61
Neversink River.....	114
New Berlin.....	118
Junction.....	186
quadrangle.....	118
New Forge.....	54
New Hartford.....	131
New Kingston.....	108
New Oregon.....	69
New York, State of, cooperation.....	5
City.....	121
& Ottawa R. R.....	112, 121, 165, 168
Central & Hudson River R. R.....	17, 20, 23, 28,
29, 31, 41, 50, 53, 54, 55, 58, 65, 77,	
79, 80, 85, 91, 95, 104, 132, 142, 143,	
145, 149, 156, 160, 166, 169, 185, 188, 192	
Ontario & Western Ry.....	13,
64, 66, 69, 76, 96, 98, 111, 118, 129,	
140, 168, 172, 177, 180, 186, 190	
Susquehanna & Western R. R.....	77, 147
Newark.....	141
Valley.....	17
Newbridge.....	178
Newburg.....	119
Dutchess & Connecticut R. R.....	111
Junction.....	173
quadrangle.....	118-119
Newcomb.....	120, 169
quadrangle.....	119-120
Newpaltz.....	119, 162
Newport, Baldwinsville quadrangle.....	20
Utica quadrangle.....	189
Newton Falls.....	59, 61
Newville.....	158
Niagara County courthouse.....	97
Nichols.....	152
School.....	58
Nicholville quadrangle.....	121
Ninemile Creek (to Otisco Lake).....	176, 179
(to Mohawk River).....	189
Nineveh.....	122
quadrangle.....	121-122
Niobe.....	42
Niverville.....	90
Nobleboro.....	197
Norfolk.....	109
North Bangor.....	106
North Boston.....	69
North Brookfield.....	168
North Candor.....	140
North Clymer.....	51
North Collins.....	69
North Creek.....	122
quadrangle.....	122

Page.		Page.	
North Croghan	91	Onoville	155
North Easton	174	Ontario	103
North Evans	68	Center	103
North Franklin	130	Oppenheim	94
North Gage	189	Oquaga	122
North Galway	27	Oramel	16
North Gouverneur	78	Oran	37
North Harpersfield	84	Orchard Park	65
North Hector	139	Oregon, Piseco Lake quadrangle	144
North Jasper	153, 154	Thirteenth Lake quadrangle	183
North Kortright	84	Oriskany Falls	168
North Lake	104, 127	Oriskany quadrangle	131
North Lansing	115	Orwell	131
North Lawrence	113	quadrangle	131
North Norwich	123	Osscela	83
North Osceola	83	Ossian	125
North Pitcher	145	Oswegatchie	133, 135, 136
North River	183	quadrangle	132-137
North Rose	51	Oswegatchie River	77, 92, 93, 125, 135, 136, 137
North Woods Club	120	Middle Branch of	134
Northampton	27	West Branch of	79
Northeast quadrangle	122	Oswego	72, 138
Northern Central Ry	70, 71, 141, 142, 143	Canal	20, 72
Northfield	129, 190	Lewis county line	131
Northport quadrangle	123	quadrangle	138
Northrup, F. B., leveling by	34	River	72
Northville	27, 93	Otego	128
Northwood	156	Otisco Lake	176, 177
Norway	95	Otisville	147
Norwich	123	Otsdawa	129, 130
Corners	188	Otselic	123
quadrangle	123-124	Ouleout Creek	130
Norwood	35, 109, 149	Ovid Center	73
Nunda	124	Ovid quadrangle	138-139
Junction	124	Owaseo	176
quadrangle	124-125	Owego	16, 139, 140
O.		quadrangle	139-140
Oak Orchard	160	Owls Head	41
quadrangle	125	Oxford, Oxford quadrangle	140
Oakland Valley	114	Schunemunk quadrangle	173
Oakville	83	quadrangle	140
Oatka Creek	147	Oyster Bay quadrangle	140-141
Obi	128	P.	
Odessa	192	Paines Creek	74
O'Donnell's camp	41	Paines Hollow	158
Offutt's Corner	163	Painted Post	54, 55, 56, 81
Ogdensburg	26, 125	Palmerville	163
quadrangle	125-126	Palmyra	103
Ohio	156, 197	quadrangle	141
Olcott quadrangle	126	Panama	42, 52
Old Forge	126	Pansy	117
quadrangle	126-127	Lake	134
Olean	127, 128	Panther Creek	172
Creek	128	Paris	131, 167
quadrangle	127-128	Parish, Mexico quadrangle	111
Olive Branch	162	Naples quadrangle	117
Omar	12	Parishville	150
Onativia	185	Park	194
Onchiota	170	Parker	186
Oneida-Herkimer county line	156, 188	Patchin	52
Oneonta	128, 130	Patchogue	175
quadrangle	128-130	Paul Smith post office	166
Onondaga Castle	184	station	169, 170
Onondaga Creek	181	Pavilion Center	20
Onondaga Indian Village	184	Pearl Creek	20

INDEX.

	Page.		Page.
Peasleeville.....	63, 64	Port Jervis.....	147, 148
Pembroke.....	110	quadrangle.....	147-148
Pendleton.....	97	Port Leyden.....	148, 149
Penn Yan.....	142	quadrangle.....	148-149
quadrangle.....	142	Portage quadrangle.....	146-147
Pennsylvania R. R.	16, 29, 36, 65, 69, 146, 155, 161	Portageville.....	146
Pennsylvania-New York State line.....	71, 155	Porter Hill.....	165
Pepacton.....	15	Portville.....	128
Perch River.....	50	Postem Lodge.....	60
Perkins, J. M., leveling by.....	62, 101	Potter Center.....	142
Perkins School.....	149	Potsdam.....	149, 150
Perry.....	147	quadrangle.....	149-150
Perrysburg.....	36	Poughkeepsie.....	150
Perryville, Chittenango quadrangle.....	45	quadrangle.....	150-151
Dryden quadrangle.....	66	Prattsburg.....	117
Personnel.....	6	Prattsburg.....	74
Peru, Baldwinsville quadrangle.....	20	Preble.....	59
Dannemora quadrangle.....	63, 64	Fresho.....	55
Peruville.....	115	Preston Ponds.....	169
Peterboro.....	116	Prospect, Remsen quadrangle.....	156
Pettit, I. W., leveling by.....	52, 69	Westfield quadrangle.....	196
Phelps.....	142	Prussian Township.....	156
Junction.....	142	Publication, previous.....	5
quadrangle.....	142-143	Pulaski quadrangle.....	151
Philips-Corners.....	179	Pulteny.....	142
Phillips Creek.....	34		Q.
Phillips Mills.....	42	Quaker Bridge.....	155
Phillips School.....	56	Quaker Springs.....	174
Philmont.....	90	Queens Borough.....	121
Phoenicia.....	143		R
quadrangle.....	143-144	Rabbit Inn.....	41
Phoenix.....	19, 20	Rainbow Lake.....	170
Picketts Corners.....	101	Randolph.....	155
Piffard.....	29	Raquette.....	151
Pike.....	147	Falls.....	99
Pine.....	190	Raquette Lake.....	151
Bush.....	70	quadrangle.....	151
Hill.....	143, 144	Raquette River.....	149
Island.....	77	Rathbone.....	152, 153
Plains.....	111	quadrangle.....	151-154
Valley.....	71	Raymondville.....	109
Piseco.....	144	Reading Center.....	193
Piseco Lake quadrangle.....	144	Red Creek.....	133
Pitcairn.....	92	Red Mills.....	155
Pitcher quadrangle.....	145	quadrangle.....	155
Pittsburg, Shawmut & Northern R. R.	32, 87, 124	Redfield.....	131
Plainfield Center.....	198	Redford.....	62, 102
Plainville.....	20	Redhouse.....	155
Platner Brook.....	18	quadrangle.....	155
East Fork of.....	64, 130	Redwood.....	12
Plattekill.....	119	Reeds Mill.....	157
Plattsburg.....	145, 146	Remsen.....	156, 157
quadrangle.....	145-146	quadrangle.....	156-157
Training Camp.....	145-146	Reniff.....	194
Pleasant Valley, Andes quadrangle.....	14	Rensselaer Falls.....	126
Poughkeepsie quadrangle.....	150	Rensselaerville.....	22
Plum Creek.....	164	Reubens.....	145
Plumbs-Corners.....	179	Rexford.....	171
Point Rock.....	182	Rexville quadrangle.....	157
Poland.....	189	Rhinebeck quadrangle.....	157-158
Pomme, A. B., leveling by.....	18, 95, 115, 176, 188	Ricard.....	131
Poolville	117	Rices corners.....	92
Port Byron.....	195	Rich Lake.....	120
Port Grane.....	24	Richards Landing.....	109
Port Ewen.....	158		
Port Jefferson.....	175		

Page.	Page.
Richfield Junction.....	167, 197, 198
Richfield Springs.....	158
quadrangle.....	158
Richford.....	82
Richmond Borough.....	121
Richmondville.....	159
quadrangle.....	159
Richville.....	77, 78, 79
Ridgeroad.....	126
Ridgeway quadrangle.....	160
Rifton.....	162
Risingville.....	154
Riverhead.....	160
quadrangle.....	160
Riverside, Binghamton quadrangle.....	24
North Creek quadrangle.....	122
Rochester.....	160, 161
quadrangle.....	160-161
Rock City Falls.....	170
Rock Rift.....	190
Rockdale.....	186
Rockville Center.....	83
Rockwells Mills.....	186
Rockwood.....	94
Roeliff Jansen Kill.....	54
Rogers.....	91
Rome, Watertown & Ogdensburg R. R.	34, 35,
89, 111, 148, 156, 157, 164	
Rondout Creek.....	162
Ronkonkoma.....	175
Roscoe.....	96
Rosendale.....	162
quadrangle.....	161-162
Roslyn.....	141
Ross crossing.....	124
Roszman.....	90
Roxbury.....	84
Rudiston.....	144
Ruland Hill.....	175
Rush Junction.....	85
Rushford.....	71
Rushmer road.....	188
Rushville.....	4
Russell.....	163
quadrangle.....	162-165
Russia.....	62, 101
Rutland R. R.	38, 47, 104, 105, 112
S.	
Sabael.....	88
Sacandaga River.....	100
West Branch of.....	94
St. Elmo.....	118
Sage.....	118
St. Johnsville.....	94
St. Lawrence.....	50
-Herkimer county line.....	134
St. Regis Falls.....	121
St. Regis quadrangle.....	165-166
St. Regis River.....	112, 114, 150
Salamanca.....	155, 166
quadrangle.....	166-167
Salem.....	189
Salisbury Center.....	95
Salmon River (to Lake Champlain).....	64, 146
(to St. Lawrence River).....	112
Salt Point.....	157
Creek.....	158
Sammonsburg.....	71
Samsonville.....	177
Sanford.....	182
Sangerfield.....	167
quadrangle.....	167-168
Sanitaria Springs.....	24
Santa Clara.....	168
quadrangle.....	168
Santanoni quadrangle.....	168-169
Saranac.....	62
Hollow.....	101
Inn.....	166
Junction.....	169
Lake.....	169
quadrangle.....	169-170
River.....	101, 102
Saratoga.....	174
quadrangle.....	170-171
Springs.....	170
Sarles Ferry.....	174
Sauquoit.....	131
Savannah.....	51
Savona.....	54, 55, 81
Sayles Corners.....	176
Schenectady.....	171
quadrangle.....	171
Schenevus.....	53
Creek.....	53
Schlaighter, Karl E., leveling by ...	13, 54, 58, 59, 64,
96, 98, 108, 130, 152, 157, 162, 178, 180, 187, 190	
Schoharie.....	172
Creek.....	74, 144
Junction.....	171
quadrangle.....	171-172
Scholes.....	33
Schroon Lake quadrangle.....	172
Schuemunk quadrangle.....	172-173
Schuylerville.....	174
quadrangle.....	173-174
Scio.....	195
Scipio.....	18
Scipioville.....	18
Scott.....	128
Scottsville.....	84, 161
Sea level, mean.....	7
Seidel, George, leveling by	16, 17, 29, 65,
71, 89, 101, 110, 116, 124, 146, 155, 160, 166, 169	
Selden.....	175
Sellecks Corners.....	165, 180
Semper, C. H., leveling by	16,
19, 24, 25, 30, 31, 35, 43, 50, 51, 62, 66, 71, 72,	
73, 76, 85, 93, 97, 99, 103, 112, 118, 121, 122,	
123, 126, 138, 140, 141, 142, 144, 147, 148, 152,	
156, 161, 165, 166, 168, 169, 182, 191, 194, 196	
Seneca Falls.....	73
Senseney, H. S., leveling by	91, 105, 112
Setauket.....	175
quadrangle.....	175
Seventh Lake Mountain.....	127
Severance.....	161

INDEX.

	Page.		Page.
Sevey Corners.....	44, 45	South Warsaw.....	147
Seward.....	159	South Wilton.....	174
Shalibo, F. L., leveling by... 44, 59, 129, 165, 178, 187		South Worcester.....	159
Shandaken.....	143, 144	Southport.....	71
Sharon.....	31	Spafford.....	177
Center.....	31	Speculator.....	88
Springs.....	31	Sparrowbush.....	147
Shavertown.....	15	Spencer.....	140
Sheds Corners.....	37	Spencerport.....	27
Shekomeko.....	111	Spring Brook.....	65
Shelby Town.....	110	Spring Cove.....	168
Sheridan.....	43	Spring Glen.....	69
Sherman.....	52	Springfield Center.....	158
Shinhopple.....	191	Springtown.....	162
Shokan.....	177	Springwater.....	194
Shongo.....	155	Sprout Brook.....	31
Shurtliff.....	44	Spruce Lake.....	196
Shutts Corners.....	172	Square House Corner.....	163
Sidney.....	186	Stafford, Batavia quadrangle.....	20
Silver Creek.....	176	Schuylerville quadrangle.....	174
quadrangle.....	175-176	Staffords Bridge.....	174
Silver Lake, Lake Pleasant quadrangle.....	94	Stanford.....	84
Lyon Mountain quadrangle.....	102	Standish.....	101
Junction.....	147	Stanley.....	143
Silver Run.....	196	Star.....	49
Silver Springs.....	147	Crossroads.....	48
Sixth Lake.....	127	Lake.....	133
Skaneateles.....	176	School.....	164
Lake.....	176	Stark quadrangle.....	178-180
quadrangle.....	176-177	Starkville.....	158
Skerry.....	106	Starlake.....	133, 134
Slate Hill.....	77	Starr Farm.....	42
Slaterville Springs.....	66	Starrucca quadrangle.....	180
Slide Mountain.....	143	Stateline, Nineveh quadrangle.....	122
quadrangle.....	177-178	Northeast quadrangle	122
Slippery Rock Creek.....	68	Steel Creek Aqueduct.....	189
Smithboro.....	139	Sterling.....	138
Smiths Mills.....	43	Steuben.....	26, 156
Smithtown.....	175	Stewart.....	159
Smithville Flats.....	80	Stewarts Corners.....	188
Snake Creek.....	35	Stockholm.....	109
Sodus.....	141	Stockport, Kinderhook quadrangle.....	90
Solom.....	58	Starrucca quadrangle.....	180
Solvay.....	185	Stockton.....	68
Sonyea.....	124	Stokes.....	26
South Albion.....	110	Stone Mill.....	182
South Avon.....	30	Stone School.....	164
South Barre.....	12	Stone Brook.....	175
South Butler.....	51	Stony Creek.....	100
South Carrollton.....	166, 167	quadrangle.....	180-181
South Colton.....	149, 150, 179	Stony Ford.....	76
South Columbia.....	198	Stony Hollow.....	162
South Dansville.....	86	Stottville.....	90
South Edmeston.....	118	Stratford.....	94
South Gilboa.....	84	Streeter Lake.....	134
South Haven.....	116	Strykersville.....	75
South Lima.....	85	Stuarts Creek.....	183
South Livonia.....	85	Stuyvesant Falls.....	90
South New Berlin.....	118	Sugar Bush.....	102
South Pond.....	25	Sulphur Springs.....	97
South Russell.....	163	Summit, Oswegatchie quadrangle.....	133
South Schenectady.....	13	Oxford quadrangle.....	140
South Scriba.....	72	Portage quadrangle.....	147
South Trenton.....	189	Richmondville quadrangle.....	159
South Unadilla.....	186	Summitville.....	70
South Valley.....	159	Sundown.....	78

	Page.		Page.
Susquehanna River.....	64, 128, 129	Twin Lake.....	132
Swain.....	32	Twin Pond.....	101
Swartwood.....	194	Tyler's siding.....	98
Sweden Center.....	28	Tyrone.....	81
Sweets.....	118		U.
Syosset.....	123	Ulster & Delaware R. R.	84, 108, 143, 144, 161
Syracuse.....	181	Ulster-Delaware county line	108
quadrangle.....	181	Ulster Park.....	158
		Unadilla.....	186
		quadrangle.....	186-187
T.		Valley R. R.	118, 167
Taberg quadrangle.....	181-182	Union.....	17
Tabor Corners.....	194	Falls.....	103
Taghkanick Creek.....	54	Grove.....	14
Tahawus.....	120	Hill.....	103
Club.....	169	Springs.....	18
Talcville.....	79	Square.....	110
Tamarac Creek.....	133, 134	Unionville.....	147
Thacher Park. <i>See</i> John Boyd Thacher Park.		U. S. Coast and Geodetic Survey, leveling by.	59
Thayers Corners.....	39	U. S. Engineer Corps, leveling by.	82
Theresa.....	182	Upper Ebenezer.....	65
quadrangle.....	182	Upper Iron Works.....	169
Third Lake.....	126	Urbana.....	81
Thirteenth Creek.....	183	Utica.....	131, 188
Thirteenth Lake House.....	183	quadrangle	188-189
Thirteenth Lake quadrangle.....	183		V.
Thomas, J. E., leveling by.....	26, 100, 170	Valatie.....	90
Thompson, R. P., leveling by.....	36, 69, 148	Valcour Landing.....	146
Thompson Ridge.....	70	Van Campen Creek.....	15
Three-mile Bay.....	50	Van Etten.....	194
Throopsville.....	19	Van Loan, Seth, leveling by.....	21,
Thurston.....	58, 154	51, 111, 150, 157, 172	
Tioga Center.....	139	Van Nostrands.....	27
Tioga River.....	57	Vandalia.....	166
Tioughnioga River.....	24, 37	Varick.....	73
Tip Top summit.....	196	Varna.....	67
Tonawanda Creek.....	110	Varysburg.....	17
Townsend.....	192	Venice Center.....	74
Tracys.....	33	Vermilion.....	72
Transit.....	97	Vermontville.....	102, 170
Treadwell.....	130	Vestal.....	17
Tremper Kill.....	14, 15	Victor.....	31
Trenton.....	156	Victory Mills.....	173
Trimble, K. W., leveling by.....	46, 54	Vintonton.....	172
Trout Brook.....	98	Virgil.....	58
Trout Lake.....	79, 165	Volusia.....	196
Trout River.....	107		W.
Troy quadrangle.....	183-184	Waddington quadrangle.....	189-190
Trumansburg.....	74	Waites Crossing.....	67
Truxton.....	58	Wakeley dam.....	25, 88
Tucker, L. E., leveling by.....	89, 93, 180	Walden.....	118, 119
Tully.....	185	Wales Center.....	65
Center.....	185	Wallington.....	141
quadrangle.....	184-185	Walkill.....	119
Tunnel.....	121	Valley R. R.	118, 162
Tupper Lake.....	99	Walton.....	190
Junction.....	99	quadrangle	190-191
quadrangle.....	185	Walworth.....	103
Turin.....	148	Wanakena.....	60
Turners.....	173	Highway	59, 60
Tuscarora.....	124	Warner's, Baldwinsville quadrangle.....	20
Tuscarora Creek.....	152, 157	Chautauqua quadrangle	42
South Branch of.....	153	Warrensburg.....	100
Tusten.....	62	Warsaw.....	20, 147
Tuttles.....	31		
Twelve Corners	176		

Page.	Page.
Warwick.....	76
Washington Mills.....	131
Wassaic.....	111
Water Valley.....	69
Watertown.....	191
quadrangle.....	191
Waterville.....	167
Watkins.....	192
Glen.....	192
quadrangle.....	191-193
Watts Flats.....	42
Waverly.....	193
quadrangle.....	193-194
Wawbeek.....	166
Wayland.....	194, 195
quadrangle.....	194-195
Wayne Center.....	51
Webster.....	103
Crossing.....	194
Weedsport.....	195
quadrangle.....	195
Wells.....	94
Wells Bridge.....	128, 129, 187
Wellsburg.....	193
Wellsville.....	195
quadrangle.....	195-196
Weltonville.....	17
Wende.....	65
West Amboy.....	90
West Bangor.....	106
West Barre.....	12
West Bloomfield.....	85
West Branch.....	25
West Camden.....	90
West Canada Creek.....	96, 189, 196
West Canada Lakes quadrangle.....	196
West Candor.....	140
West Chenango.....	24
West Conesville.....	75
West Delhi.....	64, 65, 130
West Eaton.....	116
West Edmeston.....	118, 167
West Exeter.....	198
West Fulton.....	172
West Galway.....	26
West Hurley.....	162
West Junius.....	73
West Kill.....	143
West Leyden.....	25
West Oneonta.....	130
West Park.....	158
West Portland.....	68
West Bush.....	85
West Salamanca.....	166
West Seneca.....	29
West Shandaken.....	108
West Shore R. R.....	71, 158, 189
West Stony Creek.....	180
West Taghkanick.....	54
West Winfield.....	198
Westerlo.....	21
Western New York & Pennsylvania Ry.....	51
Westerville.....	26
Westfield.....	196
Westfield quadrangle.....	196
Westons Mills.....	128
Westtown.....	147
Westville.....	107
Center.....	107
Wethersfield Springs.....	147
Wetmore.....	83
Wheatville.....	110
Whippleville.....	41, 105
White Creek.....	95
White Granite Co.'s switch.....	104
White Lake.....	103, 104
quadrangle.....	197
Whiteport.....	162
Whites.....	161
Corners.....	69
Hill triangulation station.....	150
Mills.....	145
White's Store.....	186
Whitney Point.....	80
Willard, Greene quadrangle.....	80
Ovid quadrangle.....	138
Willets Point.....	82
Willett.....	80
Williamson.....	141
Williamstown.....	89
Williamsville.....	65
Willow Creek.....	74
Willowvale.....	131
Willseyville.....	66
Wilmart.....	197
quadrangle.....	197
Wilson Corners.....	115
Winchells.....	111
Windham.....	74
Windsor, Nineveh quadrangle.....	122
Rochester quadrangle.....	161
Winfield quadrangle.....	197-198
Winterton.....	70
Winthrop.....	109
Wiscoy Creek.....	147
Wolcott.....	51
Wolf Creek.....	100
Wolf Hollow.....	14
Wolf Run.....	155
Woodbury.....	173
Woodhull, McKeever quadrangle.....	104
Rathbone quadrangle.....	152, 153
Woods Lake.....	23
Woodwards Hollow.....	69
Wooglin.....	68
Worcester.....	53, 159
Wrights Corners.....	126
Wrights Creek.....	167
Wurtsboro.....	70
	Y.
Yellow Creek.....	136
York, Caledonia quadrangle.....	29
Gouverneur quadrangle.....	79
Youngs.....	186
	Z.
Zurich.....	141

