DEPARTMENT OF THE INTERIOR
Franklin K. Lane, Secretary
United States Geologicat Survey
George OTis Smiri, Director
BULEETIN 633
SPIRIT LEVELING IN MAINE
1899-1915
R. B. MARShalt, Chief Geographer

Work done in cooperation with the State

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## Bulletin 633

## SPIRIT LEVELING IN MAINE

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1916
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## CONTENTS.

Introduction5
Cooperation.
Cooperation. ..... 5
Previous publication ..... 5
Personnel ..... 5
Classification ..... 5
Bench marks ..... 6
Datum. ..... 6
Topographic maps. ..... 7
Precise leveling ..... 8
Bath, Freeport, Gray, Kezar Falls, Portland, and Sebago quadrangles (Cum- berland and Oxford counties) ..... 8
Primary leveling. ..... 10
Portland quadrangle (Cumberland and York counties) ..... 10
Anson, Augusta, Bingham, Brassua Lake, Kingsbury, Moosehead, Norridge- wock, Skowhegan, The Forks, Vassalboro, and Waterville quadrangles (Kennebec, Somerset, and Piscataquis counties) ..... 12
Buckfield, Lewiston, Livermore, and Poland quadrangles (Androscoggin, Cumberland, Franklin, Kennebec, Oxford, and Sagadahoc counties) ..... 18
Bethel, Bryant Pond, Fryeburg, Kezar Falls, and Norway quadrangles (Cumberland, Oxford, and York counties) ..... 23
Belfast, Brooks, Burnham, Castine, Liberty, Rockland, and Waldoboro quadrangles (Kennebec, Knox, Lincoln, and Waldo counties) ..... 28
Bangor, Bluehill, Bucksport, Ellsworth, Mount Desert, Orland, and Orono quadrangles (Hancock, Penobscot, and Waldo counties) ..... 35
Mattawamkeag, Millinocket, Passadumkeag, Seboeis, and Winn quad- rangles (Penobscot County) ..... 39
Boyd Lake, Passadumkeag, and Suponic quadrangles (Penobscot County). ..... 41
Cherryfield quadrangle (Washington County) ..... 44
Cutler and Eastport quadrangles (Washington County) ..... 45
Augusta, Bath, Bethel, Bryant Pond, Buckfield, Dixfield, Freeport, Gar- diner, Lewiston, and Livermore quadrangles (Androscoggin, Cumber- land, Franklin, Kennebec, Oxford, and Sagadahoc counties) ..... 46
Brassua Lake, Chesuncook, Churchill Lake, Harrington Lake, Long Pond, Matagamon, Millinocket, Moosehead, Mount Katahdin, Norcross, North- east Carry, Shin Ponds, Staceyville, and Telos Lake quadrangles (Penob- scot, Piscataquis, and Somerset counties) ..... 49
Appendix: Secondary elevations. ..... 54
Index. ..... 59
ILLUSTRATION.
Page. ..... 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 MAINE, 1899-1915.

R. B. Marshall, Chief Geographer.

## INTRODUCTION.

Cooperation.-The State of Maine contributed financially to this work during the years 1899 to 1915, inclusive, and was represented by Leslie A. Lee and C. S. Hichborn from 1899 to 1908, inclusive, by Nathaniel M. Jones in 1909, by F. C. Robinson and B. M. Fernald in 1910, by F. W. Plaisted in 1911-12, by William T. Haines in 1913-14, and by Benjamin F. Cleaves in 1915.
Previous publication.-The results of spirit leveling previously published in Bulletin 437, containing descriptions and elevations of bench marks established in Maine from 1899 to 1909, inclusive, and based on the 1903 adjustment, have been corrected to agree with the 1912 adjustment of precise leveling of the Coast and Geodetic Survey and are here republished, together with all results of spirit leveling by the United States Geological Survey since 1909. The elevations are likely to be changed but slightly by any future adjustment.

Personnel.-The field work from 1899 to 1906, inclusive, was done under the direction of H. M. Wilson, geographer, and that from 1907 to 1915, inclusive, was done 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 heading of each list to the several levelmen. The office work of computation, adjustment, and 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 highgrade 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, precautions being taken against only the principal errors and 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 $0.017 \sqrt{\mathrm{D}}$ and that for the primary work by $0.05 \sqrt{\mathrm{D}}$, in which D is the length of circuit in miles.
Bench marks.-The standard bench marks are of two forms. The first form is a circular bronze or aluminum tablet ( $C$ and $E, \mathrm{Pl}$. 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, which is set about 3 feet in the ground. The bottom is spread out to a width of 10 inches in order to give a firm bearing on the earth, and a bronze or aluminum-bronze cap is riveted over 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 $\frac{7}{8}$ inch in diameter. The tablets as well as the caps on the iron posts are appropriately lettered, and cooperation by States is indicated by the addition of the State name ( $G$, Pl. I).
The numbers stamped on the bench marks described in the following pages represent the elevations to the nearest foot as determined by the levelman. These numbers are stamped with $\frac{3}{16}$-inch steel dies on the tablets or post caps, to the left of the word "Feet." The office adjustment of the notes and the reduction to mean sealevel 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 observations made by means of tidal gages placed at stations where local conditions, such as long, narrow bays, rivers, and like features, will not affect the height of the water. To obtain even approximately correct results these observations must extend over at least one lunar month, and if
accuracy is desired they must extend over several years. At ocean stations the half-tide level and the mean sea level usually differ but little. It is assumed that there is no difference between the mean sea levels determined from observations in the Atlantic Ocean, the Gulf of Mexico, and the Pacific Ocean.

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 Maine, have been published by the United States Geological Survey up to July 1, 1916. 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.

Anson.
Augusta.
Bangor.
Bar Harbor.
Bath
Berwick (Me.-N. H.)
Biddeford
Bingham.
Bluehill. ${ }^{1}$
Boothbay.
Bryant Pond.
Buckfield.
Bucksport.
Buxton.
Casco Bay.
Castine. ${ }^{1}$
Cherryfield.
Deer Isle. ${ }^{1}$
Dover (N.H.-Me.) ${ }^{2}$
Eastport.
Ellsworth.
Freeport.
Fryeburg.
Gardiner.
Gorham (N. H.-Me.). ${ }^{2}$
Gray.
Kennebunk.
Kezar Falls.
Lewiston.

## Livermore.

Matinicus.
Monhegan. ${ }^{3}$
Mount Desert.
Mount Washington and vicinity (N. H.Me.). ${ }^{2}$
Newfield (Me.-N. H.).
Norridgewock.
North Conway (N. H.-Me.). ${ }^{2}$
Norway.
Orland.
Orono.
Penobscot Bay. ${ }^{1}$
Petit Manan.
Poland.
Portland.
Rockland.
Sebago.
Skowhegan.
Small Point.
Swan Island.
Tenants Harbor.
The Forks.
Vassalboro.
Vinalhaven. ${ }^{1}$
Waterville.
Wiscasset.
York (Me.-N. H.).

[^0]
## PRECISE LEVELING.

## Bath, Freeport, Gray, Kezar Falls, Portland, and Sebago quadrangles.

## CUMBERLAND AND YORK COUNTIES.

The elevations in the following list are the result of two lines of precise levels run in 1906: One line from Portland, northeast along the Maine Central Railroad, to Brunswick (where it joins the doublerodded primary line of the water-resources branch from Augusta), and thence up the Androscoggin River; the other line from Portland, northwest along the Maine Central Railroad, to Cornish, and thence west along highways through the southern part of Kezar Falls quadrangle to the New Hampshire State line. Both lines are based on a bench mark established by the United States Engineer Corps in 1901 from previous marks set by the Coast and Geodetic Survey, now destroyed, the heights of which were determined from tidal records made in 1852-53 and in 1864-1866. The bench mark is the bottom of a half-inch drill hole one-eighth inch deep on the upper surface of the water table between the columns at the right of the Commercial Street entrance to the customhouse building. Its elevation is 14.069 feet above mean sea level, and the mean range of tide at Portland as corrected in 1896 is 8.824 feet. The methods, instrument, and limit of error were practically those now used by the Coast and Geodetic Survey, except that the rods were 3.5 yards long, graduated to yards and hundredths with incased thermometers.
PORTLAND QUADRANGLE.[Latitude $43^{\circ} 30^{\prime}-43^{\circ} 45^{\prime}$; longitude $70^{\circ} 15^{\prime}-70^{\circ} 30^{\prime}$.]
From Portland northeast along Maine Central R. R. to Cumberland Junction.
Portland, on step at right side of main entrance to city hall; bronze tablet Feet. stamped " 67 " ..... 66.582
Portland, on upper surface of water table between columns at right of Com- mercial Street entrance to customhouse, bottom of half-inch drill hole one-eighth inch deep (above low water, 18.481) ..... 14. 069
Portland, 0.9 mile south of customhouse, on foundation of highway bridge over railroad, east side of track; chiseled square ..... 12. 210
Portland, right side of main entrance to Union Station; aluminum tablet stamped " 26 ". ..... 26.070
Woodfords, in front of station; top of rail. ..... 65.7
Deering Junction, in front of station; top of rail. ..... 103.8
Deering Junction, 0.2 mile northeast of, southeast side of track, 225 feet northeast of highway, in west side of granite ledge; aluminum tablet stamped " 110 " ..... 109. 530
Deering Junction, 2.9 miles northeast of, railroad bridge over Presumpscot River, northwest side of track, on top of northeast abutment; aluminum tablet stamped " 48 ". ..... 47. 694

## From Portland along Maine Central R. R. to Newhall.

Portland, on right side of main entrance to Union Station (porte-cochère),

Feet.
26.070

Cumberland Mills, 0.2 mile northwest of, south side of track, west abutment of railroad bridge, in retaining wall; aluminum tablet stamped " 69 "....
South Windham depot, 110 feet east of, first road east of station parallel with railroad, south of T road, 3 feet higher than road, in rock ledge east side of road; aluminum tablet stamped " 154 "
68. 599
153.906

Newhall, in front of station; top of rail.

GRAY QUADRANGLE.
[Latitude $43^{\circ} 45^{\prime}-44^{\circ}$; longitude $70^{\circ} 15^{\prime}-70^{\circ} 30^{\prime}$.]
At Cumberland Junction.
Cumberland Junction, 250 feet south of station, southeast side of track, top of culvert; aluminum tablet stamped " 58 "
57.984

Cumberland Junction, in front of station; top of rail.

## FREEPORT QUADRANGLE.

[Latitude $43^{\circ} 45^{\prime}-44^{\circ}$; longitude $70^{\circ}-70^{\circ} 15^{\prime}$.]
From Cumberland Junction northeast along Maine Central R. R. to Brunswick.
Cumberland Junction, 3.6 miles northeast of, bridge over Royal River, northwest side of track, on top of south abutment; aluminum tablet stamped " 92 "
91.821

Yarmouth Junction, in front of station; top of rail
Yarmouth, 1.7 miles northeast of, 364 feet southwest of overhead highway bridge, southeast side of track, on ledge; chiseled square
Yarmouth Junction, 4 miles northeast of, southwest end of southeast abutment of overhead highway bridge; aluminum tablet stamped " 90 ".....
Freeport, in front of station; top of rail. 89.950

Freeport, 0.2 mile northeast of, northwest side of track, just south of highway, in rock ledge; aluminum tablet stamped " 133 " 129.6

Freeport, 4.1 miles northeast of, southeast side of track, in rock ledge; aluminum tablet stamped " 136 ".
132. 504

## BATH QUADRANGLE.

[Latitude $43^{\circ} 45^{\prime}-44^{\circ}$; longitude $69^{\circ} 45^{\prime}-70^{\circ}$.]

## At Brunswick.

Brunswick, west side of Union Station, about 16 feet from southwest corner
of grating over basement windows, in curb 6 inches from wall; aluminum
tablet stamped " 67 "............................................................ 66.519
Brunswick, left of main entrance to city hall, in wall; aluminum tablet
stamped " 70 ".............................................................. 69.589

SEBAGO QUADRANGLE.
[Latitude $43^{\circ} 45^{\prime}-44^{\circ}$; longitude $70^{\circ} 30^{\prime}-70^{\circ} 45^{\prime}$.]
From Sebago along Maine Central R. R. to point 2.1 miles northwest of Mattocks.
Sebago, in front of station; top of rail.
275.453

Sebago Lake station, 0.3 mile northwest of, north side of track, in rock ledge;
aluminum tablet stamped " 287 "............................................. 287.555
Richville, in front of station; top of rail.
Richville, 0.6 mile northwest of, right side of track, in rock; aluminum Feet.tablet stamped " 293 "293. 283
Steep Falls, in front of station; top of rail ..... 303. 432
Steep Falls, 0.2 mile northwest of, right side of track, in rock; aluminum tablet ..... 300. 370
Mattocks, in front of station; top of rail ..... 283. 331
Mattocks, 2.1 miles northwest of, right side of track, in rock; aluminum tablet stamped " 320 " ..... 320.050
KEZAR FALLS QUADRANGLE.[Latitude $43^{\circ} 45^{\prime}-44^{\circ}$; longitude $70^{\circ} 45^{\prime}-71^{\circ}$.]From Cornish west along highways to point 1.2 miles west of Porter.
Cornish, at forks of Maine and Cumberland streets, on right side going east, in side yard of dwelling, in rock; aluminum tablet stamped " 347 ". ..... 346.943
Kezar Falls, northeast of bridge, in Hollem's lot, 60 feet from road, 12 feet east of west fence, in rock; aluminum tablet stamped " 381 " ..... 381. 345
Porter, 1.2 miles west of north side of road, in rock; aluminum tablet stamped " 399 " ..... 398.873
PRIMARY LEVELING.
Portland quadrangle.
CUMBERLAND AND YORK COUNTIES.
Elevations are based on precise level bench marks at Portland andCumberland Mills.The leveling was done in 1914 by R. C. Seitz.
PORTLAND QUADRANGLE.
[Latitude $43^{\circ} 30^{\prime}-43^{\circ} 45^{\prime}$; longitude $70^{\circ} 15^{\prime}-70^{\circ} 30^{\prime}$.]
From Portland southwest along Boston \& Maine R. R. to Saco, thence north along highways to Buxton station, thence east along Boston \& Maine R. R. to Cumber- land Mills.
Portland, on right side of main entrance to Union Station, in curb; alumi- ..... Feet. num tablet stamped " 26 " ..... 26.070
Portland, Vaughan Bridge, on coping stone at southeast corner; chiseled cross ..... 15.96
Portland, 2 miles south of, T road southeast, northeast angle of Saco road and Old Rigby road; top of fire hydrant. ..... 33.78
Portland, 3.50 miles south of, junction eastern and western divisions Boston \& Maine R. R., end of culvert in north angle; bronze tablet stamped "Me. 361914 S" ..... 36. 185
Private road crossing; top of east rail ..... 31.68
Private road crossing; top of east rail. ..... 40.8
Portland, 5 miles southwest of, $\frac{3}{4}$ mile north of Oakhill station, west end of culvert under railroad; tablet stamped "Me. 401914 S" ..... 39.565
Oakhill station; top of rail ..... 34.2
Oakhill station, on rock near pump at south end of station; chisel mark ..... 37.20
Oakhill station, 1 mile south of, northwest corner of culvert under railroad; chisel mark ..... 10. 22
West Scarboro station, 0.50 mile north of, on bowlder east of track; chisel mark ..... 5.43
Feet.
West Scarboro station, at highway crossing; top of east rail. ..... 12.1
West Scarboro station, 0.70 mile south of, on east right-of-way line of Boston \& Maine R. R., north foundation stone of overhead bridge; tablet stamped "Me. 351914 S" ..... 34. 622
West Scarboro station, 1.70 miles south of, northwest corner of base of sema- phore; chisel mark ..... 55.718
West Scarboro station, 2.30 miles south of; top of rail over highway ..... 57.37
West Scarborostation, 3.35 miles south of, northwest corner of base of sema- phore 969; chisel mark ..... 76.06
Saco station, 1.30 miles north of, top of west end of south abutment of over- head bridge; tablet stamped "Me. 711914 S" ..... 70.782
Saco station, north street crossing, in northeast angle, stone property corner; chisel mark ..... 89.242
Saco station, 1 mile south of, top of northwest corner north abutment Saco River bridge; tablet stamped "Me. 731914 S" ..... 73. 177
Saco station, 1.40 miles northwest of, T road northeast, on rock in east angle; chisel mark. ..... 112.88
Saco station, 2.5 miles northwest of, private road south to Pillsbury's re- treat, in west end of small box drain; copper nail. ..... 133. 212
Saco station, 3.20 miles northwest of, about 200 feet west of $T$ road south, north end stone arch under highway; tablet stamped "Me. 1341914 S". ..... 133.651
Saco station, 4.10 miles northwest of, Troad northeast, in base of telephone pole in triangle; copper nail ..... 151.568
Heath meetinghouse, 0.20 mile south of, on stone at northeast corner of small bridge; chisel mark. ..... 138.07
Heath meetinghouse, $\frac{3}{4}$ mile north of, about 1,000 feet west of forks of road, north end of stone arch; tablet stamped "Me. 931914 S". ..... 92.300
South Buxton, $2 \frac{1}{4}$ miles (air line) south of, forks of road, on rock on east side of road in front of house and at south corner of triangle; chisel mark. ..... 158.88
York-Cumberland county line; T road west. ..... 187
Dunstan, 5 miles west of, 3.5 miles east of Buxton station, at cross roads, rock in southwest angle; chisel mark: ..... 147.85
Dunstan, 5 miles west of, 3.5 miles east of Buxton station, in southeast angle of stone property corner; tablet stamped "Me. 1914147 S" ..... 146.841
Private road south, on rock; chisel mark. ..... 176.76
South Buxton, at cross roads, rock ledge in southeast angle; chisel mark. . ..... 182.73
Private road south ..... 173
Buxton station, 1 mile east of, stone at east end of culvert, 150 feet north of cross roads; chisel mark ..... 191.41
Gorham, 3.60 miles south of, west end of small drain under railroad at south side of highway; tablet stamped "Me. 1914181 S" ..... 180.994
Highway crossing; top of rail ..... 183.2
Gorham, 2.30 miles south of, on York-Cumberland county line, 40 feet west of railroad; top of stone post ..... 198.37
Highway crossing; top of east rail ..... 234.3
Gorham, 1.10 miles south of, in southwest corner of base of block signal No. 1353; top of bolt ..... 243.71
Gorham, south end of second (from ground) course of masonry in west abut- ment of overhead bridge; tablet stamped "Me. 2121914 S" ..... 212.011
Gorham station; top of rail ..... 207.7
Gorham station, 0.70 mile north of, at highway crossing; top of east rail . ..... 179.8
Gorham, 1.30 miles northeast of, at highway crossing, in base of danger sig- Feet.nal; spike.153
Gorham, 2 miles northeast of; highway crossing. ..... 116
Gorham, 2.80 miles northeast of, 1.10 miles southwest of Westbrook station,about 150 feet north of highway crossing, in southeast corner of base ofblock signal No. 1392; top of bolt109.99
Westbrook station, 1,200 feet south of, at highway crossing; top of east rail.. ..... 73.3
Westbrook station, 100 feet south of, in switch stand; top of spike. ..... 63.77
Cumberland Mills, at railroad crossing; top of rail ..... 70.7Cumberland Mills, 0.20 mile west of, south side of track, west abutment ofrailroad bridge over Presumpscot River, in retaining wall; tabletstamped " 69 ".

Anson, Augusta, Bingham, Brassua Lake, Kingsbury, Moosehead, Norridgewock, Skowhegan, The Forks, Vassalboro, and Waterville quadrangles.

## KENNEBEC, SOMERSET, AND PISCATAQUIS COUNTIES.

The elevations in the following list are based on tidal records of the Coast and Geodetic Survey at Portland. The work was previously based on Augusta datum from tidal records of the Coast and Geodetic Survey at Hallowell; but the results of a doublerodded line run in 1905 by the water-resources branch of the United States Geological Survey from Augusta to Brunswick, checking upon the Coast and Geodetic Survey gage bench marks at Abagadassett Point and Pleasant Point with a connection also at Moosehead from Penobscot River levels, showed considerable error. A line of precise levels was therefore run from Portland (where a more reliable sealevel value could be obtained) to Brunswick, from which was derived a correction of 2.651 feet to be added to the original unpublished values of the water-resources branch and 2.593 to be added to the original unpublished elevations of the bench marks on Augusta datum from Augusta to Moosehead. The closures upon Coast and Geodetic Survey gage bench marks by the water-resources branch line corrected to Portland datum are as follows: At Point Pleasant, +1.11 feet; at Abagadassett Point, +0.41 feet; at Hallowell bench mark $2,+2.651$ feet; at Augusta, +4.608 feet.
A small discrepancy with levels brought by the topographic branch from Bangor up the Penobscot River, in 1904, to Norcross and thence by wye and water levels in the four succeeding years by the waterresources branch to Moosehead, has been adjusted to the leveling of the water-resources branch.

The leveling was done in 1903 and 1904 by F. J. McMaugh. Leveling in-Kingsbury quadrangle and additional leveling in Anson and Skowhegan quadrangles was done in 1912 by K. E. Schlachter.

## AUGUSTA QUADRANGLE.

## [Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $69^{\circ} 45^{\prime}-70^{\circ}$.] <br> From Hallowell north along Maine Central R. R. to Augusta.

Hallowell, on south face of stone snubbing post of Granite Company's wharf; horizontal chisel mark ${ }^{1}$ (Coast and Geodetic Survey bench mark
No. 1)..................................................................................
Hallowell, Water Street (southeast) corner of cotton mill; horizontal chisel
Feet. mark (Coast and Geodetic Survey bench mark No. 2; discarded elevation by Coast and Geodetic Survey equals 24.44 feet above mean water level).
Augusta, at northwest corner of west wing of state house; aluminum tablet stamped (reestablished in 1909 by the water-resources branch).
27.091
Augusta, in the upper and outer stone on top of the small ornamental tower,

## VASSALBORO QUADRANGLE. <br> [Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $69^{\circ} 30^{\prime}-69^{\circ} 45^{\prime}$.]

## From Augusta north along Maine Central R. R. to Vassalboro.

Augusta, 4 miles northeast of, 865 feet north of milestone " 66 and 185," in south granite abutment of railroad culvert; aluminum tablet stamped "34 Augusta".
37.046

Vassalboro, 4.5 miles south of, at sawmill, on top of stone culvert; chisel
mark.......................................................................................... 53
Vassalboro, stone culvert near milestone " 73 and 183," Portland and Vance-
boro, in southeast corner; aluminum tablet stamped " 39 Augusta"'...... 42.027
Vassalboro, in front of station; top of rail...................................... 57.4
WATERVILLE QUADRANGLE.
[Latitude $44^{\circ} 30^{\prime}-44^{\circ} 45^{\prime}$; longitude $69^{\circ} 30^{\prime}-69^{\circ} 45^{\prime}$.]

## From Vassalboro north along Maine Central R. R. to Goodwill.

Winslow, 0.5 mile south of, 5.5 miles north of Vassalboro, in east abutment of new bridge over Kennebec River; aluminum tablet stamped ' 53 Augusta'.
55.584

Winslow, in front of station; top of rail....................................... 54.8
Waterville, west side of canal, on grounds of Hollingsworth \& Whitney, in
stone wall; brass cap............................................................... 78.157
Waterville, east bank of river, 30 feet south of dam, 140 feet north of railroad
bridge, in ledge marked '"Top of flash boards"; copper bolt............. 52.16

Shawmut, in front of station; top of rail........................................... 126.0
Goodwill Farm, in front of station; top of rail . . . . . . . . . . . . . . . . . . . . . . . . . . 119.6
Hinckley, in front of station; top of rail. . ..................................... 132.6
Goodwill, 1.8 miles north of, in milestone " 7 miles to Skowhegan, 95 miles to Portland"; aluminum tablet stamped "126 Augusta".
128.580

[^1]
## NORRIDGEWOCK QUADRANGLE.

[Latitude $44^{\circ} 30^{\prime}-44^{\circ} 45^{\prime}$; longitude $69^{\circ} 45^{\prime}-70^{\circ}$.]

## From Skowhegan southwest along Skowhegan \& Norridgewock Electric Ry. to Norridgewock.

Norridgewock, in northeast corner of hotel; aluminum tablet stamped " '199 Augusta".

Feet.

201.854

202.3

ANSON QUADRANGLE.
[Latitude $44^{\circ} 45^{\prime}-45^{\circ}$; longitude $69^{\circ} 45^{\prime}-70^{\circ}$.]

## From Norridgewock north along Somerset Ry, to Anson.

Madison, in center of town, in underpinning of Odd Fellows block; aluminum tablet stamped ' 294 Augusta"'
297.035

Anson, in front of station; top of rail.
From Madison east to Madison Center, thence north via North Madison to Solon.
Madison Center, at entrance to Lakewood Park (property of Somerset Traction Co.), at forks of road, in granite foundation of farmhouse; bronze tablet stamped "'363 Augusta".
365. 627

North Madison, 540 feet south of first four of "Twelve Corners," on summit of small hill, west side of road, in flint ledge; bronze tablet stamped " 622 Augusta',
624.508

Solon, New Caratunk Hotel (J. H. Grey, owner), in granite underpinning of west corner; bronze tablet stamped "403 Augusta"
405.416

From Solon west along public roads to Embden Center.
Embden Center, at three corners of road, in front of old house, east side of road; bronze tablet stamped " 474 Augusta"
476.681

From Embden Center south along public road via North Anson to Anson.
North Anson, opposite road forks, in east face of southeast corner of granite underpinning of building owned by F. W. Bunker; aluminum tablet stamped ''293 Augusta''
295.658

North Anson, in front of station; top of rail.
From point 3 miles north of Skowhegan along highway to Madison Center.
Skowhegan, 3 miles north of, along Madison Avenue, 100 feet south of entrance to home of Charles F. Davis, east side of road, in rock culvert; aluminum tablet stamped ' 487 Me ".
Skowhegan, 4 miles north of, along Madison Avenue, at northeast corner of crossroads, at White School; chiseled square on rock, marked "T. B. M. 503.3"

## SKOWHEGAN QUADRANGLE.

[Latitude $44^{\circ} 45^{\prime}-45^{\circ}$; longitude $69^{\circ} 30^{\prime}-69^{\circ} 45^{\prime}$.]

## At Skowhegan.

Skowhegan, in front of station; top of rail.
Skowhegan, in corner of high school building, on island; aluminum tablet stamped " 172 Augusta." (Reported as having the end defaced).
Skowhegan, 0.3 mile south of station, on coping stone at west end of south abutment of railroad bridge; aluminum tablet stamped '"176 Augusta'".
172.8
174.484
486.703
503.15
178.897

## From Skowhegan northwest along highway 2.3 miles.

Skowhegan, 1.3 miles north of, electric railway bridge over Cold Brook,

Feet.
226.93

319.10
Skowhegan, 2.3 miles north of, along Madison Avenue, west side of road; chiseled square on rock, marked ' 319.2 T. B. M.'" ..... 319.10
From point near Skowhegan northeast along highway to Athens, thence southeast via Corston Corner to Canaan, thence west to Skowhegan.
Skowhegan, 1.8 miles north of, along North Avenue (Athens road), at forks of Old Athens road, east side of road; copper nail in telephone pole, marked "T. B. M. 237.7", ..... 235.22
Skowhegan, 2.8 miles north of, along Athens road, in northwest corner of highway bridge over East Branch of Cold Brook; aluminum tablet stamped " 198 Me ". ..... 197.787
Skowhegan, 3.5 miles north of, on Hilton Hill, 400 feet north of C. B. White's house, east side of road; chiseled square on rock, marked "T. B. M. 361.9". ..... 361.82
Skowhegan, 4.5 miles north of, along Athens road, bridge over Devils Bog Brook, in stone at southeast corner; chiseled square, marked "T. B. M. $328.2^{\prime \prime}$ ..... 328.16
Revere School, northwest corner of crossroad, in rock; aluminum tablet stamped " 414 Me" ..... 414.362
Revere School, 1.3 miles north of, along Athens road, 300 feet south of D. D. Collins's home, 20 feet east of center of road; chiseled square on rock, marked "T. B. M. 316.8". ..... 316.71
Revere School, 2.5 miles north of, along Athens road, 300 feet south of Ernest Fowler's home, 12 feet east of center of road; chiseled square on rock, marked "T. B. M. 357.5". ..... 357.42
Cass Corner, 0.8 mile south of, along Skowhegan road, 250 feet north of corner of E . Madison road, 15 feet east of road center, in stone; aluminum tablet stamped " 348 Me ". ..... 348.219
Cass Corner, 0.3 mile southwest of, along Skowhegan road, in Eaton's con- crete water trough; chiseled square on basin, marked "T. B. M. 386.7'. . ..... 386.56
Cass Corner, 1,500 feet east of, along Athens road, 12 feet south of road; chiseled square on rock, marked "T. B. M. 407.5"' ..... 407.42
Athens, in southeast abutment of bridge over Wesserunsett Stream; alumi- num tablet stamped " 344 Me ". ..... 344.018
Athens, 1 mile southeast of, along Hartland road, south side of road; chis- eled square on rock, marked "T. B. M. 431.2" ..... 431.11
Athens, 2 miles southeast of, along Hartland road, east side of road; chiseled square on rock, marked "T. B. M. 386.6". ..... 386.51
Athens, 2.5 miles southeast of, along Hartland road, west side of road at corner, in rock; aluminum tablet stamped " 405 Me " ..... 405.341
Corston Corner, in southwest corner of crossroad; chiseled square on rock, marked "T. B. M. 267.4". ..... 267.26
Corston Corner, 1 mile south of, east side of road, 400 feet south of bridge over Black Stream; chiseled square on rock, marked "271.2 T. B. M.".. ..... 271.10
Corston Corner, 2.5 miles south of, 1,500 feet south of Geo. O. Currie's home, 20 feet east of road, in rock; aluminum tablet stamped " 284 Me " ..... 284.313
Gould's (Richard's) corner 750 feet north of McKinley School, east side of road at forks; chiseled square on rock, marked "T. B. M. 310.3" ..... 310.24
Gould's (Richard's) corner, 1 mile south of, in northwest corner of Mitchell's corner; chiseled square on rock, marked " 316.3 T. B. M." ..... 316.22

Brown School, opposite schoolhouse, at corner; chiseled square on rock, marked "T. B. M. 289.7" ..... 289.53
Canaan, 2.8 miles north of, along Horseback road, opposite E. S. Damon's home, west side of road, in rock; aluminum tablet stamped " 298 Me ". ..... 298.076
Canaan, 1 mile north of, along Horseback road, east side of road; chiseled square on rock marked "T. B. M. 281.0" ..... 280.90
Canaan, in northeast corner of bridge over Canaan (Carrabassett) Brook, in concrete coping; aluminum tablet stamped " $235 \mathrm{Me}^{\text {". }}$ ..... 235.336
Canaan, 0.5 mile west of, along Skowhegan road, in front of Geo. F. Barrett's home; chiseled square on rock marked " 325.4 T. B. M." ..... 325. 23
Canaan, 2 miles west of, along Skowhegan road, at corner, south side of road; chiseled square on rock, marked "T. B. M. 331.9" ..... 331.79
Canaan, 3 miles west of, along Skowhegan road, at southeast corner, in rock; aluminum tablet stamped " 286 Me " ..... 285.891
Skowhegan, 4 miles east of, along Canaan road, in southwest corner of cross- roads, chiseled square on rock, marked "T. B. M. 444.9" ..... 444.77
Skowhegan, 3.3 miles east of, along Canaan road, 0.4 mile east of Wesserun- sett Bridge, south side of road; chiseled square on rock, marked "T. B. M. 199.1" ..... 198.93
Skowhegan, 2 miles east of, in southeast end of coping of Wesserunsett Bridge; aluminum tablet stamped " 130 Me ." ..... 129.957
Skowhegan, 1 mile east of, along Canaan road, at forks of Parkman Hill road, south side of road; chiseled square on stone, marked " 143.9 ". ..... 143.75
From Athens via circuitous course northwest to West Athens, thence north to Garfield School, thence northeast and southeast to Harmony, thence south and southeast to Corston Corner. Part of line.
Athens, 1.8 miles northwest of, alongWest Athens road, at foot of mail box in front of old house; chiseled square on rock, marked " 414.9 " ..... 414.76
Athens, 2.2 miles northwest of, along West Athens road, 600 feet east of Bradbury Brook, south side of road; chiseled square on rock, marked " 377.9 " ..... 377.75
West Athens, 180 feet north of corner, at mill, 25 feet west of road, in ledge; aluminum tablet stamped " 465 Me ." ..... 464.825
Lincoln School, 1.5 miles north of West Athens, in doorstep; aluminum tablet stamped " 548 Me ." ..... 548.154
Lincoln School, 0.8 mile east of, north side of road; chiseled square on rock, marked "T. B. M. 579.0" ..... 578.87
Lincoln School, 2.2 miles east of, 350 feet east of Geo. Leavitt's home, north side of road; chiseled square on rock, marked "T. B. M. 774.9". ..... 774.74
Garfield School, in northwest corner of crossroad, in rock; aluminum tablet stamped " 842 Me ." ..... 842.146
Garfield School, 1.2 miles east of, south side of road; chiseled square in rock, marked "T. B. M. 736.3" ..... 736.11
Garfield School, 1.5 miles east of, south margin of road; chiseled square on ledge, marked "T. B. M. 664.3" ..... 664.17
Harmony, 1.5 miles north of, along North road, west side of road; chiseled square on rock, marked "T. B. M. 384.2 " ..... 384.01
Harmony, at three forks north of, west side of road; chiseled square on rock, marked "T. B. M. 355.1" ..... 354.87
Harmony, in northeast abutment of highway bridge over Higgins Brook;

Feet.

312.213
Harmony, 1.4 miles south of, at Hurd School, east side of road; chiseled square on rock, marked "T. B. M. 398. 0" ..... 397.79
Hurd School, 1.2 miles west of, along Skowhegan road, north side of road, in rock; aluminum tablet stamped " 391 Me ". ..... 391. 211
Hurd School, 2.5 miles west of, along Skowhegan road, 40 feet north of road; chiseled square on rock, marked " 375.0 T. B. M." ..... 374.76
Corston Corner, 1.8 miles northeast of, along Harmony road, 100 yards east of crossroads, 35 feet south of road in field, in rock; aluminum tablet stamped " 305 Me ". ..... 304.494
Corston Corner, 0.5 mile northeast of, along South Harmony road, south side of road, chiseled square on rock, marked "T. B. M. 279.4". ..... 279.14
KINGSBURY QUADRANGLE.
[Latitude $45^{\circ}-45^{\circ} 15^{\prime}$; longitude $69^{\circ} 30^{\prime}-69^{\circ} 45^{\prime}$.]
Portion of circuit from Athens to Corston Corner.
Garfield School, 2 miles east of, in southeast corner of crossroads (over Dore Hill), 10 yards from intersection, in rock; bronze tablet stamped " 619 Me" ..... 618. 736
Garfield School, 3 miles east of, at corner near small cemetery, on east side of road; chiseled square on rock, marked "657.1 T. B. M.". ..... 656. 88
Klondike School, 0.5 mile northeast of, north side of road; chiseled square on rock, marked "464.6 T. B. M." ..... 464.42
Klondike School, 0.8 mile east of, at junction with North road, northeast end of highway retaining wall, in rock; bronze tablet stamped " 472 Me "... ..... 471. 413
BINGHAM QUADRANGLE.
[Latitude $45^{\circ}-45^{\circ} 15^{\prime}$; longitude $69^{\circ} 45^{\prime}-70^{\circ}$.]
From Solon north along Somerset Ry. to Bingham.
Bingham, 3 miles south of, 7 miles north of Solon, right side of road, in bowlder; bronze tablet stamped "376 Augusta". ..... 378. 216
Bingham, bridge over Austin Stream, in south end of east abutment; bronze tablet stamped "367 Augusta" ..... 369.334
Bingham, in front of station; top of rail. ..... 351.8
From Bingham north along highway to Carritunk.
Bingham, 6.5 miles north of, in southeast corner of George Gordon's house; bronze tablet stamped " 434 Augusta". ..... 436. 434
Briggs Ferry, 600 feet north of ( 10.6 miles north of Bingham), right side of road, in ledge of rocks; bronze tablet stamped " 451 Augusta". ..... 453.669
Carritunk, 1,000 feet south of post office, right of road, in rock ledge; bronze tablet stamped " 588 Augusta" ..... 590.384
From Bingham northeast along Somerset Ry. to Austin Pond and Moxie Pond.
Bingham, 5 miles northeast of, in rock wall at Chamberlain Hill; aluminum tablet stamped "1324 Augusta" (bench mark on old line was unrecov- ered and elevation may be 3 feet too great) ..... $1,326.534$
Deadwater station, 3.7 feet east of southwest corner of tank house in granite underpinning; aluminum tablet stamped "1001 Augusta". ..... $1,003.500$
Austin Pond, 100 feet east of main camp, 40 feet south of road to pond, in bowlder; aluminum tablet stamped "1190 Augusta" ..... 1, 192. 464
$24012^{\circ}$-Bull. 633-16-2

## THE FORKS QUADRANGLE. <br> [Latitude $45^{\circ} 15^{\prime}-45^{\circ} 30^{\prime}$; longitude $69^{\circ} 45^{\prime}-70^{\circ}$.]

## From Carritunk north along road via The Forks to Indian Pond.

The Forks, 2.5 miles south of, 5.2 miles north of Carritunk, 2,000 feet north
Feet. of Ed. Morris's house, east side of road, in ledge of rocks; aluminum tablet stamped " 576 Augusta"
The Forks, east end of bridge over Kennebec River, in granite abutment; bolt.
577.33
The Forks, 3 miles north of, west side of river, 300 feet south of Cold Stream, in rock ledge; aluminum tablet stamped " 611 Augusta"
614.090
The Forks, 10.2 miles north of, north bank of Chase Stream at mouth, in
rock ledge; aluminum tablet stamped " 757 Augusta".................... 760.062
Indian Pond, east bank of river near southeast corner of dam, in rock ledge; aluminum tablet stamped " 933 Augusta".
936.013

From The Forks east to lower (north) end of Moxie Pond, thence by water levels to
The Forks, 3 miles east of, 320 feet east of Ed. Croto's house, south side of road, in large bowlder; aluminum tablet stamped "901 Augusta"
903.261

Moxie Pond, north end of, at upper dam, in ledge at east side of Moxie Stream, 90 feet northeast of sluice gate; aluminum tablet stamped " 959 Augusta".
961. 259

Moxie Pond, on west bank of Baker Stream, 50 feet east of railroad location, in ledge; aluminum tablet stamped " 963 Augusta".
966. 060

## BRASSUA LAKE QUADRANGLE. <br> [Latitude $45^{\circ} 30^{\prime}-45^{\circ} 45^{\prime}$; longitude $69^{\circ} 45^{\prime}-70^{\circ}$.]

From Indian Lake northeast along north side of Indian Pond to Moosehead.
Marrs Camp, north end of Indian Pond, 6.1 miles north of dam, at side of road, in rock ledge; aluminum tablet stamped "946 Augusta".
948. 300

MOOSEHEAD QUADRANGLE.
[Latitude $45^{\circ} 30^{\prime}-45^{\circ} 45^{\prime}$; longitude $69^{\circ} 30^{\prime}-69^{\circ} 45^{\prime}$.]

## At Moosehead.

Moosehead, southeast corner of east abutment of Canadian Pacific Ry. bridge over east outlet of Moosehead Lake; aluminum tablet ${ }^{1}$ stamped "1026 Augusta".

1,028. 154
Moosehead Lake, low water of October, 1903; surface....................... 1, 022.0
Moosehead Lake; high water (from information by proprietor of Outlet House).
$1,028.7$
Buckfield, Lewiston, Livermore, and Poland quadrangles.
ANDROSCOGGIN, CUMBERLAND, FRANKLIN, KENNEBEC, OXFORD, AND SAGADAHOC counties.
The elevations in the following list are based on bench marks of the double-rodded line of the Androscoggin River survey (water-resources branch United States Geological Survey), corrected in accord with the precise-level line of the topographic branch from Portland to Brunswick; and such of those bench marks as come in these quadrangles are included in the list.

[^2]The leveling was done in 1905 and 1906 by F. J. McMaugh, additional leveling in Buckfield quadrangle was done in 1910 by H. P. Kilby and in Livermore quadrangle in 1910 by Charles Hartman.
LEWISTON QUADRANGLE.[Latitude $44^{\circ}-44^{\circ} 15$; longitude $70^{\circ}-70^{\circ} 15^{\prime}$.]
From Lisbon Falls northwest along Maine Central R. R. to Lewiston, thence north to Keens Mills. ${ }^{1}$
Lisbon Falls, in ledge about " $10 \frac{1}{2}$ miles to Lewiston," side of river opposite Feet.111. 231
265.527225. 889
From Lewiston northeast along Maine Central R. R. to Leeds Junction, thence south along Maine Central R. R. to Lisbon.
Lewiston, in south wall 50 feet north of west end of dam No. 4, Union Water- works Co.; point "S" ..... 170.61
Lewiston, near end of railroad bridge over canal, southwest corner of Bates cotton mill, on foundation ..... 148. 400
Lewiston, in south face of southwest corner of post-office building; alumi- num tablet stamped "Augusta 196". ..... 196. 000
Lewiston, opposite baggage room at upper station; north rail ..... 205. 1
Lewiston, 2.8 miles north of, west side of track, in milestone "V 215 "; aluminum tablet stamped "Augusta 228 " ..... 227.852
Lewiston, 5.8 miles north of, in milestone "V 212;" aluminum tablet stamped "Augusta 275 " ..... 275. 312
Greene, in front of station; top of rail ..... 302.0
Greene, 0.25 mile north of, in ledge; aluminum tablet stamped " 293 Augusta" ..... 292. 611
Leeds, in front of station; top of west rail. ..... 271. 2
Leeds, 0.25 mile south of, in milestone "V 207 "; aluminum tablet stamped "Augusta 281 " ..... 281. 194
Wales, in front of station, at crossing; top of rail. ..... 255.4
Leeds Junction, 3 miles south of, in east face of south wall of stone culvert; aluminum tablet stamped "Augusta 254 " ..... 253.925
Sabattus, 330 feet east of station, north of track, in large bowlder; alumi- num tablet stamped "Augusta 266" ..... 265.797
Sabattus, in front of station; top of rail ..... 262.3
Webster woolen mills, Sabattus River; top of dam ..... 215.8
Crowleys Junction, south end of west abutment ..... 188. 324
Crowleys Junction, north end of east abutment of railroad bridge; alumi- num tablet stamped " 189 Augusta" ..... 189.108
Crowleys, in front of station; top of east rail ..... 191.2
Crowleys, 1.2 miles from junction, at Moody Brook, in east wall, at south end of granite abutment. ..... 186.683
Lisbon, in front of station; top of east rail ..... 199.8
Lisbon, in front of office building of Farwell mills, 9 feet from northwestcorner, 160 feet from junction of Main and Farwell streets; aluminumtablet stamped " 185 Augusta".184. 801

[^3]From Lewiston southwest along the Grand Trunk Ry. and the Maine Central R. R. to Rumford Junction.
Auburn, main track of Grand Trunk Ry.; top of south rail.

147.5

Feet.
Rumford Junction, east of track, in milestone "Portland 32 miles, Vanceboro 221 miles"; aluminum tablet stamped " 205 Augusta"

## POLAND QUADRANGLE.

[Latitude $44^{\circ}-44^{\circ} 15^{\prime}$; longitude $70^{\circ} 15^{\prime}-70^{\circ} 30^{\prime}$.]

## From Rumford Junction west to Poland, thence north to Buckfield.

Lewiston Junction, 1 mile north of, north end of east abutment of Maine Central R. R. bridge; aluminum tablet stamped " 280 Augusta". ..... 280. 381
Elmwood Farm station; top of east rail ..... 300.7
Poland Spring station; top of east rail. ..... 322.7
Poland, in front of station; top of rail. ..... 313.0
Poland, 1.7 miles north of station, 475 feet south of milepost, in west end of south wall of culvert; aluminum tablet stamped " 284 Augusta" ..... 283. 725
Mechanic Falls, in front of Maine Central R. R. station; top of west rail.... ..... 303.4
Mechanic Falls, 1 mile north of, 420 feet north of railroad crossing, west end of south abutment of Maine Central R. R. bridge over Bog Brook; alumi- num tablet stamped " 267 Augusta" ..... 267.237
West Minot, main track in front of station; top of west rail ..... 347.1
West Minot, 250 feet north of station, 50 feet south of highway bridge, 80 feet west of track, in rock ledge; aluminum tablet stamped " 334 Augusta".... ..... 334. 356
East Hebron, 875 feet north of railroad crossing at station, 75 feet west of railroad track, in large bowlder; aluminum tablet stamped " 348 ". ..... 347.889
From Poland southwest to west Poland, thence north via water leveling to Oxford, thence north 3.6 miles.
Poland, 2.2 miles from, 18 feet south of road and 750 feet east of road on east side of Tripp Pond; aluminum tablet stamped " 343 " ..... 343.073
Tripp Pond, July 7, 1906, 11.30 a. m.; surface of water.305.5
West Poland, 1 mile west of, large bowlder 70 feet west of bridge overPotash Brook, 25 feet north of road, 360 feet west of house owned by G. D.Russell; aluminum tablet stamped " 33 "332.977
Thompson Lake, July $9,1906,3.25 \mathrm{p} . \mathrm{m}$.; surface of water ..... 324.7
Oxford, ledge on Walker property, 100 feet west of northwest corner ofschool, 15 feet west of fence, 350 feet northwest of hotel; aluminum tabletstamped " 348 "348.340Oxford, 3.6 miles north of, 500 feet north of Gilman's crossing, 280 feet eastof highway, on property of A. O Lovering; aluminum tablet stamped"363"363.348

## From South Paris east 5 miles along road to Buckfield.

South Paris, 2.1 miles east of, west bank of Stony Brook, 25 feet north of bridge and 85 feet northeast of road forks, in ledge; aluminum tablet stamped " 479 "
South Paris, 4.9 miles east of, east of road, in pasture, and 130 feet southeast of four corners, in ledge; aluminum tablet stamped " 1015 ".
Hebron, 40 feet southeast of corner of H. T. Glove livery barn, 60 feet northeast of center of highway, in rock ledge; aluminum tablet stamped " 576 "

## BUCKFIELD QUADRANGLE. <br> [Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $70^{\circ} 15^{\prime}-70^{\circ} 30^{\prime}$.]

From point 5 miles east of South Paris northeast to Buckfield, thence east to Turner.

Buckfield, 2.6 miles west of, north side of road, in angle of fence, 330 feet west of house belonging to Greene Turner, in large bowlder; aluminum tablet stamped " 826 "

Feet.
826.376

Buckfield, in second course from top, at east end of south abutment of railroad bridge over Twentymile River; aluminum tablet stamped " 364 "..
Turner, top of coping at north end of dam, 2 feet south of face of retaining wall and 2.5 feet west of downstream face of dam; aluminum tablet stamped " 303 "
302.903

## From Buckfield north along Maine Central R. R. to Gilbertville.

Buckfield, 1 mile north of, east side of track; spike in milepost "Rumford Falls 27 M.; Portland 57 M.".
372.39

Buckfield, 2 miles north of, east side of track; spike in milepost "Rיmmord
Falls 26 M.; Portland 58 M."................................................ 373.86
Buckfield, 3 miles north of, east side of track; spike in base of milepost "Rumford Falls 25 M.; Portland 59 M."
381.31

Buckfield, 4 miles north of, east side of track; spike in base of milepost "Rumford Falls 24 M.; Portland 60 M ."
392.68

East Sumner, northeast abutment of Maine Central R. R. bridge over east branch Nezinscot River; aluminum tablet stamped " 391 ".
390.998

East Sumner, 1 mile north of, east side of track; spike in milepost "Rumford Falls 22 M.; Portland 62 M ."
455.39

Hartford station, 150 feet north of, east abutment of railroad culvert; alum-
inum tablet stamped " 468 ".....................................................
467.887
Hartford, 1 mile north of, east side of track; spike in milepost "Rumford Falls 20 M .; Portland 64 M ."
486.05

Hartford, 2 miles north of, east side of track; spike in milepost "Rumford Falls 19 M.; Portland 65 M."
463. 99

Hartford, 3 miles north of, east side of track; spike in milepost "Rumford Falls 18 M.; Portland 66 M.".
420.98

Lake Anasagunticook, surface of water, Sept. 5, 1910..................... 403.3
Canton, Maine Central R. R. crossing at station; spike in plank of crossing. $\quad 403.87$
Danton, northwest corner of Baptist church, on water table; aluminum tablet stamped " 409 Me ."
408. 671

Canton, 1 mile north of, north side of track; spike in milepost "Rumford Falls 16 M.; Portland 69 M. "
392.359

Gilbertville, set in southwest corner of highway bridge; aluminum tablet
(Old elevation 395.591 )........................................................ 395.59

## From Dixfield to Dickvale along highways and return.

Dixfield, in southwest bridge seat of highway bridge over Androscoggin River between West Peru and Dixfield; aluminum tablet stamped " 411 Me."
411.482

West Peru, 500 feet north of church, at intersection of roads; paint mark on stone post
439.26

West Peru, 0.9 mile south of, 100 feet north of D. L. Chenery's residence, west side of highway; paint mark on rock
516.78

Dickvale, 75 feet east of schoolhouse, 75 feet east of highway, set in large kowlder in field of E. C. Chase; tablet stamped " 510 "
From East Sumner to Sumner along highways and return.
East Sumner; set in northeast abutment of Maine Central R. R. bridge over

Feet.
390.998
East Sumner, 1 mile west of, 200 feet west of cemetery, at crossroads; paint mark on rock. ..... 412.18
Sumner, 1 mile southwest of, 50 feet north of highway, at south side of Labradore Pond, set in rock; aluminum tablet stamped " 474 " ..... 474.078
From Canton along highways to a point 3 miles east of. (Unchecked spur.)
Canton, northwest corner of Baptist Church, set in water table; aluminum tablet stamped "Maine 409"408.755
Canton, 0.9 mile east of: paint mark on rock at intersection of roads. ..... 404.925
Canton, 2 miles east of, 500 feet east of schoolhouse; paint mark on rock at north side of road. ..... 421.636
Canton, 3 miles east of, 1,000 feet west of Emerson Poland's residence, set in large bowlder at northeast side of highway; aluminum tablet stamped "491". ..... 491.076
Note.-The above line is roughly checked by secondary levels.
Near Buckfield.
Buckfield, 3.3 miles east of, 35 feet north of road, 125 feet east of house owned by H. D. Irish, 130 feet west of culvert over brook, in ledge; aluminum tablet. ..... 322.008
LIVERMORE QUADRANGLE.[Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $70^{\circ}-70^{\circ} 15^{\prime}$.]
From Keens Mills Cemetery east, north, and west along highways via Dead River, Wayne, Fayette, and Twelve Corners to Livermore Falls.
Keens Mills Cemetery, 0.2 mile north of, in orchard of Edward Pratt, 500 feet north of house, and 150 feet east of highway; aluminum tablet stamped " 283 "' ..... 283.111
Leeds Center, 2.5 miles west of, at intersection of T road running north; paint mark on top of bowlder, marked " 363 ". ..... 362.72
Leeds Center, 1.5 miles west of, 150 feet northwest of road corners, set in 3 by 3 by 2 feet bowlder in field; aluminum tablet stamped " 328 Me ."... ..... 327.974Leeds Center, 50 feet east of store at road corners; nail in telephone pole,
marked " 304 ". marked303.94
Leeds Center, 0.4 mile north of, 500 feet southwest of cemetery, 100 feet north of road corners; paint mark on large bowlder, marked " 308 ". .... ..... 308.39Dead River station, 600 feet south of, set in northwest abutment of Maine
Central R. R. bridge; aluminum tablet stamped " 280 Me.".279.762
Dead River station, $\mathbf{1 , 2 0 0}$ feet northeast of, 40 feet northeast of road corners; paint mark on top of large bowlder, marked " 291 " ..... 290.99
Wayne, southwest corner of Baptist Church, set in water table; aluminum tablet stamped " 299 Me .". ..... 299. 106
Four Corners, 2 miles north of Wayne; paint mark northeast corner of lower step of schoolhouse, marked " 360 ", ..... 360.13
Wayne, 3 miles north of, set in top of large bowlder at southwest corner of four corners of roads; aluminum tablet stamped " 407 Me .". ..... 406.640
Wayne, 3.8 miles north of, at junction of $T$ roads, 0.4 mile west of pond; paint mark on rock, marked " 461 ". ..... 461.29Wayne, 5 miles north of, west side of road, opposite white house, top ofrise in road; paint mark on ledge of rock, marked " 496 "496.02
Wayne, 6 miles north of, 0.2 mile southeast of Fayette village, 250 feet south ..... Feet.
of four corners, set in ledge of rock on west side of road; aluminum tabletstamped " 542 Me ."542.046
Fayette Village, 900 feet south of church, south side of road at forks of roads, in front of large yellow house; paint mark on rock marked " 601 ". ..... 601.15
Fayette, 1 mile north of, west side of road, opposite white house 500 feet distant above base of hill; paint mark on rock, marked " 488 " ..... 488.31
Fayette, 2 miles north of, 20 feet south of Fayette Ridge schoolhouse, at 4 corners of roads; paint mark on rock, marked " 726 ". ..... 725.53
Twelve corners, northeast corner of 4 corners, northwestern portion of 12 corners, 60 feet southeast of white house, in ledge of rock; aluminum tablet stamped " 372 " ..... 372.422
Livermore Falls, 3 miles east of, at forks of roads, top of hill, 0.2 mile west of pond; paint mark on rock, marked " 529 " ..... 528.56
Livermore Falls, 1 mile south of, in center of 4 corners; paint mark on top of southeast corner of stone watering trough, marked " 305 ". ..... 304.78
Livermore Falls, southeast corner of post office in brick building, set in water table; aluminum tablet stamped " 349 " ..... 349.355
Bethel, Bryant Pond, Fryeburg, Kezar Falls, and Norway quadrangles.
CUMBERLAND, OXFORD, AND YORK COUNTIES.

The leveling was done in Bethel quadrangle in 1908 by C. K. Alexander, in 1911 by K. F. Maxcy, in 1912 by K. E. Schlachter, in Bryant Pond and Norway quadrangles in 1911 by Maxcy, in Fryeburg and Kezar Falls quadrangles in 1909 by E. B. Hillegass.

## BETHEL QUADRANGLE.

[Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $70^{\circ} 45^{\prime}-71^{\circ}$.]

## From point 2 miles east of Bethel to Bethel and north to Androscoggin River.

Bethel, 2 miles east of, north side of east abutment of railroad bridge; ..... Feet. aluminum tablet stamped " 655 " ..... 654.595
Bethel, 0.8 mile east of; nail in top of; milepost " $69-228$ ", marked " 660 ".. ..... 659.65
Bethel; top of south rail near west end of station platform, marked " 654 ". ..... 653.5
Androscoggin River, highway bridge over, between Mayville and Bethel, in west end of south abutment; aluminum tablet stamped " 648 " ..... 647.566
From Bethel south to point near Lynchville. (Parts of two lines.)
Bethel, corner of High and Main streets, in front of C. C. Bryant \& Son's store, rock at foot of telephone pole, marked " 684 ". ..... 683. 70
Bethel, junction of Elm Street with street south of common; southwest corner on rock, marked " 727 " ..... 726.86
Bethel, 0.8 mile south of station, road fork, northeast corner of street; chisel mark on rock, marked " 655 " ..... 655.04
Bethel, 2 miles south of railway station, 650 feet north of residence of Robert Clough, east of road; top of bowlder, marked " 717 " ..... 716.27
Bethel, 3 miles south of, 75 feet north of Albany-Bethel town line, north- east corner of road fork at north end of Songo Pond; nail in root of tree, marked " 659 " ..... 658.10
Songo Pond; surface of water, Sept. 2, 1911 ..... 649.8
Songo Pond, near south end of, west of road, in top face of large bowlder; aluminum tablet stamped " 663 " ..... 662. 712
Songo Pond, just south of, northwest corner of road fork; paint mark on stone marked " 659 "
Albany town house, 1.3 miles north of, at northwest corner of road forks, paint mark on rock, marked " 651 " ..... 650.35
Albany town house, at southwest corner of crossroads; chisel mark on rock, marked " 647 ". ..... 646.963
Albany town house, 0.8 mile south of, west of road near Carter Grover's residence, in rock ledge; aluminum tablet stamped " 643 " ..... 642.926
Albany town house, 1.2 miles south of, second-class road fork; point on rock, marked " 622 " ..... 621.63
Albany town house, 2.1 miles south of, bridge over Crooked River; point on planking on east side, marked " 586 " ..... 585.36
Lynchville, 2.5 miles north of, 275 feet north of bridge over Crooked River, in rock ledge on west side of road; aluminum tablet stamped " 573 ". ..... 572.80
From Bethel along highway north to North Bethel, thence northwest to Ketchum. (Double spur.)Bethel, 1 mile north of, west side of North Bethel road, 150 feet north ofLeland Bartlett's residence; chiseled square on bed rock, marked " $T$.B. M. 665.9 "
665.86
Bethel, 2 miles north of, west side of North Bethel road, 25 feet north of old water trough; chiseled square on rock culvert, marked "T. B. M. 646.8". ..... 646.83
North Bethel, on west side of road at road fork, in concrete culvert; alu-minum tablet stamped " 645 Me ".644.598
North Bethel, 1.1 miles north of, east side of Sunday River road; chiseled square on stone culvert, marked ''T. B. M. 649.5" ..... 649.57
North Bethel, 2.4 miles north of, 100 feet east of center of Sunday River road, 100 feet north of James J. Spinney's residence; chiseled square on rock, marked "T. B. M. 677.6" ..... 677.65
Artists Bridge crossing Sunday River, in southeast corner of; aluminum tablet stamped " 693 Me " ..... 693. 239
Artists Bridge over Sunday River, 1.1 miles west of, south side along Ketchum road, 200 feet west of David Fleet's residence; chiseled square on rock, marked "T. B. M. 725 " ..... 725.03
Artists Bridge over Sunday River, 2.3 miles west of, south of Ketchum road, 100 feet east of Louis Eamos's home, 15 feet south of center of road; chiseled square on rock, marked "T. B. M. 789.9" ..... 789.96
Ketchum, 0.5 mile east of, south side of North Bethel road, 160 feet east oftown line, in rock; aluminum tablet stamped "Me 863 ".863.737
From West Bethel south along highway to Bennett's Bridge over Pleasant River.(Double spur.)
West Bethel, 0.5 mile west of, along Gorham road, in northeast corner of bridge over Pleasant River; aluminum tablet stamped " 656 ". ..... 655.764
West Bethel, 1.4 miles south of, along Pleasant River road, east side of road, about 300 feet north of house; copper nail in stump, marked "T. B. M. 673.1" ..... 673.12
West Bethel, 2.1 miles south of, along Pleasant River road, east side of road; copper nail in stump, marked "T. B. M. 677.8" ..... 677.71
Meadow Brook Bridge, in southwest corner of; aluminum tablet stamped "Me 673". ..... 672.478
Meadow Brook Bridge, 1 mile west of, north side of road to Bennett's; chis- eled square on rock, marked "T. B. M. 723.8" ..... 723.67
Meadow Brook Bridge, 2 miles west of, north side of road to Bennett's, a

Feet.little southwest of Solomon Westleigh's house; chiseled square on rockmarked "T. B. M. 816.6"
816.51
Bennetts Bridge over Pleasant River, near, at southeast corner of, in stone; aluminum tablet stamped " 858 Me " ..... 857.696
From Gilead south along highway to point 3 miles south of Hastings. (Double spur.)
Gilead, 0.2 mile west of, in northeast corner of Grand Trunk Ry. bridgeover Wild River; aluminum tablet stamped " 712 Me ".712.052
Gilead, 1 mile south of, opposite old camp, west side of Hastings road; chiseled square on rock, marked "T. B. M. 728.7" ..... 728.65
Gilead, 2 miles south of, west side of Hastings road; chiseled square on rock, marked "T. B. M. 795.0" ..... 794.86
Hastings, northeast corner of scales in front of office, in rock; aluminum tablet stamped " 839 Me ". ..... 839.232
Hastings, 1.2 miles south of, west side of Evans Brook tote road; copper nail in tree stump, marked "T. B. M. 891.7" ..... 891.60
Hastings, 2 miles south of, west side of Evans Brook tote road; chiseled square on rock, marked "T. B. M. 957.7" ..... 957.66
Hastings, 3 miles south of, east of Evans Brook tote road, 50 feet below old dam, in bedrock; aluminum tablet stamped " 1041 Me " ..... 1,040. 491
BRYANT POND QUADRANGLE.
[Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $70^{\circ} 30^{\prime}-70^{\circ} 45^{\prime}$.]
From South Paris northwest along Grand Trunk Ry.to point 2 miles east of Bethel.
South Paris, 2 miles north of, east of track; copper nail in top of milepost 49-248, marked " 414 " ..... 413. 55
South Paris, 2.4 miles north of, east side of north abutment of railroad bridge, in granite capstone; aluminum tablet stamped " 409 " ..... 408.582
South Paris, 4 miles north of, east of track; nail in top of milepost 51-246, marked " 414 " ..... 413.93
South Paris, 5.1 miles north of, 330 feet north of milepost 52-247; spike driven in side of "W" post, marked " 419 " ..... 418.51
Snow Falls, at road crossing, at milepost P 53-M 244, west of track, in face of ledge; aluminum tablet stamped " 462 ". ..... 461. 442
Snow Falls, 1 mile north of; nail in top of milepost $54-243$, marked " 478 ". . ..... 477.68 ..... 477.68
West Paris, 350 feet south of station, east side of north abutment of railroad bridge, in granite capstone; aluminum tablet stamped " 486 " ..... 485.984
West Paris, 0.8 mile north of, in top of signal wire post opposite milepost 56-241; nail marked " 496 " ..... 496. 19
West Paris, 3 miles north of, 215 feet north of milepost 58-239, 215 feet south of Greenwood road crossing, in ledge west of track; aluminum tab- let stamped " 577 " ..... 576. 700
West Paris, 3.8 miles north of; nail in top of milepost 59-238, marked " 634 ". ..... 633. 88
West Paris, 4.8 miles north of; nail in south side of milepost $60-237$, marked "695" ..... 694.35
Bryant Pond, 0.4 mile south of, 825 feet north of milepost $61-236,40$ feet north of road crossing; nail in top of switch stand west of track, marked "714" ..... 713. 74
Bryant Pond, 0.4 mile west of, just west of secondary grade crossing near residence of Amanda Sheeran, in top of bowlder north of track; aluminum tablet stamped " 720 ". ..... 719.768
Bryant Pond, 1.3 miles west of, 400 feet west of milepost 63-234; copper nail in south side of railroad culvert, marked " 728 " ..... 728.23
Feet.
South Pond; surface of water, Aug. 3, 1911 ..... 719.0
Bryant Pond, 2.3 miles west of; nail in top of milepost $64-233$, marked " 729 " ..... 728.76
Round Pond; surface of water, Aug. 3, 1911 ..... 719.0
Locke Mills, in front of station; top of rail, marked " 726 " ..... 725.33
Locke Mills, about 400 feet north of station, about 100 feet west of Mount Abram Hotel, in face of ledge; aluminum tablet stamped " 753 " ..... 752.793
Locke Mills, 2 miles west of, 231 feet east of milepost 67-229; copper nail in road crossing, marked " 680 " ..... 679.79
NORWAY QUADRANGLE.
[Latitude $44^{\circ}-44^{\circ} 15^{\prime}$; longitude $70^{\circ} 30^{\prime}-70^{\circ} 45^{\prime}$.]
Near South Paris.
South Paris, 1.4 miles south of, south end of east wall of granite arch culvert; aluminum tablet stamped " 376 " ..... 376.407
South Paris, 1 mile south of, east of track; copper nail in top of milepost 46-251, marked " 382 " ..... 382.13
South Paris, 0.8 mile south of, railway bridge over Little Androscoggin River, south end of; top of west rail, marked " 377 ". ..... 377.37
South Paris, in front of station; top of west rail of main track, marked " 392 ". ..... 392.20
South Paris, 1 mile north of, east of track; nail in top of milepost 48-249, marked " 393 " ..... 393.43
KEZAR FALLS QUADRANGLE.[Latitude $43^{\circ} 45^{\prime}-44^{\circ}$; longitude $70^{\circ} 45^{\prime}-71^{\circ}$.]
From point near Porter north along highways to Fryeburg.
Porter, 1.2 miles west of, north side of road, in rock; aluminum tablet stamped " 399 " ..... 398.873
Porter, 3.3 miles northwest of, at fork of roads, in large rock, southwest corner of forks; aluminum tablet stamped " 496 " ..... 495.815
Rands School, 6.5 miles northwest of Porter, west of road, opposite school- house, in rock ledge; aluminum tablet stamped " 875 " ..... 875.374
Brownfield station, 3.8 miles southwest of, in large rock north of road; aluminum tablet stamped " 515 " ..... 514.969
Brownfield, 3 miles west of station, at southeast corner of road crossing, on granite post; paint mark " 481.6 " ..... 481. 69
Fryeburg, 3.9 miles south of, on west side of road, in large rock; aluminum tablet stamped " 493 " ..... 493.458
From Cornish northwest along Maine Central R. R. to Fryeburg. (Mean of two run- nings.)
Cornish station, on Maine Central R. R.; spike in east end of crossing planks, marked " 300 ". ..... 299.98
West Baldwin, 600 feet east of station; spike in east end of railroad-crossing planks, marked " 346 " ..... 345.52
Bridgton Junction, 1 mile southeast of, at northeast side of railroad, in top face of culvert stone; aluminum tablet stamped " 356 " ..... 355.538
Hiram, 2 miles west of, south side of railroad, in top face of southeast abut- ment of small bridge; aluminum tablet stamped " 398 " ..... 396.596
East Brownfield (Brownfield station), at southeast corner of station, in top face of large embedded rock; aluminum tablet stamped " 400 ". ..... 398.935
East Brownfield (Brownfield station), 3 miles northwest of, at crossing of brook, in top face of south side of east abutment of bridge; aluminum tablet stamped " 386 " ..... 384.820
FRYEBURG QUADRANGLE.[Latitude $44^{\circ}-44^{\circ} 15^{\prime}$; longitude $70^{\circ} 45^{\prime}-71^{\circ}$.]
From Fryeburg northeast along highways to West Bridgton, thence northwest to Lovell.
Fryeburg, at corner of Main and Portland streets, in east face of monument; aluminum tablet stamped " 429 "

Feet.
429. 245 ..... 478. 300 ..... 486.606

549.226

439.425

From Lovell northeast and north along highways to Lynchville.
Sweden Corner, at northwest corner of road crossing, in southeast corner of stone wall of O. P. Saunders's residence; aluminum tablet stamped " 692 "
692.067

East Sweden, in southeast corner of stone wall of schoolhouse; aluminum
tablet stamped " 568 "......................................................... 568.263
North Waterford, 4 miles south of, in southeast corner of stone wall of schoolhouse; aluminum tablet stamped " 963 "
963.723

North Waterford, 2.7 miles southeast of, west of road, opposite John Tubb's
residence, in large rock; aluminum tablet stamped " 797 "................ 797.533
North Waterford, in stone wall at northwest corner of Congregational
Church; aluminum tablet stamped " 650 "............................... 650.884
Lynchville, on foundation stone on north side at east end of bridge over Crooked River; paint mark " 555.7 ".
554.122

## From Fryeburg north along highways to North Fryeburg, thence east to Lovell, thence north to East Stoneham.

Fryeburg Center, opposite Odd Fellows' hall, at northwest corner of road
forks, in face of large bowlder; aluminum tablet stamped "438"........ 437.797
North Fryeburg, in top face of door stone of Universalist Chapel; aluminum tablet stamped " 388 ",
388.114

North Fryeburg, at northwest corner of Harry Hutchin's general store, on
top of stone post; chisel mark " 387 ".......................................... 386.00

Center Lovell, 300 feet south of schoolhouse, east of road, in top face of
large bowlder; aluminum tablet stamped " 530 "............................. 529.644
Center Lovell, 4 miles north of, in front of Stephen Kimball's residence, west of road, in top face of bowlder embedded in ground; aluminum tablet stamped " 725 ",
724.478

East Stoneham, opposite to Knights of Pythias hall, in large bowlder; aluminum tablet stamped " 629 ".
628.553

## From Harbor northwest along highway 2.8 miles. (Single-spur line.)

Harbor, 2.8 miles northwest of, west of road opposite O. P. Stevens's residence, in rock; aluminum tablet stamped " 423 "

# Belfast, Brooks, Burnham, Castine, Liberty, Rockland, and Waldoboro quadrangles. KENNEBEC, KNOX, LINCOLN, AND WALDO COUNTIES. 

The leveling was done in Belfast quadrangle in 1904 by F. J. McMaugh, in 1913 by J. M. Perkins, in 1914 by K. E. Schlachter, in Brooks and Burnham quadrangles in 1914 by Schlachter, in Castine quadrangle in 1904 by McMaugh, in Liberty quadrangle in 1913 by Perkins, in 1914 by Schlachter, in Rockland quadrangle in 1904 by McMaugh, and in Waldoboro quadrangle in 1913 by Perkins.
BELFAST QUADRANGLE.[Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $69^{\circ}-69^{\circ} 15^{\prime}$.]
From point 2 miles south of Appleton north along highway to point 1 mile southeast of South Montville.
Appleton, 0.5 mile east of, at four roads, on granite boulder 10 feet north of Feet. ..... 265.40
Appleton, opposite post office, in yard of Vina Gushee, on top of stone bound, at road corner; square cut ..... 152.14
Appleton, 0.5 mile north of, at road leading to Belfast, on top of rock; painted square ..... 247.51
Appleton, 1.6 miles north of, at four roads, in front of J. P. Moody's house, on stone in culvert; bronze tablet stamped " 455 " ..... 455.149
Appleton, 2 miles north of, on West Appleton road, at four corners, on stone 20 feet north of mail boxes; square cut ..... 427.35
West Appleton, 1.3 miles south of, at southeast corner of four corners, in small bowlder; square. ..... 371.72
West Appleton, at four roads, on outcrop of ledge southwest of road and 50 feet from road intersection; bronze tablet stamped " 315 ". ..... 314.465
South Montville, 1 mile southeast of, at road corner, on stone by north bank of Georges River, 35 feet north of bridge and west side of road, on stone; square cut. ..... 268.36
From Swanville south along highway to Belfast.
Swanville, 3 miles south of, in granite ledge at left of road; aluminum tablet stamped " 216 " ..... 215.852
Belfast, on Church Street front of court-house, in water table; aluminum tablet stamped " 102 ". ..... 102.368
From Ducktrap River southwest along highway via Lincoln to Camden.
Northport, 4.1 miles south of, 100 feet south of L. D. Ames's house, 65 feet west of road; aluminum tablet stamped " 34 ". ..... 34.059
Lincolnville Beach, north end of bridge over inlet; mark on stone coping. ..... 8.68
Lincolnville, 2.4 milessouth of, in ledge at top of hill, 25 feetsouth of wood road west, 600 feet south of house; aluminum tablet stamped " 194 " ..... 194.012
From point 0.5 mile north of Appleton east along highway to Ducktrap.
Appleton, 0.5 mile north of, at road to Belfast, on top of rock; painted square ..... 247.51
North Appleton, 0.5 mile northwest of, at crossroad, in bowlder, in north- east corner; chiseled square painted " 199.6 " ..... 199.56
North Appleton, 0.4 mile southeast of, at Thompson's corner, northeast corner of crossroads, in culvert; bronze tablet stamped "Maine 188".... ..... 187.657
North Appleton, 1.7 miles southeast of, in northwest corner of T road, in bowlder; chiseled square, painted " 535.4 " ..... 535. 40
North Appleton, 2.5 miles east of, northwest corner of T road, in ledge; chis-

## Feet.

583.18
Hope, 0.7 mile northwest of, in southwest corner of crossroads, on limestone slab; chiseled square painted " 460.9 ". ..... 460.89
Hope, in corner diagonally opposite post office at crossroads, in rock; bronze tablet stamped "Maine 349 ". ..... 349.340
Hope, 1.2 miles northeast of, at T road, in bowlder in southeast corner, near stone wall; chiseled square painted " 234.1 " ..... 234.06
Lincolnville Center, 1.3 miles south of, 800 feet south of T road, in ledge on west margin of highway; chiseled square, painted " 194.2 " ..... 194.18
Lincolnville Center, 0.2 mile southwest of post office, 100 feet south of Meth- odist Church, in ledge west margin of road; bronze tablet, stamped "Maine 213 (?)". ..... 201. 401
Lincolnville Center, at corner, in platform of pump; copper nail with painted circle ..... 179.15
Lincolnville Center, 0.7 mile east of, on bowlder near stone wall in north- west corner of crossroads; chiseled square, painted " 177.5 " ..... 177.41
Lincolnville Beach, 2 miles southwest of, 60 feet north of Stevens's corner, on bowlder on east margin of road; bronze tablet stamped "Maine 261 ".. ..... 261. 174Lincolnville Beach, 1 mile west of, at crossroads, (Carver corner), in ledge300 feet south of corner, in east margin of road; chiseled square, painted"188.1"
Ducktrap, (4.1 miles south of Northport), in ledge 65 feet west of highway, 150 feet south of L. D. Ames's residence; aluminum tablet stamped ' 34 ". ..... 188.05
From Belfast southwest along highway to South Montrille.
Belfast, on Church Street front of courthouse, in water table; aluminum tablet stamped " 102 " ..... 102.368
Belfast, 1.3 miles southwest of, along Lincolnville road, 150 feet north of A. H. Young's house, on bowlder in east margin of road; chiseled square.. ..... 176. 60
Belfast, 2.3 miles southwest of (Pitcher's corner), 600 feet west of fork of road, in ledge on south margin of road; chiseled square, painted " 161.6 ".. ..... 161. 64
Pitcher School, 100 feet east of crossroads, in bowlder, in north margin of road; bronze tablet, stamped "Maine 295 ". ..... 294.856
Pitcher School, 1 mile west of, at crossroads, on stone culvert in southwest corner; chiseled square, painted " 366.9 " ..... 366.95
Center Belmont School, 1.3 miles east of, at T road, on culvert in north- west corner; chiseled square, painted " 301.5 " ..... 301.59
Center Belmont School, at crossroads, in ledge at northwest corner of school- house; bronze tablet, stamped "Maine 285". ..... 285.138
Wilkins's Corner, 20 feet south of road forks, on bowlder in east margin of road; chiseled square, painted " 313.8 " ..... 313.92
Searsmont, 2.3 miles east of, 175 feet west of bridge, in ledge on south mar- gin of road; chiseled square, painted " 222.3 ". ..... 222.38
Searsmont, 0.6 mile east of, in southeast corner at road fork, on bowlder; chiseled square, painted ' 276.9 " ..... 277.00
Searsmont, 0.3 mile east of, 100 feet north of road fork, on bowlder in west margin of road; chiseled square ..... 253.43
Searsmont, in northeast corner of stone step of Methodist Church; bronze tablet stamped "Maine 227 ". ..... 226.992
Searsmont, 2 miles west of, at T road, on bowlder in southwest corner; chiseled square, painted " 286.6 ". ..... 286.70

South Montville, 1 mile southeast of, at road corner (Woodman's mills) on stone near north bank of Georges River, 35 feet north of bridge, west of road; square cut.268.360
Near Knox Center. (Part of line leveled twice from Polands Corner to Belfast.)
Knox Center, 1.8 miles south of, at crossroads, on bowlder in southwest Feet.510. 53
corner; chiseled square, painted " 510.8 "
Knox Center, 0.8 mile south of, at crossroads, on bowlder in wall, 50 feet
Knox Center, 0.8 mile south of, at crossroads, on bowlder in wall, 50 feet west of bridge, on south side of road; chiseled square, painted " 356.0 ". . ..... 355. 67
From Waldo station southeast along Maine Central R. R. to Belfast. (Leveled twice.)
Waldo, at station; top of rail. ..... 261.1
Waldo, 1.3 miles south of, at "Fowlerhill" road crossing, 20 feet north of track and 20 feet east of road, in bowlder; bronze tablet. ..... 229.443
Waldo, 2.1 miles south of, at Wall's crossing, north of highway, east of track, on bowlder; chiseled square ..... 191. 87
City Point, 0.7 mile north of, 0.2 mile north of road crossing, east margin of track, in bowlder; bronze tablet. ..... 73. 640
City Pointstation, $\frac{1}{4}$ mile south of, at road crossing, west margin of road, west of track, on bowlder; chiseled square ..... 36. 74
Belfast, 1 mile north of, 10 feet south of crossing, on east side of railroad culvert; top of painted bolt ..... 28.97
BROOKS QUADRANGLE.
[Latitude $44^{\circ} 30^{\prime}-44^{\circ} 45^{\prime}$; longitude $69^{\circ}-69^{\circ} 15^{\prime}$.]
From Knox Center northeast along highway to point near Brooks, thence southeast along Maine Central R. R. to Waldo. (Leveled twice.)
Knox Center (H. W. Boulter's store), 140 feet west of bridge, in bowlder on south margin of road; bronze tablet stamped "Maine 334" ..... 333.248
Knox station, 1 mile south of, at crossroads, on rock in northwest corner; chiseled square, painted " 443.6 " ..... 443. 29
Knox station, $1 \frac{1}{3}$ miles southeast of, at Bailey's crossing, 60 feet east of, on rock in south edge of right of way; chiseled square, painted "489.2"... ..... 488. 79
Knox station, 2.1 miles southeast of, 750 feet east of milepost 16 from Bel- fast, on bowlder in north margin of track; chiseled square, painted " 521.7 " ..... 521. 24
Knox station, 2.4 miles southeast of, at road crossing, 50 feet north of rail- road, 20 feet east of highway, in ledge; bronze tablet, stamped "Maine 498" ..... 498.052
Brook's, 3 miles west of, 120 feet west of milepost 15, on rock in north margin of road, near crossing; chiseled square, painted " 480.6 " ..... 480. 19
Brooks, 2 miles west of, at grade crossing at Hoop-pole landing, in northwest bridge seat; chiseled square. ..... 411. 28
Brooks, 1.1 miles west of, 550 feet east of crossing; top of rail. ..... 395. 24
Brooks, 1 mile west of, 40 feet east of milepost 13 , in south margin of track, in bowlder; chiseled square ..... 400.04
Brooks, northeast corner of A. E. Chase Co.'s store, in concrete step opposite; bronze tablet ..... 386.55
Brooks, 1.2 miles east of, at road crossing, east of highway, south edge of railroad track, in bowlder; chiseled square ..... 361. 69
Brooks, 2.2 miles east of, 550 feet east of milepost 101, south margin of road, in ledge; chiseled square ..... 346. 11
Brooks station, 3 miles east of, in-southeast bridge seat, 300 feet north of milepost 9; bronze tablet. ..... 315. 684
Waldo, 2 miles north of, near water tank, on northwest bridge seat; chiseled square. ..... 290. 49
South Brooks crossing; top of rail ..... 278.6

# BURNHAM QUADRANGLE. <br> [Latitude $44^{\circ} 30^{\prime}-44^{\circ} 45^{\prime}$; longitude $69^{\circ} 15^{\prime}-69^{\circ} 30^{\prime}$.] 

## Near south border of quadrangle.

| eled square painted "815.0" |  |
| :---: | :---: |
| Sibley Corner, 75 feet north of crossroads, in ledge northwest corner; chi eled square painted " 555.4 ". |  |
| South Albion, 0.7 mile southeast of, in bowlder in southwest corner road; chiseled square painted " 415.2 " |  |
|  |  |

## LIBERTY QUADRANGLE.

[Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $69^{\circ} 15^{\prime}-69^{\circ} 30^{\prime}$.]
At point 2 miles south of Appleton.
Appleton, 2 miles south of, at road corner east of Sennebec Lake and on road to Union, on bowlder 25 feet west of large elm tree; bronze tablet stamped " 131 "
130. 974

## From South Somerville east along highway to Cunninghams Corner.

South Somerville, at four corners near T. P. Jones's store, 10 feet north of road and 50 feet east of corner, in granite bowlder; bronze tablet stamped "274." (This bench mark may soon be removed on account of State highway work)
273. 219

West Washington, at four roads, northwest corner of road intersection, in bowlder; square cut
300. 85

Stickney Corner, 2.2 miles west of, at road corner, in stone supporting sign boards; square cut
232. 78

Cunningham's Corner ( 1.4 miles west of Stickney Corner), 75 feet north of, on bowlder 10 feet west of highway; bronze tablet stamped " 288 "
288. 271

## From point 2 miles east of Stickney Corner east along highway 1.2 miles.

Stickney Corner, 2 miles east of, at road corner, in stone supporting guide boards; square cut
155. 700

Stickney Corner, 2.3 miles east of, on bowlder by south side of road, 40 feet west of iron bridge over Modomac River; bronze tablet stamped "146"
145.465

Stickney Corner, 2.4 miles east of, at road corner 2 miles south of North Union, on flat stone in grass triangle; square cut
375. 87

## From South Montville along highway north to Liberty, thence west to Palermo Center, thence south to West Washington.

South Montville, 0.5 mile north of, at four roads, 5 feet from guide board post, in top of stone; square cut
407. 58

Liberty, 1.3 miles east of, at four roads, in root of mountain oak tree 4 inches in diameter, in yard of Frank Cunningham; copper nail
314. 95

Liberty, 1 mile east of, by bridge over Trues Pond, on stone in bridge abutment, north side of road and east of bridge; bronze tablet stamped " 297 ".
Liberty, at four roads near Skidmore's store, under elm tree, 25 feet in rear of Hunt \& Walker Co.'s office, on top of rock; chiseled square
376. 61

Liberty, 1.5 miles northwest of, at road corner, west of road and 80 feet south of corner, on top of bowlder; square cut
Liberty, 1.7 miles northwest of, 0.2 mile west of road corner, on land of Mr. Dymol, on bowlder 15 feet north of road; bronze tablet stamped " 512 "..

Feet.

511. 905

505.1
514.70

Liberty, 2.3 miles west of, on road to East Palermo, in front of house of C. R. Nelson, in top of concrete culvert; square cut

East Palermo, 2.2 miles east of, at Sherman's corner, on stone in top of culvert opposite store; square cut.
551.35

East Palermo, 0.9 mile east of, at road corner, 20 feet south of road, in pasture, on top of bowlder, square cut.
478. 11

East Palermo, at road corner, on southeast corner stone of cemetery fence, 15 feet from road and 30 feet from Day's store, in top of stone; square cut.
East Palermo, 0.5 mile north of, at road corner, on large flat rock, north of triangle between roads; bronze tablet stamped " 368 ".
506. 75

East Palermo, 1.5 miles northwest of, at road corner, on large granite bowlder north of road leading to Freedom; square cut.
368. 576

Palermo, at Greeley's corner, 150 feet east of road corner, in orchard of S. B. Jones, on bowlder 10 feet from stone wall; bronze tablet stamped " 498 ".
Palermo, at road corner 1.2 miles south of Greeley's corner, on stone in yard of Handy \& Howard, 10 feet south of locust tree; square cut
Palermo, 2.3 miles south of Greeley's corner, at four roads, on ledge 10 feet in front of old schoolhouse; square cut.
Somerville, 1.5 miles north of Sand Hill corner, at a road corner, on large granite bowlder east of road intersection; bronze tablet stamped " 332 "..
Somerville, at Sand Hill schoolhouse, on south stone of south door steps; square cut
332.009

Sand Hill corner, 20 feet southeast of guide post, on rock; painted square..
Washington, 3 miles north of West Washington, at road corner, 40 feet south of guide boards, on top of granite bowlder; square cut.
300. 42
288.28

West Washington, 2 miles north of, at road corner, 2 miles west of Razorville, on stone supporting guide boards; bronze tablet stamped " 466 "..
West Washington, 0.5 mile north of, at road corner, on stone supporting guide boards; square cut.
298. 20
465.965

West Washington, at four roads, northwest corner of road intersection, on bowlder; square cut
344.28

### 300.85

From point 1 mile east of Liberty along highway north to Poland's corner, thence
northwest and west to point near China, thence south along Wiscassett, Waterville
\& Farmington R. R. and highway to Palermo.
Liberty, 1 mile east of, at bridge over Trues Pond, on stone in abutment, north side of road, east of bridge; bronze tablet stamped " 297 "
297.402

Kingdon, in rock in southeast corner of crossroad; chiseled square, painted "307.6"
307.65

Kingdon, 1.5 miles north of, along Freedom road, 0.2 mile south of T road west, in ledge east margin of road; bronze tablet stamped "Maine 413 ".
Bean's corner, 1 mile south of, at northeast road corner; in rock, chiseled square painted " 515.8 ".
413. 174

Bean's corner, in bowlder in northeast corner of crossroads; chiseled square painted " 639.3 ".
515.65

Poland's corner, 300 feet south of, in bowlder east margin of road; bronze tablet stamped "Maine 559"
639. 16

Poland's corner, $\frac{1}{2}$ mile north of, in bowlder west margin of road, at road fork; chiseled square painted " 547.9 "
558.646

West Montville, 1.5 miles east of, in ledge in southeast corner of crossroad;
chiseled square painted " 612.0 ".........................................
547. 70
611.76
West Montville, at road forks, in rock north side of culvert; chiseled square

Feet.
540.06
Gregory's corner, in bowlder, in southwest corner at road fork; chiseled square painted " 714.5 " ..... 714.33
Freedom, 2 miles south of, 0.37 mile west of Gregory's corner, 375 feet west of road corner, in bowlder north margin of road; bronze tablet stamped "Maine 702" ..... 701.412
Hutchin's corner, in bowlder, 100 feet east of crossroads, on north margin of road; bronze tablet stamped "Maine 538" ..... 538. 162
Hutchin's corner, 1 mile west of, at road fork north, in ledge north margin of road; chiseled square painted " 538.7 " ..... 538. 52
South Albion, 2.1 miles southwest of, 30 feet east of highway bridge near crossroad, at south margin of road, on rock; chiseled square painted "307.9" ..... 307.72
Sennett's corner (W. F. Sennett), in bowlder in northwest corner of T road; chiseled square, painted " 497.8 " ..... 497. 63
China, 1.5 miles northeast of, 160 feet south of road corner, in bowlder west margin of road; bronze tablet stamped "Maine 275 " ..... 274. 715
China station, 10 feet north of; top of west rail, painted " 213.6 " ..... 213.45
China, 3 miles south of (Cole station), southwest corner, at road corner, 350 feet west of railroad, in bowlder; bronze tablet stamped "Maine 339"... ..... 339.000
Palmero station, 1.4 miles north of, 15 feet north of highway bridge over rail- road, on bowlder east margin of track; chiseled square, painted " 335.2 ". ..... 335.06Palmero station, in telephone pole in northwest corner of intersection of
highway and railway; top of railroad spike, painted " 352.2 "
Palermo (Branch Mills), in northwest abutment of highway bridge over West Branch of Sheepscot Stream; bronze tablet stamped "Maine 346".. ..... 352.05
Palermo, 1.2 miles southeast of, 250 feet south of road fork, in bowlder, west margin of western highway; chiseled square painted " 425.5 ". ..... 425.39
Palermo, 2.1 miles southeast of, in ledge in northwest corner of crossroads; chiseled square paintd " 448.1 " ..... 448.02
Palermo Center, 150 feet east of Greeley's corner, in orchard of S. B. Jones, on bowlder 10 feet north of stone wall; bronze tablet stamped " 498 "... ..... 498.304
WALDOBORO QUADRANGLE.
[Latitude $44^{\circ}-44^{\circ} 15^{\prime}$; longitude $69^{\circ} 15^{\prime}-69^{\circ} 30^{\prime}$.]
From Warren west along Maine Central R. R. to Glendon station, thence along high- ways north to West Washington, east to Union, and south to Warren station.
Warren, road corner at Monument Square, in ledge, south point of triangu-lar park; drill hole151.82
Warren, 0.7 mile southwest of, opposite H. L. Russell's store at road cor- ners; elevation on top of iron gate box cover near signboard ..... 158.39
Warren station, 50 feet east of, at crossing; top of north rail. ..... 53.2
South Pond; surface of water June 25, 1913 ..... 34.7
Warren station, 0.6 mile west of, at crossing; top of rail ..... 67.6
Warren station, 2 miles west of, at road crossing, granite stone 20 feet north of railroad and 20 feet east of highway; bronze tablet stamped " 147 ".... ..... 147.411
Warren station, 2.7 miles west of, at Goshen Crossing (East Waldoboro sta-tion), in top of bowlder weet of crossing and 15 feet north of railroad; drillhole.
Warren station, 4 miles west of, in stone in southwest abutment of railroad culvert; drill hole. ..... 162.60
Waldoboro station, 1.2 miles east of, at highway crossing; top of south rail. . ..... 170.2
Waldoboro station, 0.7 mile east of, at road crossing, in ledge southeast of ..... 157. 48
Waldoboro, 110 feet north of highway crossing by station, in ledge in yardof M.R. Achorn, and 10 feet from highway; bronze tablet stamped " 108 ".108.197
Winslows Mills, top of north rail, main track opposite station; painted rail. . ..... 75.6Winslows Mills, 0.6 mile west of, at road crossing, on bowlder 2 feet in diam-
eter, 35 feet north of track and 40 feet east of highway; bronze tablet stamped " 99 "99. 249
Glendon station, top of south rail opposite depot; painted rail. ..... 118.7
Glendon station, 0.5 mile west of, at road crossing, in ledge 10 feet south of track and 20 feet east of highway; bronze tablet stamped " 120 ". ..... 119. 689
Benner's corner, at junction of Pond road, and stage road from Waldoboro to Jefferson, in lower stone of gateway in stone wall, 30 feet from angle in wall; hollow square cut. ..... 218.37
Jefferson, 3.8 miles south of, on Pond road leading to Waldoboro, in bowlder, east side of road, and 150 feet south of A. W. Flagg's house; bronze tablet stamped " 158 ". ..... 158.098
Jefferson, 0.8 mile southeast of, at road corner on Pond road, on top of bowl- der, north of grass triangle and 6 feet from road; square cut ..... 171.11
Jefferson, at east end of village, at intersection of Pond road with road lead- ing to North Waldoboro, in flat stone in culvert 600 feet east of Sylvester's store; bronze tablet stamped " 63 ". ..... 62.688
Damariscotta Lake; surface of water July 18, 1913 ..... 51.6
Jefferson, west end of village at road corner by Week's store, in top of rock west of grass triangle; square cut ..... 102.24
West Jefferson, 100 feet east of road four corners, in front of Shepherd Ceme- tery, in hitching stone; top of ring bolt ..... 297.00
West Jefferson, $\frac{1}{3}$ mile north of, by side of road, 200 feet north of house of W. B. Tibbetts, in granite bowlder 20 feet west of road; bronze tablet stamped ' 297 ". ..... 296.393
West Jefferson, 2.2 miles north of, on road to South Somerville, at road corner, in small rock in center of grass triangle; square cut. ..... 291.80
South Somerville, 0.7 mile south of, 100 feet south of house of Orin Bowman, in ledge 8 feet west of road; square cut. ..... 257.60
Stickney corner, 0.3 mile west of, at road corner, in stone supporting guideboards; square cut ..... 396. 73
Stickney corner, at intersection of roads, on stone 6 feet from road, on bank- ing in front of residence of William Racklief; square cut on stone. ..... 341.48
Stickney corner, 0.9 mile east of, at road corner, in top of stone near gate- way in stone wall; square cut. ..... 250.01
Union, 3.7 miles north of, at road corner on North Union road, in bowlder, west side of road at fork; square cut. ..... 404.34
Union, 2.6 miles north of, on North Union road, in yard of Gleason school, in flat stone near road; square cut ..... 436.04
Union, 1 mile west of, at four roads, opposite residence of F. S. Burgess, in ledge, 8 feet from signboards; temporary bench mark. ..... 107.64
Union, 0.6 mile north of, at road corner, south end of grass triangle; in small bowlder; square cut ..... 85. 51
Union Common, opposite Burton House, in ledge 10 feet from road and 20 feet from guideboards; bronze tablet stamped " 97 " ..... 96.835
South Union, 0.3 mile south of, at Philbrook's crossing, in small bowlder, east side of road and 35 feet north of Georges Valley R. R.; square cut. . ..... 56. 23White's Crossing; top of rail.41.1

Warren station, 3.5 miles north of, at road crossing, Tutton's crossing, and

Feet.
44. 646 side of highway near spring; bronze tablet stamped " 45 ".

# CASTINE QUADRANGLE. <br> [Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $68^{\circ} 45^{\prime}-69^{\circ}$.] <br> <br> From Belfast south along highway to Ducktrap River. 

 <br> <br> From Belfast south along highway to Ducktrap River.}

Belfast, 2.5 miles south of courthouse, coping top of dam at Little River
pumping station........................................................ 22.7
East Northport, 250 feet southeast of junction of roads at Browns Corners, at left of road, on ledge; aluminum tablet stamped " 50 "
50.065


## ROCKLAND QUADRANGLE. <br> [Latitude $44^{\circ}-44^{\circ} 15^{\prime}$; longitude $69^{\circ}-69^{\circ} 15^{\prime}$.] <br> From Camden southwest to West Rockport.

Camden, Camden National Bank, in granite pier, Elm street front; alumi-
num tablet stamped " 36 "....................................................... 364
West Rockport, 2 feet west of signboard; mark on stone monument........ 220.28
West Rockport, in large bowlder southeast side of road to Warren, 500 feet southwest of signboard, 100 feet southwest of house, 25 feet east of center of road; aluminum tablet stamped " 228 ".
227. 980

From West Rockport south along highway to Rockland, thence southwest to Thomas-
ton, thence northwest to Warren, thence northeast to West Rockport.
Rockland, 3.8 miles north of, in ledge west of road along west shore of Chickawaukie Pond, 80 feet south of telephone pole marked "U. S." with arrow pointing toward tablet; aluminum tablet stamped " 142 "
142.029

Rockland, in water table at south side of post office building near southwest corner; aluminum tablet stamped " 35 "
34.978

Thomaston, 110 feet south of Main Street and 45 feet south of end of iron fence on west side of warden's yard at state prison; mark on top of granite monument.
137.83

Thomaston, in first course of west pier of old gateway dated " 1824 " in wall of state prison grounds, opposite fire station house; aluminum tablet stamped " 142 "
142.293

Warren, 0.2 mile south of road forks near, in ledge at left of road; aluminum tablet stamped " 131 ".
130.925

Warren, 3.9 miles northeast of, in ledge at junction of roads 50 feet south of main road; aluminum tablet stamped " 219 ".
218.887

Bangor, Bluehill, Bucksport, Ellsworth, Mount Desert, Orland, and Orono quadrangles.

## HANCOCK, PENOBSCOT, AND WALDO COUNTIES.

The elevations in the following list are based on an aluminum tablet in the post-office and customhouse building at Bangor, stamped " 23 Bangor 1899," the elevation of which is accepted as 23.725 feet above mean sea level, as determined by an adjusted circuit from Bucksport, where tidal observations on the Penobscot River were taken during two lunar months in August and September, 1899. The standard
bench marks in this area, which were published in Bulletin No. 185, are included in this list.

The leveling was done as follows: In Bucksport quadrangle by Robert Coe and J. W. Edgerly in 1899, and by F. J. McMaugh in 1904; in Bangor quadrangle by J. W. Edgerly in 1900; in Orono quadrangle by J. W. Edgerly in 1900, and by F. J. McMaugh in 1904; in Orland quadrangle by Robert Coe in 1899, and by A. S. Havens in 1901; in Bluehill and Mount Desert quadrangles by A. S. Havens in 1901; and in Ellsworth quadrangle by C. K. Alexander in 1908.

## BUCKSPORT QUADRANGLE. <br> [Latitude $44^{\circ} 30^{\prime}-44^{\circ} 45^{\prime}$; longitude $68^{\circ} 45^{\prime}-69^{\circ}$.]

## From Bangor south along Bucksport branch Maine Central R. R. to Bucksport.

South Orrington, in foundation of Methodist Church, in middle of south face of third stone from southwest corner; aluminum tablet stamped " 61 Bangor 1899"

Feet.

North Bucksport, 0.7 mile south of, 8 feet southwest of milepost "Bucksport 6 miles, Portland 150 miles," point of gray bowlder; chisel mark...
Bucksport Center, 0.9 mile south of, 10 feet south of milepost "Bucksport 4 miles, Portland 152 miles," point of blue bowlder; chisel mark.......
Bucksport, on lowest step of side wall on left side of stone steps to Buck Memorial Library, in front face of coping; aluminum tablet stamped " 43 Bangor 1899"

## From Bucksport west along highway via Prospect to North Searsport.

Prospect, 0.25 mile south of, residence of J. R. Killman, in south face of brick, second above foundation and third from southwest corner; aluminum tablet stamped " 77 Bangor 1899"
76.710

Prospect, 3 miles west of, 80 feet east of four corners crossroads on Browns Hill, north of road, on large gray bowlder; chisel mark.
North Searsport, near road forks, 20 feet southwest of signboards "Frankfort 7 miles, Belfast 10 miles, Swanville 3 miles," "Searsport 7 miles, Monroe 5 miles," in small gray bowlder; aluminum tablet stamped " 393 Bangor 1899"

## From North Searsport north along highway via West Winterport to North Newburg.

West Winterport, residence of J. W. Hobbs, in front face of top front doorstep; aluminum tablet stamped "162 Bangor 1899 "
161. 650

Ellingwoods corner, 0.25 mile north of, brick residence of Stephen L.
Perkins, center of capstone of cellar window at south end; aluminum
tablet stamped " 387 Bangor 1899 "..................................................... 386.814
From North Searsport southwest along highway to Swanville.
Swanville, 150 feet south of Nickerson \& Quinn's store, west of road, in bowlder; aluminum tablet stamped " 209 ".
209. 410

## BANGOR QUADRANGLE.

[Latitude $44^{\circ} 45^{\prime}-45^{\circ}$; longitude $68^{\circ} 45^{\prime}-69^{\circ}$.]
From North Newburg northeast to Hermon Center, thence east along highway to Bangor.
North Newburg, at crossroads, 90 feet west of signboards "Winterport 11 miles, Carmel 4 miles, Bangor 11 miles, North Dixmont 9 miles," in ledge; aluminum tablet stamped "180 Bangor 1899"
180. 389

Bangor, at southwest corner of courthouse; aluminum tablet................ 61.159
From Hermon Center northwest along highway via Levant to South Corinth, thence east to Oldtown.
Snow Corner, 100 feet northeast of crossroads, south of highway, at rear of post office, in root of fir tree; nail.

Feet.
168.90

142.988

137.05

295. 935

151.363

125. 678

ELLSWORTH QUADRANGLE.
[Latitude $44^{\circ} 30^{\prime}-44^{\circ} 45^{\prime}$; longitude $68^{\circ} 15^{\prime}-68^{\circ} 30^{\prime}$.]

## From Ellsworth north along Maine Central R. R. and highway to Tilden, thence east to Waltham.

Ellsworth, in foundation of Ellsworth Trust Co.'s bank building; aluminum
tablet stamped " 24 "......................................................... 23.993
Ellsworth Falls, 2.6 miles northwest of, on Mariaville road, 150 feet east of road in field, in top face of large bowlder; aluminum tablet stamped "145"
145. 005

Lakewood, 0.1 mile south of road corner, 30 feet west of road, in rock ledge; aluminum tablet stamped " 181 ".
181.012

Lakewood, 3.1 miles north of, at forks of old and new roads, east of road, 100 feet south of corner, in top face of large bowlder; aluminum tablet stamped " 204 "
203. 891

Tilden, at southeast corner of road forks, in top face of large bowlder; aluminum tablet stamped " 231 ".
230.938

Waltham, 1 mile north of post office, 0.1 mile west of crossroads, north of road, in top face of large bowlder; aluminum tablet stamped " 414 "...
Waltham, at summit of hill, 250 feet north of graveyard, opposite schoolhouse, on north side of old cellar, in top face of buried rock; aluminum tablet stamped " 480 " (triangulation station)
480. 285

From Ellsworth east along Maine Central R. R. to Franklin, thence north and west to Waltham.
Washington Junction, 0.25 mile east of station, on south side of Washington County Ry., in top face of large bowlder; aluminum tablet stamped " 172 "
172. 354

Washington Junction, 5 miles east of, at stream crossing known as "Stone Horse," south of railroad track in east end of abutment of railroad bridge; aluminum tablet stamped " 121 "
121. 547

Franklin, 1 mile west of, 250 feet north of railroad crossing, west of road, in
top face of large bowlder; aluminum tablet stamped " 88 "............. 88.473
Eastbrook Corners, 3 miles south of, near crossing of outlet of Georges pond, private road running west, west of road just south of road forks, in top face of large bowlder; aluminum tablet stamped " 168 "
168.063

Eastbrook Corners, at southwest side of, in top face of large bowlder; alumi-
num tablet stamped " 169 "...................................................... 189.180169. 180

## From Waltham southwest to point 2 miles north of Ellsworth Falls.

Waltham, 1 mile south of post office, 0.05 mile north of road forks, east of road, in top face of large bowlder; aluminum tablet stamped " 176 ". ... ..... 176. 007
Waltham, 4 miles south of, near small summit (lower elevations towardsouth), in top face of large bowlder west of road; aluminum tabletstamped " 168 "167. 787
Ellsworth Falls, 4.5 miles north of, on rock lying west of road; chisel mark "107" ..... 106. 41
Ellsworth Falls, 3.5 miles north of, at southwest corner of No. 8 plantation, 0.5 mile south of schoolhouse, east of road, in top face of large bowlder; aluminum tablet stamped " 125 " ..... 124. 555
ORONO QUADRANGLE.
[Latitude $44^{\circ} 45^{\prime}-45^{\circ}$; longitude $68^{\circ} 30^{\prime}-68^{\circ} 45^{\prime}$.]
From Milford northeast along highway 7 miles. Spur line.
Milford, 7 miles northeast of, near highway bridge over Birch Stream on Milford-Greenfield road, 80 feet south of center of and 28 feet east of center of traveled highway, in ledge; bronze tablet stamped " 130 Bangor".... ..... 130. 586
From Oldtown southwest along highway and Maine Central R. R. to Veazie.
Oldtown, St. James Episcopal Church, corner Maine and Middle streets, east end of north face; aluminum tablet stamped "108 Bangor" ..... 108. 106
Orono, University of Maine, in west face of coping stone of Wingate hall; aluminum tablet stamped "115 Bangor". ..... 115. 529
From Veazie southeast along highway to East Eddington.
East Eddington, Universalist Church, in northwest corner stone; bronze tablet stamped "193 Bangor" ..... 193. 426
From East Eddington to Clifton. Single-spur line.
Clifton, 9 feet east of southeast corner of Free Baptist Church, in ledge; ${ }_{4}^{3}$-inch iron bolt ..... 285. 338
From East Eddington south to East Holden, thence west along Maine Central R. R. to Bangor.
Harts Corners, in east face of underpinning of Holden townhouse, 11 feetsouth of entrance; aluminum tablet stamped "296 Bangor".298. 210
From Oldtown north along Maine Central R. R. to Costigan.
Milford, in front of station; top of rail. ..... 129. 2
Oldtown, 3.1 miles north of, east side of track, in ledge; aluminum tabletstamped "133 Bangor"132. 562
ORLAND QUADRANGLE.
[Latitude $44^{\circ} 30^{\prime}-44^{\circ} 45^{\prime}$; longitude $68^{\circ} 30^{\prime}-68^{\circ} 45^{\prime}$.]
From Bucksport via Orland, East Orland, and West Ellsworth to Ellsworth.East Orland, 960 feet east of bridge at road forks, 70 feet to left of road, onside of bowlder; aluminum tablet stamped "168 B 1899"168. 059
West Ellsworth, 1,150 feet west of road forks, 40 feet to left of road, bowlder in field; aluminum tablet stamped " 275 Bangor 1899" ..... 275. 497

## From Ellsworth northwest over wagon road to East Holden.

Nicolin, 50 feet to left of Ellsworth-Bangor road and 10 feet to right of road
from Nicolin railroad station to Branch Pond, on gray rock; aluminum Feet.

BLUEHILL QUADRANGLE.
[Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $68^{\circ} 30-68^{\circ} 45^{\circ}$.]
From East Orland southeast along highway to Bluehill, thence northeast to Surry.
North Bluehill, 660 feet west of crossroads, 30 feet north of road running west, in bowlder; bronze tablet stamped " 337 Bangor 1901 ".
Bluehill, 125 feet east of northwest-southeast road, 75 feet south of public wharf, in face of rock ledge; bronze tablet stamped " 15 Bangor 1901"....
14. 981

Surry, 1.25 miles south of, 15 feet west of road, opposite house on right, about 250 feet south of road to left, in bowlder; chisel mark "D".

MOUNT DESERT QUADRANGLE.
[Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $68^{\circ} 15^{\prime}-68^{\circ} 30^{\prime}$.]

## From Surry northeast to Ellsworth.

Surry, 0.5 mile east of, 800 feet east of Surry townhall, 15 feet to right of road, in rock ledge; bronze tablet stamped " 88 Bangor 1901"

Mattawamkeag, Millinocket, Passadumkeag, Seboeis, and Winn quadrangles.

## PENOBSCOT COUNTY.

The elevations along Penobscot River in the following list are based on an aluminum tablet in the post-office and customhouse building at Bangor, stamped " 23 Bangor 1899." The elevation of this bench mark is accepted as 23.725 feet above mean sea level. A doublerodded line was run, beginning at a bench mark at Oldtown, reported in another list (p. 38). From Millinocket water and spirit levels were extended by the Great Northern Paper Co., and the waterresources branch of the United States Geological Survey at Moosehead, where a junction was made with the Kennebec levels. The extended elevations were found to be in such close agreement with the Kennebec levels, as corrected in 1906 to reliable mean sea-level datum at Portland, that no adjustment has been made in determining the elevations of this list.

The leveling was done in 1904 by F. J. McMaugh.

[^4]
# PASSADUMKEAG QUADRANGLE. 

[Latitude $45^{\circ}-45^{\circ} 15^{\prime}$; longitude $68^{\circ} 30^{\prime}-68^{\circ} 45^{\prime}$.]

## From Costigan north along Maine Central R. R. to Enfield.

> Costigan, 215 feet north of station, railroad bridge, east end of south abut- Feet. ment; aluminum tablet stamped " 115 ".
> 114. 979

$$
\begin{aligned}
& \text { Greenbush station; top of west rail....................................... } 133.5
\end{aligned}
$$

Greenbush, 1.4 miles north of, east side of track, in milestone marked "Vanceboro 90 miles, Portland 161 miles"; aluminum tablet stamped "145"
144. 985

Olamon, in front of station; top of east rail.
131.3

Olamon, 0.7 mile north of, east side of track, in milestone marked "Vanceboro 87 miles, Portland 164 miles"; aluminum tablet stamped " 144 "...
Passadumkeag, railroad bridge over Passadumkeag River, in bridge seat east end of south abutment; aluminum tablet.
143. 957

Enfield, 1.9 miles south of, in milestone marked "Vanceboro 81 miles, Portland 170 miles;" aluminum tablet stamped " 185 ".
137.571
185.039

## SEBOEIS QUADRANGLE.

[Latitude $45^{\circ} 15^{\prime}-45^{\circ} 30^{\prime}$; longitude $68^{\circ} 30^{\prime}-68^{\circ} 45^{\prime}$.]

## From Enfield northeast along Maine Central R. R. to Lincoln Center.

Enfield, in front of station; top of east rail................................... 202.9
Enfield, 1 mile north of, in milestone marked "Vanceboro 78 miles, Port-
land 173 miles;" aluminum tablet stamped " 221 "..........................
South Lincoln, 1.1 miles southeast of, 4 miles north of Enfield, in milestone marked "Vanceboro 75 miles, Portland 176 miles;". aluminum tablet stamped " 242 ".
South Lincoln, in front of station; top of rail.
South Lincoln, 1.9 miles northeast of, east side of track, in milestone marked "Vanceboro 72 miles, Portland 179 miles;" aluminum tablet stamped " 241 "
241. 989

Tincoln, in front of station; top of west rail.
240.975


## WINN QUADRANGLE.

[Latitude $45^{\circ} 15^{\prime}-45^{\circ} 30^{\prime}$; longitude $68^{\circ} 15^{\prime}-68^{\circ} 30^{\circ}$.]
From Lincoln Center northeast along Maine Central R. R. to Mattawamkeag.
Lincoln Center, in front of station; top of east rail. ..... 179.0
North Lincoln, in milestone marked "Vanceboro 66 miles, Portland 185 miles;" aluminum tablet stamped " 225 " ..... 224. 958
North Lincoln, in front of station; top of east rail. ..... 210.2
North Lincoln, 3 miles northeast of, in milestone marked "Vanceboro 63 miles, Portland 188 miles;" aluminum tablet stamped " 229 ". ..... 228. 977
Winn, 1.2 miles southwest of, in milestone marked "Vanceboro 60 miles, Portland 191 miles;" aluminum tablet stamped " 199 ". ..... 199. 142
Winn, in front of station; top of east rail. ..... 212.1

## MATTAWAMKEAG QUADRANGLE.

[Latitude $45^{\circ} 30^{\prime}-45^{\circ} 45^{\prime}$; longitude $68^{\circ} 15^{\prime}-68^{\circ} 30^{\prime}$.]
From Mattawamkeag northwest along highway to Medway.

Feet.
Mattawamkeag, in front of station; top of east rail. ..... 217.8
Mattawamkeag, 0.2 mile north of, railroad bridge over Mattawamkeag River, east end of south abutment; aluminum tablet stamped " 213 ". ..... 212.692
Mattawamkeag, 3.1 miles northwest of, east side of road to Jordan's mill, 260 feet north of junction with main road to Medway, large bowlder; alumi- num tablet stamped " 217 " ..... 217.013
Mattawamkeag, 6.64 miles northwest of, west of road in clearing, 120 feet northeast of small shack, 160 feet east of $\log$ cabin, large bowlder; alumi- num tablet stamped " 320 ". ..... 320. 184
Medway, 2.36 miles southeast of, west of road, 250 feet northwest of Clarke Lakeman's house, in ledge; aluminum tablet stamped " 256 ". ..... 256.261
MILLINOCKET QUADRANGLE.
[Latitude $45^{\circ} 30^{\prime}-45^{\circ} 45^{\prime}$; longitude $68^{\circ} 30^{\prime}-68^{\circ} 45^{\prime}$.]
From Medway northwest along highway to Millinocket, thence northwest along Bangor \& Aroostook R. R. to Twin Lakes.Medway, 0.27 mile west of ferry, on land of A. T. Reed, 50 feet east of roadand 120 feet west of his house, in ledge; aluminum tablet stamped " 279 ".278.911
Medway, 5.30 miles northwest of, 745 feet north of Charles T. Powell's house, 35 feet west of road, in bowlder; aluminum tablet stamped " 306 ". ..... 305. 598
Millinocket Congregational Church, southeast corner of granite underpin- ning of tower; aluminum tablet stamped " 384 " ..... 383.992
Millinocket, in front of station; top of south rail ..... 363.3
Twin Lake dam, 4.87 miles southwest of Millinocket, top of north pier at 24 -foot gate opening; aluminum tablet stamped " 495 ". ..... 494. 562
Twin Lake dam, 1 mile east of Norcross, 80 feet south of dam, south of track,in large bowlder; copper bolt503.43

## Boyd Lake, Passadumkeag, and Suponic quadrangles.

## PENOBSCOT COUNTY.

The elevations in the following list were determined by primary leveling and accord with Bulletin 437.

The leveling was done in 1915 by C. S. Wells.

## BOYD LAKE QUADRANGLE.

[Latitude $45^{\circ}-45^{\circ} 15^{\prime}$; longitude $68^{\circ} 45^{\prime}-69^{\circ}$.]
From point 4.1 miles west of Howland along highways southwest to La Grange, thence southeast to point 3 miles west of Argyle.
Howland, 4.1 miles west of, 20 feet south of road, in sandstone rock; chiseled square painted " 365 ".
365.37

Howland, 5 miles west of, crossroads at sign post marked "Howland 6 miles, La Grange 5 miles; Maxfield 4 miles," in rock at base of sign post; chiseled square painted " 440 "
440. 57

La Grange, 5 miles northeast of, on La Grange and Maxfield road, concrete culvert over Hoyts Brook, in center of east concrete rail; bronze tablet stamped " 435 "
La Grange, 4 miles northeast of, 10 feet west of road, 100 feet northeast of blacksmith shop, in limestone rock; chiseled square painted " 461 "....
La Grange, 3 miles northeast of, 15 feet east of road, in limestone bowlder;

Feet. 473. 96
La Grange, 2.2 miles northeast of, on La Grange and Maxfield road, concrete culvert over small stream, in center of east concrete rail; bronze tablet stamped " 376 "
375. 687
La Grange, 1 mile east of, on La Grange and Maxfield road, railroad crossing, top of west rail; painted " 296 ".
295. 62
La Grange, at cemetery on hill, on west foundation stone of north gate;
chiseled square painted " 317 "................................................ 316.53
La Grange, 1.3 miles south of, 25 feet east of road, in large sandstone bowlder; bronze tablet stamped " 282 ".
282.340

South La Grange, highway bridge over railroad, in east end of south abut-
ment; chiseled square painted " 208 ".................................... 207.79
South La Grange, 1.2 miles south of, on top of hill, 10 feet east of road, in sandstone bowlder; bronze tablet stamped " 211 "
210.899
South La Grange, 2.3 miles south of, in northwest corner of floor of bridge
over small stream; copper nail painted " 158 "............................ 157.65
South La Grange, 3.5 miles south of, 10 feet east of road, in small rock; chiseled square painted " 203 ".
202.88
South La Grange, 4.2 miles south of, road forks, in rock at base of sign post;
chiseled square painted " 195 ".................................................
194. 98
South La Grange, 5.1 miles south of, road forks, 20 feet south of center of forks, in root of pine tree; copper nail painted " 221 ".
220. 74

## PASSADUMKEAG QUADRANGLE.

[Latitude $45^{\circ}-45^{\circ} 15^{\prime}$; longitude $68^{\circ} 30^{\prime}-68^{\circ} 45^{\prime}$.]

## From Enfleld west along highway to point 4.1 miles west of Howland.

Enfield, 1 mile west of, bridge over small stream, in west end of south side of bridge; copper nail painted " 162 ".
162. 15

Enfield, 2.4 miles west of, 500 feet east of road forks, 10 feet north of road in top of rock culvert over small stream; chiseled square painted " 181 "...
West Enfield, in north end of west abutment of highway bridge over the Penobscot River; bronze tablet stamped " 153 "
181.51

Howland, 0.8 mile west of, on top of hill, 10 feet north of road, in sandstone
bowlder; chiseled square painted " 227 ". bowlder; chiseled square painted " 227 "
152. 652

Howland, 2 miles west of, bridge over small stream, in east end of north concrete rail; chiseled square painted " 163 "
226.95

Howland, 3.2 miles west of, 20 feet south of road, in top of pointed bowlder; bronze tablet stamped " 241 ".
162.71

From point 3 miles west of Argyle along highways east to Argyle, thence southeast
to Costigan.
Argyle, 3 miles west of, road forks at signpost marked "Argyle 3 miles; La Grange 10 miles," 200 feet northeast of signpost, in concrete door step of Andrew Hotch's residence; bronze tablet stamped " 222 ".
222. 196

Argyle, 2 miles west of, ridge over Birch Creek, in northeast corner of bridge floor; copper bench mark nail painted " 122 "
122.02

Argyle, 1 mile west of, 20 feet north of road, in sandstone rock; chiseled square painted " 178 ".
177.67

Argyle, 0.2 mile south of post office, at road forks at Argyle schoolhouse No. 1 , in top of southwest foundation stone; bronze tablet stamped " 127 "..

Argyle, 1.3 miles south of post office, road forks 20 feet north of center of
forks, in sandstone rock; chiseled square painted " 132 "....................
Feet. 131. 81 127.987
114.979

## From Costigan east along highway 6 miles. Spur leveled twice.

Costigan, 1 mile east of, in north end of bridge beam of wooden bridge over culvert; wire nail, painted " 122 ".
121.55

Costigan, 3.3 miles east of, road forks at "Spearin" schoolhouse No. 7, 100 feet northwest of center of intersection of forks, in sandstone rock; bronze tablet stamped " 175 ".
175. 473

Costigan, 4.6 miles east of, 10 feet south of road, in sandstone rock; chiseled square, painted " 182 "
181. 70

Costigan, 5.6 miles east of, road forks at signpost marked "Greenfield 5 miles; Olamon 8 miles, Milford 11 miles," 20 feet south of signpost, in limestone rock; chiseled square " 188 ".
187.73

Costigan, 6.1 miles east of, road forks, 200 feet west of intersection of forks, in north of road, in limestone bowlder; bronze tablet stamped " 174 "....
From Enfield southeast along highways to East Lowell, thence southwest to Olamon. Portion of line.
Enfield, road crossing at, 5 feet east of east rail, in board of crossing floor; wire nail, painted " 199 "
199. 25

Enfield, 1 mile east of, in east end of north side of bridge over small stream; wire nail, painted " 140 "
Enfield, 0.7 mile south of post office, road forks on sandstone rock; chiseled square, painted " 250 "
249.76

Enfield, 1.7 miles southeast of post office, on west side of road, in granite rock; chiseled square, painted ' 366 "
366. 37

Enfield, 2.5 miles southeast of post office, road forks at signpost marked "Lowell 4 miles; Enfield 2.5 miles", 100 feet northwest of signpost in limestone bowlder; bronze tablet stamped " 351 ".
350.750

Enfield, 3.5 miles southeast of post office, 15 feet north of road, in sandstone rock; chiseled square, painted " 335 "
335. 16

Lowell, 5 miles southwest of post office, 10 feet east of road, in sandstone rock; chiseled square, painted " 171 "
171. 47

Lowell, 6 miles southwest of post office, 10 feet west of road, in sandstone rock; chiseled square, painted " 175 "
175.05

Olamon, 2.5 miles southeast of, crossroads at signpost marked "Lowell 6.5 miles, Olamon 2.5 miles," 40 feet northwest of center of crossroads, in sandstone bowlder; bronze tablet stamped " 255 "
254.609

Olamon, 1.5 miles southeast of, 80 feet southwest of center of crossroads, in sandstone bowlder; chiseled square, painted " 203 "
202.94

Olaman, 0.6 mile east of, at southeast end of bridge over stream, in sandstone rock; chiseled square " 133 "
134. 37

Olamon, 0.7 mile north of, east side of track, in milepost marked "Vanceboro 87 miles; Portland 164 miles;" aluminum tablet stamped " 144 " (U. S. Geol. Survey Bull. 437, p. 23).

## SUPONIC QUADRANGLE.

[Latitude $45^{\circ}-45^{\circ} 15^{\prime}$; longitude $68^{\circ} 15^{\prime}-68^{\circ} 30^{\prime}$.]
From Enfield southeast along highways to East Lowell, thence southwest to Olamon. Portion of line.
Enfield, 5.5 miles southeast of post office, 15 feet south of road, in limestone Feet. ..... 333. 79
Enfield, 6.8 miles southeast of post office, 15 feet south of road, in limestone rock; chiseled square, painted " 342 " ..... 341.75
East Lowell post office, at crossroads, 70 feet southeast of center of cross- roads, in sandstone rock; bronze tablet stamped " 281 ". ..... 280.711
East Lowell, 0.7 mile south of post office, in rock on south bank of small stream; chiseled square, painted " 208 " ..... 207. 72
Lowell post office, in west side of north end of iron bridge over Passadum- keag River; iron bolt, painted " 177 " ..... 177. 23
Lowell, 1 mile west of post office, 10 feet south of road, in limestone rock; bronze tablet stamped " 163 ". ..... 163. 122
Lowell, 2 miles southwest of post office, 15 feet south of road, in sandstone rock; chiseled square, painted " 164 " ..... 164.72
Lowell, 3 miles southwest of post office, 15 feet south of road in sandstone rock; chiseled square, painted " 175 " ..... 174. 62
Lowell, 4 miles southwest of post office, bridge over Passadumkeag River, 150 feet southwest of center of bridge, in sandstone rock; bronze tablet stamped " 139 " ..... 139. 375
Passadumkeag River; surface of water, July 19, 1915 ..... 135. 3

## Cherryfield quadrangle.

## WASHINGTON COUNTY.

The elevations published in the following list are based on a bronze tablet at Millbridge, one-third mile southeast of post office, in brown rock ledge on shore of harbor and 70 feet south of Sawyer's sardine wharf, stamped " 7 B 1901," the elevation of which is 7.247 feet above mean sea level, as determined by connection with tide gage at Millbridge upon which high and low water readings were made daily during a period of one lunar month in July and August, 1901. 'The standard bench marks depending on this datum are referred through sea-level connections to the central datum at Bangor and are stamped with the letter " B " in addition to the figures of elevation and year. The leveling was done in 1901 by A. S. Havens.
[Latitude $44^{\circ} 30^{\prime}-44^{\circ} 45^{\prime}$; longitude $67^{\circ} 45^{\prime}-68^{\circ}$.]
From Millbridge along highways via Steuben and Unionville to Cherryfield.
Millbridge, at end of Sawyer's sardine wharf, 10 feet from southwest corner; Feet.ringbolt through stringpiece.9. 56
Millbridge, 70 feet south of Sawyer's sardine wharf, in brown rock ledge on shore of harbor; bronze tablet stamped " 7 B 1901" ..... 7. 247
Millbridge, northeast corner of Main Street and road to sardine wharf, on granite post; chisel mark ..... 33. 24
Millbridge, southeast corner of Main Street and Harrington road (signboard reads "Harrington 8 miles"), on granite post; chisel mark ..... 48. 57
Steuben, at northwest corner of road intersection, on granite post (sign Feet. ..... 46. 32
Cherryfield, 0.1 mile south of station, in northwest corner of junction ofeast-west road (signboard reads "Franklin 18 miles, Harrington 6 miles"),in face of rock ledge; bronze tablet stamped "44 B 1901"44. 444
From Cherryfield east to Harrington, thence northeast to Epping, thence west via Schoodic Lake to Great Falls branch Schoodic Brook, thence southeast to Cherryfield.
Harrington, 0.6 mile west of, at east end of new steel bridge over Harrington River, on south side of abutment; bronze tablet stamped ' B 14 $1901 "$
Epping, 1.25 miles west of, 60 feet west of crossroad from Columbia railroad station, 10 feet south of road, on bowlder; bronze tablet stamped '' 226 B 1901".
226.117
Epping, 3.5 miles west of, East Base Coast and Geodetic Survey base line station, on granite monument; bronze bolt.
254.187
Cherryfield, 9.3 miles northwest of, on Denlois road, 1 mile southeast of road fork to Epping, 40 feet north of bridge over Great Falls Branch Schoodic Brook, 5 feet west of road, in face of large gray bowlder; bronze tablet stamped "151 B 1901"

## Cutler and Eastport quadrangles.

## WASHINGTON COUNTY.

The elevations in the following list depend on the height of a tidal bench mark described as " $a$ hole drilled on Gun Rock, Lubec Channel," the height of which was determined by the United States Engineer Corps in 1878 from fifty-six consecutive day and night observations. ${ }^{1}$

The circuit on Eastport quadrangle was closed through water levels between Eastport and Lubec.
The leveling was done in 1907 by H. M. Gilman.
EASTPORT QUADRANGLE.
[Latitude $44^{\circ} 45^{\prime}-45^{\circ}$; longitude $67^{\circ}-67^{\circ} 15^{\circ}$.]

## From Lubec southwest along highways to Whiting, thence northwest to Dennysville, thence east via West Pembroke to Eastport.

Lubec, Lubec Channel, in top of rounded rock, known as Gun Rock, in base of extremity of breakwater, established by United States Engineer Feet. 8.291 Corps in 1878 (observations by Capt. Trott, of Lubec); drill hole
Lubec, northeast of road, in southwest face of foundation of Disciples Church; aluminum tablet stamped "118, 1907"
West Lubec, 1.2 miles east of, 500 feet west of small wooden bridge in hollow, 250 feet north of road, in rock ledge; aluminum tablet stamped " 45 , 1907"
46.082

Whiting, 3.4 miles east of, 2 miles southwest of West Lubec, south edge of road, 250 feet south of John Craig's house, in rock ledge; aluminum tablet stamped ' 96,1907 "
Whiting, 0.3 mile east of road forks, 5 feet north of road at edge of stream in hollow, in top surface of rock ledge; aluminum tablet stamped ' 20 , 1907".
Whiting, 2.5 miles north of, 80 feet south of large iron bridge east of road in top of rock ledge; aluminum tablet stamped " 20,1907 "
Dennysville, 3.5 miles south of, 30 feet west of road, 80 feet northeast of Feet.house at bend in road, in top face of rock ledge; aluminum tablet stamped"147, 1907"147. 671Dennysville, 660 feet southeast of bridge over Dennys River, near top ofhill by schoolhouse, in top face of rock ledge southwest of road; aluminumtablet stamped ' 86,1907 "87.005Dennysville, 3 miles north of, 3.2 miles southwest of Pembroke, oppositeschoolhouse south of road, in rock ledge north of road; aluminum tabletstamped " 141,1907 "141.965
West Pembroke, 100 feet north of Union League Church, south of road, in rock ledge; aluminum tablet stamped " 68,1907 " ..... 68.369Pembroke, 4 miles east of, 6.7 miles northwest of Eastport, 500 feet southeastof road forks, on opposite side of road from C. H. Leones's house, in top ofrock ledge west of road; aluminum tablet stamped " 62,1907 ".62.975
Eastport, 3.5 miles northwest of, 500 feet east of toll bridge, in west end of stone watering trough at top of hill; aluminum tablet stamped " 62,1907 " ..... 62.657Eastport, corner of Washington and Water streets, in west face of southwesttablet stamped " 40,1907 ".
corner of granite belting course of customhouse and post office; aluminum40.920
CUTLER QUADRANGLE.
[Latitude $44^{\circ} 30^{\prime}-44^{\circ} 45^{\prime}$; longitude $67^{\circ}-67^{\circ} 15^{\prime}$.]
From West Lubec southwest along highways to Cutler, thence north to Whiting.

West Lubec, 3.2 miles south of, 500 feet west of stream crossing, in front of Stewart McFadden's house, 5 feet south of road, in rock ledge; aluminum tablet stamped " 22,1907 "
West Lubec, 6.3 miles southwest of, 7.5 miles northeast of Cutler, at end of $T$ road north, north side of road, in top of rock ledge; aluminum tablet stamped " 31,1907 " ..... 31.600
Cutler, 3 miles northeast of, 110 feet north of road, 80 feet west of small house on hill, in rock ledge; aluminum tablet stamped " 136,1907 " ..... 136.226
Cutler, 600 feet west of road forks, north of road, in front of Samuel Maker's house, in top face of rock ledge; aluminum tablet stamped '' 24,1907 "... ..... 24.835
Cutler, 3.2 miles north of, 1,200 feet south of stream crossing, in top of large rock 5 feet west of road; aluminum tablet stamped " 156,1907 " ..... 156.536
Cutler, 6.5 miles north of, 4 miles south of Whiting, 0.4 mile north of Spring- brook crossing, 10 feet west of road, in top face of rock; aluminum tablet stamped "109, 1907". ..... 110.082
Augusta, Bath, Bethel, Bryant Pond, Buckfield, Dixfield, Freeport, Gardiner, Lewis- ton, and Livermore quadrangles.ANDROSCOGGIN, CUMBERLAND, FRANKLIN, KENNEBEC, OXFORD, AND SAGADAHOC counties.
The elevations in the following list of bench marks established by the water-resources branch of the United States Geological Survey under the general direction of H. K. Barrows, district engineer, were determined by a double-rodded primary-level line extended from Augusta along the Maine Central Railroad to Brunswick; thence up Androscoggin River along railroad and highways to Errol, N. H. The New Hampshire elevations are not included in this list. The leveling was begun at a gage bench mark at Hallowell, Me., the stated elevation of which later proved to be unreliable. The elevations
now given are based on mean sea level determined by gage record at Portland, and accord with elevations determined by precise leveling of the topographic branch of the Geological Survey, from Portland to Brunswick, as given in another list (p. 9). At Turner Bridge, 39.7 miles from Brunswick, a 1 -foot error was discovered by certain checked relevelings, and the remainder of the line was corrected by that amount; but there yet remains an outstanding discrepancy of 2.3 feet between this line and levels of the topographic branch at Bethel.

In running the base levels of 1905, from Hallowell via Brunswick to Livermore Falls, H. S. Boardman was chief of party. In running the base levels of 1906, from Livermore Falls to Errol, N. H., C. Robert Adams and T. W. Norcross were chiefs of party.

From Augusta southwest along Maine Central R. R. and highway to Brunswick. Double-rodded line.


From Brunswick north along Maine Central R. R. and highway up Androscoggin River.

> FREEPORT QUADRANGLE.
> [Latitude $43^{\circ} 45^{\prime}-44^{\circ}$; longitude $70^{\circ}-70^{\circ} 15^{\prime}$.]

From Brunswick north along Maine Central R. R. and highway up Androscoggin River-Contd.

| Distance in miles. | Location and description of bench mark. | Elevation in feet. |
| :---: | :---: | :---: |
|  | LIVERMORE QUADRANGLE. <br> [Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $70^{\circ}-70^{\circ} 15^{\prime}$.] | 283.111 |
| 36.2 | Keens Mills Cemetery, about 0.25 mile north of, 150 feet east of highway, on river road, in low flat ledge; aluminum tablet. |  |
| 45.6 | Strickland, about 1.8 miles above station, 150 feet north of A. E. Hunton's house, about 200 feet east of road, in ledge; aluminum tablet. | 296.970 |
| 50.9 | Farmington, 17.6 miles from east abutment of Shuey plate-girder bridge; aluminum tablet. | $\begin{aligned} & 300.038 \\ & 349.355 \end{aligned}$ |
| 51.9 | Livermore Falls, in southwest corner of post-office building; aluminum tablet........................................ |  |

From Livermore Falls along the Maine Central R. R. and the Grand Trunk Ry. and highways up Androscoggin River to Errol, N. H.

|  | LIVERMORE QUADRANGLE. | 349.355 |
| :---: | :---: | :---: |
|  | Livermore Falls, in southwest corner of post-office building; aluminum tablet. |  |
| 1.2 | Chisholm, 0.5 mile north of station, in downstream side of east abutment of Maine Central R. R. bridge over Androscoggin River; aluminum tablet (set horizontally). | 355.716 |
| 2.7 | Jay Bridge, 73 feet west of station, in vertical face of large bowlder; aluminum tablet. | 382.965 |
| 4.9 | Rileys, 176 feet north of station, in granite rock ledge; aluminum tablet. | 396.175 |
|  | BUCKFIELD QUADRANGLE. |  |
|  | [Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $70^{\circ} 15^{\prime}-70^{\circ} 30^{\prime}$.] |  |
| 8.2 | Meadowview, near the west end of the first "out" west of, in first granite ledge west of Meadowview station, south of railway; aluminum tablet. | 391.726 |
| 10.4 | Gilbertville, on right upstream bridge seat of steel highway bridge over A ndroscoggin River; aluminum tablet. | 395.591 |
| 14.9 | East Peru, 0.3 mile east of, on northwest bridge seat of railroad bridge over W orthley Brook; aluminum tablet. | 394.961 |
|  | DIXFIELD QUADRANGLE. |  |
|  | [Latitude $44^{\circ} 30^{\prime}-44^{\circ} 45^{\prime}$; longitude $70^{\circ} 15^{\prime}-70^{\circ} 30^{\prime}$.] |  |
| 20.4 | Androscoggin River, bridge over, between West Peru and Dixfield, cemented in southwest bridge seat of highway; aluminum tablet. | 411.482 |
|  | BRYANT POND QUADRANGLE. |  |
|  | [Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $70^{\circ} 30^{\prime}-70^{\circ} 45^{\prime}$.] |  |
| 25.2 | Rumford Falls, in northeast corner of Rumford Water Co.'s building on Commerce Street; aluminum tablet. | 507.787 |
| 26.1 | Rumford Falls, on southwest corner of bridge seat of west abutment of highway | 625.447 |
|  | bridge over the river just above the upper dam; aluminum tablet................. |  |
| 32.9 | Rumford Center, 0.25 mile from, about 120 feet west of Rumford center-Rumford Point; easily seen about 5 feet higher bowlder at base of hill, oppoint halfway between blazed telegraph poles; aluminum tablet |  |
| 35.4 | Rumford Point, in southeast corner of foundation of A. J. Marbles's house; aluminum tablet.. | 635.876 |
|  | BETHEL QUADRANGLE. |  |
|  | [Latitude $44^{\circ} 15^{\prime}-44^{\circ} 30^{\prime}$; longitude $70^{\circ} 30^{\prime}-70^{\circ} 45^{\prime}$.] |  |
| 42.5 | Newry Corner (on road to Bethel), 500 feet south of, in east corner of north abutment of high bridge over Bear River; aluminum tablet. | 635.916 |
| 48.2 | Androscoggin River, highway bridge over, between Mayville and Bethel, in west end of south abutment of; aluminum tablet $a$. | 647.566 |
| 53.2 | West Bethel, 1 mile west of, in northeast corner of east abutment of highway bridge |  |
| 58.7 | over Pleasant River; Gilead, 0.5 mile west of, in north corner (second course from top) of east abutment | 655.764 |
|  | of Grand Trunk Railway bridge over Wild River; aluminum tablet. | 712.052 |

$a$ The elevation of this bench mark by topographic branch from Portland is 649.885 .

Brassua Lake, Chesuncook, Churchill Lake, Harrington Lake, Long Pond, Matagamon, Millinocket, Moosehead, Mount Katahdin, Norcross, Northeast Carry, Shin Ponds, Staceyville, and Telos Lake quadrangles.

## PENOBSCOT, PISCATAQUIS, AND SOMERSET COUNTIES.

The elevations in the following list of bench marks established by the water-resources branch of the United States Geological Survey, under the general direction of H. K. Barrows, district engineer, were determined from double-rodded primary-level lines run with a 20 -inch Gurley wye level and two Philadelphia rods. These elevations result from a preliminary adjustment, under which the elevations at Medway and Moosehead, determined by the primary-level lines of the topographic branch extended from Bangor and Portland were accepted without correction. A new adjustment will not be made unless shown to be advisable when additional primary connections have been made between Penobscot and Kennebec rivers.

In running the base levels of 1905 from Chesuncook to Northeast Carry and from Moosehead west to Jackman, George M. Brett was chief of party. In running the base levels of 1906 on West Branch Penobscot River, from Chesuncook Lake southeast to Norcross, and the base levels of 1907 from Allagash Lake to Grand Lake dam H. S. Boardman was chief of party. In running the base levels of 1908 from Grand Lake dam southeast down East Branch Penobscot River to Medway H. S. Boardman was chief of party and A. L. Grover was instrument man.

From Chesuncook to Northeast Carry.

| Distance in miles. | Location and description of bench mark. | Elevation in feet. |
| :---: | :---: | :---: |
|  | CHESUNCOOK QUADRANGLE. |  |
|  | [Latitude $46^{\circ}-46^{\circ} 15^{\prime}$; longitude $69^{\circ} 15^{\prime}-69^{\circ} 30^{\prime}$.] |  |
|  | Chesuncook, 18 feet east of post office, in top of 6 -foot post; iron bolt. Chesuncook, 150 feet south of post office, in root of stump; nail. | 934.931 931.757 |
|  | Chesuncook Hotel, 1,000 feet west of, in telephone pole at top of hill; spike | 1,009.133 |
| 1.6 | Chesuncook, 1.6 miles from; in pine tree on right side of trail; nail | 1,015.318 |
| 2.5 | Chesuncook, 2.5 miles from, small bowlder on left side of trail...................... | 930.449 |
| 2.94 | Chesuncook, 2.94 miles from, 1,000 feet below mouth of Pinetree Stream, 10 feet above water, on right bank of Penobscot River, in ledge; aluminum tablet (permanent bench mark No. 1) | 936. 907. |
| 3.39 |  | 946.668 |
| 3.39 | Chesuncook, 3.39 miles from; top of bowlder right side of trail. | 949. 060 |
| 4.17 | In telephone pole; spike....................................................... | 1,005.350 |
| 5.72 | Foxhole Rips, at foot of, in ledge on right bank of river; aluminum tablet (permanent bench mark No. 2) | 945.027 |
| 6.6 | Jim Smith's halfway house, 3.1 miles below, in pine tree at southwest end of field; nail. | 951.444 |
| 7.3 | In root of pine tree at right of trail; nail. | 979.059 |
| 7.95 | In root of cedar tree at left of trail; nail. | 961.358 |
| 8.14 | On bowlder at edge of water............ | 954.868 968.291 |

## From Chesuncook to Northeast Carry-Continued.

| Distance in miles. | Location and description of bench mark. | Elevation in feet. |
| :---: | :---: | :---: |
|  | NORTHEAST CARRY QUADRANGLE. |  |
|  | [Latitude $45^{\circ} 45^{\prime}-46^{\circ}$; longitude $69^{\circ} 30^{\prime}-69^{\circ} 45^{\prime}$.] |  |
| 9.7 | Jim Smith's halfway house, 150 feet west of, in vertical face of bowlder on right bank, 1 foot from ground; aluminum tablet (permanent bench mark No. 3) | 964.571 |
| 10.35 | In fir tree at right of trail, 3 feet from ground; nail... | 985.635 |
| 10.5 | In root of fir tree at right of trail; nail................................................... | 995.457 |
| 11.7 | Moosehorn Stream, 225 feet above, in poplar tree at right of trail, 1.5 feet from ground; iron pin. | 969.497 |
| 11.9 | In poplar tree at right of trail, 1 foot from ground; spike. | 971.747 |
| 13.3 | In root of large poplar tree at right of trail; nail.. | 969.117 |
| 13.9 | In root of birch tree at left of trail; nail. | 969.784 |
| 14.4 | In birch stump at left of trail; nail. | 971.249 |
| 15.6 | In root of spruce tree at left of trail; spik | 970.814 |
| 16.2 | In root of cedar tree at right of trail; spike | 973.243 |
| 16.99 | In root of fir tree at left of trail; spike. | 973.020 |
| 17.59 | In root of fir tree at right of trail; spike............................. | 970.971 |
| 17.9 | Lobster Stream, east end of bridge over, nearly flush with ground; long iron bolt driven into top of stump | 979. 269 |
| 18.4 | In telephone pole at right of trail; spike........................................................... | 972.198 |
| 19.5 | In root of fir tree at left of trail; spike. | 972.307 |
| 20.5 | Landing place at river, 500 feet south from, at left of road to Northeast Carry; top of bowlder. | 980.336 |
| 21.8 | Northeast Carry, 0.5 mile north of, in root of poplar tree west of road; nail............ | 1,077.924 |
| 22.5 | Northeast Carry, 200 feet southwest of Winnegarnock House, about 100 feet from shore of Moosehead Lake, on top of bowlder; aluminum tablet (permanent bench mark No. 4) <br> Bench mark of Kennebec Water Power Co., marked " 22.36 ;" copper bolt cemented in same bowlder. | $1,033.429$ $1,033.594$ |

## From Moosehead west to Jackman.

|  | moosehead quadrangle. <br> [Latitude $45^{\circ} 30^{\prime}-45^{\circ} 45^{\prime}$; longitude $69^{\circ} 30^{\prime}-69^{\circ} 45^{\prime}$.] |
| :---: | :---: |
|  | Moosehead, abutment of Canadian Pacific Ry. bridge, southeast corner, on east side of Moosehead Lake; aluminum tablet stamped "1026 Augusta" (permanent bench mark No.1) |
| 0.86 | In third telegraph pole southeast of signpost "Moosehead 1 mile" at left of track, 1 foot from ground; railroad spike. |
| 2.8 | In third telegraph pole west of milepost 47,1 foot from ground; railroad spike....... |
|  | BRASSUA LAKE QUADRANGLE. |
|  | [Latitude $45^{\circ} 30^{\prime}-45^{\circ} 45^{\prime}$; longitude $69^{\circ} 45^{\prime}-70^{\circ}$.] |
| 3.9 | Milepost 48, 800 feet west of, south of track |
| 4.4 | Moosehead, 4.4 miles west of, on top of top stone of northeast wing wall of bridge over west outlet of Moosehead Lake; aluminum tablet (permanent bench mark No. 2). |
| 5.95 | Rock at south side of track. |
| 7.74 | Askwith, 1,000 feet west of, on top of top stone of southeast wing wall of bridge over Misery Stream; aluminum tablet (permanent bench mark No. 3)....................... |
| 9.73 | Milepost 54, 350 feet east of, south of track; bowlder. |
| 11. 06 | Milepost 55, about 1,200 feet west of, north of track; bowlder |
| 12.71 | In fourth telegraph pole east of milepost 57 , south of track, 2 feet from ground; spike. Milepost 58; spike (temporary bench mark of Canadian Pacific Ry.) |
| 14.6 | Mackamp, 1.5 miles east of, 25 feet east of end of dam, 15 feet south of storehouse, in bowlder near south end of Long Pond dam on Moose River; aluminum tablet (permanent bench mark No. 4). |
| 14.7 | Milepost 59; spike (temporary bench mark of Canadian Pacific Ry.). |
| 15. 53 | Mackamp, 0.5 mile east of, 1,300 feet east of milepost 60 ; bowlder south of railroad track. |
| 17.2 | Mackamp, 1 mile west of, opposite sign "Mackamp 1 mile;" bowlder north of track. |
|  | LONG POND QUADRAN |
|  | [Latitude $45^{\circ} 30^{\prime}-45^{\circ} 45^{\prime}$; longitude $70^{\circ}-70^{\circ} 15^{\prime}$.] |
|  | Brassua Lake, on eastshore 20 feet from water, 2,000 feetfrom mouth of Misery Stream, 4,900 feetfrom Moose River outlet, on top of bowlder; aluminum tablet. |
| $18.88$ | Opposite milepost 63; bowlder north of track. |
| 19.2 | Mackamp, 3 miles west of, on top stone of northeast abutment of bridge over Parlin Stream; aluminum tablet (permanent bench mark No. 5) |
|  | Milepost 64; spike (temporary bench mark of Canadian Pacific Ry.) |
| 22.22 | Long Pond station, 800 feet west of; bowlder 25 feet south of track................. |
| 24.3 | Long Pond, 75 feet from shore of, where railroad leaves the pond; northeast corner of stone culvert under railroad track. |
| 26.55 | Milepost 71, 0.25 mile east of, in telegrap |

From Moosehead west to Jackman-Continued.

| Distance in miles. | Location and description of bench mark. | Elevation in feet. |
| :---: | :---: | :---: |
|  | LONG POND QUADRANGLE-continued. |  |
| 29.56 | Jackman, opposite railroad station; bowlder south of track.............. | 1,222. 212 |
| 30.2 31.51 | Jackman, about 3,300 feet west of station; small bowlder south of track................ Jackman, 2 miles west of, on northeast abutment of railroad bridge over Moose River | 1,199.445 |
|  | between Wood and A'ttean ponds; aluminum tablet (permanent bench mark No. 6) | 1,170.357 |

## From Chesuncook Lake southeast on West Branch Penobscot River to Norcross.

## harrington lake quadrangle.

[Latitude $45^{\circ} 45^{\prime}-46^{\circ}$; longitude $69^{\circ}-69^{\circ} 15^{\prime}$.]
Chesuncook Lake, at foot of, 100 feet south and 30 feet east of end of dam; Great Northern Paper Company's bench mark No. 15 (elevation given, 945.647)..........
Chesuncook dam, near south end of; on large rock marked "G S"
943.019
( 936.102
935.440
956.741
897.752
897.311
892.936
892.936
892.594
892.594
978.213
978.450
973.943
797.137
724.831
686.487
681.288
683.046
682.659
659.496
659.725
657.867
657.627
621.190
617.296
605.132
604.867
614.801
569.160
568.767
567.190
566.876
580.275
569.408 534.432 534.056 534.056
531.569
531.569
530.577
530.577
533.721
533.326
513.910

From Chesuncook Lake southeast on West Branch Penobscot River to Norcross-Continued.


## From Allagash Lake to Grand Lake Dam.

[Distances in miles from Chesuncook.]

## CHESUNCOOK QUADRANGLE.

## [Latitude $46^{\circ}-46^{\circ} 15^{\prime}$; longitude $69^{\circ} 15^{\prime}-69^{\circ} 30^{\prime}$.]

Umbazooksus Stream, beside carry at head of dead water (elevation 937.04 marked on blazed tree); point on rock (bench mark of Great Northern Paper Co.)......... On same rock, marked "U S G S No. 7;" point "A""........................................ Umbazooksus Stream, on right bank of, at water's edge; rock.
On same rock, marked "U S G S No. 6;" point "A"".
Umbazooksus Lake, 35 feet from shore of, at end of Mud Pond carry; granite rock.... On same rock, marked "U S G S No. 5;" point "A".
Mud Pond, about 0.8 mile from putting-in place, 5 feet west of Mud Pond carry rock..
On same rock, marked "U S G S No. 4; ; point " A"
Mud Pond, at putting-in place at end of Mud Pond carry; rock.
On same rock, marked "U S G S No. 3;" point "A".
Mud Pond, 10 feet below north end of dam at outlet; granite bowlder
On same rock, marked "U S G S No. 2;" point "A"
Mud Pond Brook, about 80 feet north of, 60 feet east of logging camp; rock. On same rock, marked "U S G S No. 1," point "A".
Mud Pond Brook, 600 feet north of foot of quick water, 150 feet east of edge of woods, on top of outcropping ledge (at high water this ledge is entirely surrounded by several feet of water); aluminum tablet

## TELOS LAKE QUADRANGLE.

## [Latitude $46^{\circ}-46^{\circ} 15^{\prime}$; longitude $69^{\circ}-69^{\circ} 15^{\prime}$.]

Telos dam, about 250 feet from road, 735 feet from opening in woods, in bowlder about 3 by 5 feet; aluminum tablet.
Webster Lake, about 75 feet from shore of, in carry between Telos and Webster lakes, in turn around; rock.
On same rock, marked "U S G s No. 13; point " A", Webster Brook, 80 feet upstream from upper end of carry, in edge of lake (covered in time of high water); rock.
On same rock, marked "U S G S No. 14; ; point "A
Webster Brook carry, 1.15 miles from upper end and 2 feet south of; rock.
On same rock, marked "U S G S No. 15;" point "A".......................
Webster Brook carry, 2 miles from upper end and 2 feet
On same rock, marked "U S G S No. 16 ;" point "A"..
Webster Brook carry, 3.25 miles from upper end and south of, beside blazed and marked tree; rock. On same rock, marked "U S G S No. 17; ; point "A"

From Allagash Lake to Grand Lake Dam-Continued.

| Distance in miles. | Location and description of bench mark. | Elevation in feet. |
| :---: | :---: | :---: |
|  | Matagamon quadrangle. |  |
|  | [Latitude $46^{\circ}-46^{\circ} 15^{\prime}$; longitude $68^{\circ} 45^{\prime}-69^{\circ}$.] |  |
| 33.36 | Indian Pitch, on south bank of Webster Brook, 200 feet upstream from dam, about 10 feet higher than surrounding country and 20 feet from water in brook, in outcropping ledge; aluminum tablet. | 790.385 |
| 34.73 | Webster Brook carry, 10 feet south of, 1.25 miles below dam at Indian Pitch, in root of pine tree; nail. | 781.584 |
| 34.73 | On root of same tree, marked "U S G S No. 18;" point "A" | 781.251 |
| 36.12 | Second Lake, rear head of, in west end of an outcropping ledge about 3 feet above the general surface of ground (ledge gradually rises toward the east, reaching a maximum height of about 35 feet); aluminum tablet. | 661.092 |
| 42.56 | Grand Lake, shore of, near Harveys Landing, with chiseled letters and painted white circle around hemispherical head, set flush in ledge; iron bolt marked "U ©S" | 656.111 |
| 45.21 | Grand Lake dam, 200 feet upstream from west end of, 10 feet from water's edge when gage at dam reads 13.5 feet, in outcropping ledge; aluminum tablet. | 662.078 |

## From Chamberlain Lake northwest to Allagash Lake.

|  | churchill lake quadrangle. <br> [Latitude $46^{\circ} 15^{\prime}-46^{\circ} 30^{\prime}$; longitude $69^{\circ} 15^{\prime}-69^{\circ} 30^{\prime}$.] |  |
| :---: | :---: | :---: |
| 9.60 | Allagash Stream, 2 miles below Allagash Falls, in "tote" road near foot of quick water; rock $2 \frac{1}{2}$ feet broad and 1 foot high | 945.763 |
| 9.60 | On same rock, marked "U S G S No. 13;" point "A"................................... | 945.677 |
| 10.60 | Allagash Stream, 1 mile below Allagash Falls, 2 feet south of "tote" road; rock..... | 960.033 |
| 10.60 | On same rock, marked "U S G S No. 11;' point "A".................................. | 959.472 |
| 11.60 | Allagash Stream, at falls, on left bank of stream, 10 feet below wing dam; rock ledge. | 987.555 |
| 11. 60 | On ledge near above, marked "U S G S No. 10," point "A" ${ }^{\text {\% }}$, | 987.490 |
| 12.95 | Allagash Stream, left bank of, 2 miles below dam at Allagash Lake; large broken bowlder in water's edge. | 992.347 |
| 12.95 | On same bowlder, marked "U S G S No. 9\%" point "A".............................. | 992.269 |
| 14.25 | Allagash Stream, left bank of, about 0.8 mile from dam at Allagash Lake; flat rock.. | 1,015.340 |
| 14.25 | On same rock, marked "U S G S No. 8;" point "A" . . . . . . . . . . . . . . . . . . . . . . . . . | 1,014.968 |
| 14.95 | Allagash Lake, 850 feet upstream from dam, about 175 feet from stream, in outcrop ping ledge 15 feet from "tote" road and behind a higher ledge which lies between tablet and stream; aluminum tablet. $\qquad$ | 1,074.037 |

From Grand Lake Dam southeast down East Branch Penobscot River to Medway.


## APPENDIX.

## SECONDARY ELEVATIONS.

Secondary elevations from records and topographic maps of the United States Geological Survey, including altitudes of well-known summits, water-surface elevations of prominent lakes, and other useful elevations are given below. The figures are approximate only and should not be used for accurate work.





## INDEX.

A. Page.
Abol Falls. ..... 51
Abol Stream ..... 51
Abrams Pond ..... 54
Adams, Robert, leveling by ..... 47
Adams Hill ..... 54
Alamoosook Lake ..... 54
Albany ..... 24
Alexander, C. K., leveling by ..... 23,36
Alford Lake ..... 54
Allagash Lake. ..... 53
Allagash Stream. ..... 53 ..... 53
Allen Pond. ..... 54
Ambajejus Falls. ..... 52
Ambejemackomus Falls ..... 51
Anasagunticook, Lake. ..... 21,54
Androscoggin County ..... $18,46,54,56,57$
Androscoggin River. ..... 48
Annabessacook Lake. ..... 54
Anonymous Pond ..... 54
Anson. ..... 14
Anson quadrangle ..... 14,55
Appleton ..... 28,31
Argyle ..... 42-43
Artists Bridge. ..... 24
Askwith ..... 50
Athens ..... 15, 16
Auburn ..... 20
Auburn Lake ..... 54
Augusta ..... 13, 47
Augusta quadrangle $13,47,54,55,56$
Austin Pond ..... 17,54
B.
Babbett \& Googin dam ..... 47
Baker Pond ..... 54
Bald Head ..... 54
Bald Mountain ..... 54
Bald Mountain triangulation station ..... 54
Bald Pate ..... 54
Bangor ..... 36
Bangor \& Aroostook R. R.
$36-37,55,56$
Bangor quadrangle
Bar Harbor quadrangle ..... 55,56,57
Barker Pond
9, 47, 56, 57
Bath quadrangle ..... , 57
Beach Ridge ..... 54
Bear Mountain triangulation station. ..... 54
Beaver Hill ..... 54
Beech Hill ..... 54
Beech Hill Pond ..... 54
Beech Mountain.
28-30,35
Belfast ..... -30,35
Belfast quadrangle ..... 28-30
Bench marks, character of ..... 6
Bench marks, view of ..... 6
Bennetts Ridge ..... 25
Berwick quadrangle
Page. ..... 54
Bethel
Bethel quadrangle. ..... 25,48
Big Eddy ..... 51
Bigelow Hill triangulation station ..... 54
Big Hill. ..... 54
Bingham ..... 17
Bingham quadrangle ..... $17,54,55,56$
Black Brook Pond. ..... 54
Blackstrap Hill ..... 54
Blaisdell Hill. ..... 54
Blinn Hill. ..... 54
Bluehill. ..... 39
Bluehill quadrangle ..... $39,54,57$
Bluehill triangulation station ..... 54
Boardman, H. S., leveling by ..... 47,49
Boothbay quadrangle ..... 54,55
Boston \& Maine R. R ..... 10
Bowdoinham. ..... 47
Bowlin Falls ..... 53
Boyd Lake quadrangle ..... 41
Bradbury Mountain. ..... 54
Branch Lake ..... 54
Brandy Pond. ..... 54
Brassua Lake ..... 50
Brassua Lake quadrangle. ..... 18,50
Brett, G. M., leveling by ..... 49
Brewer Pond. ..... 54
Bridgton Junction ..... 26
Briggs Ferry ..... 17
Brooks ..... 30
Brooks quadrangle ..... 30
Brownfield ..... 26
Brownfield station. ..... 26
Brown Hill. ..... 54
Brown School ..... 16
Browns Mountain ..... 54
Brunswick ..... 9,47
Bryant Pond ..... $25,26,54$
Bryant Pond quadrangle ..... $25-26,48,54,56,57$
Buckfield ..... 21,22
Buckfield quadrangle ..... $21-22,48,54,57$
Bucksport ..... 36
Bucksport Center ..... 36
Bucksport quadrangle $36,54,55,56,57$
Burnham quadrangle ..... 31
Buxton quadrangle ..... 56
Call Hill ..... 54
Canaan. ..... 16
Canton ..... 21, 22
Carritunk ..... 17
Cass Corner ..... 15
Castine quadrangle ..... 35
Cedar Mountain ..... 54
Center Appleton ..... 29

|  | Page. |  | Page. |
| :---: | :---: | :---: | :---: |
| Center Belmont School | 29 | Dutton Hill. | 55 |
| Center Lovell. | 27 | Dyer Hill. | 55 |
| Chase Mountain | 54 | Dyer Long Pond. | 55 |
| Chase Pond. | 54 |  |  |
| Chemo Pond. | 54 |  |  |
| Cherryfield. | 45 | Eagle Lake. | 55 |
| Cherryfield quadrangle | 44,57 | Eastbrook Corners | 37 |
| Chesuncook | 49 | East Brownfield. | 26 |
| Chesuncook dam | 51 | East Bucksport. | 39 |
| Chesuncook Lake | 51 | East Eddington | 38 |
| Chesuncook quadrangle. | 49, 52 | East Fryeburg. | 27 |
| Chickawaukie Pond.... | 54 | East Hebron. | 20 |
| China. | 33 | East Northport | 35 |
| China Lake. | 54 | East Orland.. | 38 |
| China station. | 33 | East Palermo. | 32 |
| Chisholm. | 48 | East Peak. | 55 |
| Churchill Lake quadrangle | 53 | East Peru. | 48 |
| City Point. | 30 | East Pond. | 55 |
| Clark Mountain | 54 | Eastport. | 46 |
| Classification, standard of | 5-6 | Eastport quadrangle | 5-46,56 |
| Clifton. | 38 | East Royce Mountain. | 55 |
| Cobb Hill triangulation station | 54 | East Stoneham | 27 |
| Cobbossecontee Pond. | 54 | East Sumner. | 21,22 |
| Cochnewagan Pond. | 54 | East Sweden. | 27 |
| Coe, Robert, leveling by. | 36 | Edgerly, J. W., leveling | 36 |
| Cornish. | 10 | Elevations, secondary | 54-57 |
| Cornish station. | 26 | Ellis Pond. | 55 |
| Corston Corner. | 15,17 | Ellsworth. | 37 |
| Costigan. | 40,43 | Ellsworth Falls. | 37,38 |
| Craig Pond. | 54 | Ellsworth quadrangle | 4,55,57 |
| Crawford Lak | 54 | Elmwood Farm station | 20 |
| Crowleys.. | 19 | Embden Center | 14 |
| Cumberland County ..... 8,10,18, | ,56,57 | Embden Pond | 55 |
| Cumberland Junction. | 9 | Enfield........ | 0, 42-44 |
| Cumberland Mills. | 9,12 | Ephraim Mountain | 55 |
| Curtis Hill triangulation station. | 54 | Epping.. | 45 |
| Cushman Hill. | 54 | Eustis Mountain | 55 |
| Cutler.. | 46 |  |  |
| Cutler quadrangle | 46 |  |  |
|  |  | Farmington. | 48 |
| D. |  | Fayette.. | 23 |
| Damariscotta Lake. | 34,55 | Fayette Village | 23 |
| Datum, nature of. | 6-7 | Fish Pond..... | 55 |
| Davis Pond. | 55 | Fitch Hill. | 55 |
| Day Mountain. | 55 | Fitz Mountain | 55 |
| Dead River station. | 22 | Flag Hill.. | 55 |
| Deadwater station. | 17 | Fletcher Mountain triang | 55 |
| Debsconeag Falls.. | 51-52 | Floods Pond............. | 55 |
| Dedham.. | 38 | Flying Moose Mountain | 55 |
| Deering Junction | 8 | Flying Pond. | 55 |
| Dennis Hill. | 55 | Fort Ridge.. | 55 |
| Dennysville. | 46 | Foxhole Rips. | 49 |
| Dickvale. | 21 | Franklin.... | 37 |
| Dimmick Mountain | 55 | Franklin County. | ,46,57 |
| Dingley farm. | 47 | Freedom.... | 33 |
| Dixfield. | 21 | Freeport. |  |
| Dixfield quadrangle | 48 | Freeport quadrangle | , 47, 54 |
| Dodling Hill.. | 55 | Frost Hill........... | 55 |
| Dog Mountain. | 55 | Fryeburg. |  |
| Douglas Hill.. | 55 | Fryeburg Center. | 27 |
| Dover quadrangle. | 55 | Fryeburg quadrangle. | ,56,57 |
| Dry Mountain.. | 55 |  |  |
| Dry Pond.. | 55 |  |  |
| Duck Pond. | 55 | Gardiner. | 47 |
| Ducktrap. | 29 | Gardiner quadrangle. | , 56,57 |
| Dunstan. | 11 | Garfield School. | 16,17 |

Gilbertville........................................21,48 2 Page. Hudson
age. ..... 37
Gilead ..... 25,48
Gilman, H. M., leveling by ..... 45
Glendon station ..... 34
Gloucester Hill ..... 55
Goodwill ..... 13
Goodwill Farm. ..... 13
Goose Pond ..... 55
Goose Pond Mountain. ..... 55
Gorham ..... 11-12
Gorham quadrangle ..... 55
Grand Lake
20, 25-26
Grand Trunk Ry
$9,54,55,56,57$
$9,54,55,56,57$
Gray quadrangle.
Gray quadrangle. ..... 55
Great Pond ..... 55
Great Pond Hill. ..... 55
Greeley Pond ..... 55
Greenbush ..... 40
Greenbush station. ..... 40
Greene ..... 19
Green Hill ..... 55
Grcen Lake ..... 55
Green Mountain. ..... 55
Grindstone ..... 53
Grover, A. L., leveling by ..... 49
H.
Haggett Hill ..... 55
Halfmoon Pond ..... 55
Hallowell ..... 13, 47
Hancock County ..... $35,54,55,56,57$
Hancock Pond ..... 55
Harbor. ..... 27
Harmony ..... 16-17
Harrington ..... 45
Harrington Lake quadrangle ..... 51
Hartford ..... 21
Hartford station ..... 21
Hartman, Charles ..... 19
Harts Corners ..... 38
Hastings
36, 44
Havens, A. S., leveling by
Hawk Mountain. ..... 55
Hayden Lake ..... 55
Heagan Mountain ..... 55
Heath Church ..... 11
Hebron ..... 20
Herman Hill ..... 55
Herman Pond ..... 55
Highland Lake ..... 55
Hillegass, E. B., leveling by ..... 23
Hinckley ..... 13
Hinckley Hill triangulation station ..... 55
Hiram ..... 26
Hobbs Pond ..... 55
Holbrook Pond ..... 55
Holt Hill. ..... 55
Hope. ..... 29
Hopkins Hill triangulation station ..... 55
Horse Hill ..... 55
Horse Race. ..... 51
Hosac Mountain ..... 55
Howland ..... 41, 42
Howland Hill. ..... 55
Hunt Hill
Hunt Hill Hunt Hill ..... 55
Hunt Island ..... 53
Hurd School. ..... 17
I.
Indian Pitch ..... 53
Indian Pond. ..... 18
Jackman ..... 51
Jay Bridge. ..... 48
Jefferson. ..... 34
Jewell Hill triangulation station ..... 55
Jones Hill ..... 55
Jordan Mountain ..... 55
Jordan Pond ..... 55
Joy Ridge ..... 55
Katahdin Mountain. ..... 55
Katahdin Stream. ..... 51
Keens Mills Cemetery. ..... 22,48
Kenduskeag. ..... 37
Kennebec County $12,18,28,46,55,56,57$
Kenniston Hill ..... 55
Keoka Lake ..... 55
Ketchum. ..... 25
Kezar Falls ..... 10
Kezar Falls quadrangle. ..... 10,26
Kezar Lake. ..... 55
Kezar Pond ..... 55
Kilby, H. P., leveling by. ..... 19
Kimball Pond ..... 55
Kingdon. ..... 32
Kingsbury quadrangle ..... 17
Klondike School ..... 17
Knox Center. ..... 30
Knox County ..... $28,54,55$
Knox station ..... 30
L.
La Grange. ..... 41-42
Lake George. ..... 56
Lakewood. ..... 37
Ledge Falls. ..... 53
Leeds. ..... 19
Leeds Center ..... 22
Leeds Junction. ..... 19
Levant. ..... 37
Leveling, precise. ..... 8-10
Leveling, primary ..... 10-53
Lewiston. ..... 19, 47
Lewiston Junction ..... 20
Lewiston quadrangle ..... 6,57
Liberty. ..... 31-32
Liberty quadrangle. ..... 31-33
Lincoln. ..... 40
Lincoln Center. ..... 40
Lincoln County ..... $28,54,55,56$
Lincoln School. ..... 16
Lincolnville ..... 28
Lincolnville Beach ..... 29
Lincolnville Center ..... 29
Lisbon ..... 19
Lisbon Falls ..... 19,47
Little Austin Pond................................. 56

56
Mount Tirem
Page. ..... 56
Little Sebago LakeLivermore Falls.23, 48
Livermore quadrangle ..... 22-23, 48
Lobster Stream ..... 50
Locke Mills ..... 26
Long Pond ..... 50,56
Long Pond quadrangle. ..... 50-51
Long Pond station ..... 50
Lovell ..... 27
Lovewell Pond ..... 56
Lowell ..... 43, 44
Lower Patten Pond ..... 56
Lubec ..... 45
Lynchville. ..... 24, 27
M.
McCloud Mountain ..... 56
McFarland Mountain ..... 56
MacKamp ..... 50
Mack Mountain ..... 56
McMaugh, F. J., leveling by ..... 12,28,36,3
Madison ..... 14
Madison Center ..... 14
Maine, cooperation of ..... 5
spirit leveling in, publication on
$8-10,13$, Maine Central R. R ........................ ..... $-10,13$,
$19-22,26,30,33-34,36-38,40,47-48$
Mainstream Pond ..... 56
Mann Mountain ..... 56
Maps, topographic, list of ..... 7
Maranacook Lake ..... 56
Marrs Camp ..... 18
Mason Mountain ..... 56
Matagamon quadrangle. ..... 53
Mattawamkeag ..... 41
Mattawamkeag quadrangle. ..... 41
Mattocks ..... 10
Maxey, K. F., leveling by ..... 23
Mead Mountain ..... 56
Meadow Brook Bridge ..... 24-25
Meadowview. ..... 48
Mechanic Falls ..... 20
Medway ..... 41,53
Megunticook Lake. ..... 56
Megunticook Mountain ..... 56
Merrill Hill triangulation station. ..... 56
Messalonskee Lake ..... 56
Middle Range Pond ..... 56
Milford. ..... 38
Millbridge. ..... 44
Millinocket ..... 41
Millinocket quadrangle ..... 53
Moody Mountain ..... 56
Moosehead ..... 18,50
Moosehead Lake. ..... 18
Moosehead quadrangle. ..... 18,50
Moosehorn Stream ..... 50
Moose Pond ..... 56
Mosquito Mountain ..... 56
Mountain Pond ..... 56
Mount Ararat ..... 56
Mount Desert quadrangl ..... 6,57
Mount Desert triangulation station ..... 55
Mount Henry ..... 56
Mount Katahdin quadrangle ..... 51-52
Mount Tom
Moxie Pond ..... 56
8,56
Moxio triangulation station ..... 56
Mud Pond ..... 52
Mud Pond Brook ..... 52
N .
Nehumkeag Pond ..... 56
Nequasset Pond. ..... 56
Newfield quadrangle. ..... $54,55,56,57$
Newhall ..... 9
Newport Mountain ..... 56
Newry Corner ..... 48
Nicolin ..... 39
Norcross, T. W., leveling by ..... 47
Norcross Cove ..... 52
Norcross quadrangle. ..... 52
Norridgewock ..... 14
Norridgewock quadrangle ..... $14,55,56,57$
North Anson. ..... 14
North Appleton ..... 28-29
North Bethel. ..... 24
North Bluehill. ..... 39
Northeast Carry ..... 50
Northeast Carry quadrangle ..... 50
North Fryeburg ..... 27
North Lincoln. ..... 40
North Madison ..... 14
North Newburg ..... 37
North Pond ..... 56
Northport ..... $28,35,36$
North Searsport ..... 36
North Twin Lake ..... 52
North Waterford. ..... 27
Norway quadrangle ..... 26, 54, 55, 56, 57
Notched Pond. ..... 56
0.
Oak Hill ..... 56
Oakhill station. ..... 10
Olamon ..... 40, 43
Oldtown ..... 38
Orland quadrangle ..... , 57
Orono ..... 38
Orono quadrangle ..... $38,54,55$
Ossipee Hill ..... 56
Oxford ..... 20
Oxford County $8,18,23,46,54,56,57$
P.
Packwackamus Falls: ..... 51
Palermo. ..... 32, 33
Palermo Center ..... 33
Palermo station ..... 33
Panther Pond ..... 56
Passadumkeag ..... 40
Passadumkeag quadrangle ..... 40, 42-43
Passadumkeag River. ..... 44
Passamagormuc Falls ..... 52
Peaked Mountain ..... 56
Peak of Otter ..... 56
Pejepscot ..... 47
Pembroke. ..... 46
Pennesseewassee Lake. ..... 56
Penobscot County $35,39,41,49,55,56$
Perkins, J. M., leveling by ..... 28
Petit Manan quadrangle ..... 56
Philip Mountain ..... 56
Phillips Lake. ..... 56
Picket Mountain ..... 56
Pigeon Hill ..... 56
Pike Hill ..... 56
Piscataquis County ..... $12,49,55$
Pitcher School ..... 29
Pleasant Lake ..... 56
Pleasant Mountain ..... 56
Pleasant Mountain triangulation station ..... 56
Pleasant Pond ..... 56
Pleasant Pond Mountain ..... 56
Poland ..... 20
Poland quadrangle ..... $20,54,56,57$
Poland Spring station ..... 20
Porter. ..... 10, 26
Portland ..... 8, 9,10
Portland quadrangle ..... 8-9, 10-12
Precise leveling ..... 8-10
Primary leveling ..... 10-53
Prospect ..... 36
Province Mountain ..... 56
Purgatory Pond. ..... 56
Pushaw Lake ..... 56
Q.
Quaker Hill triangulation station. ..... 56
R.
Ragged Mountain triangulation station ..... 56
Randall Mountain ..... 56
Rands School ..... 26
Range Pond ..... 56
Rattlesnake Mountain ..... 56
Rattlesnake Pond ..... 56
Revere School ..... 15
Rices Hill. ..... 56
Richmond ..... 47
Richville ..... 9-10
Rileys. ..... 18
Ring Hill ..... 56
Ripogenus Lake ..... 51
Robinson Mountain ..... 56
Rockland
$35,54,55,56$
Rockland quadrangle.
Rowe Pond ..... 56
Rumford Center ..... 48
Rumford Falls ..... 48
Rumford Junction ..... 20
Rumford Point ..... 48
S.
Sabattus ..... 19
Sabattus Mountain ..... 57
Sabattus Pond ..... 57
Sabbathday Pond ..... 57
Saco station ..... 11
Sagadahoc County ..... $18,46,56,57$
St. George Lake ..... 32
Sandhill Corner ..... 32
Sawyer Mountain triangulation station ..... 57
Scammon Pond ..... 57
Page.
Page.
Schlachter, K. E., leveling by
Schlachter, K. E., leveling by ..... $12,23,28$
Schoodic Lake ..... 57
Schoodic Mountain ..... 57
Sea level, mean, definition of.
Searsmont. ..... 29
Sebago
Sebago Lake ..... 54
Sebago Lake station
Sebago quadrangle $9-10,54,55,56,57$ ..... , 57
Seboeis quadrangle
Second Lake ..... 53
Seitz, R. C., leveling by ..... 10
Shawmut ..... 13
Shins Ponds quadrangle ..... 53
Sibley Corner ..... 31
Skowhegan. ..... 14-16
Skowhegan \& Norridgewock Electric Ry . . ..... 14
Skowhegan quadrangle ..... , 57
Snow Corner ..... 37
Snow Falls. ..... 25
Snow Mountain ..... 57
Soldiers Brook ..... 53
Solon. ..... 14
Somerset County ..... $12,49,54,55,56$
Somerset Ry ..... 14
Somerville. ..... 32
Songo Pond ..... 23-24
Sourdnahunk dam ..... 51
Sourdnahunk Deadwater. ..... 51
South Albion ..... 31,33
South Buxton ..... 11
South Corinth. ..... 37
South La Grange ..... 42
South Lincoln. ..... 40
South Montville. ..... $28,29,31$
South Orrington. ..... 36
South Paris ..... 20, 25, 26
South Pond. ..... 26, 33,57
South Somerville ..... 31,34
South Union ..... 34
South Windham station ..... 9
Speckled Mountain triangulation station ..... 57
Sprague Hill. ..... 57
Springer Hill ..... 57
Staceyville quadrangle. ..... 53
Stafford Pond ..... 57
Stair Falls. ..... 53
Starbird Pond ..... 57
Stearns Pond ..... 57
Steep Falls ..... 10
Steuben. ..... 45
Stickney Corners. ..... 31
Stickney Hill triangulation station ..... 57
Streaked Mountain triangulation station ..... 57
Strickland ..... 48
Stubb Hill triangulation station. ..... 57
Summit Spring Rock ..... 57
Sumner. ..... 22
Sunset Rock ..... 57
Suponic quadrangle ..... 44
Surry ..... 39
Swan Island quadrangle. ..... 55
Swan Lake ..... 57
Swanville. ..... 28,36
Sweden Corner ..... 27
Sweets Pond ..... 57
Page.
Tate Hill.
Page.
Taylor Pond57
Telos dam ..... 5257
Telos Lake quadrangle.
The Forks ..... 52 ..... 52
The Forks quadrangle ..... $18,54,56$
The White Cap ..... 57
Third Pond ..... 57
Thomaston ..... 35
Thompson Lake ..... 20,57
Threecornered Lake ..... 57
Threemile Pond. ..... 57
Tiger Hill ..... 57
Tilden ..... 37
Toddy Pond. ..... 57
Togus Pond ..... 57
Topographic maps, list of ..... 7
Topsham ..... 47
Treat Hill ..... 57
Tripp Pond ..... 20,57
Turner ..... 21
Turtle Lake ..... 57
Twin Lake dam ..... 41
Twitchell Pond ..... 57
U.
Umbazooksus Lake ..... 52
Umbazooksus Stream. ..... 52
Union ..... 34
Union Common ..... 34
United States Coast and Geodetic Survey,elevations from, 10,13
United States Engineer Corps, elevation from ..... 8,45
United States fish hatchery ..... 53
Upper Patten Pond ..... 57
V.
Vassalboro. ..... 13
Vassalboro quadrangle ..... $13,54,56,57$
W. ..... 30Waldo
Waldoboro quadrangle ..... 33-35
Waldoboro station ..... 33-34
Waldo County ..... $28,35,55,57$
Waldo Mountain triangulation station. ..... 57
Wales.19
Wallamatogus Mountain ..... 57
Waltham ..... 37,38
Warren. ..... 33, 35
Warren station ..... 33,35
Washington
$44,45,56,57$ Washington CountyWashington Junction.

Waterville quadrangle ..... 13,54
Wayne. ..... 22-23
Webb Pond. ..... 57
Webb Rowe Hill. ..... 57
Weber Pond ..... 57
Webster Brook ..... 52
Webster Lake ..... 52
Wells, C. S., leveling by. ..... 41
Wentworth Pond ..... 57
West Appleton ..... 28
West Baldwin. ..... 26
West Bethel ..... 24,48
West Bridgton ..... 27
Westbrook station. ..... 12
West Ellsworth ..... 38
West Enfield. ..... 42
West Jefferson. ..... 34
West Lubec. ..... 45,46
West Minot ..... 20
West Montville ..... 32-33
West Oldtown ..... 37
West Paris ..... 25
West Peak ..... 57
West Pembroke ..... 46
West Peru ..... 21
West Poland. ..... 20
West Rockport ..... 35
West Scarboro station ..... 10-11
West Washington ..... 31,32
West Winterport ..... 36
Wheeler Hill ..... 57
Whetstone Falls. ..... 53
Whiting ..... 45
Wiggin Mountain ..... 57
Wilkins Corner ..... 29
Willard Hill ..... 57
Williams Hill ..... 57
Williams Pond ..... 57
Winding Hill. ..... 57
Winn ..... 40
Winn quadrangle. ..... 40
Winslow ..... 13
Winslows Mills. ..... 34
Winter Hill ..... 57
Wiscasset quadrangle ..... 54,55, 56,57
Wiscasset, Waterville \& Farmington R. I ..... 32-33
Woodfords ..... 8
Y.
Yarmouth. ..... 9
Yarmouth Junction ..... 9
York County ..... $10,23,54,57$
York triangulation station. ..... 57
Youngs Mountain ..... 57



[^0]:    1 Bluehill, Castine, Deer Isle, and Vinalhaven sheets, on scale of $1: 62500$, have been reduced and form Penobscot Bay sheet, on scale of $1: 125000$.
    ${ }^{2}$ Mount Washington and vicinity map includes Gorham and North Conway sheets, together with the Crawford Notch and Mount Washington sheets, New Hampshire.
    ${ }^{3}$ Shows wooded areas.

[^1]:    1 This bench mark is assumed to have settled 0.344 foot, as found by checked connection with bench mark No. 2. Discarded elevation by Coast and Geodetic Survey equals 11.50 feet above mean water level.
    ${ }^{2}$ Elevation by the water-resources branch, United States Geological Survey, exact point of Coast and Geodetic Survey bench mark impossible to determfne; discarded elevation by Coast and Geodetic Survey equals 16.56 feet above mean water level.

[^2]:    1 Elevation as brought by careful wye and water levels from Bangor, 1,028.223-a closure of 0.069 , which can be thrown to water levels and the Penobscot and these corrected Kennebec levels from Portland can be considered as adjusted.

[^3]:    ${ }^{1}$ Bench marks by water-resources branch.

[^4]:    ${ }^{1}$ An adjustment of nearly 2 feet is made in line between here and East Holden.

