

BOUNDARY LINES

OF

ARLINGTON.

1901



Commonwealth of Massachusetts

Board of HARBOR AND LAND COMMISSIONERS

ATLAS OF THE

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OF
MASSACHUSETTS

BOUNDARIES OF THE

TOWN OF ARLINGTON

MIDDLESEX COUNTY

WOODWARD EMERY }
CHARLES C. DOTEN } Commissioners
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PREFACE.

The present territory of Arlington was originally a part of the Second or westerly parish of Cambridge, and was incorporated in 1807 as the town of West Cambridge. This parish included a small part of Cambridge near Fresh pond, west of the old location of Alewife brook, part of Belmont and a small part of Winchester.

In 1859 Belmont was set off, the center lines of Spring place and Pond street, now Spring street and Lake street, being part of the boundary line. Two years later the boundary was changed to alternate side lines of the streets so as to give an equal area of full width streets to each town for maintenance. In 1862 the channel of Alewife brook was straightened and the line between Belmont and Arlington was extended to meet the new line, their intersection forming the present southeast corner of Arlington.

In 1880 a portion of Belmont was annexed to Cambridge, the new line between them intersecting the Arlington line at corner 2, about 2,730 feet northwesterly from corner 1. In 1842 the portion of Charlestown lying between West Cambridge and the Mystic river was set off to West Cambridge.

The Arlington-Lexington line was originally laid out in 1712. From the wording of the Court Records of that year it appears that a straight line may have been intended, and it was shown as a straight line on the early maps, but the bounds marking it and described in the records of the various perambulations from year to year are not exactly on a straight line and have been treated as corners.

In the incorporation of Winchester from parts of Arlington, Medford, Lexington and Woburn, the south line of Winchester, separating it from Arlington and Medford, was a straight line between a point in the Arlington-Lexington line 112 1-2 rods southwesterly from the Woburn line and a point in the line of Medford. The intermediate line-bounds and the witness-bound to the three-town corner in the middle of Mystic lake are not exactly on this straight line, although they are described in the records of the perambulations as marking the line.

The easterly boundary, beginning at the middle of Mystic lake and running southeasterly through the lakes "by the middle of the Narrows and by the thread of Mystic River," is a part of the old line between Charlestown and Medford, and is described in the perambulations of 1837, 1842 and 1897 in similar terms, agreeing with the maps of 1794 and 1830. The "Narrows" is about 100 feet west of the present connecting culvert, at the causeway between the two lakes. By chapter 24 of the Acts of 1842, all that part of Charlestown which lay west of the Mystic lake and northwest of Alewife brook was annexed to West Cambridge, now Arlington.

The easterly line bordering on Somerville and Cambridge was defined at the time of the incorporation of West Cambridge, except that a part of Alewife brook was straightened and the line re-defined in 1862, as above mentioned.

The statutes defining the present boundaries, the material parts of which are printed at the end of this preface, are as follows:—

1709-1715, Court Records,—North precinct of Cambridge established as the town of Lexington.

1807, Chapter 95,—West Cambridge incorporated.

1842, Chapter 24,—part of Charlestown annexed to West Cambridge.

1842, Chapter 76,—Somerville incorporated.

1850, Chapter 255,—Winchester incorporated.

1859, Chapter 109,—Belmont incorporated.

1861, Chapter 11,—part of the line between Belmont and West Cambridge altered.

1862, Chapter 34,—line between the city of Cambridge and the towns of West Cambridge and Belmont re-established.

1867, Chapter 146,—name of West Cambridge changed to Arlington.

1880, Chapter 204,—part of Belmont annexed to Cambridge.

PRESENT BOUNDARIES.

Beginning at corner 1, a point in the new channel of Alewife brook, north $59^{\circ} 57'$ west (true bearing) and 10 feet distant from the witness monument on the easterly bank, a granite monument, marked A $\frac{c}{10}$ FT., situated 5 feet east of the easterly bank of the new channel of Alewife brook, and a few feet east of the cross track between the Southern and Fitchburg divisions of the Boston and Maine Railroad; thence north $59^{\circ} 57'$ west by the city of Cambridge 2,770 feet to corner 2, a granite monument, marked A B C, situated on low cultivated land 20 feet north of the northerly end of a ditch about 500 feet north of Little river, at the corner of Arlington, Belmont and Cambridge; thence north $59^{\circ} 58'$ west by the town of Belmont 1,136 feet to corner 3, a granite monument, marked B W C, situated in the face wall on the southerly side of Lake street 1,225 feet easterly from the junction of Cross street; thence along the southerly side of Lake street by the town of Belmont about 1,250 feet to corner 4, a granite monument about flush with the ground, situated at the westerly corner of Cross and Lake streets; thence north $38^{\circ} 51'$ east, crossing Lake street, 60 feet to corner 5, a rough granite monument, marked A B, situated on the northeasterly side of Lake street southwest of the fence, and opposite the junction of Cross street; thence along the northerly side of Lake street by the town of Belmont about 1,400 feet to corner 6, a dressed granite monument, marked A B and having a 1-4 inch iron bolt in the center of the top, situated on the northwesterly side of Pleasant street, opposite the junction of Lake street, in front of the estate of E. O. Frost; thence south $50^{\circ} 29'$ west along the line of Pleasant street by the town of Belmont 121 feet to corner 7, a rough, pointed monument, marked A B, with a drill hole in the top, situated at the northerly corner of Pleasant and Spring streets; thence along the northeasterly side of Spring street by the town of Belmont about 1,150 feet to corner 8, a rough granite monument, marked A B, situated 2 feet southwest of the wall on the northeasterly side of Spring street; thence south $34^{\circ} 54'$ west, crossing Spring street, 21 feet to corner 9, a rough granite monument, marked A B, situated against the northeast side of the wall on the southwesterly side of Spring street, at the estate of Mary E. Frost; thence northwesterly along the southwest side of Spring street by the town of Belmont about 1,280 feet to corner 10, a rough granite monument, marked B W C, situated near the house of the late Edward Fillebrown on the west side of Spring street, about 900 feet east of its junction with Eastern avenue and Highland avenue; thence north $76^{\circ} 59'$ west by the town of Belmont 8,802 feet to corner 11, an irregularly-shaped granite monument at the corner of Arlington, Belmont and Lexington, marked B L W C, with a 3-4 inch drill hole in the top, situated in open pasture at the highest point of a slight elevation 250 feet northeast of the roadstone at Winter street in Belmont, called Watertown street in Lexington; thence north $35^{\circ} 16'$ east by the town of Lexington 674 feet to corner 12, a rough granite monument, marked L W C, with a 5-8 inch drill hole in the top, situated 2 feet north of the wall on the southerly side of Appleton street, called Bowman street in Lexington; thence north $35^{\circ} 05'$ east by the town of Lexington 979 feet to corner 13, a rough granite monument, marked L W C, with a 5-8 inch drill hole in the top, situated 150 feet north of a wall in open pasture surrounded by scattering pines and undergrowth; thence north $35^{\circ} 41'$ east by the town of Lexington 1,347 feet to corner 14, a rough granite monument, marked L W C, situated in a small hollow surrounded by woods, about 1,200 feet southwest of the house of Frank Adams on Sylvia street; thence north $37^{\circ} 40'$ east by the town of Lexington 1,838 feet to corner 15, a rough, pointed granite monument, marked A L, having a 3-4 inch drill hole in the top, situated on the north side of the fence on the northerly side of Massachusetts avenue, 150 feet east of its junction with Hibbert street, and opposite the estate of John Burnham; thence north $35^{\circ} 12'$ east by the town of Lexington 2,251 feet to corner 16, a rough granite slab, marked ARLINGTON LEXINGTON BOUNDARY, set in the face wall on the east side of Lowell street, 800 feet south of its junction with Westminster avenue; thence north $35^{\circ} 44'$ east by the town of Lexington 778 feet to corner 17, a rough granite monument, marked L W C, situated on Crescent hill, about 150 feet southeast of the junction of Franklin avenue and Crescent hill avenue, on land of Gustaf E. Berglund; thence north $31^{\circ} 30'$ east by the town of Lexington 1,695 feet to corner 18, a rough, irregularly-shaped granite monument at the corner of Arlington, Lexington and Winchester, marked L W W C, bolted to the ledge at the base and supported by two iron rods, situated on the westerly slope of a high ledge in the woods, about 250 feet northeast of the house of John Hafely; thence south $88^{\circ} 58'$ east by the town of Winchester 8,745 feet to corner 19, a point in the upper basin of Mystic lake, at the corner of Arlington, Medford and Winchester, situated south $89^{\circ} 13'$ east and about 1,034 feet distant from the witness monument on the westerly shore of the lake, a rough granite monument of irregular shape, marked A W, leaning against the west bank of the lake on the Dwight estate, and about 4.9 feet south of the line; thence southerly through Mystic lake, by the narrows and along the channel of Mystic river by the city of Medford to corner 20, an unmarked point at the junction of the channel of Mystic river and Alewife brook, at the corner of Arlington, Medford and Somerville; thence southerly along the channel of Alewife brook by the city of Somerville to corner 21, a point in the channel of Alewife brook, at the corner of Arlington, Cambridge and Somerville, north $42^{\circ} 12'$ west (true bearing) and about 318 feet distant from the witness mark on the Cambridge-Somerville line, a rough granite monument, marked C S, with the figures 23 cut in the top, situated 100 feet west of the junction of Woodstock and Victoria streets, and 500 feet north of the northerly wing of the Cambridge Almshouse; thence following said brook in the most direct channel to corner 22, a point

in the channel of Alewife brook where it crosses Massachusetts avenue, being a point under the center of the crown of the arch of the culvert on the old southerly line of the street, 22 feet from the south face of the present culvert, and 39.6 feet from a drill hole in a small boulder on the north bank of the brook, about 6 feet south of the present street line; thence south $53^{\circ} 41'$ west 500 feet to corner 23; thence south $85^{\circ} 21'$ west 436 feet to corner 24; thence south $59^{\circ} 39'$ west 359 feet to corner 25; thence south $35^{\circ} 20'$ west 369 feet to corner 26; thence south $43^{\circ} 42'$ west 598 feet to corner 27; thence south $16^{\circ} 24'$ west 175 feet to the point of beginning. (The courses and distances from corners 22 to 1, inclusive, are copied from chapter 34 of the Acts of 1862, allowing a magnetic variation of 12° and following the new channel of Alewife brook, the corners 23 to 27, inclusive, being unmarked.)

All courses given in this description are true bearings.

ROAD AND LINE STONES.

Between the corners as above described, intermediate line-bounds, which may or may not be exactly on the true line, are found at the following points, but with the exceptions noted at the end of the list, their locations have not been determined:—

Between corners 10 and 11, roadstone on the easterly side of Park avenue at the corner of Lincoln avenue, which is about 2.3 feet north of the line; limestone near the wall on land of Thomas P. Pierce, formerly owned by Jonathan Frost; limestone at the southwest corner of the Pierce estate.

Between corners 14 and 15, roadstone on the easterly side of Hibbert street.

Between corners 16 and 17, roadstone on the northeasterly side of Westminster avenue.

Between corners 18 and 19, roadstone on the northwesterly side of Forest street; limestone in the wall on the estate of Thomas O. Hutchinson, about 600 feet southeast of the junction of Fruit and Oak streets; roadstone on the southerly side of Oak street, called Fruit street in Winchester, near land of the late Abel Pierce; roadstone on the westerly side of Mystic street, called Cambridge street in Winchester; all of which are more or less south of the boundary line.

Of the above-mentioned road and limestones, the following locations have been determined:—

Of the roadstone on the easterly side of Park avenue, at the corner of Lincoln avenue, and of the roadstone on the westerly side of Mystic street, called Cambridge street in Winchester.

Sheet 1 is a plan showing the boundary lines of the town of Arlington. The locations of the corners or points of intersection of the boundary lines have been determined by triangulation. The town lines are shown in black, and the scheme of triangulation by which their location was determined is shown in red.

The corners are numbered in sequence around the town from left to right, beginning with the most southerly corner. The principal triangulation stations are shown by name as well as number, and the stations are numbered approximately in the order of their importance. The names of stations not described are given in the index table, and lines extending towards stations beyond the limits of the sheet have letters of reference to show to what stations they are directed.

Natural or water boundaries are taken from actual surveys plotted on a large scale and reduced to the scale of this plan. Copies of the large scale plans are on file at the office of the Commission.

Sheets 2 and 3 give the geographical positions in latitude and longitude of all the corners and the principal stations used as points of control, together with the azimuths, back azimuths, true bearings and distances between them.

The triangulation of this survey is based on that of the U. S. Coast and Geodetic Survey, whose officers have given us material assistance in the adjustment of the triangulation system.

The projection is based on the "Clarke Spheroid" and the astronomical data adopted by the U. S. Coast and Geodetic Survey in 1880.

Following the position tables are given descriptions of triangulation stations and corners, together with a topographical sketch of each corner.

The usual form of conventional signs to represent the topography in the vicinity of each bound is adopted, and corresponds practically with the style adopted by the topographical conference held in Washington, D. C., in 1892.

The principal field work for this atlas was executed by James B. Tolley in 1890 and 1891, and the present bounds were examined and topographical descriptions revised during the year 1901.

Additional information and data pertaining to the survey may be obtained upon application at the office of the Commission.

WOODWARD EMERY,	} <i>Harbor and Land Commissioners.</i>
CHARLES C. DOTEN,	
GEORGE E. SMITH,	

FRANK W. HODGDON, *Chief Engineer.*

STATUTES DEFINING THE BOUNDARY LINES OF THE TOWN OF ARLINGTON.

CHAPTER 95, ACTS OF 1807.

AN ACT TO DIVIDE THE TOWN OF CAMBRIDGE AND TO INCORPORATE THE WESTERLY PARISH THEREIN AS A SEPARATE TOWN BY THE NAME OF WEST CAMBRIDGE.*

(DEFINING CORNER 19.)

* * * Beginning at Charlestown line, where the Little river intersects the same, and running on a line in the middle of said Little river, until it strikes Fresh pond, so-called; thence west, ten degrees south, until it intersects the line of the town of Watertown; thence on Watertown and Waltham line until it strikes Lexington line; thence on Lexington line until it strikes Woburn line; thence on Woburn and Charlestown line to the said Little river, first mentioned. * * *

[Passed February 27, 1807.]

* (Name changed to Arlington by chapter 146 of the Acts of 1867.)

CHAPTER 109, ACTS OF 1859.

AN ACT TO INCORPORATE THE TOWN OF BELMONT.

(DEFINING CORNERS 1-11, EXCEPT 2-10.)

That portion of the towns of West Cambridge, Watertown, and Waltham, included within the following boundaries, namely,—commencing at a stone post at the northwestern corner, said post being on the line between Lexington and West Cambridge (run as the magnetic needle now points) south, about sixty-seven degrees east, five hundred and thirty-seven rods and two links, more or less, to a point in the center of Spring place, near the house of Edward Fillebrown*: * * * to spike in the center of said Pond street, which said spike is opposite a stone post; thence south, about fifty degrees east, two hundred thirty-two rods, more or less, in a direct line to the junction of Little river with the brook that forms the outlet of Fresh pond; * * *

[Approved March 18, 1859.]

* See chapter 11, Acts of 1861.

CHAPTER 204, ACTS OF 1880.

AN ACT TO ANNEX A PART OF THE TOWN OF BELMONT TO THE CITY OF CAMBRIDGE.

(DEFINING CORNER 2.)

* * * to a point in the dividing line between Belmont and Arlington, which is two thousand seven hundred and thirty feet, as measured on said east dividing line from the town bound at the junction of Alewife brook and Little river; thence turning and running southeasterly on said east dividing line to the town bound last above mentioned; * * *

[Approved April 19, 1880.]

CHAPTER 11, ACTS OF 1861.

AN ACT CHANGING THE BOUNDARY LINE BETWEEN THE TOWNS OF BELMONT AND WEST CAMBRIDGE.

(DEFINING CORNERS 3-10.)

* * * Commencing at a stone post on the northwesterly side of Spring lane, near the house of Edward Fillebrown, and on the present line between said towns; thence, running in a southerly direction on the westerly side of Spring lane, seventy-three rods and twelve links to a post; thence, crossing Spring lane at right angles, and running in a southerly direction on the easterly side of Spring lane, seventy-three rods and twelve links to the corner of Pleasant street; thence, turning at right angles and running in a northerly direction on the westerly side of Pleasant street, seven rods to a post; thence, crossing Pleasant street at right angles to the corner of Pond street, and running on the northeasterly side of Pond street in a southeasterly direction seventy-two rods to a post; thence, crossing Pond street at right angles at the northeasterly corner of Cross street, and running on the southwesterly side of Pond street, in a southeasterly direction, eighty-six rods, to a stone post standing on the original line between said towns of Belmont and West Cambridge.

[Approved January 31, 1861.]

COURT RECORDS 1709-1715.

VOTE FOR ERECTING CAMBRIDGE NORTH PRECINCT INTO A TOWN BY THE NAME OF LEXINGTON.

(DEFINING THE LINE FROM CORNER 11 TO CORNER 18.)

* * * Beginning at the first run of water or swampy place, over which is a kind of bridge in the way or road on the southerly side of Francis Whitmore's house, towards the town of Cambridge aforesaid across the neck of land, lying between Woburn line and that of Watertown side, upon a southwest and northeast course, * * *

[March 20, 1712.]

CHAPTER 255, ACTS OF 1850.

AN ACT TO INCORPORATE THE TOWN OF WINCHESTER.

(DEFINING CORNERS 18-19.)

* * * ; thence in a straight line westwardly, crossing Mystic pond, about eight hundred rods, to a point in the boundary line of West Cambridge and Lexington, which is one hundred twelve and a half rods, southwesterly, from the junction of said line with Woburn; * * *

[Approved April 30, 1850.]

CHAPTER 24, ACTS OF 1842.

AN ACT TO ANNEX A PART OF CHARLESTOWN TO WEST CAMBRIDGE.

(DEFINING THE LINE FROM CORNERS 19 TO 20.)

All that part of Charlestown which lies northwesterly of the thread of "Little river", so called, is hereby annexed to West Cambridge. * * *

[Approved February 25, 1842.]

CHAPTER 76, ACTS OF 1842.

AN ACT TO INCORPORATE THE TOWN OF SOMERVILLE.

(DEFINING CORNERS 20-21.)

* * * ; thence along the Mystic river to the line of the town of Medford; thence along the Medford line to Alewife brook; thence along the brook to the line of the town of Cambridge; * * *

[Approved March 3, 1842.]

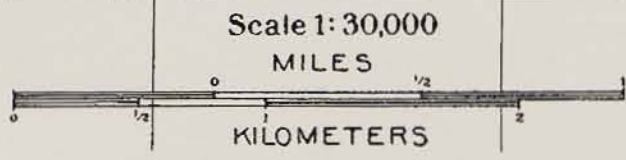
CHAPTER 34, ACTS OF 1862.

AN ACT TO ESTABLISH THE BOUNDARY LINE BETWEEN THE CITY OF CAMBRIDGE AND THE TOWNS OF WEST CAMBRIDGE AND BELMONT.

(DEFINING CORNERS 21-1.)

* * * The dividing line between the city of Cambridge and the town of West Cambridge is hereby altered and established as follows, to wit:—Beginning at a point in the new channel of Alewife brook, on the easterly side of the Lexington and West Cambridge Branch Railroad, which point is the northeasterly bound of the town of Belmont, as established by the preceding section; thence north twenty-eight degrees and twenty-four minutes east, about one hundred and seventy-five feet to a point in the new channel of said brook; thence north fifty-five degrees and forty-two minutes east five hundred and ninety-eight feet to a point in said new channel; thence north forty-seven degrees and twenty minutes east, three hundred and sixty-nine feet to a point in said brook; thence north, seventy-one degrees and thirty-nine minutes east, three hundred and fifty-nine feet, to a point in said brook; thence following said brook south, eighty-two degrees and thirty-nine minutes east four hundred and thirty-six feet to a point in said brook; thence following said new channel north, sixty-five degrees and forty-one minutes east, five hundred feet to the southwesterly line of North avenue; thence following said brook in the most direct channel, to the point where the dividing line between Cambridge and Somerville intersects the boundary line between West Cambridge and Somerville; That part of Cambridge which lies northwesterly and northerly of the above described line is hereby annexed and shall belong to the town of West Cambridge; and that part of West Cambridge which lies southeasterly and southerly of the above described line is hereby annexed and shall belong to the city of Cambridge. * * *

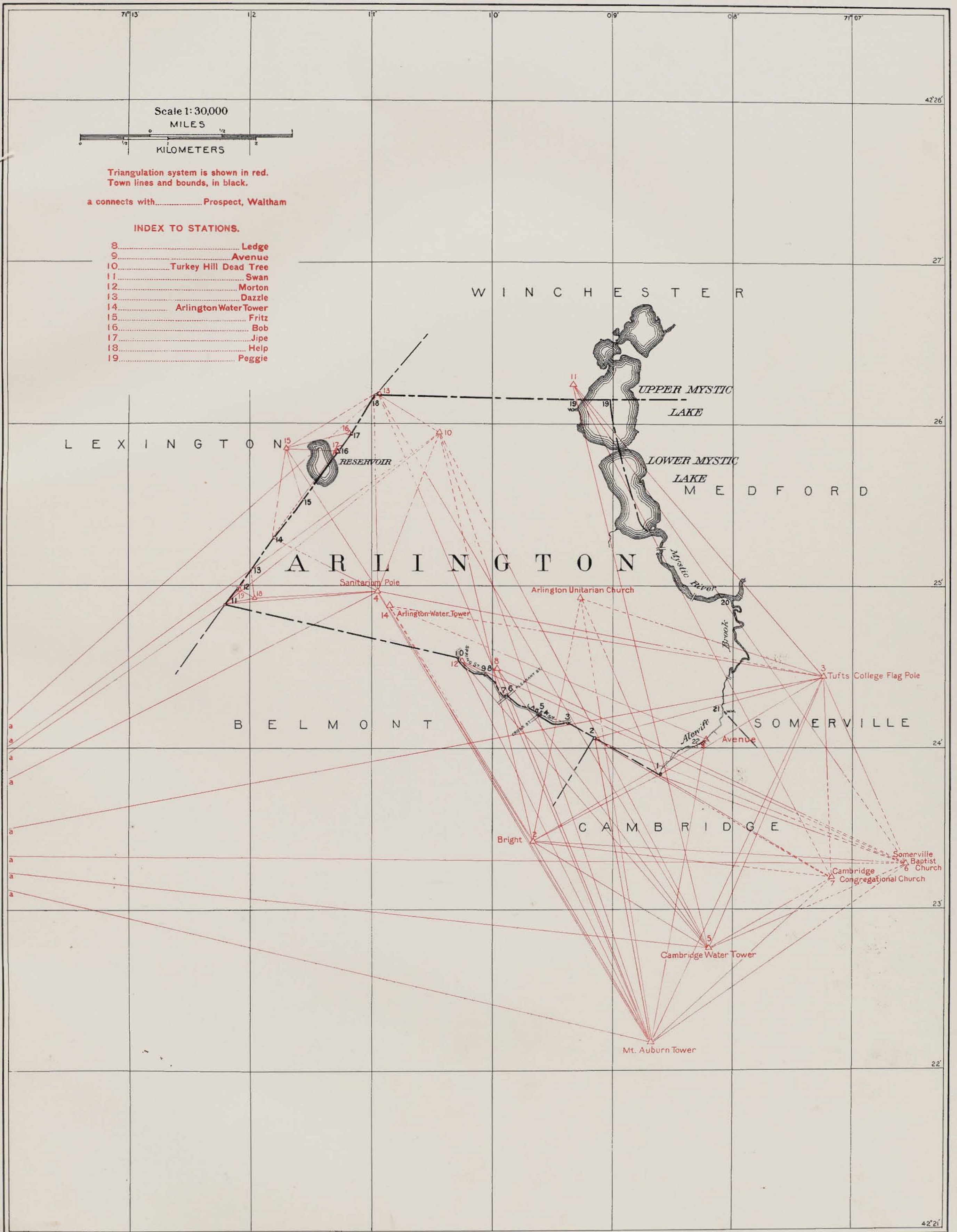
[Approved April 25, 1862.]



Triangulation system is shown in red.
Town lines and bounds, in black.
a connects with.....Prospect, Waltham

INDEX TO STATIONS.

- 8.....Ledge
- 9.....Avenue
- 10.....Turkey Hill Dead Tree
- 11.....Swan
- 12.....Morton
- 13.....Dazzle
- 14.....Arlington Water Tower
- 15.....Fritz
- 16.....Bob
- 17.....Jipe
- 18.....Help
- 19.....Peggie



GEOGRAPHICAL POSITIONS OF TOWN CORNERS.

	CORNER	LATITUDE	LONGITUDE	TO COR.	AZIMUTH	BACK AZIMUTH	TRUE BEARING	DISTANCE	
								METERS	FEET
^{W.M.} 1	Arlington - Cambridge 7 (W.M.)			1			N. 59° 57' W.		10
^{W.M.} 1	Arlington - Cambridge 7 (W.M.)	42° 23' 50.20"	71° 08' 37.11"	2	120° 02' 48"	300° 02' 26"	N. 59 57 W.	847.3	2780
2	Arlington - Belmont - Cambridge	42 24 03.95	71 09 09.18	3	120 02 22	300 02 13	N. 59 58 W.	346.2	1136
3	Arlington - Belmont 1	42 24 09.57	71 09 22.29	4	Follows the	southerly side	of Lake street.		
4	Arlington - Belmont 2	42 24 12.60	71 09 37.58	5	218 51 18	38 51 18	N. 38 51 E.	18.2	60
5	Arlington - Belmont 3	42 24 13.06	71 09 37.08	6	Follows the	northerly side	of Lake street.		
6	Arlington - Belmont 4	42 24 20.20	71 09 52.92	7	50 28 51	230 28 50	S. 50 29 W.	37.0	121
7	Arlington - Belmont 5	42 24 19.44	71 09 54.17	8	Fol-	lows the north-	easterly side	of Spring	street.
8	Arlington - Belmont 6	42 24 28.08	71 10 03.36	9	34 53 47	214 53 47	S. 34 54 W.	6.4	21
9	Arlington - Belmont 7	42 24 27.91	71 10 03.52	10	Fol-	lows the south-	westerly side	of Spring	street.
10	Arlington - Belmont 8	42 24 34.02	71 10 16.96	11	103 01 05	282 59 48	N. 76 59 W.	2682.8	8802
11	Arlington - Belmont - Lexington	42 24 53.59	71 12 11.28	12	215 15 30	35 15 34	N. 35 16 E.	205.6	674
12	Arlington - Lexington 6	42 24 59.03	71 12 06.09	13	215 05 26	35 05 31	N. 35 05 E.	298.3	979
13	Arlington - Lexington 5	42 25 06.94	71 11 58.59	14	215 41 25	35 41 32	N. 35 41 E.	410.7	1347
14	Arlington - Lexington 4	42 25 17.75	71 11 48.11	15	217 39 42	37 39 52	N. 37 40 E.	560.1	1838
15	Arlington - Lexington 3	42 25 32.12	71 11 33.14	16	215 11 53	35 12 05	N. 35 12 E.	686.1	2251
16	Arlington - Lexington 2	42 25 50.29	71 11 15.84	17	215 44 00	35 44 04	N. 35 44 E.	237.2	778
17	Arlington - Lexington 1	42 25 56.53	71 11 09.78	18	211 29 36	31 29 44	N. 31 30 E.	516.7	1695
18	Arlington - Lexington - Winchester	42 26 10.81	71 10 57.97	19	271 02 13	91 03 32	S. 88 58 E.	2665.6	8745
18	Arlington - Lexington - Winchester	42 26 10.81	71 10 57.97	^{W.M.} 19	271 04 25	91 05 34	S. 88 56 E.	2350.4	7711
^{W.M.} 19	Arlington - Medford - Winch'ster (W.M.)	42 26 09.37	71 09 15.16	19	270 47 03	90 47 12	S. 89 13 E.	315.2	1034
19	Arlington - Medford - Winchester	42 26 09.23	71 09 01.37	20	Thence	through Mystic	pond by the	"Narrows"	and thro'
					the channel of	Mystic River	to its junction	with the	chan'el of
					Alewife brook.				
20	Arlington - Medford - Somerville			21	Follows the	channel of Ale-	wife brook to a	point oppo-	site the
					witness monu-	ment.			
21	Arlington - Cambridge - Somerville			22	Follows	the channel of	Alewife brook.		
^{W.M.} 21	Arlington - Cambridge - Somerville (W.M.)	42 24 13.24	71 08 03.45	21			N. 42 12 W.		About 318
22	Arlington - Cambridge 1	42 24 03.77	71 08 12.47	1	Follows	definite courses	and distances	along the	new chan-
					nel of Alewife	brook, as cited	in chapter 34	of the Acts	of 1862.

GEOGRAPHICAL POSITIONS OF TRIANGULATION STATIONS.

	NAME OF STATION	LATITUDE	LONGITUDE	AZIMUTH	BACK AZIMUTH	TO STATION	DISTANCE	
							METERS	LOGARITHMS
1	Mount Auburn Tower	42° 22' 10.954"	71° 08' 40.380"	148° 58' 54.2"	328° 57' 22.6"	Sanitarium Pole	6024.8	3.779945
				280 52 54.2	100 56 09.2	Boston State House	6742.8	3.828842
2	Bright	42 23 25.498	71 09 39.254	240 16 58.6	60 18 36.4	Tufts College Flagstaff	3821.6	3.582247
				329 38 30.5	149 39 10.2	Mount Auburn Tower	2665.4	3.425766
3	Tufts College Flagstaff	42 24 26.870	71 07 14.112	319 38 24.8	139 40 41.7	Boston State House	7176.4	3.855904
				79 14 46.3	259 09 22.0	Prospect, Waltham	11204.3	4.049383
				25 12 22.4	205 11 24.2	Mount Auburn Tower	4634.8	3.666035

GEOGRAPHICAL POSITIONS OF TRIANGULATION STATIONS. — *Concluded.*

	NAME OF STATION	LATITUDE	LONGITUDE	AZIMUTH	BACK AZIMUTH	TO STATION	DISTANCE	
							METERS	LOGARITHMS
4	Sanitarium Pole	42° 24' 58.270"	71° 10' 56.168"	303° 28' 07.6"	123° 32' 54.2"	Boston State House	11663.0	4.066811
				62 39 15.8	242 36 21.0	Prospect, Waltham	6674.0	3.824384
5	Cambridge Water Tower	42 22 46.058	71 08 11.874	203 00 21.4	23 01 00.3	Tufts College Flagstaff	3379.6	3.528859
				291 32 41.4	111 53 37.2	Boston State House	6417.7	3.807377
6	Somerville Baptist Church	42 23 16.640	71 06 32.149	90 22 25.8	270 16 33.0	Prospect, Waltham	11967.6	4.078008
				156 06 42.6	336 06 14.3	Tufts College Flagstaff	2370.0	3.374753
				311 50 46.6	131 52 35.2	Boston State House	4949.5	3.694565
				55 22 14.6	235 20 48.2	Mount Auburn Tower	3565.7	3.552144
7	Cambridge Cong. Church	42 23 12.130	71 07 09.467	304 51 08.5	124 53 22.2	Boston State House	5533.6	3.743007
				47 46 58.5	227 45 57.2	Mount Auburn Tower	2808.7	3.448509
	Arlington Unit. Church	42 24 55.822	71 09 16.226	287 43 45.	107 45 07.	Tufts College Flagstaff	2931.6	3.467106
				10 42 05.	190 41 49.	Bright	2836.3	3.452750
14	Arlington Water Tower	42 24 53.252	71 10 50.380	279 19 38.	99 22 04.	Tufts College Flagstaff	5011.7	3.699984
				328 59 54.	149 00 42.	Bright	3158.7	3.499511
9	Avenue	42 24 03.688	71 08 12.989	10 12 50.	190 12 31.	Mount Auburn Tower	3534.4	3.548317
				59 09 39.	239 08 41.	Bright	2298.1	3.361373

DESCRIPTIONS OF TRIANGULATION STATIONS.

1. MOUNT AUBURN TOWER is situated in the extreme northeastern part of the town of Watertown, on high land in the central part of Mount Auburn Cemetery. The station mark is a 7-8 inch drill hole sunk 4 inches into the granite flooring of the observatory at the top of Mount Auburn tower. The tower is built of granite; it is 60 feet in height (above foundation), and 15 feet in diameter, the outside walls being one foot thick. A staircase inside the tower gives access to the observatory, from which a fine view is obtained for miles in every direction.

2. BRIGHT is situated in the extreme eastern part of the town of Belmont, on a slight elevation about 450 feet southwest of the Belmont Almshouse, which stands on the southerly side of Concord avenue, about 1,000 feet west of the junction of Wellington street and Huron avenue with Concord avenue. The station mark is a shallow drill hole in the center of the top of a dressed marble monument 29 inches in length and 5 x 5 inches in section, lettered on top MASS.
U. S. and set with its top about 2 inches above the surface of the ground. The underground mark, set 6 inches below the base of the monument, is an inverted flower-pot, the hole in the bottom of the flower-pot being directly under the drill hole in the marble monument.

3. TUFTS COLLEGE FLAGSTAFF is situated in the southwestern part of the city of Medford, on the summit of College hill, a short distance northeast of the Medford-Somerville boundary. The station mark is a flagstaff 15 inches in circumference at the base, and about 25 feet in height, surmounted by an iron rod carrying a gilt ball. It stands on the roof of Ballou Hall, one of the college buildings, which is three stories in height, built of brick, with brown stone trimmings, and having a slightly pitched roof 62 x 21 feet, covered with tin and surrounded by a wooden balcony railing.

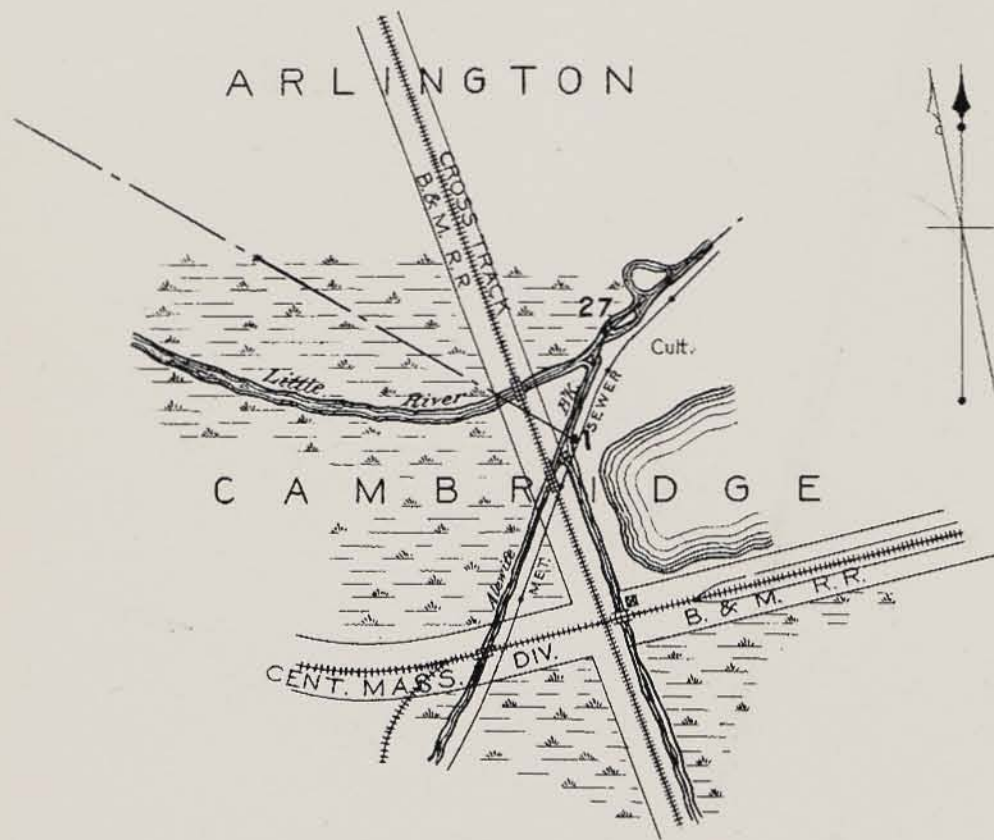
4. SANITARIUM POLE is situated on the northwest corner of Prospect and Hillside avenues at Arlington Heights, in the southwestern part of the town of Arlington. The station mark is a flagstaff rising from the apex of the low roof of a square tower on the eastern end of a three-story wooden building known as Dr. Ring's Sanitarium.

5. CAMBRIDGE WATER TOWER is situated on the northerly side of Highland street, in the western part of the city of Cambridge, and on the westerly side of the Cambridge reservoir. It is a round stand-pipe encircled by a guard rail on the top. The station mark is an iron staff which rises from the center of the top of the tower.

6. SOMERVILLE BAPTIST CHURCH is situated in the central part of the city of Somerville, on the southeasterly side of Belmont street, about 175 feet northeast from its intersection with Summer street, and nearly opposite the stand-pipe. The building has a slated roof and two spires; the taller one is surmounted by an iron rod carrying a vane. The station mark is this vane rod.

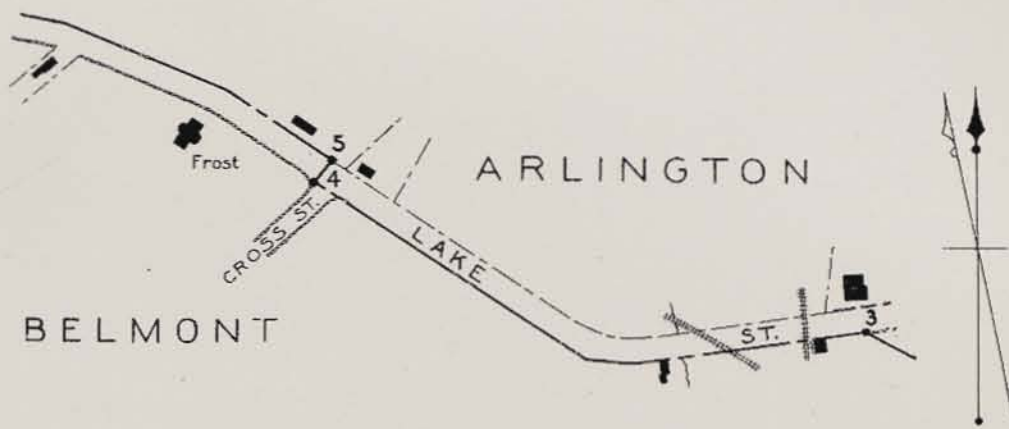
7. CAMBRIDGE CONGREGATIONAL CHURCH is situated on the southeast corner of Roseland street and Massachusetts avenue, in the eastern part of the city of Cambridge. It is a two-story wooden building having a low, octagonal tower at the western end, above which is an open belfry; above the belfry is an octagonal tower with windows in each face, surmounted by an octagonal spire terminating in a rod carrying cardinal points and vane. The station mark is the vane rod.

CORNER 1.



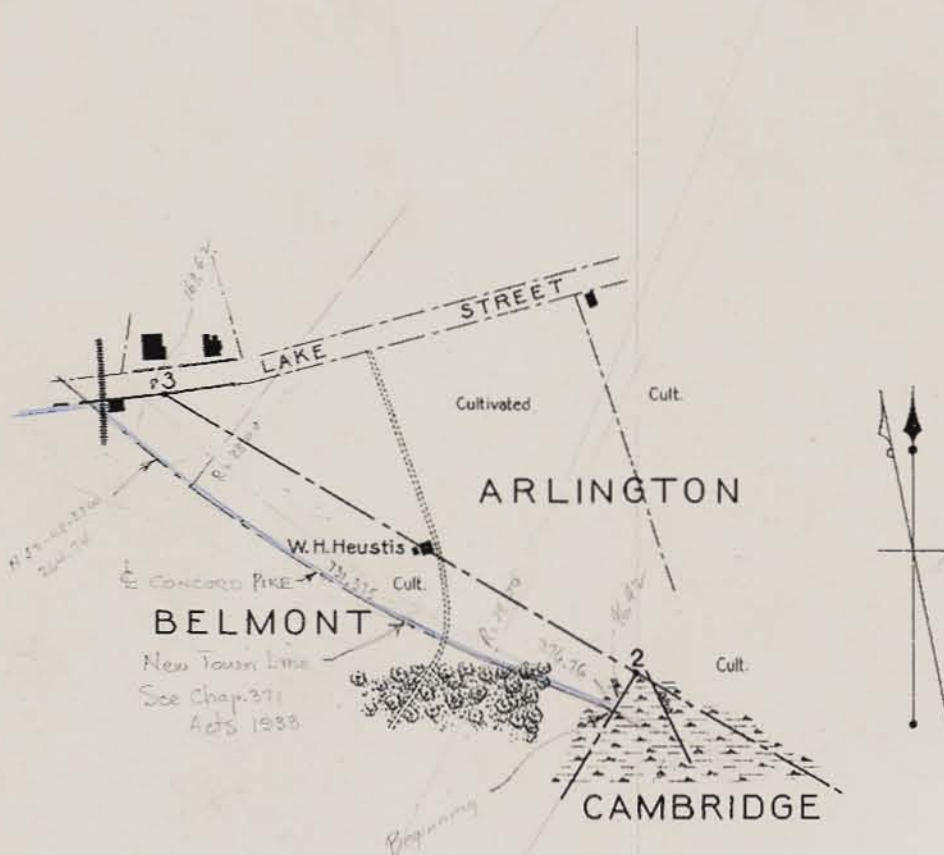
Scale 300 feet to an inch.

CORNERS 3, 4, & 5.



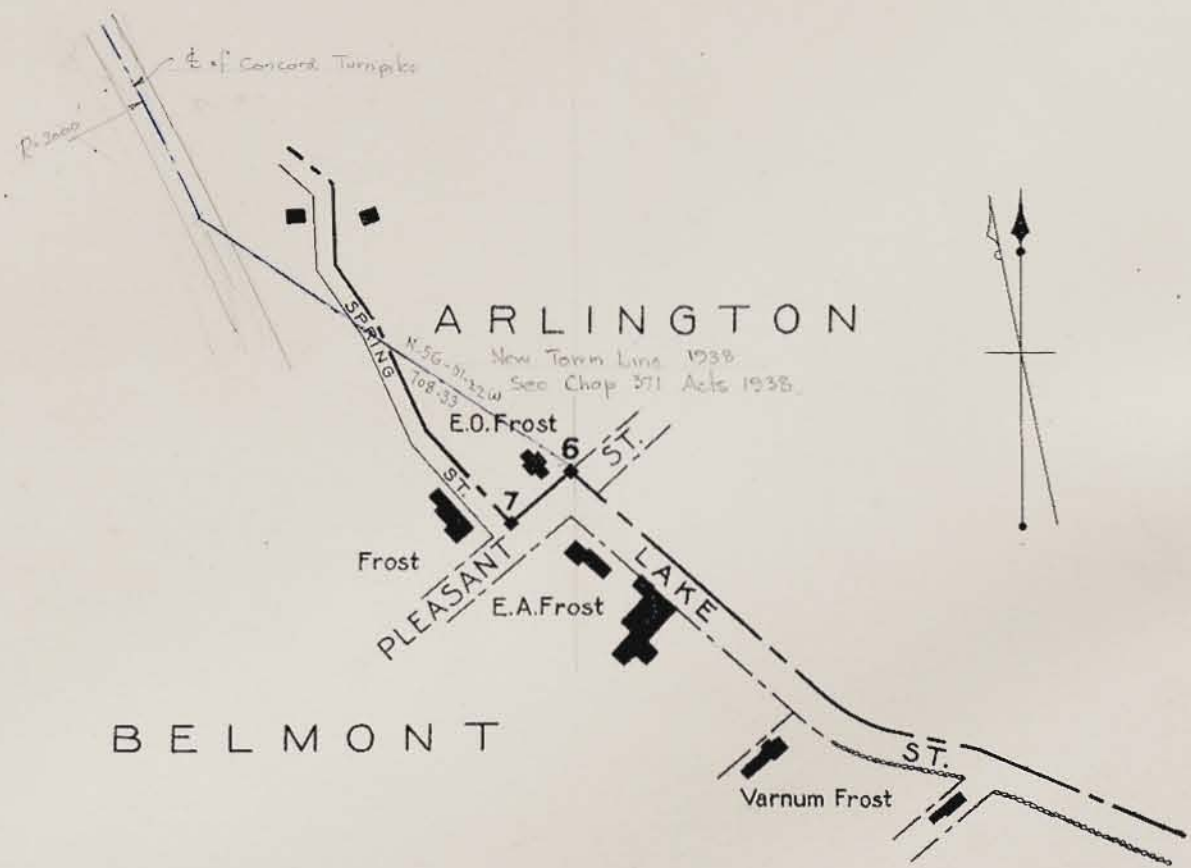
Scale 400 feet to an inch.

CORNERS 2 & 3.



Scale 400 feet to an inch.

CORNERS 6 & 7.



Scale 300 feet to an inch.

DESCRIPTIONS OF TOWN CORNERS.

CORNER 1.

LOCATION.—The corner is situated in the new channel of Alewife brook, north $59^{\circ} 57'$ west (true bearing) and 10 feet distant from the witness monument on the easterly bank.

CORNER 1 (W. M.)

LOCATION.—The witness mark is situated 5 feet east of the easterly bank of the new channel of Alewife brook, on a strip of cultivated land lying between the brook and a pond hole a short distance east. It is about 130 feet southeast of the junction of Little river with the old channel of Alewife brook, and is 300 feet north of the intersection of the Central Massachusetts Division of the Boston and Maine Railroad with the old Lexington and West Cambridge Railroad, the latter now being used as a cross-over track running between the Southern and Fitchburg Divisions of the Boston and Maine Railroad.

MARK.—The witness mark is a granite monument 8.5 feet in length set 4.7 feet into the ground; it is 10 x 10 inches in section, broken down to corners and has the letters A on the north face, and $\frac{c}{10 FT}$ on the south face. The arrow points toward the corner north $59^{\circ} 57'$ west (true bearing) and 10 feet distant, in the new channel of Alewife brook.

CORNER 2.

LOCATION.—This is a three-town corner, and is situated about 800 feet south of Lake street; it is 20 feet west of the northerly end of a ditch, at the eastern edge of open meadow and western edge of a strip of bushes.

MARK.—The corner mark is a granite monument 3 feet in height, averaging 8 inches in width on the southeast face, 9 inches on the northwest face, and tapering in width on the northeast and southwest faces from 9 inches at the top to 8 inches at the base. The letter A is cut on the northeast face, B on the northwest face, and C on the southeast face. There is a 5-8 inch hole sunk 3-4 of an inch into the top of the stone.

DIRECTIONS.—From the junction of Hills lane with Lake street in the southeastern part of the town of Arlington, follow Hills lane southerly 700 feet to the point where it enters the woods; thence easterly 400 feet, keeping along the northerly edge of the woods a portion of the distance, and across open meadow to the corner.

CORNER 3.

LOCATION.—The corner is situated in the face wall on the southerly side of Lake street, 1,225 feet easterly from the junction of Cross street.

MARK.—The corner mark is a granite monument 3.1 feet in height, averaging 10 inches in width on the east and west faces, 7 inches on the north face, and 9 inches on the south face. The letter B is cut on the west face, and W C on the east face.

CORNER 4.

LOCATION.—The corner is situated at the westerly corner of Cross and Lake streets.

MARK.—The corner mark is a granite monument 9 x 9 inches in section, and projecting about 1-2 inch above the surface of the ground.

CORNER 5.

LOCATION.—The corner is situated southwest of the fence on the northeasterly side of Lake street, and opposite the junction of Cross street.

MARK.—The corner mark is a rough granite monument 3.1 feet in height, and 9 x 8 1-2 inches in section. The letter A is cut on the north face, and B on the south face.

CORNER 6.

LOCATION.—The corner is situated on the northwesterly side of Pleasant street opposite the junction of Lake street.

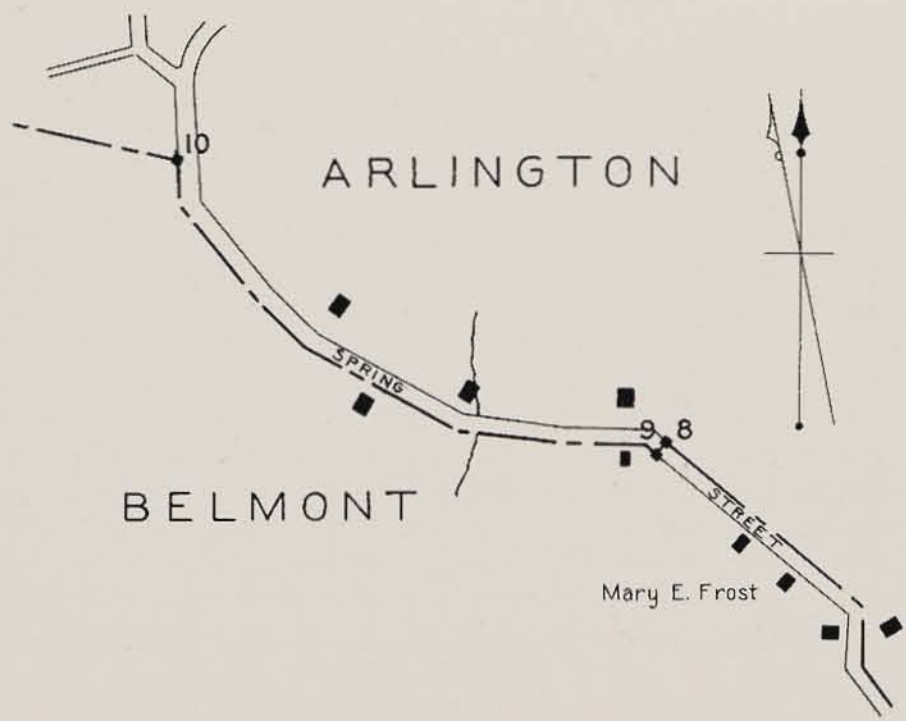
MARK.—The corner mark is a dressed granite monument 7 x 7 inches in section, set with its top flush with the surface of the ground. In the center of the top of the stone, which is marked A B, is an iron bolt about 1-4 of an inch in diameter.

CORNER 7.

LOCATION.—The corner is situated at the northerly corner of Spring and Pleasant streets.

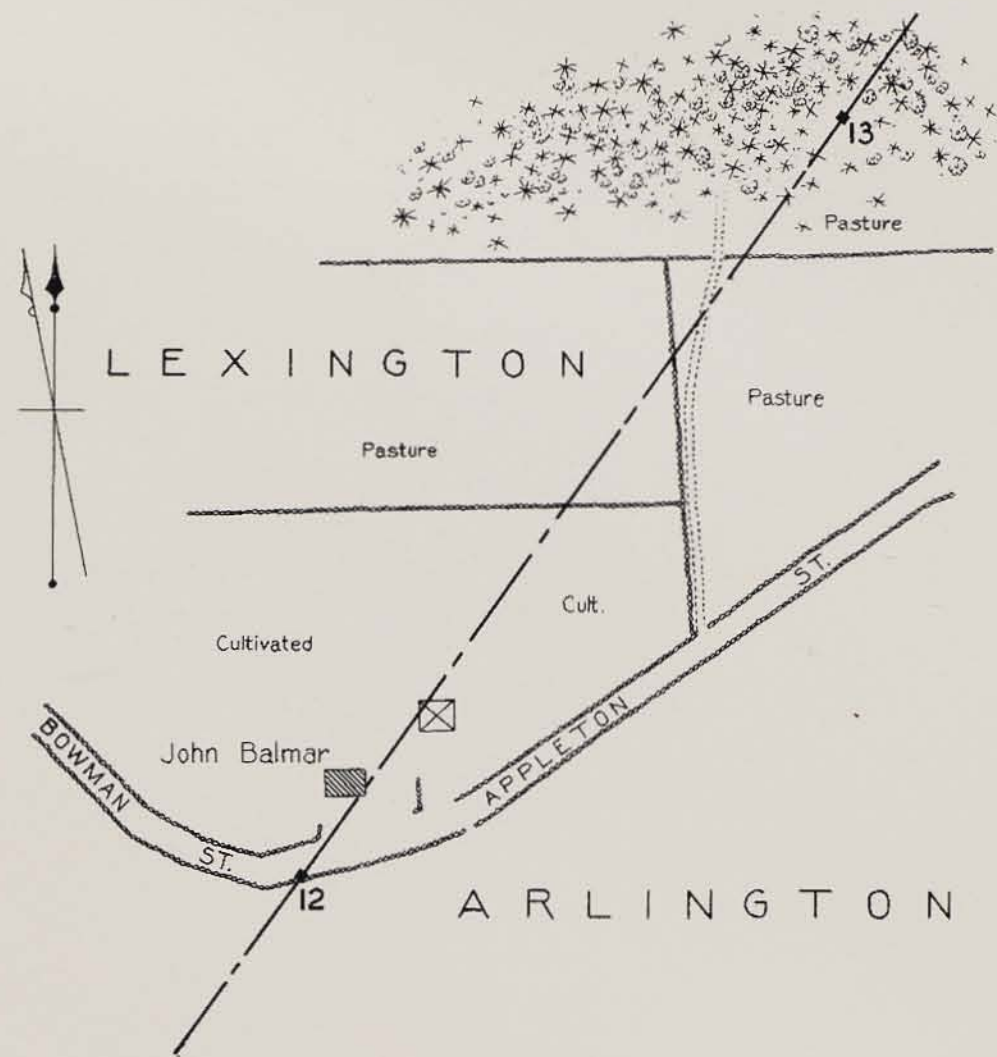
MARK.—The corner mark is a granite monument 4 feet in height, and 12 x 12 inches in section. The letter A is cut on the north face, and B on the south face. It has a drill hole in the top.

CORNERS 8,9.&10.



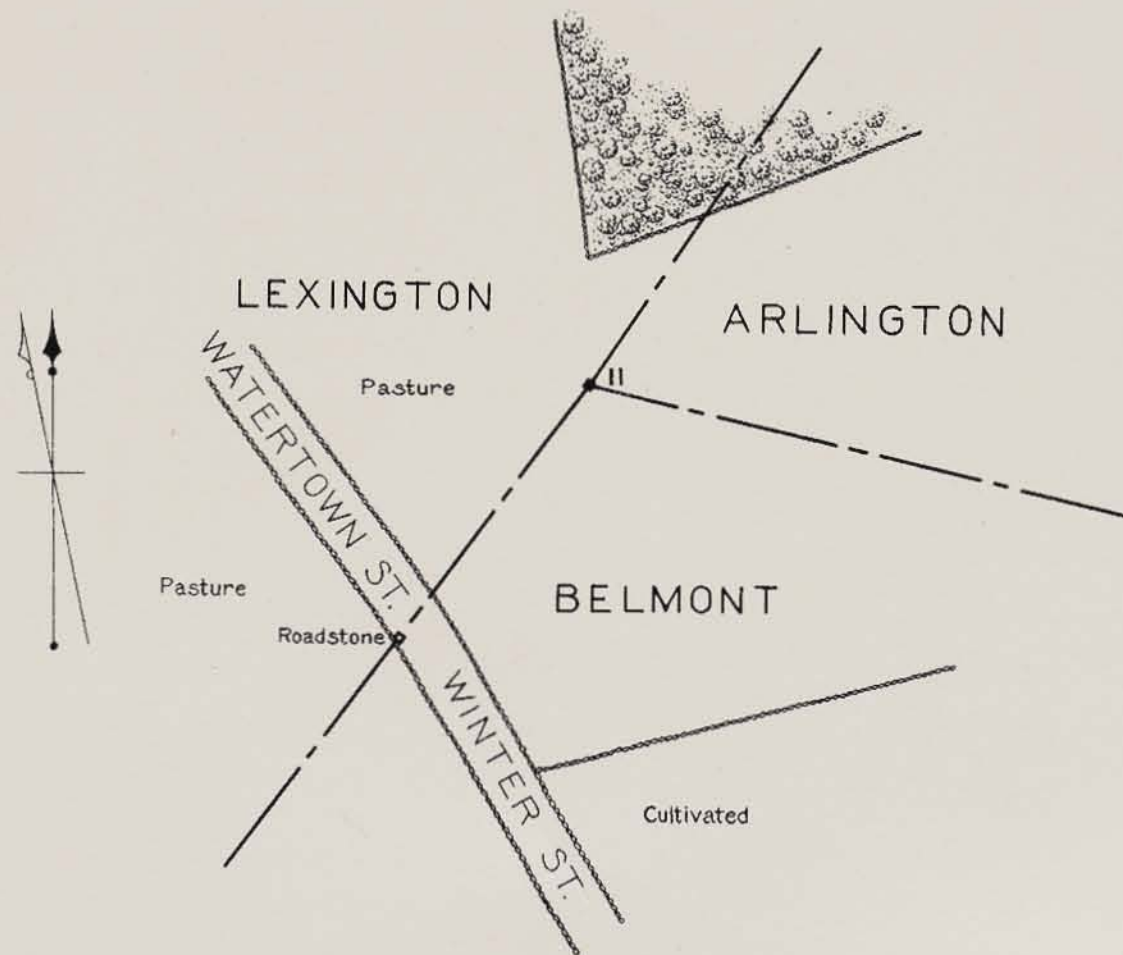
Scale 400 feet to an inch.

CORNERS 12.&13.



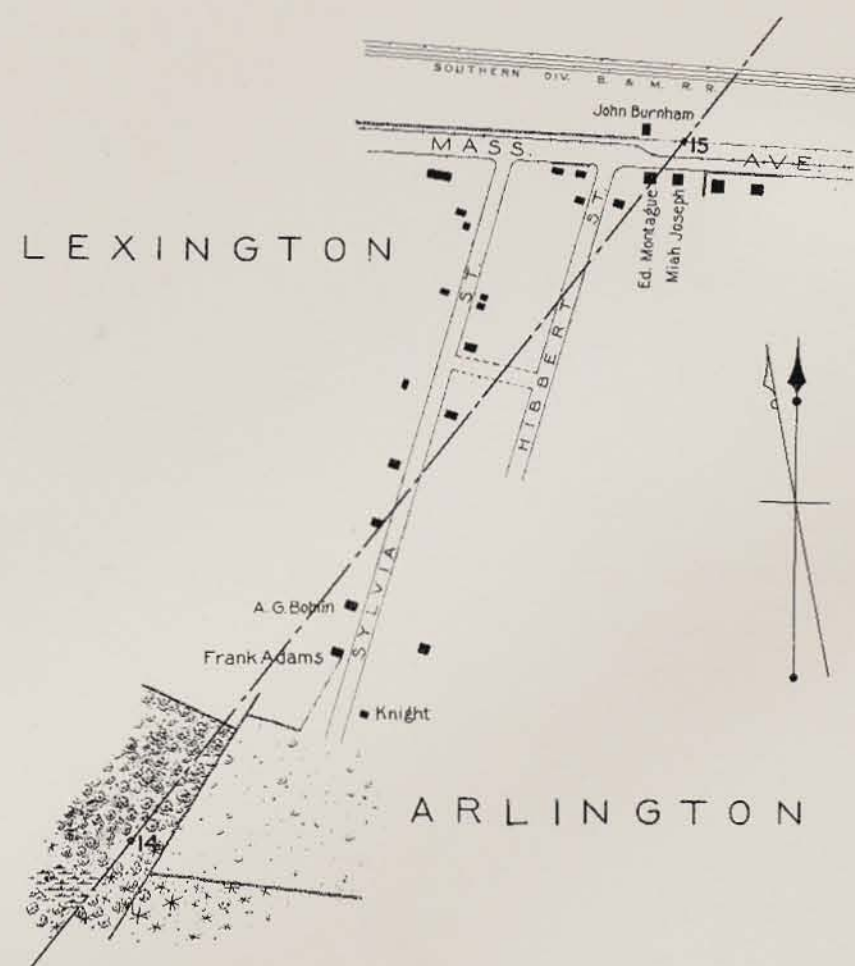
Scale 200 feet to an inch.

CORNER 11.



Scale 150 feet to an inch.

CORNERS 14.&15.



Scale 400 feet to an inch.

CORNER 8.

LOCATION.—The corner is situated 2 feet southwest of the wall on the northeast side of Spring street, about 40 feet southeast of a bend in the street, and about 1,200 feet northwest of the junction of Spring street with Pleasant street.

MARK.—The corner mark is a rough granite monument 3.7 feet in height, and 5 1-2 x 8 inches in section. The letter A is cut on the north face, and B on the south face.

CORNER 9.

LOCATION.—The corner is situated against the northeast side of the wall on the southwesterly side of Spring street, about 1,200 feet northwesterly from the junction of Spring street with Pleasant street.

MARK.—The corner mark is a rough granite monument 3.6 feet in height, and 9 1-2 x 10 1-2 inches in section. The letter A is cut on the north face, and B on the south face.

CORNER 10.

LOCATION.—The corner is situated on the west side of Spring street, 900 feet easterly from its junction with Eastern avenue and Highland avenue, in the southern part of the town of Arlington.

MARK.—The corner mark is a rough granite monument about 3.5 feet in height, and 9 x 9 inches in section. It is marked B on the northwest face, and w c on the southeast face.

CORNER 11.

LOCATION.—This is a three-town corner, and is situated in open pasture at about the highest point of a slight elevation 250 feet northeast of the roadstone in the line between Belmont and Lexington, on the westerly side of Winter street (in Belmont) or Watertown street (in Lexington), about 4,000 feet north of its junction with Concord avenue in the northwestern part of the town of Belmont.

MARK.—The corner mark is an irregularly-shaped granite monument 2.6 feet in height, averaging 10 inches in width on the southeast face, 11 inches on the northwest face, 7 inches on the southwest face, 6 inches at the base, and 8 inches at the top on the northeast face. The letter L is cut on the northwest face, B on the southwest face, and w c on the southeast face. There is a 3-4 inch drill hole in the top of the monument.

CORNER 12.

LOCATION.—The corner is situated 2 feet north of the wall on the southerly side of Appleton street, called Bowman street in Lexington, about 15 feet south of the center of the traveled way. It is about 900 feet east of the junction of Bowman street with Watertown street, in the southern part of the town of Lexington.

MARK.—The corner mark is a rough granite monument 4 feet in height, and 10 1-2 x 11 inches in section. The letters w c are cut on the southeast face, and L on the northwest face. There is a 5-8 inch drill hole in the top.

CORNER 13.

LOCATION.—The corner is situated 150 feet north of a wall, in open pasture with scattering pitch pines and undergrowth.

MARK.—The corner mark is a rough granite monument 3.1 feet in height and averaging 8 1-2 x 8 1-2 inches in section, tapering at the top. The letter L is cut on the northwest face, and w c on the southeast face. There is a 5-8 inch drill hole in the top.

DIRECTIONS.—From corner 12, follow Appleton street northeasterly 475 feet; thence northerly along a wood-road 400 feet to the point where it passes through a wall; thence northeasterly 200 feet to the corner.

CORNER 14.

LOCATION.—The corner is situated on high land at the foot of the southerly slope of a small knoll. It is about 110 feet northeast of a small swamp hole, and about 75 feet northwest of a junction of walls.

MARK.—The corner mark is a rough granite monument 2.8 feet in height, measuring 9 1-2 x 15 inches at the top and 11 x 11 inches at the base. The letter L is cut on the northwest face, and w c on the southeast face.

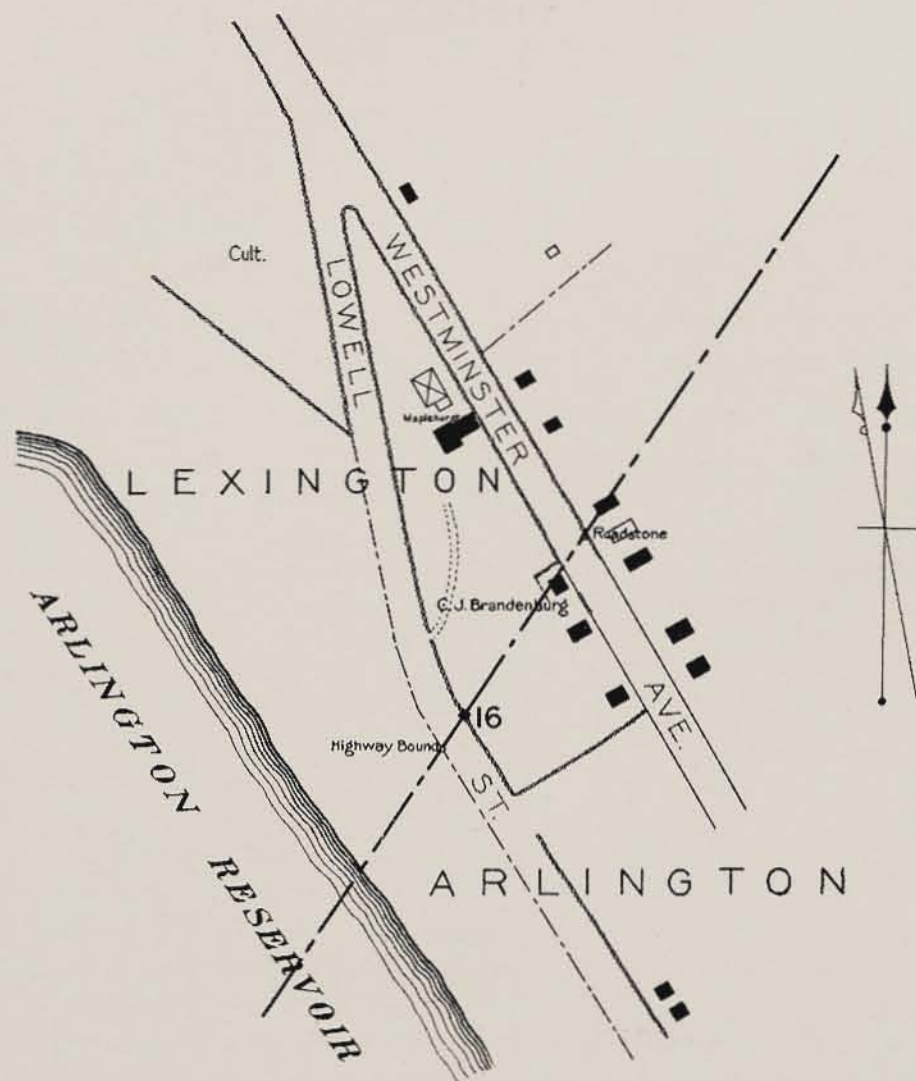
DIRECTIONS.—From the junction of Sylvia street with Massachusetts avenue, in the southeastern part of the town of Lexington, follow the former southerly about 1,100 feet to the house of Frank Adams on the westerly side of the street; thence southerly, westerly, and southerly by a fence and wall about 600 feet to a point in the wall, about 40 feet northerly from the junction of a wall running easterly; thence westerly 65 feet to the corner.

CORNER 15.

LOCATION.—The corner is situated on the north side of the fence on the northerly side of Massachusetts avenue, 150 feet east of the junction of Hibbert street, and about 57 feet east of the southeasterly corner of the house of John Burnham.

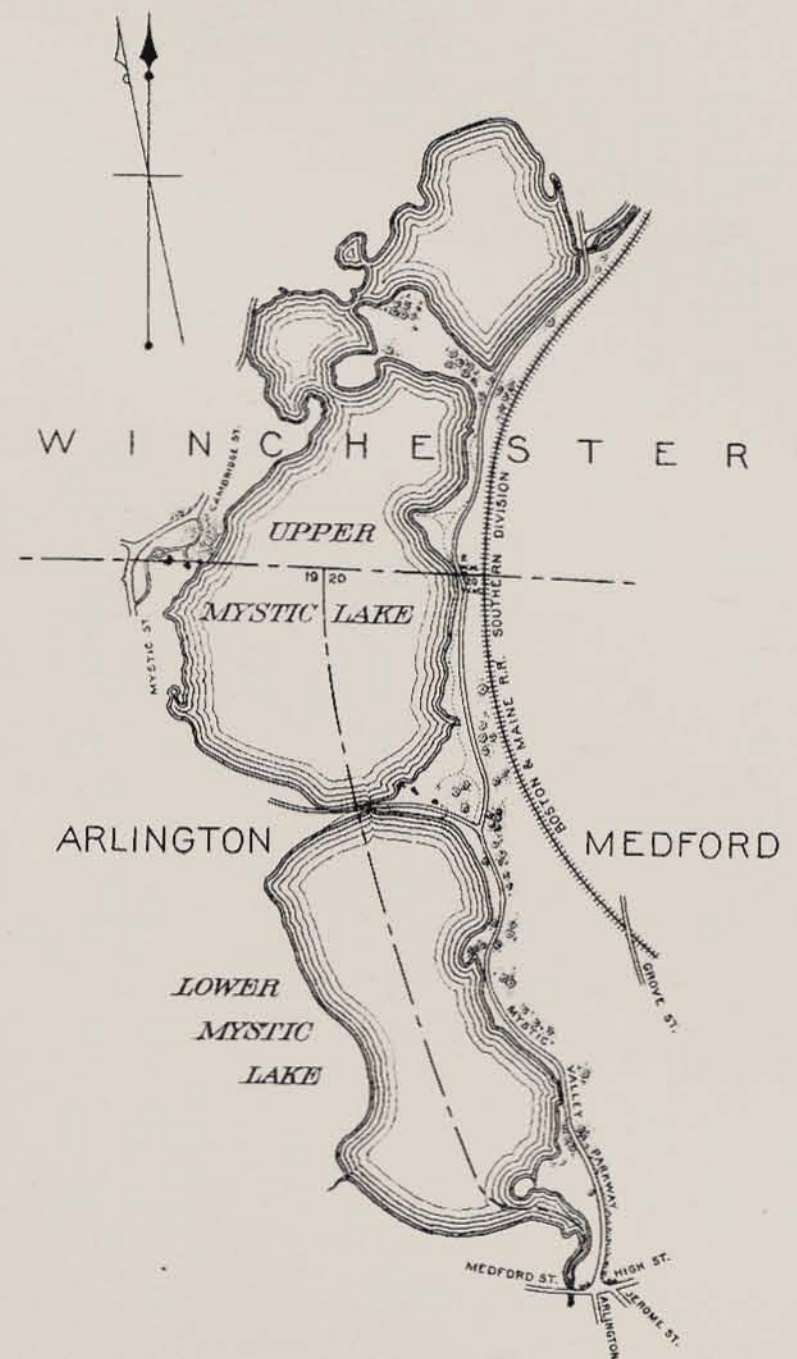
MARK.—The corner mark is a rough, pointed granite monument 4 feet in height, and 12 x 12 inches in section. The letter L is cut on the northwest face, and A on the southeast face. There is a 3-4 inch drill hole in the top.

CORNER 16.



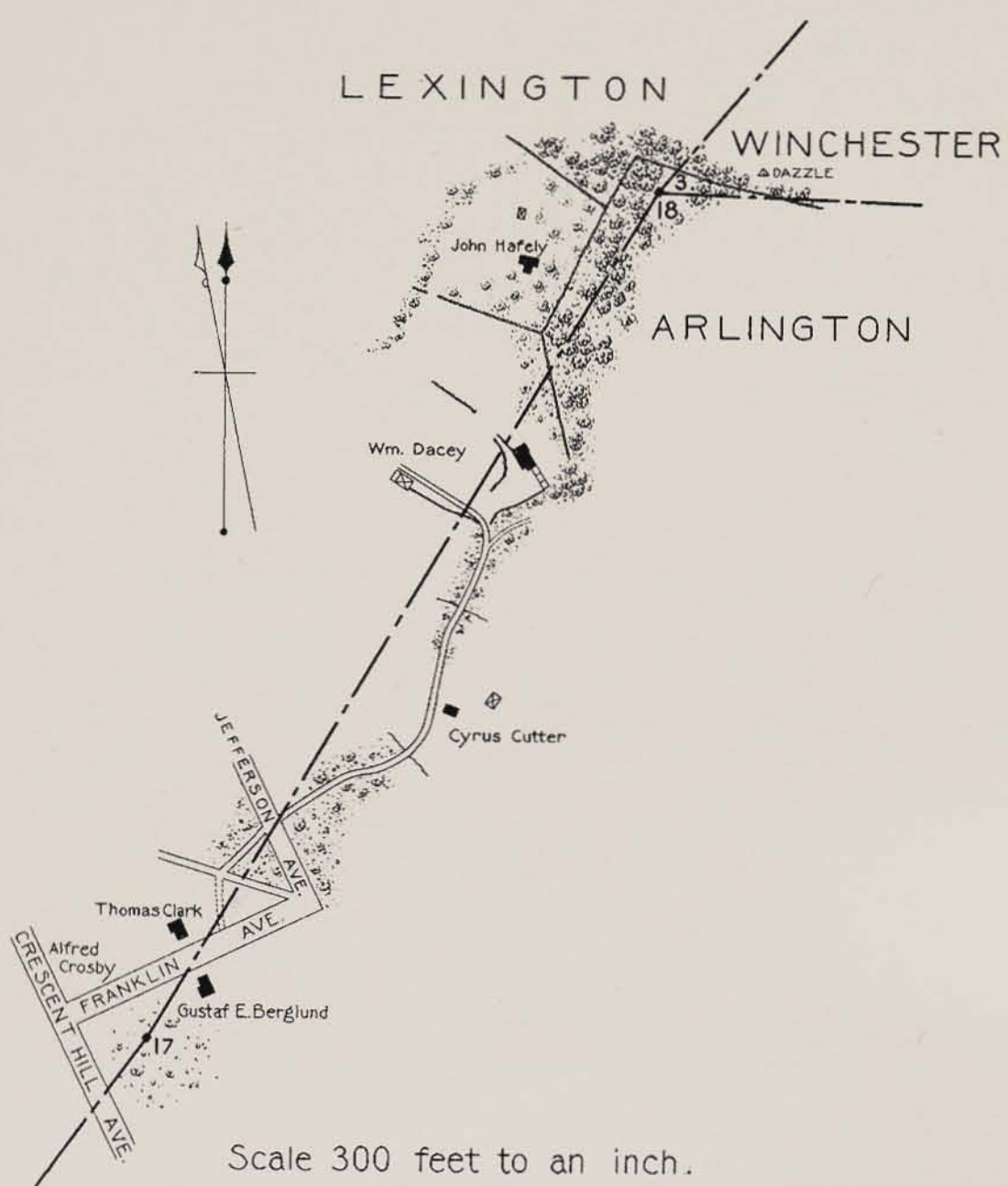
Scale 250 feet to an inch.

CORNER 19.



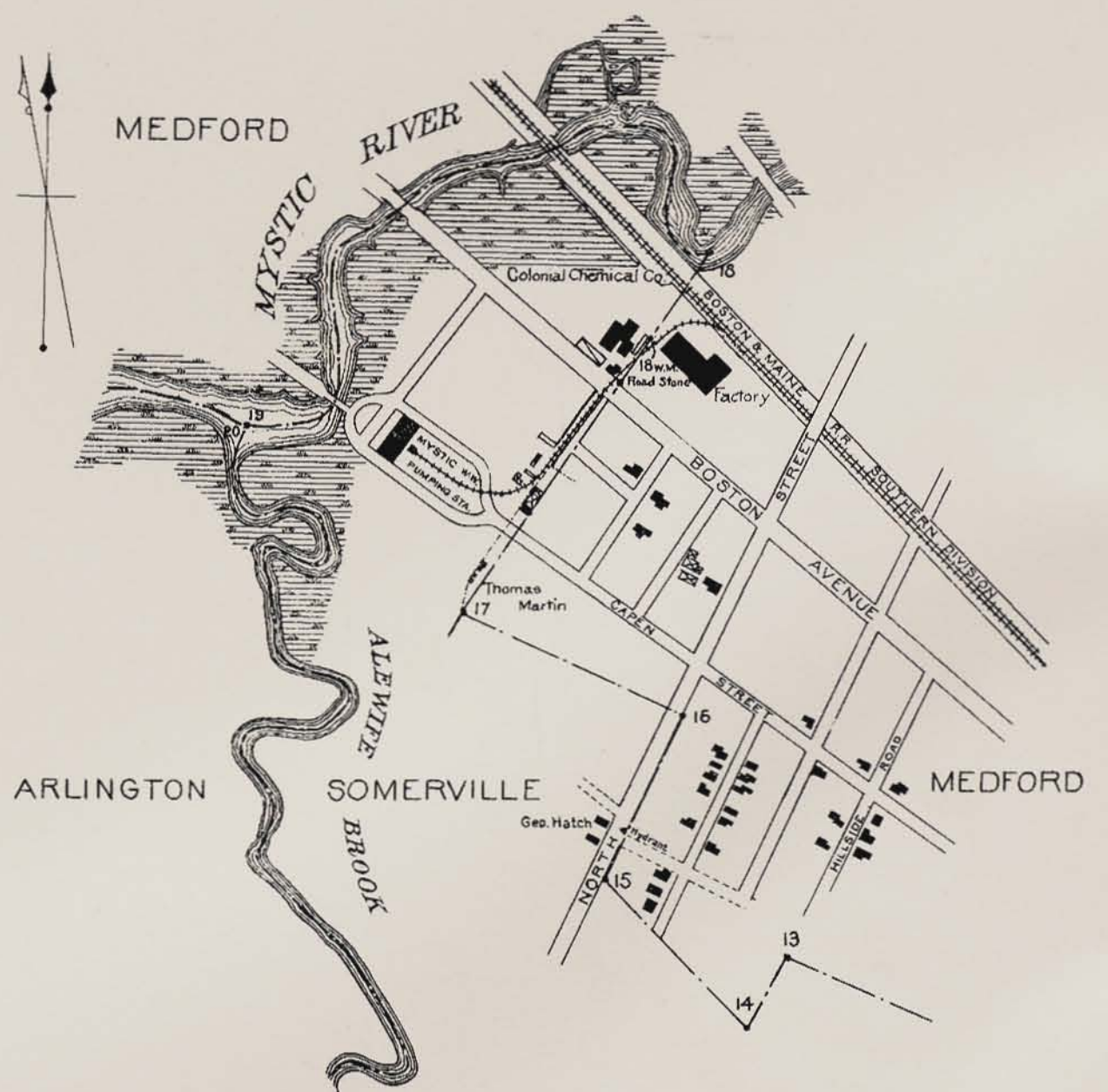
Scale 1500 feet to an inch.

CORNERS 17. & 18.



Scale 300 feet to an inch.

CORNER 20.



Scale 600 feet to an inch.

CORNER 16.

LOCATION.—The corner is situated on the west side of a face wall on the east side of Lowell street, about 20 feet from the center of the traveled way, 800 feet southerly from the junction of Lowell street with Westminster avenue.

MARK.—The corner mark is a rough granite slab 2.6 feet in height, 30 inches in width, and averaging about 5 inches in thickness. The following inscription is cut on the west face:—

BOUNDARY
LEXINGTON ARLINGTON

CORNER 17.

LOCATION.—The corner is situated on the highlands known as Crescent hill, about 150 southeast of the junction of Franklin avenue with Crescent Hill avenue on the Lexington side of the boundary line.

MARK.—The corner mark is a rough granite monument 3.7 feet in height and averaging 11 1-2 x 8 1-2 inches in section. The letter L is cut on the northwest face, and w c on the southeast face.

CORNER 18.

LOCATION.—This is a three-town corner and is situated on the westerly slope of a high ledge in the woods, about 250 feet northeast of the house of John Hafely.

MARK.—The corner mark is a rough, irregularly-shaped granite monument bolted to the ledge at the base, and supported by two iron rods leading from the northerly and southerly faces to the ledge. It is 5 feet in height, 12 inches in width on the broadest part of the east and west faces, 9 1-2 inches on the south face, and 6 inches on the north face. The letters w c are cut on the east face, L on the west face, and w on the north face.

DIRECTIONS.—From the northeasterly end of Franklin avenue, at its junction with Jefferson avenue, follow the latter northwesterly 200 feet; thence northeasterly 800 feet along a wood-road, passing the house belonging to Cyrus Cutter, to the house of William Dacey; thence by a wall which runs northerly and northeasterly from a point about 75 feet east of Dacey's house, about 550 feet to a sharp angle in the wall; thence southerly about 70 feet to the corner.

CORNER 19.

LOCATION.—This is a three-town corner, and is a point in the upper basin of Mystic lake, in the line of Winchester, south $89^{\circ} 13'$ east and about 1,034 feet from the witness monument on the west shore of the lake.

CORNER 19 (W.M.)

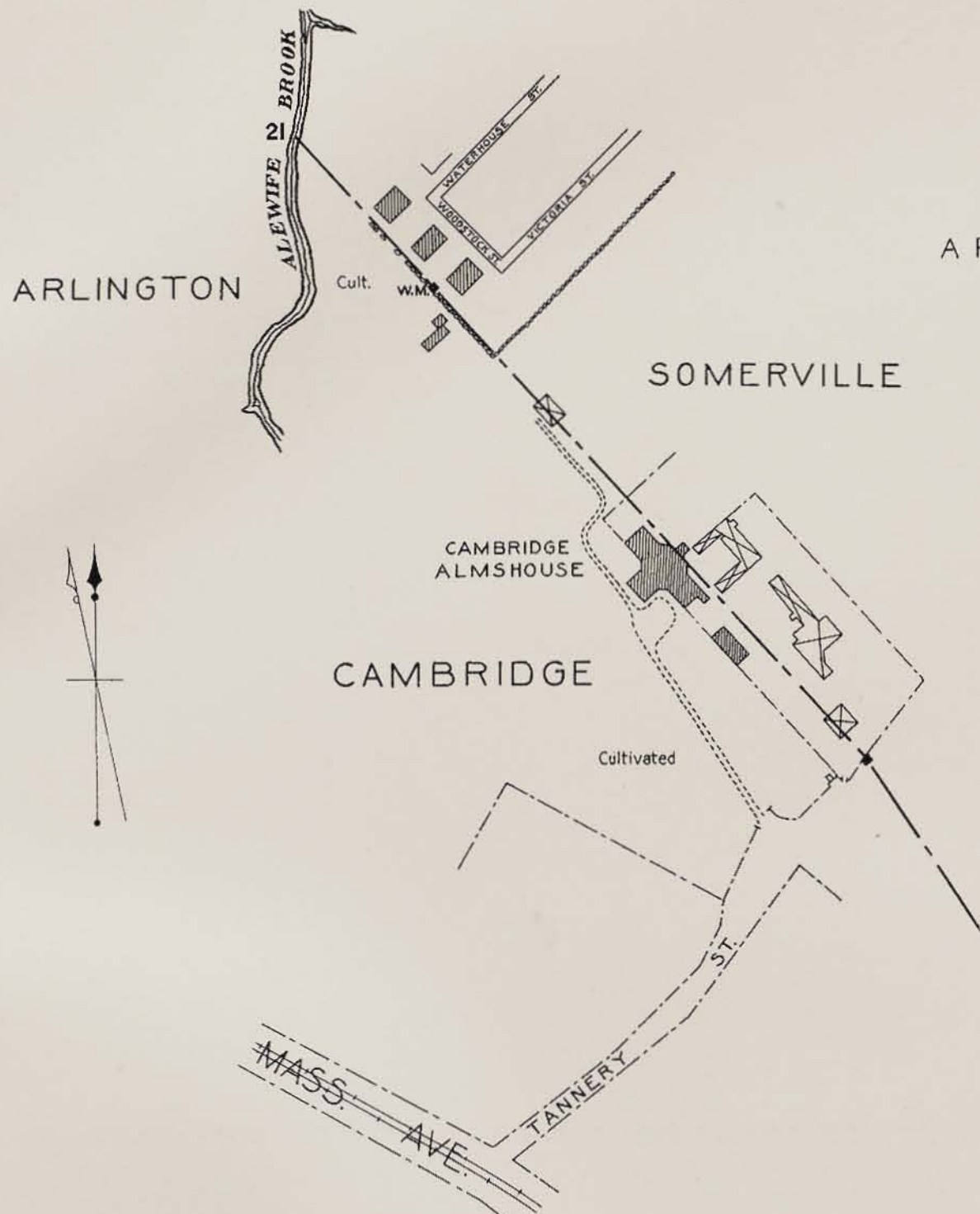
LOCATION.—The witness mark is situated on the west shore of the upper basin of Mystic lake, on the Dwight estate, about 325 feet east of the junction of Cambridge and Arlington streets in Winchester, and about 130 feet from the Dwight house.

MARK.—The witness mark is a rough granite monument of irregular shape, about 6 feet in height and about 7 x 10 inches in section. The letter A is cut on the south face, and w on the north face. It leans westerly against the hill above the lake.

CORNER 20.

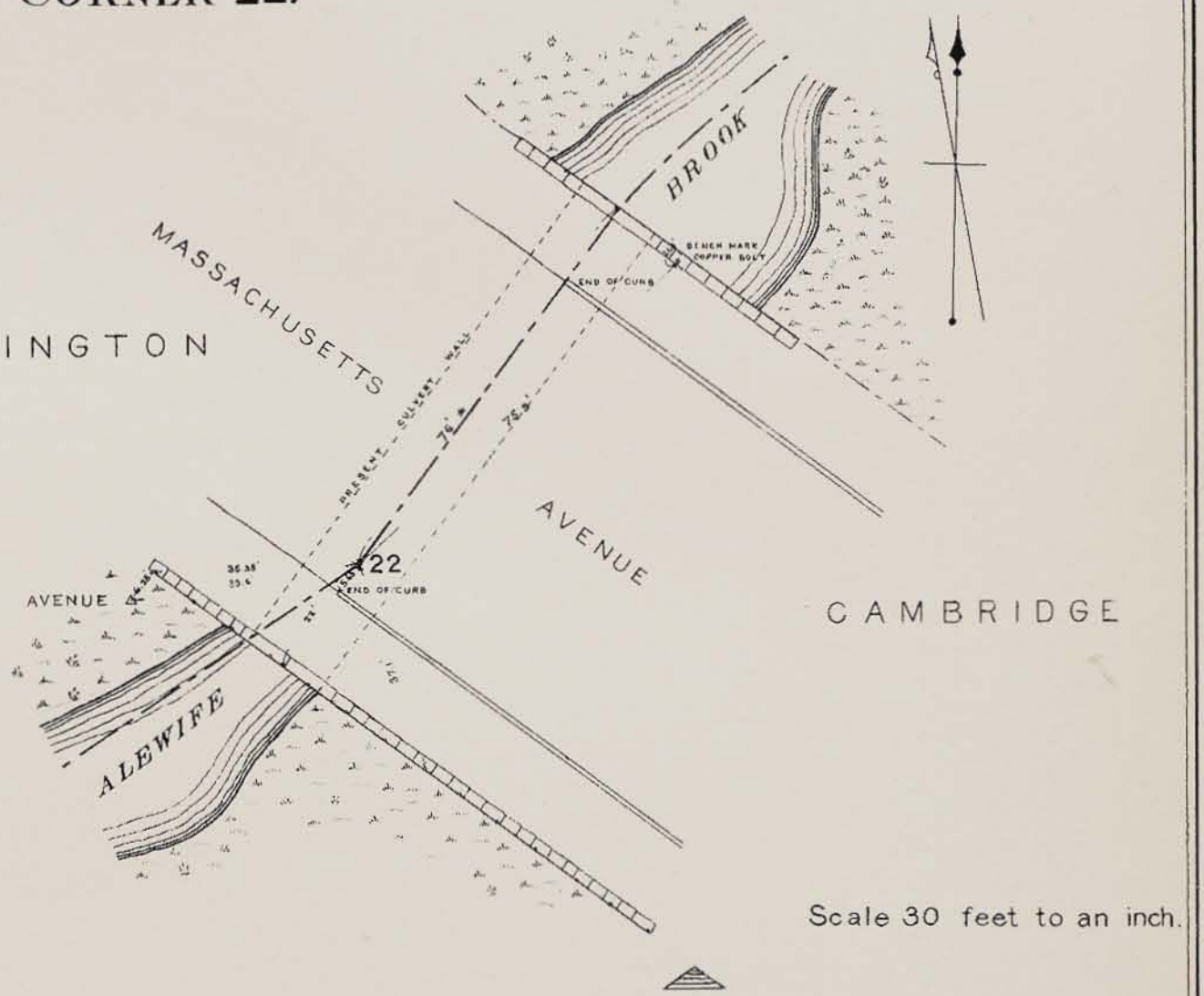
LOCATION.—This is a three-town corner and is situated at the junction of Alewife brook with Mystic river. It is unmarked.

CORNER 21.



Scale 250 feet to an inch.

CORNER 22.



CORNER 21.

LOCATION.—This is a three-town corner and is situated in the channel of Alewife brook, north $42^{\circ} 12'$ west (true bearing) and about 318 feet distant from the witness monument.

CORNER 21 (W. M.)

LOCATION.—The witness mark is situated 100 feet west of the junction of Woodstock street with Victoria street in Somerville, and 500 feet north of the northerly wing of Cambridge Almshouse. It stands in a line of bushes against the easterly side of the remains of an old wall.

MARK.—The witness mark is a rough granite monument 2.9 feet in height, and 8 x 8 inches in section. The letter c is cut on the southwest face, and s on the northeast face. The figures 23 are cut in the top of the stone.

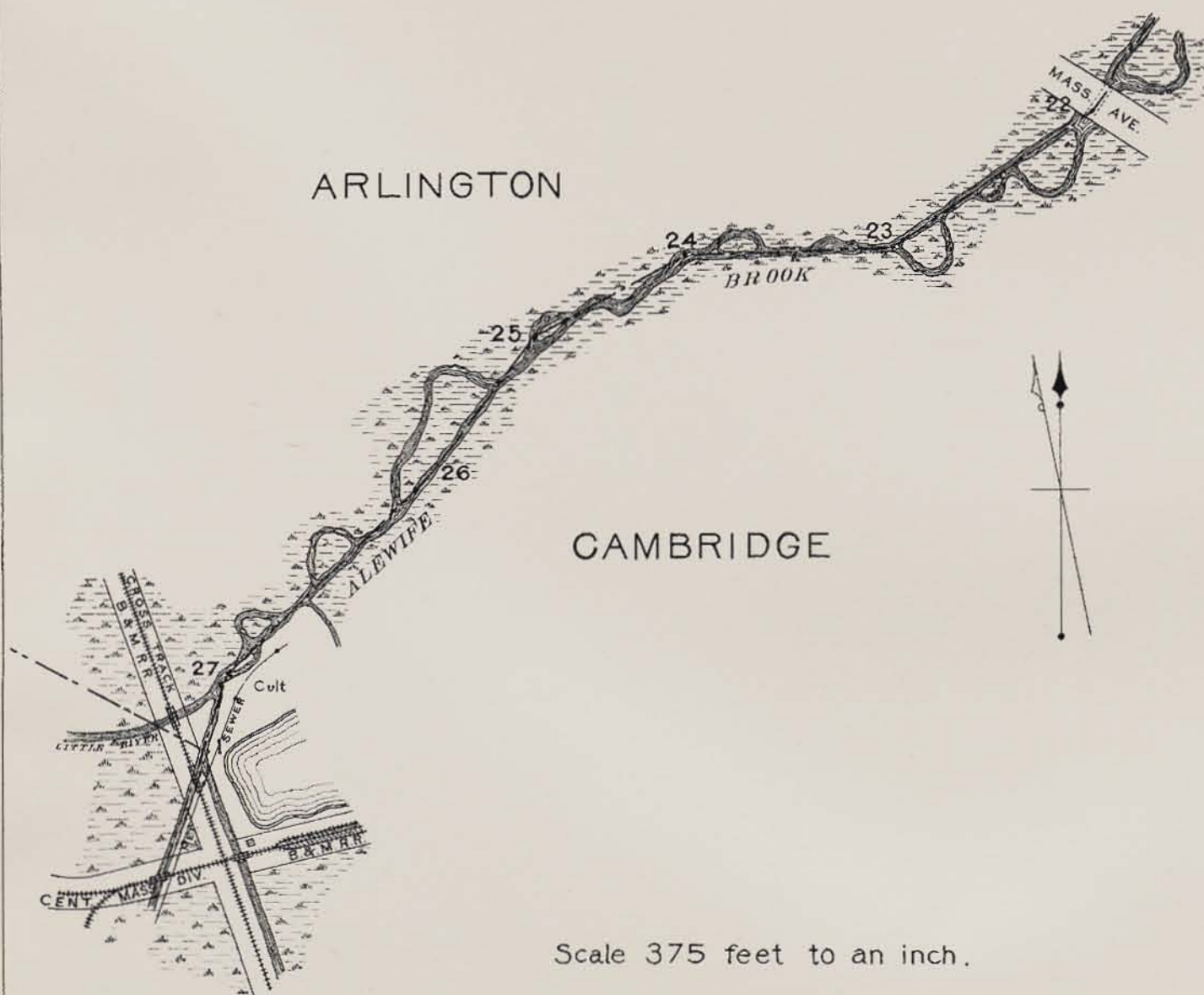
CORNER 22.

LOCATION.—The corner is situated in the channel of Alewife brook where it crosses Massachusetts avenue, being a point under the center of the crown of the arch of the culvert on the old southerly line of the street as the same existed before the bridge and roadway were widened 22 feet from the south face of the present culvert. This corner is unmarked, but is located north $77^{\circ} 15'$ east (true bearing) and 39.6 feet distant from station "Avenue," a 3-4 inch drill hole sunk 1 inch into the top and near the southern end of a small boulder embedded in the ground 12 feet north of the northerly bank of Alewife brook, and 6 feet west of the retaining wall on the westerly side of Massachusetts avenue.

CORNERS 23-27.

LOCATION.—There are unmarked points at angles in the new channel of Alewife brook. (See chapter 34 of the Acts of 1862.)

CORNERS 22. 23. 24. 25. 26. & 27.



Scale 375 feet to an inch.

