

American Antiquarian Society

Manuscript Collections

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**Name of collection:**

Ball, Phineas, Papers, 1847-1874

**Location:**

Manuscript boxes "B"  
Octavo volumes "B"

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**Size of collection:**

3 manuscript boxes (72 volumes); 5 octavo volumes

**N.U.C.M.C. number:**

75-1888

**RLIN id:** MAAR92-A30

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**Sources of information on collection:**

Three index volumes, one typewritten, in repository. Biographical sketch of Ball, in Franklin P. Rice, ed., *The Worcester of 1898*, (Worcester: F.S. Blanchard and Co., 1899), p. 553-556.

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**Source of collection:**

Gift of Mrs. Alvin Etheridge, 1933; Ball diary for 1848, gift of Edward S. Otis, 1954

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**Collection description:**

Phineas Ball (1824-1894), the son of Manasseh Sawyer and Clarissa (Andrews) Ball, was born on 18 January 1824 in Boylston, Mass. He married, in 1848, Sarah Augusta Holyoke ( -1864), of Marlborough, Mass.; they had two children. In November 1865, he married Mary Jane Otis, daughter of Benjamin B. Otis.

Ball received little formal education; attending the winter's district schools until the age of sixteen and attending two terms at a boarding school in Berlin, Mass., 1841-1842. During the winter of 1840, he was taught surveying by an uncle in Rhode Island, using an old compass which had belonged to his great-great-grandfather.

Before moving to Worcester, Mass., in 1846, Ball taught school in neighboring towns and worked at surveying and other jobs. After moving to Worcester, he took up the occupation of civil engineer. From 1849 until 1860, Ball was in partnership with Elbridge Boyden (1810-1898) under the firm name Boyden & Ball, architects and engineers. Under the mayoral administration of Daniel Waldo Lincoln (1813-1880), 1863 to 1865, Ball was able to plan and construct the water works from Lynde Brook in Leicester, Mass. to Worcester. He was a member of the City Council, elected mayor for the year 1865, and was water

commissioner from 1863 to 1867 and city engineer from 1867 to 1872. He was responsible for instituting and advancing an extensive sewer system in Worcester. This success and experience lead Ball to construct or report on other similar undertakings in Massachusetts and throughout New England.

In 1869, Ball became interested in the manufacture of water meters and appliances, some of which he had patented, and the Union Water Meter Company was formed, with which he maintained his connection as president until his death, on 19 December 1894.

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**Name of collection:**

Ball, Phineas, Papers, 1847-1874

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**Collection description (continued):**

This collection consists of fifty-five indexed field books, seventeen indexed miscellaneous notebooks, a line-a-day diary (1848), and a report (1874). These field and miscellaneous notebooks, covering the period 1847 to 1871, reflect Ball's extensive work in surveying and public works, both in Worcester and throughout New England. Ball's role in planning and supervising installation of the water works in Worcester is readily apparent in these books.

Three of the octavo volumes serve as an index for the smaller volumes.

See Contents List.

21 August 1973  
revised 16 February 2010

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Phineas Ball, Papers, 1847-1874

Contents List

Manuscript Boxes

1 Field Notebooks, 1847-1853

This box contains fifteen field notebooks (volumes 1 to 15): v. 1, 1847 August; v. 2, 1848 June 8; v. 3, 1849 April 20 -- Level Notes in Main Street (Worcester, Mass.); v. 4, 1849 April 19 -- Located Line in Main Street (Worcester, Mass.); v. 5, 1849 September 20; v. 6, 1850 March 16; v. 7, 1850 July 2; v. 8, 1850 August 28; v. 9, 1850 October 26; v. 10, 1850 December 30; v. 11, 1851 April 28; v. 12, 1851 September 30; v. 13, 1852 February 14 -- Notes and Estimates for the new State Lunatic Asylum; v. 14, 1852 September 14; v. 15, 1853 June 11.

2 Field Notebooks, undated; 1849-1859

This box contains twenty-three field notebooks (volumes 16 to 36): v. 16, 1853 October 7; v. 17, 1854 April 7; v. 18, 1850 June 28 -- Estimates &c., not indexed; v. 19, 1849 October 6 -- Prices of Work & Estimates &c., not indexed; v. 20, undated, Sketch Book, Estimates

&c., not indexed; v. 21, 1850 June 27 -- Measurements, Estimates &c., not indexed; v. 22, undated; v. 23, 1854 August; v. 24, 1854 September 28; v. 25, 1854 November 10; v. 26, undated; v. 26a, undated; v. 27, 1855 March 23; v. 28, 1855 June 6; v. 29, 1855 August 18; v. 29a, 1855; v. 30, 1856 April; v. 31, 1856 August 8; v. 32, 1856 December 12; v. 33, 1857 December 16; v. 34, 1858 October 20; v. 35, 1859 January 1; v. 36, 1859 July 14.

3 Field and Miscellaneous Notebooks, 1848-1874

This box contains seventeen field notebooks (volumes 37 to 53): v. 37, 1859 July; v. 38, 1859 October 27; v. 39, 1860 May 26; v. 40, 1860 November 6; v. 41, 1860 December 22; v. 42, 1862 March 28; v. 43, 1862 October 21; v. 44, 1863 May 1; v. 45, undated; v. 46, 1863 October; v. 47, undated; v. 48, undated; v. 49, 1864 May 31 -- Field Book used by M.A. Boyden; v. 50, undated; v. 51, 1866 -- Field Book used by M.A. Boyden; v. 52, undated; v. 53, 1864 April 28.

The box also contains seventeen other notebooks:

**1853-1854**, Field notes made for the city of Worcester, Mass.

**1853 December 17**, Norwich & Worcester Railroad Survey--Webster,  
Mass.

**1853 December 17**, Norwich & Worcester Railroad Survey--Oxford,  
Mass.

**1853 December 17**, Norwich & Worcester Railroad Survey--Auburn,  
Mass.

**1854**, Notes on City Hotel (Worcester, Mass.)

**1856**, Copy of field notes and estimates for the Worcester Water  
Works made by P. & S. Ball under the direction of M. B. Inches, C.E.

(cont.)

**1856-1862**, Notes on Mechanics Hall (Worcester, Mass.) and Washburn  
Hall (Worcester, Mass.)

**1856 May 30**, Surveys in Leicester, Mass., for the Worcester Water  
Works

**1857 April 7**, Notes on Long Pond (Hopkinton, Mass.)

**1857 April 13**, Survey on Lincoln and Burncoat streets in Worcester,  
Mass.

**1857 July 9**, Field Notes made in relation to the Old Court House  
(Worcester, Mass.) and for building a new County Jail (Fitchburg,  
Mass.)

**1858**, Notebook containing measurement of brick and other work in

the Fitchburg jail

1861-1862, Notes on Long Pond (Hopkinton, Mass.)

1862, Notes on the Quinsigamond Bridge

1863, Surveys of Lynde Brook (Leicester, Mass.)

1866-1872, Notebook of the Worcester Water Works

1871, Worcester Water Assessments (indexed)

Octavo Volumes

1 "Index to Papers"

2 "Index Account Books of Phineas Ball, Surveyor 1847-1867 Worcester County, Massachusetts" [typescript]

3 Index to Field and Miscellaneous Notebooks

4 1848, Diary--kept in Henry J. Howland, The Worcester Almanac, Directory, and Business Advertiser for 1848. (Worcester: Published by S.A. Howland, [1847])

5 1874 November 23, Report on readings taken from the Weir River for the Springfield Water Works