



Smithsonian  
*National Museum of American History*  
*Kenneth E. Behring Center*

## Guide to the Howe Scale Company Records

NMAH.AC.0004

Robert Harding

1984

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## Collection Overview

<b>Repository:</b>	Archives Center, National Museum of American History
<b>Title:</b>	Howe Scale Company Records.
<b>Identifier:</b>	NMAH.AC.0004
<b>Date:</b>	1868 - 1963
<b>Extent:</b>	32 Cubic feet (77 boxes)
<b>Creator:</b>	Howe Scale Co.
<b>Language:</b>	English .

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## Administrative Information

### Provenance

Collection transferred from the Division of Physical Sciences (now known as the Division of Medicine and Science), February 3, 1983.

### Other Finding Aids

Inventory available; contact the Archives Center for more information.

### Processing Information

Processed by Robert S. Harding, archivist, June 1984; revised C. A. Orr, archivist, 11 23 88 ; revised Robert S. Harding 11/96

### Preferred Citation

Howe Scale Company Records, Archives Center, National Museum of American History

### Restrictions

Collection is open for research.

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## Biographical / Historical

The original inventor of the Howe Scale was Frank M. Strong of Vergennes, Vermont. In 1855 while working for the Sampson Scale Company of Vergennes, he conceived of the idea of ball bearing protection for the scale. In 1856, along with Thomas Ross, Strong obtained the first patent.

The lever system was also simplified. This problem of accuracy led to a new ball bearing principle. The Strong and Ross improvement concerned a method for protecting the knife edges.

"A scale weighs by means of a system of levers. The fulcrum, or balancing support of this system is the sharp edge of a piece of steel called a pivot, on which the platform of the scale rests. When a load is placed on the platform the impact causes it to shift about on the pivots. This action tends to blunt the sharp edge of these pivots and affects the accuracy of the scale."

Frank Strong conceived of the idea of placing the scale platform on metal balls resting in cup shaped depressions over the knife edged pivots. This enabled the platform to move freely, absorb vibrations, reduce wear on the pivots and insure longer accuracy expectation of the scale. This invention became the first outstanding scale improvement in America, and was the real foundation of the present business.

The first scale with the new improved ball bearing was installed at Vernon Village Mills in Oenida County, New York in 1856. In 1857 the installation of a gigantic scale on the Morris Canal, Washington, New Jersey, for weighing canal boats was completed. The scales also took first premium at the Vermont State Fair in 1857 and 1858, competing with older and better known scales.

Also in 1857, Mr. John Howe, Jr., who owned a foundry at Brandon, lent financial assistance and in the Spring purchased all the patents taken out by Strong and Ross. The two partners remained with the company on a salary and royalty basis.

In 1858 the Howe Scale Co. began to win awards consistently at fairs and exhibitions throughout the country. By 1859 the Howe Scale Company had no competition at these annual events. At the Paris Exposition in 1867 Howe Scale took first prizes competing against all the manufacturers of the world.

In 1868 the Brandon Manufacturing Company was incorporated. The name was subsequently changed and the company merged into the Howe Scale Company in November, 1878. In 1873 Howe began manufacturing hand trucks as a utility measure to facilitate handling of scales and parts within the factory.

However, that same year 1873, proved disastrous. The warehouse, dryhouse, and office of the company was destroyed by fire. The company moved to Rutland.

In 1886 there was a general reorganization of the Howe Scale Company. The newly reorganized company was incorporated as the Howe Scale Company of 1886. John A. Mead of Rutland became president. A new Board was formed and held its first meeting in August of 1888. In 1920 Mead died and his son in law, Carl B. Hinsman was elected president. In 1925 the Mead interests were purchased by another management group, and Frank G. Riehl became head of the company. The new management purchased rights for the weightograph, a device which produces weight readings on a ground glass screen by means of optical magnification. This was one of the greatest innovations in weighing improvements since the original Strong and Ross patent.

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## Scope and Contents

These records, 1868 1963, include records of various companies some of which eventually merged into the Howe Scale Company. Included are corporate records: minutes, charters, legal documents, stock

certificate books, and correspondence; sales records: newsletters, inter branch correspondence, catalogs and price lists; financial records: ledgers, journals; cash books, inventories, reports, trial balances with recapitulations; photographs; specifications; and news clippings. The 32 cubic feet of material is housed in 15 Paige boxes, 6 Hollinger boxes, and 44 volumes.

There is also a collection, the Howe Scale Company Papers, 1856 1961, at the Special Collections, Bailey Howe Library of the University of Vermont.

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## Arrangement

The collection is divided into six series.

Series 1: Corporate Records, 1868-1953

Series 2: Sales Records, 1928-1960

Series 3: Financial Records, 1883-1928

Series 4: Photographic Scrapbooks, 1887-1925

Series 5: Specifications, 1890-1927

Series 6: Clippings, 1953-1971

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## Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

Scales (Weighing instruments)

Types of Materials:

Cashbooks

Charters

Clippings

Correspondence -- 1930-1950

Inventories

Journals (accounts)

Ledgers (account books)

Legal documents

Minutes

Newsletters

Photographs -- 20th century

Sales records

Specifications

Stock certificate books

Names:

Ross, Thomas

Strong, Frank M.

Geographic Names:

Vermont

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## Container Listing

### Series 1: Corporate Records, 1868 - 1953

English.

#### Subseries 1.1: Howe Scale Company (and predecessors)

##### *Box 1*

Box 1 Minutes and Charters , 1868 - 1926

Box 1 Stock Certificate Records, 1878 - 1916

Box 2 1.2: Misc. Corporate Records (Loose papers, including legal documents, correspondence, announcements, and minutes of stockholder meetings) , 1880s - 1950s

#### Subseries 1.3: Rutland Manufacturing Company

##### *Box 3*

Box 3 Stock Certificate Book , 1902 - 1927

Box 3 Check Register, 1927 - 1928

#### Subseries 1.4: Richardson Scale Company

##### *Box 3*

Box 3 Minutes of Stockholders' Meetings , 1907 - 1953

Box 3 Stock Certificate Book, 1908 - 1951

#### Subseries 1.5: Vermont Scale Company

##### *Box 3*

Box 3 Stock Certificate Book, 1891 - 1911

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## Series 2: Sales Records, 1928 - 1963

English.

Box 4                      *The Scalesman* (Company Newsletter) , 1928 May - 1933 December

Box 5                      *The Scalesman*, 1934 October - 1940 November

Box 6                      *The Scalesman* , 1941 January - 1944 December

Inter Branch Correspondence (Memoranda, bulletins, announcements, from central office to branch sales offices and to various departments)

### Box 7

Box 7                      Inter Branch Correspondence , 1927 May 24 - 1933 December 21

Box 7                      Inter Branch Correspondence , 1943 August 02 - 1946 November 22

Box 7                      Inter Branch Correspondence , 1953 January 08 - 1954 August 11

Box 7                      Inter Branch Correspondence , 1954 August 16 - 1956 February 28

## Catalogs and Price Lists

### Box 8

Box 8                      Howe Richardson Scale Co. Products Manual, 1962 - 1963

Box 8                      Howe Scale Co. Catalog #53 (with open house schedule for visiting personnel from the Canadian Fairbanks Morse Company, Ltd.) , 1960 December 14-15

Box 8                      Howe Trucks Catalog #15

Box 8                      Howe Scales: Electrical Products Catalog, 1957 - 1959

Box 8                      Howe Scales Price List: Catalogs #46 and #48

Box 9                      Howe Scale Order Book: *The Use, Abuse and Proper Care of Scales*, Howe Scale Co., Vermont, U.S.A. [Leaflet]

Box 9                      Howe Scale Company Labels

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**Series 3: Financial Records, 1882 - 1937****Howe Scale Co. Ledgers***Box 10-15*

Box 10	Ledger, 1882 - 1885
Box 11	Ledger , 1888 - 1890
Box 12	Ledger, 1893 - 1899
Box 13	Ledger , 1912 - 1916
Box 14	Ledger, 1917 - 1921
Box 15	Ledger, 1922 - 1927

**Howard Scale Co. Journals***Box 16-19*

Box 16	Journal , 1882 - 1888
Box 17	Journal, 1888 - 1890
Box 18	Journal D , 1912 - 1924
Box 19	Journal E, 1924 - 1929

**Howard Scale Co. Cash Books***Box 19-24*

Box 19	Cash Book , 1882 - 1884
Box 20	Cash Book , 1888 - 1911
Box 21	Cash Book , 1912 - 1916
Box 22	Cash Book G , 1917 - 1921
Box 23	Cash Book H , 1921 - 1925
Box 24	Cash Book I, 1925 - 1937

Box 45                      Invoices of Goods sold to John A. Mead Co., 1894 - 1897

Box 45                      Inventory 3, 1881 - 1883

Box 45                      Inventory 4, 1883 - 1884

Box 45                      Inventory B, 1920 - 1926

### Reports of Sales and Expenses of Branch Offices and Agencies

#### *Box 45*

Box 49                      Page, Dennis Co., New York , 1889 - 1906

Box 49                      Howe Scale Co., Philadelphia , 1889 - 1906

Box 49                      Howe Scale Co., Pittsburgh , 1889 - 1906

Box 49                      Borden and Selleck, Chicago , 1886 - 1906

Box 49                      Borden and Selleck, Cleveland , 1886 - 1906

Box 49                      Borden and Selleck, St. Louis , 1886 - 1906

Box 49                      Borden and Selleck, Kansas City , 1892 - 1906

Box 49                      Howe Scale Co., Cincinnati , 1886 - 1906

Box 49                      Howe Scale Co., San Francisco , 1889 - 1906

Box 49                      Howe Scale Co., Portland , 1892 - 1899

Box 49                      Howe Scale Co., Portland, 1915

Box 49                      Howe Scale Co., Minneapolis , 1906 - 1914

Box 49                      Howe Scale Co., New York , 1907 - 1915

Box 49                      Howe Scale Co., Philadelphia , 1907 - 1915

Box 49                      Howe Scale Co., Pittsburgh , 1907 - 1915

Box 49                      Howe Scale Co., Cleveland , 1907 - 1915

Box 49	Howe Scale Co., St. Louis , 1907 - 1915
Box 49	Howe Scale Co., Kansas City , 1907 - 1915
Box 49	Howe Scale Co., Cincinnati , 1907 - 1915
Box 49	Howe Scale Co., San Francisco , 1907 - 1915
Box 49	Howe Scale Co., Portland, 1913 - 1914
Box 45	Financial Records of Washington State Branch Operations, 1919 - 1926
<b>Trial Balances</b>	
<i>Box 25-27</i>	
Box 25	Trial Balances , 1884 - 1889
Box 25	Trial Balances, 1899 - 1926
Box 25	Trial Balances , 1900 - 1903
Box 26	Trial Balances, 1900 - 1908
Box 26	Trial Balances, 1904 - 1910
Box 26	Trial Balances, 1908 - 1916
Box 26	Trial Balances , 1911 - 1917
Box 27	Trial Balances , 1918 - 1923
Box 27	Trial Balances, 1922 - 1923
Box 27	Trial Balances, 1927
Box 27	Trial Balances, 1924 - 1928
Box 27	Manufacturing Records, Iron Coal Coke, 1913 - 1920
Box 28	Check Stub Book (unidentified), 1925 June 23 - 1927 May 06
Box 29	Voucher Record (unidentified), 1895 April - 1901 September

## Vermont Scale Co., Ledgers

### *Box 30-34*

Box 30	Ledger A , 1891 - 1895
Box 31	Ledger B , 1896 - 1899
Box 32	Ledger C, 1900 - 1903
Box 33	Ledger D , 1904 - 1908
Box 34	Ledger E, 1909 - 1910

## Vermont Scale Co., Journals

### *Box 35-36*

Box 35	Journal A , 1891 - 1899
Box 36	Journal B, 1899 - 1910

## Vermont Scale Co., Cash Books

### *Box 37-40*

Box 37	Cash Book A , 1891 - 1910
Box 38	Cash Book B , 1896 - 1901
Box 39	Cash Book C , 1901 - 1906
Box 40	Cash Book D, 1906 - 1911
Box 45	John A. Mead and Co., Invoices , 1894 - 1897
Box 45	John A. Mead and Co., Ledger, 1924 - 1927
Box 28	Rutland Manufacturing Co., Ledger, 1918 - 1923
Box 29	Rutland Manufacturing Co., Journal

## Unidentified Ledgers

Box 46	Unidentified Ledgers , 1885 - 1888
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Box 46	Unidentified Ledgers, 1894 - 1899
Box 46	Unidentified Ledgers, 1895 - 1898
Box 46	Unidentified Ledgers , 1911
Box 41	Unidentified Ledgers, 1917 - 1918
Box 42	Unidentified Ledgers, 1919 - 1925

### Unidentified Journals

Box 47	Unidentified Journals, 1885 - 1888
Box 47	Unidentified Journals, 1891 - 1894
Box 47	Unidentified Journals, 1894 - 1895
Box 47	Unidentified Journals, 1911
Box 47	Unidentified Journals, 1927
Box 41	Unidentified Journals, 1923 - 1928

### Unidentified Cash Books

Box 48	Unidentified Cash Books , 1883 - 1885
Box 48	Unidentified Cash Books, 1883 - 1885
Box 48	Unidentified Cash Books, 1885 - 1888
Box 48	Unidentified Cash Books, 1894 - 1895
Box 48	Unidentified Cash Books , 1911 - 1912
Box 48	Unidentified Cash Books, 1917

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## Series 4: Photograph Scrapbooks, 1887 - 1925

Box 49	Vol. 1 (No. 1-265) , 1887 - 1891
Box 50	Vol. 2 (No. 266-736) , undated
Box 51	Vol. 3 (No. 737-1397) , - 1894
Box 52	Vol. 4 (No. 1021-1916) , 1893 February - 1896 May
Box 54	Vol. 6 (No. 2519-3108) , 1899 February - 1901
Box 53	Vol. 5 (No. 1959-2518) , 1896 September - 1899 February
Box 55	Vol. 7 (No. 3466-3804) , 1902 April - 1904 March
Box 57	Vol. 9 (No. 4124-4478), 1905 June - 1907 October
Box 58	Vol. 10 (No. 4479-4881) , 1907 October - 1910 October
Box 59	Vol. 11 (No. 4882-5267), 1910 June - 1913 March
Box 56	Vol. 8 (No. 4016-5014) , - 1911 December
Box 60	Vol. 12 (No. 5017-5607) , 1911 June- 1915 February
Box 61	Vol. 13 (No. 5599-5886) , undated
Box 62	Vol. 14 (No. 5741-6652), 1916 February - 1925 September
Box 63	Vol. 15 (No. 5911-6092) , 1917 October -
Box 64	Vol. 16 (No. 6093-6337) , unknown - 1922 May
Box 65	Vol. 17 (No. 6190-6595), 1920 April - 1925 April
Box 66	Vol. 18 (No. 6338-6655), 1922 June - 1925 September

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## Series 5: Specifications, 1892 - 1927

### *Box 67-71*

#### Specification Numbers

### *Box 67-71*

Box 67	No. x----x , 1890 August - 1892 December
Box 67	No. x----x , 1893 July - 1894 May
Box 67	No. 2578-2815 , 1894 March - 1895 March
Box 67	No. 2573-3116 , 1894 March - 1896 February
Box 68	No. 3117-3437 , 1896 February - 1897 March
Box 68	No. 3437-3949 , 1897 March - 1898 December
Box 68	No. 3950-4414 , 1899 February - 1900 March
Box 68	No. 4416-4919 , 1900 April - 1901 May
Box 68	No. 4920-5476 , 1901 May - 1902 December
Box 69	No. 5478-7282 , 1902 December - 1908 June
Box 69	No. 7284-8767 , 1908 June - 1912 January
Box 69	No. 10118-11145, 1914 January - 1916 March
Box 70	No. 11142-11699 , 1916 March - 1916 September
Box 70	No. 11701-12642 , 1916 August - 1917 December
Box 70	No. 12661-14251 , 1917 December - 1921 October
Box 71	No. 14252-15755 , 1921 October - 1925 August
Box 71	No. 15759-16611, 1925 August - 1927 May

#### Specification Notebooks

### *Box 71*

Box 71

Specification Notebooks (3 Volumes), 1898 - 1926

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## Series 6: Clippings , 1953 - 1971

*Box 43-44*

Box 43                      Newspaper Clipping Scrapbook , 1953 - 1961

Box 44                      Newspaper Clipping Scrapbook, 1962 - 1971

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