



Smithsonian
National Museum of American History
Kenneth E. Behring Center

Guide to Charles Richardson Pratt Papers

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Alison Oswald

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Table of Contents

Collection Overview	1
Administrative Information	1
Arrangement.....	2
Scope and Contents.....	2
Biographical / Historical.....	2
Names and Subjects	3
Container Listing	4
Series 1: Personal Materials, 1932 - 1932, 1934 - 1935, 1875 - 1875, 1907 - 1907, 1915 - 1915.....	4
Series 2: Diaries, 1931 - 1931, 1894 - 1894, 1928 - 1929.....	5
Series 3: Correspondence, 1872 - 1920.....	6
Series 4: Notebooks, 1889 - 1889, 1880 - 1880, 1900 - 1900.....	9
Series 5: Inventions, 1860 - 1927.....	10
Series 6: Photographs, 1890 - 1902.....	15
Series 7: Publications, 1895 - 1929.....	16
Series 8: Drawings, 1878 - 1929.....	18

Collection Overview

Repository:	Archives Center, National Museum of American History
Title:	Charles Richardson Pratt Papers
Identifier:	NMAH.AC.0958
Date:	1860-1935 (bulk 1910-1924)
Extent:	6 Cubic feet (13 boxes, 8 oversize folders)
Source:	Mechanical and Civil Engineering, Division of [former name], NMAH, SI. History of Technology, Division of, NMAH, SI Pratt, Charles Richardson, 1860-1935 Work and Industry, Division of, NMAH, SI
Language:	English
Summary:	The papers document the professional career of mechanical engineer, Charles Richardson Pratt. The papers include correspondence, patents, patent application materials, agreements, photographs, publications, and blueprints for many of Pratt's inventions, especially his work on elevators.

Administrative Information

Acquisition Information

This collection was purchased from Charles R. Pratt's daughter, Gertrude Pratt Vance, in 1973.

Provenance

Transferred to the Archives Center in 2007 by the Division of Work and Industry, formerly called the Division of Mechanical and Civil Engineering.

Processing Information

Processed by Alison Oswald, archivist, 2016.

Preferred Citation

Charles Richardson Pratt Papers, 1860-1935, Archives Center, National Museum of American History.

Restrictions

Collection is open for research.

Conditions Governing Use

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Biographical / Historical

Charles Richardson Pratt (1860-1935), was born in Massachusetts to John C. and Mary Anne Richardson. He graduated from the Hopkins School of Boston and the Massachusetts Institute of Technology in 1879. Pratt worked at Whittier Machine Company of Boston (1882-1890) where he designed and built the first electric elevator in 1888. The elevator was installed in the Tremont House, Boston. Pratt also worked as an agent and later as a consulting engineer for the Otis Elevator Company, the inventors of the hydraulic elevator.

Pratt was best known for his development of the first electrically powered elevator. In 1892, inventor Frank Sprague (1857-1934) founded the Sprague Electric Elevator Company, and with Charles R. Pratt developed the Sprague-Pratt Electric Elevator. They demonstrated that electrically powered elevators were capable of competing with hydraulic elevators. Pratt held several engineering positions and worked for the Marine Engine Company of Newark, New Jersey (1902-1905) developing elevator systems; consulting engineer to the Universal Speed Control Company of New York City (1906-1919); consultant to the American Engineering Company of Philadelphia (1912); mechanical superintendent at the Crocker Wheel Company of Ampere, New Jersey (1919); engineer for the E. Horton and Sons Company of Connecticut (1920-1923); the General Tractors Corporation (1924-1927); and was associated with the Watson Elevator Company of New York City (1928-1930). Pratt patented many of his ideas, earning over thirty-five patents related mostly to elevators,

Pratt was a member of the Masons, the Sons of the American Revolution, the American Society of Mechanical Engineers, the MIT Club of New Jersey, and the Motor Club of London. He married Mary Byron Ladd and they had two children, Gertrude Ladd Pratt and Donald Richardson Pratt.

Scope and Contents

These papers contain personal materials of Charles R. Pratt; letterpress copybooks; engineering notebooks; diaries; material relating to the development of the heavy-duty, high-rise electric elevator; material concerning elevator cable equalizers and safety devices, Morton-Jacobsen and other lathe chucks, lathe drives and the Pratt Driver, the hydraulic transmission of power in trucks, and ship steering gear; and studies reports, drawings, photographs, catalogs, and trade literature concerning mechanical engineering.

Arrangement

The collection is arranged into eight series.

Series 1: Personal Materials, 1875-1935

Series 2: Diaries, 1894, 1928-1931

Series 3: Correspondence, 1872-1920

Series 4: Notebooks, 1880, 1889, 1900

Series 5: Inventions, 1860-1927

Series 6: Photographs, 1890-1902

Series 7: Publications, 1895-1929

Series 8: Drawings, 1878-1929

Names and Subject Terms

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

Subjects:

- Elevators
- Inventors
- Machine-tools
- Mechanical engineering and engineers
- Patents -- 1890-1900
- Power transmission

Types of Materials:

- Diaries
- Drawings
- Letterpress books
- Notebooks
- Patents -- 1870-1880
- Photographs -- 19th century
- Trade catalogs

Names:

- History of Technology, Division of, NMAH, SI
- Mechanical and Civil Engineering, Division of [former name], NMAH, SI.
- Sprague, Frank J.
- Work and Industry, Division of, NMAH, SI

Geographic Names:

- Montclair (N.J.)

Container Listing

Series 1: Personal Materials, 1932 - 1932, 1934 - 1935, 1875 - 1875, 1907 - 1907, 1915 - 1915

This series contains materials relating to Pratt's personal life such as membership cards, materials about his interest in golf and an 1875 publication titled *The Budget* which Pratt edited at the age of 15. A photograph of the young Pratt is included.

Box 13, Folder 1	University of State of New York certificate of license for professional engineering, 1924-09 - 1924-09
Box 1, Folder 1	The Budget (includes photograph of Charles R. Pratt), 1875-06 - 1875-06
Box 1, Folder 2	Ancient Arabic Order, Nobles of the Mystic Shrine (membership), 1907 - 1907
Box 1, Folder 3	American Society of Mechanical Engineers (membership card), undated
Box 1, Folder 4	The Motor Club (London), undated
Box 1, Folder 5	Golf club carrier and notes about golf clubs, 1915 - 1915, 1932, 1934 - 1934
Box 1, Folder 6	Newspaper clippings, 1935 - 1935

[Return to Table of Contents](#)

Series 2: Diaries, 1931 - 1931, 1894 - 1894, 1928 - 1929

This series contains pocket diaries maintained by Pratt. The diaries contain information about his daily activities and appointments. The series is arranged chronologically.

Box 1, Folder 7 Diaries, 1894

Box 1, Folder 8 Diaries, 1928

Box 1, Folder 9 Diaries, 1929

Box 1, Folder 10 Diaries, 1931

[Return to Table of Contents](#)

Series 3: Correspondence, 1872 - 1920

This series consists of both incoming and outgoing correspondence written by Pratt. The correspondence is almost exclusively work-related and is both handwritten and typescript. Additional correspondence about Pratt's work can be found in Series 5: Inventions, 1860-1927. There is one folder of personal correspondence with letter to his wife, Mary and daughter, Gertrude.

Box 1, Folder 11	Letter book, 1872 February-1872 June
Box 1, Folder 12	Letter book, 1888 May-1889 January
Box 13, Folder 1A	Letter book (loose pages, 292-293, 296-299), 1889 - 1889
Box 2, Folder 1	Letter book, 1892-06-30 - 1897-06, 1900 - 1900
Box 2, Folder 2	Letter book, 1895-12 - 1897-03
Box 2, Folder 3	Letter book, 1898-10-18 - 1900-12-22
Box 2, Folder 4	Personal , 1896 - 1896, 1898 - 1898 Letters from Charles Pratt to his wife, Mary, known as "Pink" and his daughter, Gertrude, known as "Goo."
Box 3, Folder 4-5	American Society of Mechanical Engineers, 1899-01-18 - 1899-11 Relates to elevators and society transactions.
Box 3, Folder 6	Alphabetical (B), 1899 - 1900
Box 3, Folder 7	Alphabetical (C-F), 1899 - 1899
Box 3, Folder 8	Alphabetical (G), 1899 - 1899
Box 3, Folder 9	Alphabetical (H-J), 1899
Box 3, Folder 10	Alphabetical (K-O), 1899
Box 3, Folder 11	Alphabetical (Q-S), 1899
Box 4, Folder 1	Alphabetical (U-W), 1899
Box 4, Folder 2	American Engineering Company (marine steering gear), 1919 - 1921
Box 4, Folder 3	American Engineering Company (ship steering gear), 1914 - 1916
Box 4, Folder 4	Everett, Russell M. (patent attorney), 1911 - 1914

Primarily correspondence about obtaining foreign patents for many of Pratt's inventions. Also includes correspondence from Marks and Clerk Consulting Engineers and Chartered Patent Agents in London.

- Box 4, Folder 5 E. Horton and Son Company (relates to chucks), 1920
- Box 4, Folder 6 City of Minneapolis (court house and city hall), 1894
- Box 4, Folder 7 Ordnance Department, 1917
- Box 4, Folder 8 Park Row Building, 1900
- Box 4, Folder 9 Pumps and hydraulic transmissions, 1927
- Box 4, Folder 10 Rotary piston internal combustion engine (correspondence with H.G. Sharp), 1911 - 1912
- Box 4, Folder 11 Sprague Electric Elevator Company, 1889
- Box 4, Folder 12 Sprague Electric Elevator Company (A-B), 1894 - 1895
- Box 4, Folder 13 Sprague Electric Elevator Company (D), 1894
- Box 4, Folder 14 Sprague Electric Elevator Company (E-G), 1891 - 1895
- Box 4, Folder 15 Sprague Electric Elevator Company (H-N), 1894 - 1895
- Box 4, Folder 16 Sprague Electric Elevator Company (O-R), 1890 - 1894
- Box 4, Folder 17 Sprague Electric Elevator Company (S), 1894 - 1895
- Box 4, Folder 18 Sprague Electric Elevator Company (T-W), 1894 - 1895
- Box 4, Folder 19 Sprague Electric Elevator Company , 1897 - 1899
- Box 5, Folder 1 Sprague Electric Elevator Company (agreements), 1894 - 1894, 1889
- Box 5, Folder 2 Sprague Electric Elevator Company (Daniel Smith, store room clerk), 1896
- Box 5, Folder 3 Crocker-Wheeler Company (shop methods and systems), 1918
- Box 5, Folder 4 Crocker-Wheeler Company (traction wheel), 1918 - 1919
- Box 5, Folder 5 Union Manufacturing Company (chucks), 1919 - 1920

[Return to Table of Contents](#)

Series 4: Notebooks, 1889 - 1889, 1880 - 1880, 1900 - 1900

This series consists of bound notebooks, arranged chronologically, belonging to Charles R. Pratt. The notebooks contain sketches, calculations, data, and other notes primarily related to elevator development and other inventive pursuits.

Box 2, Folder 5	Chas. R. Pratt (Whittier Machine Company, Draughting Room), 1880-09-27 - 1880-09-27
Box 2, Folder 6	Charles R. Pratt (Boston and Sprague Electric Elevator Company, New York City and Bloomfield, New Jersey), 1889 - 1889 Image(s)
Box 3, Folder 1	Charles R. Pratt, 1900-08-21 - 1900-08-21
Box 3, Folder 2	Charles R. Pratt (Upper Montclair, New Jersey), 1907 - 1907
Box 3, Folder 3	C.R. Pratt (Sprague Elevator Company, New York City) , undated Notebook contains information about the Bowling Green Building and car travel.
Box 3, Folder 3	C.R. Pratt (Notebook D), undated Notebook consists of drawing alterations.

[Return to Table of Contents](#)

Series 5: Inventions, 1860 - 1927

This series consists of materials related to Pratt's inventions. The materials include correspondence, patents, patent applications, sketches, calculations, blueprints, and some photographs. The materials are arranged chronologically by patent issue date. Researchers should consult Series 3: Correspondence for additional information.

There is substantial documentation about Pratt's cable tension equalizing device which he co-patented with John Heslip on November 30, 1923 (US 1,474,911) and the subsequent patent interference case. The patent, filed on April 6, 1921, was intended, "to provide an improved apparatus whereby the tension on several load carrying cables may be maintained substantially uniform while operating." The invention would be most valuable to elevators whose load needs to be properly distributed.

Edward E. Wright of Detroit patented an equalizer (US 1,465,705) on August 21, 1923, three months before Pratt. Wright suggested to Pratt that he abandon his pursuit of filing a patent and that he was the rightful inventor. According to Pratt's records, namely his sketches, he and Heslip conceived of the idea in Kansas City first, implementing their invention in the Commerce Trust Building. Pratt's November 30, 1920 sketch, made on the back of a menu for the Hotel Baltimore in Kansas City, details his elevator rope equalizer. Wright began an patent interference with the United States Patent and Trademark Office, *Edward E. Wright v. Charles R. Pratt* (Interference No. 48, 278) on November 16, 1922. An interference proceeding, also known as a priority contest, is a proceeding before patent judges to determine the priority issues of multiple patent applications. On March 16, 1923, Pratt and Wright resolved their patent interference with the following agreement: Wright paid Pratt \$500 in cash; Pratt would no longer pursue the patent interference; and Wright would grant Pratt an exclusive license to manufacture, use, and sell all forms of the equalizer except the form shown in Wright's patent

Box 13, Folder 7	Elevator equalizer (model template), 1922-04-28 - 1922-04-28
Box 5, Folder 6	US 417, 086 and US 417, 087 (clutch appliance for elevators), 1889 - 1889, 1891 - 1891 Agreements with Frank Sprague, John H. Clark, Edward H. Johnson, and Thompson Houston Motor Company
Box 5, Folder 7	US 444,102 (brake and starter for machinery), 1891 - 1891
Box 5, Folder 8	US 448,788 (elevator), 1891
Box 5, Folder 9	US 450,252 (elevator), 1891
Box 5, Folder 10	US 459,090 (controlling mechanism), 1891
Box 5, Folder 11	US 465,218 (adjustable rheostat, with Frank Sprague), 1891
Box 5, Folder 12	US 472,909 (electric elevator), 1892
Box 5, Folder 13	US 476,304 (ball bearing nut), 1892
Box 5, Folder 14	US 509,397 (electric elevator), 1893

Box 5, Folder 15	US 548,894 (elevator safety device), 1897
Box 5, Folder 16	US 573,531 (elevator), 1896
Box 5, Folder 17	US 580,893 (elevator), 1897
Box 5, Folder 18	US 676,152 (elevator safety device), 1904 - 1905 Includes assignment to Marine Engine and Machine Company.
Box 5, Folder 19	US 676,769 (thrust bearing), 1901
Box 5, Folder 20	US 763,204 (moving stairway), 1904
Box 5, Folder 21	US 846,613 (elevator safety device), 1907
Box 5, Folder 22	US 853,733 (elevator safety device), 1907
Box 5, Folder 23	US 865,205 (elevator), 1907
Box 6, Folder 1	US 958,679 (elevator patent gear), 1906 - 1916
Box 6, Folder 2	US 958,679 (elevator safety device), 1910
Box 6, Folder 3	US 1,019,521 (pump), 1912
Box 6, Folder 4	US 1,048,999 (controlling mechanism for motors), 1912
Box 6, Folder 5	US 1,049,000 (speed control), 1912, 1923 - 1923
Box 6, Folder 6	US 1,211,961 (means for controlling synchronized fluid gears), 1917
Box 6, Folder 7	US 1,294,162 (hydraulic ship steering gear), 1919
Box 6, Folder 8	US 1,137,283 (rotary power piston transmission), 1915
Box 6, Folder 9	US 1,362,040 (fluid power transmission pump or motor), 1920
Box 6, Folder 10	US 1,446,062; US 1,446,065; US 1,446,066 (lathe drive chucks), 1922
Box 6, Folder 11	Chucks (correspondence), 1919
Box 6, Folder 12	Chucks (general), 1919

Box 6, Folder 13	Chucks (patent-related), 1919 - 1920
Box 6, Folder 14-15	Chucks (E. Horton and Son Company), 1921 - 1922
Box 7, Folder 1	Chucks (patent-related), 1919 - 1922
Box 7, Folder 2	Chucks (correspondence with E. Horton and Son Company and patent assignment), 1920 - 1921
Box 7, Folder 3	Chucks (E. Horton and Son Company), 1920 - 1923
Box 7, Folder 4	Chucks (Bullard Machine Tool Company), 1919
Box 7, Folder 5	Chucks (cam toggle no spring) correspondence, 1921
Box 7, Folder 6	Pratt Driver (correspondence), 1920 - 1921
Box 7, Folder 7	Chucks (Horton and Jacobson) patent agreements, 1919 - 1922
Box 8, Folder 1	US 1,474,911 (elevator equalizer) General Tractor Corporation and Otis Elevator Company, 1921 - 1924
Box 8, Folder 2	US 1,474,911 (elevator equalizer) Guernev Elevator Company, 1922 - 1923
Box 8, Folder 3	US 1,474,911 (elevator equalizer) patent application and Wright interference, 1920 - 1922
Box 8, Folder 4	US 1,474,911 (elevator equalizer) sketches, 1922 Image(s)
Box 8, Folder 5	US 1,474,911 (elevator equalizer) correspondence, 1921 - 1922
Box 8, Folder 6	US 1,474,911 (elevator equalizer) correspondence and sketches, 1921 - 1922 Image(s)
Box 8, Folder 7	US 1,474,911 (elevator equalizer) agreement with Wright, 1921 - 1923
Box 8, Folder 8	US 1,474,911 (elevator equalizer) relates to sheave, 1923 - 1924
Box 8, Folder 9	US 1,474,911 (elevator equalizer) elevator in the Commerce Building in Kansas City , 1921 - 1924
Box 8, Folder 10	US 1,159,082 (electric control for delivery of power), 1915

Box 8, Folder 11	US 1,158,554 (rotary piston engine) , 1915
Box 8, Folder 12	US 1,163,849 (pump or motor), 1915
Box 8, Folder 13	US 1,165,121 (control apparatus), 1915
Box 9, Folder 1	Elevator oil buffer, 1921
Box 9, Folder 2	Elevators and other hoisting apparatus (description of invention) , undated
Box 9, Folder 3	Gears, motors and fluid motors, 1921
Box 9, Folder 4	Hydraulic pump transmission calculations , 1911
Box 9, Folder 5	Hydraulic ship steering gear, 1917
Box 9, Folder 6	Micro-drive, 1921
Box 9, Folder 7	Parallel hoisting motor, 1927
Box 9, Folder 8	Variable stroke pump elevator (Hudson Terminal Building), 1914
Box 9, Folder 9	Rotary piston pump and variable stroke pump, 1913
Box 9, Folder 10	Ship steering (patent application and sketches) , 1917
Box 9, Folder 11	Watson Elevator Company, 1924
Box 9, Folder 12	Universal Speed Control Company (lists of patents), 1915
Box 9, Folder 13	Agreements for hydraulic elevator assigned to Otis Elevator Company, 1914 August 25
Box 9, Folder 14	Agreements for hydraulic ship steering gear and hydraulic ram engines (Pratt and Harry C. Sanford), 1917 January 4
Box 9, Folder 15	Patent folder of Howson and Howson, undated
Box 9, Folder 16	Patents by others (relate to hydraulic power transmission and control), 1860 - 1899
Box 9, Folder 17	Patents by others (relate to hydraulic power transmission and control), 1900 - 1911

Box 9, Folder 18	Patents by others (motor and control related), 1890 - 1906
Box 10, Folder 1	Miscellaneous power transmissions, fluid gear motor drawings for Universal Speed Control Company, undated
Box 10, Folder 2	Foreign patents issued to Charles R. Pratt, 1911, 1913 - 1913
Box 10, Folder 3	Patents by others (elevator-related), 1888, 1890 - 1890

[Return to Table of Contents](#)

Series 6: Photographs, 1890 - 1902

This series consists of black and white photographs and four lantern slides. The majority of the images are of Pratt (portraits and with others) as well as images of elevator equipment.

Box 12, Folder 1	J.C. Pratt house in Jamaica Plains, New York, undated
Box 12, Folder 2	Charle R. Pratt house in Montclair, New Jersey, 1902 May
Box 12, Folder 3	Charles R. Pratt, 1899 - 1902 Image(s)
Box 12, Folder 4	Sprague-Pratt Electric Elevator Company (cable images), undated
Box 13, Folder 5; Box 12, Folder 5	Sprague-Pratt Electric Elevator (equipment), undated
Box 12, Folder 6	Hydraulic transmission for motor vehicles, 1910
Box 13, Folder 2	Campbell, Whittier and Company Works, undated
Box 13, Folder 3	American Society of Mechanical Engineers (39th meeting at the War State and Navy Building, Washington, DC), 1899-05-10 - 1899-05-10
Box 13, Folder 4	Sprague-Pratt Electric Elevator, type D (at the Edison Electric Illuminating Company), undated
Box 13, Folder 6	Plates of scale drawings by Pratt, undated
Box 11, Folder 6	Pratt elevator safety car drawing built by Marine Engine and Machine Company, 1890 - 1890 <i>1 lantern slide</i>
Box 11, Folder 6	#32, Marine Engine Company building, aerial view, undated <i>1 lantern slide</i>
Box 11, Folder 6	#33, [Interior shop floor view of Marine Engine and Machine Company?], 1900 - 1900 <i>1 lantern slide</i>
Box 11, Folder 6	Gear with oil, made by Marine Engine and Machine Company, undated <i>1 lantern slide</i>

[Return to Table of Contents](#)

Series 7: Publications, 1895 - 1929

This series contains publications and other printed materials primarily related to elevators and mechanical engineering. The series is arranged alphabetically.

Box 10, Folder 4	<i>The Automobile</i> , Volume XXXVI, No. 19, 1917 May 10
Box 10, Folder 5	Automobile-related writings, 1915 - 1916
Box 10, Folder 6	Cutler Hammer Clutch Company, bulletin 15020, undated
Box 10, Folder 7	Curtis Pneumatic Machinery Company, catalogue no. 63, undated
Box 13, Folder 8	Eagle-Macomber Motor Car Company, 1916
Box 10, Folder 10	Pratt, Charles R. <i>Elevators</i> (for the American Society of Mechanical Engineers), 1899 - 1899
Box 10, Folder 11	Ellithorpe Safety Elevator Company, 1898
Box 13, Folder 8	<i>Engineering News</i> , 1899 April 27
Box 10, Folder 12	Hydraulic control and pumps (includes patents), 1912 - 1914
Box 10, Folder 13	Hydraulic transmissions (general), 1911 - 1925
Box 13, Folder 8	Kelsey Motor Company, undated
Box 13, Folder 8	<i>King's New York Views</i> (by Sprague Electric Elevator Company), 1895
Box 10, Folder 8	Lyon, Dorsey A. <i>Department of the Interior, Bureau of Mines, Electric Furnaces for Making Iron and Steel</i> , 1916
Box 10, Folder 9	Lyon, Dorsey A. <i>Department of the Interior, Bureau of Mines, The Electric Furnace in Metallurgical Work</i> , 1916
Box 10, Folder 10	Pratt, Charles R. <i>Elevators</i> (for the American Society of Mechanical Engineers), 1899
Box 11, Folder 1	McCrosky Tool Corporation, catalogue No. 8, [1923?]
Box 11, Folder 2	Stevenson Engineering Company (silent balanced pumps), undated
Box 11, Folder 3	<i>Timken Engineering Journal</i> , 1929

- Box 11, Folder 4 United States Patent Office, price list, [1897?]
- Box 11, Folder 5 Miscellaneous elevator trade literature, undated

[Return to Table of Contents](#)

Series 8: Drawings, 1878 - 1929

The drawings consist primarily of blueprints for many of Pratt's inventions. Also included are some pencil and ink drawings.

Map-folder 1	Traction wheel, 1917 - 1918 <i>5 Blueprints</i>
Map-folder 1	Diagram of Pratt control #3, electric pilot motor, 1916 <i>13 Blueprints</i>
Map-folder 1	Electro-magnet valve for hydraulic steering gear, 1916 <i>2 Blueprints</i>
Map-folder 1	P.C. and 1 and 3 rheostat plungers, 1916 <i>1 Blueprint</i>
Map-folder 1	American Engineering Company, steering gear for battleships, 1915 - 1916 <i>18 Blueprints</i>
Map-folder 1	Pratt control on Waterbury pump, undated <i>1 Blueprint</i>
Map-folder 1	Pratt pumps, 1914 <i>1 Blueprint</i>
Map-folder 1	American Engineering Company [battleship screw gear], 1914 <i>2 Blueprints</i>
Map-folder 1	Universal Speed Control Company, hydraulic transmission (for two motor units), 1922 - 1923 <i>3 Blueprints</i>
Map-folder 2	Elevator equalizer, 1921 - 1923 <i>21 Blueprints</i>
Map-folder 2	Bullard Machine Tool Company (chucks) <i>12 Blueprints</i>
Map-folder 3	Pratt driver, lathe drivers (Type-B and Type A-3), 1919 - 1921 <i>31 Blueprints</i>
Map-folder 4	Southwark Foundry and Machine Company, American Engineering Company, and Universal Speed Control Company, hydraulic gear motors and fluid motors for battleships, 1910 - 1916 <i>22 Blueprints</i>

- Map-folder 5 Pratt driver for General Tractors Corporation, 1924
7 Blueprints
- Map-folder 5 Hydraulic control and pumps, 1910 - 1911
3 Blueprints
- Map-folder 5 American Engineering Company, electro-hydraulic steering [motor control], 1914
2 Blueprints
- Map-folder 6 Henrici-Lowry Engineering for the Commercial Building, miscellaneous elevator drawings, 1920 - 1921
14 Blueprints
- Map-folder 7 Pratt control schematic diagram (for US 1,048,999 and 1,049,000), 1923 - 1923, 1914
6 Blueprints
- Map-folder 7 Crocker-Wheeler Company, shop methods and systems, 1918
1 Blueprint
- Map-folder 7 American Engineering Company, Hele-Shaw Martineu electric hydraulic steering for the United States Navy scout cruisers, 1916
1 Blueprint
- Map-folder 7 Pratt equalizing sheave, 1929
2 Blueprints
- Map-folder 7 Pratt elevator equalizer, 1923
4 Blueprints
- Map-folder 7 Otic Electric Company, electric elevator machine, 1895 - 1911
13 Blueprints
- Map-folder 8 Watson Elevator Company, nut and screw scale, 1929
1 Blueprint
- Map-folder 8 Universal Speed Control Company, power transmission, rotary piston power, 1911
2 Blueprints
- Map-folder 8 Variable Speed Gear, Ltd., hydraulic transmissions, 1918
2 Blueprints
- Map-folder 8 Scale drawings, 1878
4 Drawings

Map-folder 8	Chucks, 1917 - 1920 <i>6 Blueprints</i>
Map-folder 8	C. Whittier and A. Crosby, vacuum dredge, 1878, 1880 - 1880 <i>1 Blueprint</i>
Map-folder 8	Braces and tubes for horizontal boiler, 1881 <i>1 Blueprint</i>
Map-folder 8	The Pendulum, 1886 <i>1 Blueprint</i>
Map-folder 8	48" boiler bracing, 1881 <i>1 Drawing</i>
Map-folder 8	60" boiler front, undated <i>1 Blueprint</i>
Map-folder 8	Whittier Machine Company, boiler setting, 1881 <i>1 Drawing</i>
Map-folder 8	Sectional elevations of yacht engine cylinder by George Eli Whitney, undated <i>1 Blueprint</i>
Map-folder 8	Candy mixer for Chase and Company, 1885 - 1885 <i>1 Blueprint</i>

[Return to Table of Contents](#)