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A guide to the Crompton and Knowles Loom Works records

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Crompton & Knowles Looms

Crompton and Knowles Loom Works Collection

MS 20_00

Records

ABSTRACT

A collection from the mid 1800s to 1951 that pertains to the following loom companies and their owners: Crompton Loom Works, Knowles Loom Works, Crompton and Knowles Loom Works, George Crompton, L.J. Knowles.

SCOPE AND CONTENT

These order books, ledgers, catalogs, United States Patent books, photographs, and other ephemera pertain to two loom companies: Crompton Loom Works and L.J. Knowles and Bros. These two competing companies consolidated in 1897 - "their names were synonymous with the developments of the art of weaving in America, and by 1920 it was the largest corporation of its kind in the world (p. 69)." The Crompton & Knowles Loom Works company was one of the most prominent manufacturers in Worcester, Massachusetts during the mid to late 1800s. L.J. Knowles was a WPI Trustee from 1871 - 1884.

Source Citation: Forty Immortals of Worcester & Its County. A Brief Account of Those Natives or Residents Who Have Accomplished Something for Their Community or for the Nation. Boston, MA: Walton Advertising & Print., 1920. 69. Print.

This collection is 7.5 linear feet and contains 5 document boxes, 15 phase boxes, and 4 drop front boxes. A majority of the materials relates to any of the following industries or individuals from the 1820s - 1920s: Crompton Loom Works, Knowles Loom Works, Crompton & Knowles Loom Works, George Crompton, and Lucius James (L.J.) Knowles. Additionally, Series V contains a range of materials that are ancillary to the main collection and have dated material up to 1951.

BIOGRAPHICAL SKETCHES

Worcester, Massachusetts was in its prime as a manufacturing mecca for inventors and manufacturers in the late 1800s. George Crompton and Lucius J. Knowles both settled in the city and started their own loom companies. Their companies were the leading manufacturer of looms in the world. Each company had a different theory of weaving. Crompton went by the "closed shed" method of weaving, whereas Knowles went by the "open shed" method of weaving, thus when their companies consolidated they covered both theories of weaving in the manufacturing of looms for the world market (p. 13).

Source Citation: Gabbe, James I., and Mildred McClary. Tymeson. Introduction. The Wyman-Gordon Way. Worcester, MA: Wyman-Gordon, 1983. 13. Print.

George Crompton:

Crompton, George (Mar. 23, 1829 - Dec. 29, 1886), inventor and manufacturer, was the son of William Crompton [q.v.] and Sarah (Low) Crompton, and was born at Holcombe, Tootingham, Lancashire, England. In 1839 William Crompton took the family to Taunton, Mass., where, two years before, he had invented and patented a fancy loom which he now intended to introduce to the mill owners of New England. George grew up at Taunton and received an education there in private schools and in the mills and machine-shops which his father's business opened to him. Later, when the success of his father's loom was established, he was able to attend Millbury (Mass.) Academy. After the completion of his course he worked in the Colt pistol factory at Hartford and in mills belonging to his father, holding a variety of positions, clerical and mechanical, and obtaining a knowledge of the textile industry that very soon proved useful. In 1849 William Crompton was forced to retire because of ill health, and in 1851 the patents on his loom expired and automatically terminated the agreements for its

manufacture. George Crompton succeeded in having the patents extended and, with M. A. Furbush, began the manufacture of the loom at Worcester, Mass. He immediately began to improve the loom, receiving his first patent, Nov. 14, 1854, for the substitution of a single cylinder chain for two or more different patterns. In 1859 Furbush retired and Crompton became sole owner of the business which was then known as the Crompton Loom Works. In 1861 the war caused a depression in the demand for looms, and Crompton for two years manufactured gun-making machinery for government and private arsenals. Returning to the manufacture of looms, he continued his improvements and found a steadily growing demand that forced him to enlarge his works. This plant in time became one of the largest and best-known of American machine-shops. The success of the business, and the two hundred patents on which his name appears, indicate the importance of George Crompton's work. He improved practically every part of the loom as well as its appearance, and invented many new textile fabrics. It is estimated that Crompton added sixty percent to the producing capacity of the loom and saved fifty percent of the labor formerly necessary for its operation. By making a simpler loom he greatly reduced the time and cost of repairs and many of his looms were capable of more varied work than those before them. Crompton's looms in world-wide competition at the Paris Exposition received the first award, and at the Centennial Exposition of 1876 the Commission pronounced them the best looms for fancy weaving. Crompton was a member of the board of aldermen and of the common council of Worcester and in 1871 was a candidate for mayor. He was one of the founders and the first policy-holder of the Hartford Steam Boiler Inspection & Insurance Company, a founder and president of the Crompton Carpet Company, and a director in various other corporations. He was married on Jan. 9, 1853 to Mary Christina Pratt, who after his death became president of the Crompton Loom Works. Two of his sons also took out a large number of patents, Charles Crompton being one of the inventors of the fancy automatic loom and Randolph Crompton of the first practical shuttle-changing loom.

Source Citation:

"George Crompton." Dictionary of American Biography. New York: Charles Scribner's Sons, 1936. Gale Biography In Context. Web. 22 Mar. 2012.

Lucius James (L.J.) Knowles:

Knowles, Lucius James (July 2, 1819 - Feb. 25, 1884), inventor and manufacturer, a descendant of Richard Knowles, immigrant, who came to Cape Cod before 1653, was born at Hardwick, Mass., the son of Simeon, Jr., and Lucetta (Newton) Knowles. Simeon was a farmer and a carriage maker, maintaining for the latter work the small shop which furnished Lucius the opportunity to develop an interest in mechanical construction and invention. Lucius attended the public schools at Hardwick and then spent three years at the Academy at Leicester, Mass. At seventeen he went to Shrewsbury to work in the country store of John Newton, his mother's brother, who in 1838 took him into the business which became John C. Newton & Company. But Knowles's interest was not in storekeeping. He spent more time constructing models of machines than in attending customers, and in 1841 he withdrew from the partnership and went to Worcester, Mass., where he began a daguerreotype business, the first in that city. Here, too, he continued to dabble with mechanics and when he made an improvement in thread-spooling equipment he set up a small business for spooling thread which he bought from a mill in Worcester. He then spent two years experimenting with cotton spinning in the attempt to equal the quality of the English thread of that time. For lack of capital he abandoned this and in 1846 formed a partnership with Harrison H. Sibley to operate the Old Draper Mill at Spencer, Mass., for the manufacture of cotton warp. In 1849 they secured a small mill at Warren, Mass., on the Quinebaug River, transferred their cotton business there, and in 1853 extended their activities to include a woolen mill which they built below the first. Still Knowles continued his experiments with mechanical improvement, receiving two patents for improvements in looms in 1856 and one for an improved method of operating the valves of pumping engines (1859). In 1860 the partnership was dissolved and the business divided so that Knowles might devote more of his time to the invention and manufacture of machinery. In 1862 he erected a building near his cotton factory and began to manufacture a boiler-feed water regulator, and (1863) steam pumps and experimental looms. From this building grew the Knowles Steam Pump Company and the L. J. Knowles & Brother Loom Works. The pump company became one of the largest in the business and was in 1879 sold to the Blake Manufacturing Company of Boston. The loom firm was moved to Worcester in 1866 where it expanded very rapidly to a leading position in the trade, being in 1897 consolidated with the Crompton Works as the Crompton & Knowles Loom Works. Though Knowles's inventions were responsible for much of the success of the two companies, few are outstanding or fundamental. He developed the steam pump to an advanced stage of refinement but so did other companies at the same time. An instance of his work in this connection is his adoption of the steam-actuated valve, for designs of which he received patents, though the invention is credited to H. R. Worthington. Similarly in looms he invented improvements tending to make manufacture more rapid and more economical of power. In this connection the open-shed principle of operation is an outstanding invention. Knowles was also active in civic affairs. He represented Warren, New Braintree, and West Brookfield in the Massachusetts House of Representatives, and the third Worcester district in the Senate. In 1871 he became a trustee of the Worcester Free Institute of Technology (Worcester Polytechnic Institute) and in 1873 was a member of the common council of Worcester. He was married first to Eliza Ann Adams of Shrewsbury, who died in 1873, and then to Helen Cornelia (Strong) Hayward of Boston. He died suddenly in Washington, D. C.

Source Citation:

Container List

Container	Folder	Date	Title
None			

Series I: Crompton Loom Works

MS 20_01

Records

This series includes order books and ledgers owned by George Crompton, illustrated catalogues of looms by Crompton Loom Works, and U.S. Patent books.

Container List

Container	Folder	Date	Title
Box 01	Folder 01	1880 - 1886	Small order book <i>Small order book contains descriptions of orders and diagrams. Probably owned by George Crompton, under "W" Crompton's name is written and seems to match his handwriting in other resources in the collection.</i>
Phase Box 06		1891 - 1896	Crompton Loom Works Order book/ledger <i>Order book with a range of George Crompton's notes and diagrams. The handwriting matches other resources in the collection written by Crompton. Worcester, MA 8 9/16" W x 10 5/8" H</i>
Box 01	Folder 02	1893 - 1895	Crompton Illustrated Catalogues, Index & Numbered Sketches <i>2 Crompton Looms catalogues 1 Crompton Woolen Loom Index & Sketches, Worcester, MA 1894 3 Crompton Gingham Loom Index & Sketches, Worcester, MA 1894 3 Crompton Dobby Loom Index & Sketches, Worcester, MA 1895</i>
Box 01	Folder 03	July 1, 1873 - November 5, 1878	United States Patent Office Book, George Crompton, Worcester, MA <i>Patents related to Looms</i>
Box 01	Folder 04	1873	Illustrated Catalogue of Looms, And Parts of the Same, Worcester, MA <i>Originally bound - now coverless, pages in good condition. Same edition as Phase Box 02</i>
Phase Box 01		1873	Illustrated Catalogue of Looms, And Parts of the Same, Worcester, MA <i>Bound edition. 9 1/8" W x 11 7/16" H Same edition as Box 1, Folder 4</i>
Box 01	Folder 05	1876	Illustrated Catalogue of Looms, Crompton Loom Works, Worcester, MA
Phase Box 04		1882	Illustrated Catalogue of Parts of the Crompton Loom Works, Worcester, MA <i>9 1/8" W x 11 3/8" H</i>
Box 01	Folder 07	1886	Illustrated Catalogue of Looms, And Parts of the Same, Worcester, MA
Box 01	Folder 06	1867	George Crompton vs. The Belknap Mills, Circuit Court of the U.S., New Hampshire District
Phase Box 02		1875	German Looms and Weaving <i>Bound volume with English title above - but in complete German:</i>

*Die deutliche Weblchule
 Mechanifche Technologie ver Weiberei
 Signature and stamp of George Crompton included
 6 7/8" W x 9 7/8" H*

Phase Box 07	1895 - October 1, 1926	Patents of Randolph Crompton or Same et Al
	<i>Typed list inserted into bound volume of individual patents: "Patents wherein Randolph Crompton appears as Sole or Joint Inventor or as Assignee 1895 through October 1, 1926." 8 3/8" W x 11 9/16" H</i>	
Phase Box 03	1877 - 1885	United States Patent Book, George Crompton
	<i>8 3/8" W x 11 7/16" H</i>	
Phase Box 05	1886 - 1893	United States Patent, George Crompton
	<i>8 1/4" W x 11 7/16" H</i>	

Series II: Knowles Loom Works

MS 20_02

Records

This series includes patent books, order books, a ledger of loom orders by L.J. Knowles & Bros., catalogues, and legal proceedings from the U.S. Circuit Court of Appeals.

Container List

Container	Folder	Date	Title
Box 02	Folder 01	1856 - 1884	Knowles Patent Typed List
Box 02	Folder 02	1856 - 1888	Knowles Patent Book , Lucius J. Knowles
Phase Box 02		1863-1865	United States Patent Book, L.J. Knowles, Warren, MA & Worcester, MA
		<i>8 1/8" W x 11 7/16" H</i>	
Box 02	Folder 03	August 8, 1882 - March 10, 1884	L.J. Knowles & Bros. Ledger (Loom orders)
Phase Box 04		1885-1893	United States Patent Book, L.J. Knowles, Worcester, MA
		<i>8 3/16" W x 11 3/8" H</i>	
Box 02	Folder 06	1893	Knowles Loom Works Exhibit, World's Columbian Exhibition, Chicago, IL
Box 02	Folder 05	1887 - 1895	Knowles Loom Works Parts and Descriptive Catalogues
		<i>Catalogue of Parts for Knowles' Open Shed Fancy Loom, Worcester, MA, 1887 Knowles Open Shed Fancy Looms, Worcester, MA, 1888 Knowles Open Shed Fancy Looms, Worcester, MA, 1895</i>	
Box 02	Folder 04	1877	Hearings Before the Examiner of Interferences, United States Patent Office
		<i>Hearings Before the Examiner of Interferences, United States Patent Office, Horace Wyman & Lucius J. Knowles</i>	
Box 02	Folder 07	1898	U.S. Circuit of Appeals, William Ryle vs. Knowles Loom Works
Box 02	Folder 08	October 27, 1896	James R. MacColl v. Knowles Loom Works, Brief for Appellant
		<i>U.S. Circuit Court of Appeals for the First Circuit</i>	

Phase Box 01 1829 - 1888 Knowles Loom Works, Take up & Let Loom Patents

719 pgs.
8 3/4" W x 11 1/2" H

Phase Box 03 1881 - 1882 Order Book of L. J. Knowles & Bros.

9 1/8" W x 9 7/8" H

Series III: Crompton & Knowles Legal Documents and Proceedings

MS 20_03

Records

This series includes U.S. Patent books, legal documents pertaining to James R. MacColl, Crompton Loom Works, and Knowles Loom Works.

Container List

Container	Folder	Date	Title
Box 03	01	January 5, 1875 - December 28, 1875	United States Patent Book <i>Crompton, Knowles, Wyman, & others in this volume.</i>
Box 03	02	March 6, 1894 - December 8, 1894	United States Patent Book <i>Crompton Loom Works patents are the focus in this volume.</i>
Box 03	03	1897	Circuit Court of the United States, District of MA & Brief for Appellant <i>James R. MacColl vs. Crompton Loom Works</i>
Box 03	04	June 7, 1897	Depositions of Joseph P. Livermore & William H. Appleton <i>James R. MacColl vs. Crompton Loom Works, Evidence for Defendent, Vol. II</i> <i>James R. MacColl vs. Knowles Loom Works, Evidence for Defendent, Vol. II</i>
Box 03	05	September 8, 1897	Depositions of Arthur H. Metcalf & James R. MacColl <i>James R. MacColl vs. Crompton Loom Works, Evidence for Complainant in Reply, Vol. III</i>
Phase Box 01		1866	United States Patent Book <i>Crompton, Knowles, and others</i> 8 1/8"W x 11 1/8"H

Series IV: Crompton & Knowles General Records

MS 20_04

Records

This series includes pamphlets, catalogues, a price list, ledger, and publications.

Container List

Container	Folder	Date	Title
Box 04	01	1869	Bulletin of the National Association of Wool Manufacturers <i>Owned by George Crompton</i>
Box 04	02	1866 - 1906	Estimates Ledger, Crompton & Knowles Loom Works
Box 04	03	1900	Jacquard Machinery as Perfected and Manufactured by Crompton & Knowles Loom Works <i>Crompton & Knowles Loom Works</i>

*Providence, R. I. Branch
Scrapbook version is contained in Phase Box 01*

Box 04	04	n.d., 1905, 1918	Pamphlets, Crompton & Knowles Loom Works
Box 04	05	1903	Revised Price List of Loom Parts
			<i>Crompton & Knowles Loom Works Worcester, Providence, & Philadelphia</i>
Box 04	06	1906	Crompton-Thayer Loom Co. Catalogs
			<i>Contains 2 catalogs "Worsted & Wool Looms"</i>
Box 04	07	n.d.	A Fibre of Worsted From The Fleece to the Cloth
			<i>A Paper by George Damon Rice, Jr. Boston Commercial Bulletin, pamphlet</i>
Box 04	08	December 1937	100 Years of Patents, 1837 - 1937
			<i>Published by Crompton & Knowles Loom Works</i>
Phase Box 01		1900	Jacquard Machinery as Perfected and Manufactured by Crompton & Knowles Loom Works
			<i>Providence, R.I. Branch Complete catalogue copy in Folder 03 11" W x 12 3/8" H</i>
Phase Box 02		1912 - 1917	Patents Issued to Crompton & Knowles Loom works, 1912 - 1917 Inclusive
			<i>Typed list of patents by name, number, and date inserted into this bound volume. 8 1/2" W x 11 1/2" H</i>

Series V: Crompton & Knowles Loom Works Misc.

MS 20_05

Records

This series contains German catalogs, a variety of photographs of looms, correspondence, receipts, a business ledger, and other ephemera.

Container List

Container	Folder	Date	Title
Box 05	01	1891 & 1893	German Catalogs with Illustrations
			<i>Der Mechanische Seidenwebstuhl in Bezug auf Bau, Vorrichtung und Arbeitweise von Franz Reh, Weimar, 1891 - poor condition</i>
			<i>Mechanische Webstuhle Anleitung zur Kenntniss, Wahl, Aufstellung und Behandlung Dieser Maschinen von E.R. Lembcke, Fortsetzung V. Atlas, Braunschweig, 1893 - fair to good condition</i>
Box 05	02	1901, 1903, n.d.	Photographs, Correspondence, & Receipts, Crompton & Knowles Loom Works
Box 05	03	April 1913	Machinery for Carpet Manufacturer Catalog
			<i>Saechsische Webstuhlfabrik (Louis Schoenherr) Chemnitz, Saxony</i>
Box 05	04	1917 - 1918	Book Outline by Charles A. Nutt & Correspondence Crompton & Knowles Loom Works
			<i>Worcester, MA</i>

Box 05	05	January 23, 1923	Complimentary Dinner Invitation to George F. Hutchins <i>By Crompton & Knowles Loom Works, 1873 - 1923</i>
Box 05	06	1928	Bulletin of the National Association of Wool Manufacturers
Box 05	07	May 16, 1947 - November 10, 1951	Business Ledger of Crompton or Knowles? <i>WPI mentioned on pg. 29</i>
Box 05	08	n.d.	Photographs, Looms <i>Double Shuttle Carpet Loom with Cutting Motion 4 photographs; 3 of same loom angle</i>
Box 05	09	n.d.	Photographs, Looms <i>3 photographs</i>
Phase Box 01		1883	Lecture Notebook <i>Unknown author 8 1/8" W x 10 7/16" H</i>
Box 05	10	n.d.	Photographs, Looms <i>Jean Gusken Maschinenfabrik Dulken (Rhld.)</i>
Box 05	11	n.d.	Photograph, Loom <i>Sachsische Webstulfabrik Chemnitz 1 photograph</i>
Box 05	12	n.d.	Photographs, Looms <i>Unknown origin 2 photographs</i>
Box 05	13	February 18, 1932	Report Duplan Silk Corporation, Hazelton, PA
Drop Front Box 01		1896, 1897, & n.d.	Scrapbooks <i>Crompton & Knowles Newspaper clippings scrapbook contains news articles, trade journal articles, and typed documents from Crompton & Knowles, February 1896 - November 1897</i> <i>Jean Gusken Dulken Scrapbook contains 5 separate photographs - the rest of the scrapbook is photographs of looms glued onto each page, n.d.</i>
Drop Front Box 02		1910, 1912, 1920, 1928, & n.d.	Bound Textile Books, Catalogues, or Pamphlets <i>The Continuous Spinning of Woolen Yarns by Whitin Machine Works, Whitinsville, MA, 1928</i> <i>Clipper Loom Built By Bridesburg Manufacturing Co., Office 201 & 203 Chestnut St., Philadelphia, PA, October 3, 1910. Donated by Ralph M. Deal, 9/12/1939</i> <i>The Slater Mills at Webster: 1812 - 1912, Compliments of S. Slater & Sons Incorporated, 1912.</i> <i>The House of Duplan: Twenty Years of Development, 1898 - 1918, Not by Inheritance - But by Thrift and Application, Duplan Silk Corporation, 135 Madison Avenue, New York, n.d.</i> <i>Simplex Buyer's Guide of Standard Merchandise, Compiled and Distributed by Simplex Sampling Association,</i>

Frist Ave. & 37th Street, New York, 1920

Drop Front Box 03

1864, 1888, 1917, & n.d. German & French Books & Booklet

Traite Complete De La Filature Du Coton, Par M. Alcan, Atlas, Paris, Noblet & Baudry, Libraires-Editeurs, 1864.

Perfectionnements apportés aux Ratières Par D. Hugelin, Bulletin de l'Association libre des anciens élèves de l'Ecole de filature et de tissage de Mulhouse (Alsace), n.d.

Zeitschrift Des Vereines Deutscher Ingenieure., Berlin, 1917

Mechanische Webstühle. Anleitung zur Kenntniss, Wahl, Aufstellung Und Behandlung Dieser Maschinen von E.R. Lembcke, Fortsetzung I. Atlas, Braunschweig, 1888.

Drop Front Box 04

October 12 - 14, 1914 Photographs Crompton & Knowles Looms

*4 photographs on mat - each in individual folder within drop front box.
Industrial Exposition*