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Manuscripts and Archives

Guide to the Charles Felton Scott Papers

MS 779

compiled by Mary C. LaFogg

February 1978

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Collection Overview

REPOSITORY: Manuscripts and Archives
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CALL NUMBER: MS 779

CREATOR: Scott, C.F. (Charles Felton), 1864-1944

TITLE: Charles Felton Scott papers

DATES: 1889-1943

PHYSICAL DESCRIPTION: 13 linear feet (31 boxes)

LANGUAGE: English

SUMMARY: The papers consist of correspondence, reports, and papers on engineering. The largest portion concerns the American Institute of Electrical Engineers, of which Scott was an active member. Another large section is made up of Scott's administrative correspondence at Yale in the electrical engineering department (1911-1922). Also included are papers documenting Scott's employment at the Westinghouse Electrical and Manufacturing Company from 1888 to 1911 and includes correspondence, technical papers, and material for a biography of George Westinghouse. Pamphlets and other material issued by Engineers for Hoover (1928), and miscellaneous papers from the National Committee on Prisons and Prison Labor are also in the papers.

ONLINE FINDING AID: To cite or bookmark this finding aid, please use the following link: https://hdl.handle.net/10079/fa/mssa.ms.0779

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Key to the container abbreviations used in the PDF finding aid:

b. box
f. folder

Administrative Information

Immediate Source of Acquisition

Gift to Yale University in 1945, and transfer from the School of Engineering.

Conditions Governing Access

The materials are open for research.

Conditions Governing Use

Preferred Citation

Charles Felton Scott Papers (MS 779). Manuscripts and Archives, Yale University Library.

Biographical / Historical

Charles Felton Scott, born on September 19, 1864, in Athens, Ohio, was the son of William Henry and Sarah Felton Scott.

Scott received his B.A. degree from Ohio State University in 1885 and began graduate work in mathematics at Johns Hopkins University. While studying at Johns Hopkins, Scott taught mathematics and elementary science at the Baltimore and Ohio railroad apprentice school in Baltimore.

In 1887, having decided to pursue a career as an electrical engineer, Scott went to work for a construction company that was building an alternating current plant for the Baldwin Locomotive works in Philadelphia. In the summer of 1888, Scott began working at the Westinghouse Electric Company in Pittsburgh. At Westinghouse, Scott gained expertise in the application of the science of engineering to electrical problems and soon was recognized for his work on alternating currents.

Scott's first position at Westinghouse was as Nicholas Tesla's assistant. Tesla was the first person to develop a method of utilizing undulating current. Scott assisted Tesla in the development of a new inductor motor which used alternating current to transmit power. In 1890, Scott designed the first commercial polyphase alternating current motor. During this period, he was also involved in improving the transformers manufactured by Westinghouse. It was in this area that Scott made his best known technical contribution. In 1892, he designed the T-transformer, which could transform electric current from a two-phase system to a three-phase system. This transformer was used to develop the Niagara power project.

Scott welcomed the opportunity to show others the growing importance of electrical engineering. In the early part of the twentieth century, he turned from the practical application of his engineering skills to the challenge of imparting theoretical knowledge of electrical engineering to the generations which would apply electricity to all facets of their lives. As a step in this direction, he and others in the field felt it would be useful to have a single center for all existing engineering societies. In 1903, Scott took part in negotiations with Andrew Carnegie to plan the construction in New York City of a headquarters for all engineering societies in the United States. He also organized the Electric Club and founded a magazine for engineering students entitled *Electric Journal*.

Scott's interest in education deepened, and in 1911, he accepted a professorship in the new electrical engineering department of the Sheffield Scientific School of Yale University. Yale awarded Scott an honorary Master of Arts degree that same year. From 1911 to 1933, Scott taught in the electrical engineering department. During his tenure as chairman (1920-1933), the department expanded its reputation and acquired a separate building.

Scott was a member of most of the major engineering organizations in the United States and actively promoted the field whenever possible. From 1919 to 1920 he served on the committee that formulated plans for the Federated American Engineering Societies. He represented the American Institute of Electrical Engineers on the American Engineering Council from 1920 to 1933. Scott was president of the American Institute of Electrical Engineers from 1921 to 1923.

Charles Felton Scott retired from Yale University in 1933. He died on December 17, 1944.

Scope and Contents

The Charles Felton Scott Papers consist mainly of incoming and outgoing correspondence and some miscellaneous items, including engineering brochures, reports, and invitations to speak. Largely routine, the correspondence is composed of form letters, requests for evaluations of job applicants, and business letters.

The papers are arranged alphabetically by subject or author's name in one series spanning the years 1901 to 1923. Nearly one-third of the correspondence concerns the American Institute of Electrical Engineers, of which Scott was an active member. The remaining correspondence consists of the administrative files Scott maintained at Yale. Most of the letters dealing with the American Institute of Electrical Engineers are very routine, discussing the business aspects of the organization, minutes of meetings, and guest lecturers. The letters from the Yale files are again routine, dealing with instructors, student grades, new equipment for the department and the like. There is some mention of the reorganization of Yale University which occurred around 1920.

The Charles Felton Scott Papers provide little if any insight into Scott's importance as a scientist or an inventor. The papers may be of limited use to researchers interested in the formation and development of the electrical engineering department at Yale University in the early part of the twentieth century.

The papers were acquired by the Yale University Library in February 1945.

Collection Contents

Original Accession, 1901-1923

7.5 linear feet (18 boxes)

Correspondence is arranged alphabetically by subject or author's name.

b. 1, f. 1-6	A	1911-1923, undated
b. 1, f. 7-8	Acme Wire Company	1909-1917, 1921
b. 1, f. 9	American Association of Engineers	1921-1922
b. 1, f. 10-16	American Institute of Electrical Engineers	1911-1923
	American Institute of Electrical Engineers	
b. 2, f. 17	Committee on Development	1919-1920
b. 2, f. 18	Committee on Education	1913-1915
b. 2, f. 19-21	Committee on Engineering Building	1902-1905
b. 2, f. 22	Committee on Industrial Power	1914-1917
b. 2, f. 23-24	Committee on the Library	1901-1904
b. 2, f. 25	Committee on Lighting and Illumination	1921-1922
b. 2, f. 26	Committee on Meetings and Papers	1921-1923
b. 2, f. 27-29	Committee on Sections	1914-1916, 1921
b. 2, f. 30	Committee on Standards	1919-1920
b. 2, f. 31	Committee on Super-Power Systems	1920-1921
b. 2, f. 32-33	Committee on Traction and Transportation	1916-1918
b. 2, f. 34	Committee on Transmission	1902-1903
b. 3, f. 35-36	Connecticut section	1921-1922, undated
b. 3, f. 37-38	"Engineer of the Twentieth Century" English	1903 February-October
b. 3, f. 39-40	International Electrotechnical Commission	1920-1922, undated
b. 3, f. 41	Joint Conference Committee	1919-1920
b. 3, f. 42	Lecture Hall record	1913-1916
b. 3, f. 43	Mailing lists	1902-1904
b. 3, f. 44	Membership lists	1901-1902

American Institute of Electrical Engineers (continued)

b. 3, f. 45-46	Presidential addresses	1902 July-1903
b. 3, f. 47	Proposal for Engineering Building	1906
b. 3, f. 48	Retiring president's address	1903
b. 3, f. 49-51	Student branches	1903, 1915-1916
b. 4, f. 52-54	Student branches	1917-1918, 1921-1923
b. 4, f. 55-66	Union Engineering Building	1903 February–May 30, 1903 June–1904 Apr, undated
b. 5, f. 67-71	Yale branch	1911, 1914-1921
b. 5, f. 72-74	American Society of Mechanical Engineers	1911-1917, 1919-1922
b. 5, f. 75-79	B	1911-1922
b. 5, f. 80-82	Bozell, Harold V.	1918-1919, 1921-1922
b. 6, f. 83-90	C	1910-1923, undated
b. 6, f. 91	Carnegie Institute	1911, 1914–1918, undated
b. 6, f. 92	Central Station Meeting	1915
b. 6, f. 93	Century Electric Company	1916-1919
b. 6, f. 94	Chittenden, Russell H.	1911-1917, undated
b. 6, f. 95	Class of 1911S	
b. 6, f. 95	Class of 1912S	1912-1915
b. 6, f. 96	Class of 1913S	1912-1917
b. 6, f. 97	Class of 1914S	1912-1916
b. 6, f. 98	Class of 1915S	1913-1917
b. 6, f. 99	Class of 1916S	1914-1917
b. 6, f. 100	Class of 1917S	1915-1919
b. 6, f. 101	Class of 1918S	1917-1919
b. 7, f. 102	Class of 1919S	
b. 7, f. 102	Class of 1920S	1918-1919

b. 7, f. 103	Class of 1921S	1921, 1923
b. 7, f. 104	Class of 1922S	
b. 7, f. 104	Class of 1923S	1921-1922
b. 7, f. 105	Clewell, Clarence E.	1914-1917
b. 7, f. 106	Connecticut Company	1913-1917
b. 7, f. 107	Cooper Hewitt Electric Company	1913-1917
b. 7, f. 108-113	D	1911-1922
b. 7, f. 114-118	E	1911-1922
b. 7, f. 119-123	*Electric Journal* English	1911-1922, 1913-1922
b. 8, f. 124-125	Employment	1915, 1920
b. 8, f. 126	Engineering News	1902-1903
b. 8, f. 127	Engineers' Society of Western Pennsylvania	1916-1917
b. 8, f. 128-130	F	1913-1922
b. 8, f. 131	Films	1922, undated
b. 8, f. 132	Fire reports	1914-1916
b. 8, f. 133-137	G	1911-1922, undated
b. 8, f. 138-142	General Electric Company	1911-1921
b. 9, f. 143	General Electric Review	1912-1913
b. 9, f. 144-146	Government correspondence	1917 March-Dec, undated
b. 9, f. 147	Government recommendations	1917-1918
b. 9, f. 148-152	H	1911–1918, undated, 1919– 1922, undated
b. 9, f. 153	Hadley, Arthur T.	1919-1920
b. 9, f. 154	Hartford Electric Light Company	1911-1914
b. 9, f. 155	Herr, Edwin M.	1915
b. 9, f. 156-157	I	1912-1918, 1921-1922
b. 9, f. 158	University of Illinois	1913-1917
b. 9, f. 159-163	Illuminating Engineering Society	1914-1922

b. 10, f. 164-165	J	1912-1922
b. 10, f. 166	Johns-Pratt Company	1915-1917, 1922
b. 10, f. 167-169	K	1913-1922, undated
b. 10, f. 170-174	L	1911-1922
b. 10, f. 175-180	M	1911–1918, undated, 1919–1922
b. 10, f. 181	Macbeth-Evans Glass Company	1913
b. 10, f. 182	McGraw-Hill Book Company	1911-1917
b. 10, f. 183	Merchants' Association of New York	1920
b. 11, f. 184-185	N	1911-1918, 1921-1922
b. 11, f. 186-191	National Electric Light Association	1914-1922, undated
b. 11, f. 192	Naval Consulting Board	1916-1918
b. 11, f. 193	Neostyle Company	1916-1917
b. 11, f. 194	New England Westinghouse Company	1918
b. 11, f. 195-196	O	1916-1922
b. 11, f. 197-201	P	1911-1922, undated
b. 11, f. 202	Philadelphia Electric Company	1916-1918
b. 11, f. 203-205	R	1913-1922
b. 12, f. 206	Rice, C. B.	[1911]
b. 12, f. 207-215	S	1911-1923, undated
b. 12, f. 216	Sheffield Chemical Laboratory Committee	1922
b. 12, f. 217-220	Sheffield Scientific School	1912-1917
b. 13, f. 221-227	Sheffield Scientific School	1918-1922
	Sheffield Scientific School	
b. 13, f. 228-235	Applications for positions	1913-1922
b. 14, f. 236-239	Bulletin board notices	1914–1918, undated, 1919–1922, undated

Sheffield Scientific School (continued)

b. 14, f. 240	Course of studies	1920-1922
b. 14, f. 241	Directorship	1921-1922
b. 14, f. 242-246	Electrical Engineering Department	1911–1916, 1921 January–Dec, undated
b. 14, f. 247	Electrical Engineering Departmental Meetings	1920-1921
b. 14, f. 248-249	Electrical engineering lecture notes	1913-1916, 1921
b. 14, f. 250	Engineers Club	1913
b. 14, f. 251	Examination schedules	1921-1922
b. 15, f. 252	Faculty parties	1920-1924
b. 15, f. 253-254	Graduate students	1914–1915, 1919–1921, undated
b. 15, f. 255	Junior seminary papers	1920-1921
b. 15, f. 256-259	Mechanical Engineering Department	1914-1922
b. 15, f. 260	Office of the Dean	1922
b. 15, f. 261	Proposed visits	1921-1922
b. 15, f. 262	Registrar	1921-1922
b. 15, f. 263	Report on wiring	1912
b. 15, f. 264	Student Army Training Corps	1911-1918
b. 15, f. 265-266	Teaching positions	1921-1922, undated
b. 15, f. 267	Sigma XI	1921-1922, undated
b. 15, f. 268-270	Society for the Promotion of Engineering Education	1914-1918
b. 16, f. 271	Southern New England Telephone Company	1915
b. 16, f. 272	Sterling Chemical Laboratory	1923
b. 16, f. 273-274	T	1912-1920, 1922
b. 16, f. 275-276	U	1912-1922
b. 16, f. 277	Unidentified fragments	
b. 16, f. 278	United Electric Light and Water Company	1914
b. 16, f. 279	United States Fuel Administration	1918
b. 16, f. 280-281	V	1914-1919, 1921-1922

b. 16, f. 282	Visual Industrial Course, Inc.	1919-1920
b. 16, f. 283-289	W	1911-1922
b. 16, f. 290	Western Electric Company	1912-1918
b. 16, f. 291	Western Electrical Instrument Company	1914-1917
b. 17, f. 292	Westinghouse Church Kerr and Company	1911
b. 17, f. 293	Westinghouse Club	1914-1916
b. 17, f. 294-302	Westinghouse Electric and Manufacturing Company	1911-1922
b. 18, f. 303	Westinghouse Lamp Company	1911-1917
b. 18, f. 304	Westinghouse Memorial Committee	1916-1918
b. 18, f. 305	Westinghouse Yale Club	1913-1915
b. 18, f. 306	Woolsey Hall lighting	1914-1915
b. 18, f. 307	*Yale Alumni Weekly*	1913-1916, 1919-1922
b. 18, f. 308	Yale Co-operative Corporation	1916-1917
b. 18, f. 309	*Yale Daily News*	1911-1923
b. 18, f. 310	Yale Engineering Association	1914-1917
b. 18, f. 311	Yale Radio Broadcasting	1922
	Yale University	
b. 18, f. 312	Bureau of Appointments	1919-1922
b. 18, f. 313	Faculty	1919-1920
b. 18, f. 314-316	Graduate School	1919-1922
b. 18, f. 317	Honorary degrees	1922
b. 18, f. 318	Library	1915-1918
b. 18, f. 319	President’s Office	1916-1922
b. 18, f. 320	Prudential Committee	1920-1922
b. 18, f. 321	Reorganization	1919
b. 18, f. 322	Salary increases	1919
b. 18, f. 323-325	Secretary’s Office	1914-1922, undated
b. 18, f. 326-327	Treasurer’s Office	1912-1922
b. 18, f. 328	X, Y, Z	1913-1922

Accession 1983-M-014: Additional Material

This addition to the Charles Felton Scott Papers consists of correspondence, reports, engineering brochures and miscellaneous items identical to that contained in the original collection. The papers were in Yale University Archives School of Engineering records. Arranged alphabetically by subject or author's name, the papers are a supplement to the Charles Felton Scott Papers. There is no arrangement of the papers within the folders.

	CORRESPONDENCE	
b. 1, f. 1-3	American Engineering Council	1920-1921
	American Engineering Council	
b. 1, f. 4-5	Bulletins	1920-1922
b. 1, f. 6-7	The Federated American Engineering Societies	1921
b. 1, f. 8	September meeting	1921
	American Institute of Electrical Engineering	
b. 2, f. 9-13	Secretary minutes	1927-1932, 1935-1938
b. 3, f. 14-16	Secretary minutes	1937-1939
b. 3, f. 17	General information	1943
b. 3, f. 18-19	Engineers for Hoover	1928
b. 4, f. 20-23	Engineers for Hoover	
b. 4, f. 24	Pamphlets, brochures	1928
b. 4, f. 25	Pamphlets, brochures (duplicates)	1928
b. 4, f. 26	Replies to Hoover letters	1928
b. 4, f. 27	Signatures of committees	1928
b. 5, f. 28-29	National Committee on Prisons and Prison Labor	1916-1917
b. 5, f. 30-32	National Electric Lighting Association	1921-1922
	National Electric Lighting Association	
b. 5, f. 33	Inductive interference	1920-1922
b. 5, f. 34	"Question Box" English	1904
b. 5, f. 35	Technical Advisory Committee	1920-1921
b. 6, f. 36-38	Technical Advisory Committee	1920-1923
b. 6, f. 39	National Society for the Promotion of Industrial Education	1907
b. 6, f. 40-44	Personal Engineering Papers and Reports	1894-1910

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b. 7, f. 45	Personal Engineering Papers and Reports	1894-1910
b. 7, f. 46-50	1914-1921	1914-1921
b. 7, f. 51-52	Reports and papers of colleagues	1890-1905
b. 8, f. 53	Reports and papers of colleagues	1890-1905
b. 9, f. 54	Cashing Papers	1906
b. 9, f. 55	Catalogues and brochures	undated
b. 9, f. 56	Photographs of power plants	undated
b. 9, f. 57	Printed material	1905
	Westinghouse Electrical and Manufacturing Company	
b. 9, f. 58-63	1889-1890, 1894-1898	1889-1890, 1894-1898
b. 10, f. 64-73	1898-1906	1898-1906
b. 11, f. 74-79	1907-1911	1907-1911
b. 11, f. 80	Biography of George Westinghouse	undated
b. 11, f. 81	Correspondence course	1925
b. 11, f. 82	Early history course	1925
b. 11, f. 83	*The Electric Journal*	1907
b. 11, f. 84	Frequency determination	1914
b. 12, f. 85	Impedence test on interworks road	1905-1906
b. 12, f. 86	Outline of experimental electricity	1914
b. 12, f. 87-89	Preparation of Westinghouse biography	1919-1920
b. 12, f. 90	Reactance capacitance, and transmission circuits	1914
b. 12, f. 91	Shop problems	1912-1914
b. 13, f. 92	Shop problems	1912-1914
b. 13, f. 93	The three circuits	1914
b. 13, f. 94	United Engineering Society	

Selected Search Terms

The following terms have been used to index the description of this collection in the Library's online catalog. They are grouped by name of person or organization, by subject or location, and by occupation and listed alphabetically therein.

Subjects

Educators
Elections -- United States
Electrical engineering
Engineering

Occupations

Engineers

Names

Scott, C.F. (Charles Felton), 1864-1944
Westinghouse, George, 1846-1914

Corporate Bodies

American Institute of Electrical Engineers
Westinghouse Electric Corporation
Yale University. School of Engineering
Yale University. Sheffield Scientific School. Dept. of Electrical Engineering
Yale University -- Faculty