
Finding aid prepared by Coleen Hathaway-Rosa
History San Jose Research Library
1650 Senter Road
San Jose, CA, 95110
(408) 287-2290
research@historysanjose.org
January 2013
Title: Harold F. Elliott Papers
Identifier/Call Number: 2003.36
Contributing Institution: History San Jose Research Library
Language of Material: English
Physical Description: 69.5 Linear feet
Date (inclusive): 1900-1969
Abstract: Correspondence, technical drawings, computations, patent materials, photographs, sketches and notes regarding electrical engineer's Harold F. Elliott's prolific work as an inventor of various radio apparatus and as a consulting engineer with companies such as the Federal Telegraph Company, the Galvin Manufacturing Corporation (Motorola, Inc.), the Victor Talking Machine Co., the Hewlett-Packard Company, and, during World War II, at the Radio Research Laboratory at Harvard University. The papers also contain personal materials belonging to and created by Elliott and his wife Winifred Estabrook Elliott.
Language of Materials note: The materials are in English.
creator: Elliott, Harold F.
creator: Elliott, Winifred Estabrook
Processing Information
Processed by Coleen Hathaway-Rosa in 2012 as part of a grant from the Council on Library and Information Resources' Cataloging Hidden Collections program.
Biography
Harold Farley Elliott was born in Durango, Colorado, on June 17, 1892, to Wilbur S. Elliott and Henrietta Farley Elliott. Elliott's only sibling, Jean Elliott, was born in 1895. Elliott grew up in Prescott, Arizona and graduated from Prescott High School in 1911. He then attended Stanford University, where he graduated in 1916 with his A.B. in Mechanical Engineering and in 1925 with his Master's degree in Electrical Engineering.
From 1916 to 1922, Elliott worked at the Federal Telegraph Company as a Chief Draftsman, Production Manager and Engineer in Charge of the design of high power radio transmitting equipment. From 1922 to 1925, he served as the Consulting Engineer in charge of designing the transmitting equipment for the Trans-Pacific project ("the Chinese project") for the Federal Telegraph Company and its subsidiary, the Federal Telegraph Co. of Delaware. Federal Telegraph Company had planned to construct four radio transmission stations to be located at Shanghai, Pekin (Peking or Beijing), Canton, and Harbin, China. However, in 1924 the Chinese project came to a standstill. According to Elliott, the instability of the Chinese government, the beginning of short wave radio and conflicts between the Federal Telegraph Company and R.C.A. caused the Chinese project to be delayed. Elliott wrote "It was not until 10 years later that R.C.A. finally established a short wave circuit to Shanghai."
In early 1927, Elliott began designing and producing radio receivers for home use for the Victor Talking Machine Company. From 1929 through 1931, he served as a consulting engineer at that company. In 1937, he demonstrated his home radio set with clock and push button tuning to Paul Galvin of the Galvin Manufacturing Corporation (Galvin). This demonstration led to a licensing agreement for Galvin's exclusive use of Elliott's tuner in auto sets and the production of a push button automobile radio. According to Elliott, the licensing agreement "worked out very satisfactorily for all parties concerned."
While working with Galvin, he developed other radio apparatus, such as a portable table model radio, radio tuners for military communication equipment, and a solenoid (or motor drive) for mechanical push button tuners. When describing his working relationship with Galvin, Elliott wrote "Over an eight year period every request for help has been met in good faith and without reservations. No expenditure in time or money has been spared to find a satisfactory solution and every problem has found a successful answer."
In February 1942, Dr. Frederick E. Terman convinced Elliott to join the Radar Counter-Measures Laboratory developing at the Massachusetts Institute of Technology. (Eventually the laboratory moved to Harvard University and became known as the Radio Research Laboratory.) While Elliott spent 1942 through 1945 conducting war research at the Radio Research Laboratory, he continued to work on his radio apparatus developments for Galvin.
From 1953 into the early 1960s, Elliott worked as a consultant at the Hewlett-Packard Company on technology related to digital printers and clocks.
During much of his career, Elliott independently designed, developed, and marketed various radio apparatus, such as push-button, remote control, and clock control mechanisms for radio receivers and transmitters. His work resulted in over 80 U.S. patents, issued from 1920 through 1966.
In addition to his electrical engineering work, Elliott was an accomplished photographer. During his undergraduate studies at Stanford, he managed the Campus Photo Shop and was the student manager of the 1916 Quad (the student yearbook). (Elliott appears to have been a contemporary of Stanford photographer Berton W. Crandall.) He continued with his photography throughout his lifetime, taking photographs for both professional and personal purposes. During the 1950s, Elliott's work was shown in multiple photography exhibits, including an exhibit held at the Stanford University Art Gallery. He also spoke about photography at local camera clubs.

Throughout his lifetime, Elliott remained connected with Stanford University. He worked with or corresponded with other Stanford University electrical engineering alumni throughout his career, such as Ralph R. Beal, James Arthur Miller, Clinton H. Suydam, Herman P. Miller, Hans Otto Storm, Dr. Frederick E. Terman, Charles V. Litton, Bill Hewlett and Dave Packard. Elliott's personal correspondence refers to attendance at Stanford University football games and other activities. In his later years, he served as a part-time lecturer in the Engineering Department and on the 50th Anniversary Stanford Engineering Scholarship Fund Committee.

Elliott married 1924 Stanford University graduate and accomplished musician Winifred Estabrook. One common interest between the couple was their love of classical music. Their personal correspondence mentions Estabrook's musical performances and their attendance at various music events. In later years, Estabrook acted as his personal secretary. In 1954, the couple moved into the custom home Elliott had designed at 800 Westridge Drive in Portola Valley, California. Elliott died at age 77 on January 24, 1970, in San Mateo, California. Estabrook died at age 82 on January 20, 1977, in Santa Clara, California.

Scope and Content
Correspondence, technical drawings, computations, patent materials, photographs, sketches and notes regarding electrical engineer Harold F. Elliott's prolific work as an inventor of various radio apparatus and as a consulting engineer with such companies as the Federal Telegraph Company, the Galvin Manufacturing Corporation (Motorola, Inc.), the Victor Talking Machine Co. and the Hewlett-Packard Company, and also during World War II at the Radio Research Laboratory at Harvard University.

Of particular note is Elliott's extensive collection of Federal Telegraph Company documents, such as inter-office correspondence and memoranda, engineering reports and the technical drawings, accounting worksheets, and other material related to the transmitting equipment and radio stations designed for the Federal Telegraph Company's Trans-Pacific project, as well as numerous technical drawings of his radio tuners, clocks and assorted parts from his work with the Galvin Manufacturing Corporation. From his work at the Radio Research Laboratory, Elliott saved previously classified correspondence, technical manuals, pamphlets and reference notebooks. Separate files detail the step-by-step process of obtaining patents for over 30 of his radio apparatus inventions.

The papers also contain a significant amount of personal materials from Elliott and his wife Winifred Estabrook, including personal correspondence, financial and real estate records, educational material, and musical performance and art exhibition programs. Elliott's interest in photography is well-documented through photography equipment brochures, photography club circulars, and news clippings regarding Elliott's exhibitions and talks. Over 1,100 black and white photographs taken by Elliott portray his days at Stanford University (1911-1916), his inventions, and the landscapes of California and the American Southwest. Also included are Elliott's plans and architectural drawings for their residence at 800 Westridge Drive, Portola Valley, California, built in 1954.

The papers have been divided into 13 series.

Other Finding Aids
History San Jose's PastPerfect catalog, which includes folder and item-level catalog records for these papers, as well as many digitized images, is searchable at http://historysanjose.pastperfect-online.com.

Preferred Citation
Harold F. Elliott Papers 2003-36, History San Jose Research Library, San Jose, California 95112-2599.

Custodial History
Elliott's papers were originally donated to the Foothill Electronics Museum in 1971. History San Jose acquired the papers in 2003 from the Perham Foundation as part of the Perham Collection of Early Electronics.

Conditions Governing Access
Materials are open to the public for research by appointment with the Curator of Library and Archives.

Conditions Governing Use
The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted material. Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to
be "used for any purpose other than private study, scholarship, or research." If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement. This institution reserves the right to refuse to accept a copying order if, in its judgement, fulfillment of the order would involve violation of copyright law.

Related Archival Materials

Related Collections at History San Jose: This collection is directly related to the rest of the larger Perham Collection by provenance and by subject matter; and is also related by subject matter to other collections at History San Jose that deal with the early electronics industry in the Santa Clara Valley and the western United States.

Related Collections at Other Institutions:

- Cyril Frank Elwell Papers, M0049, Dept. of Special Collections, Stanford University Libraries, Stanford, Calif.
- Charles Vincent Litton Papers, 1912-1972, Banc Mss 75/7c. The Bancroft Library, University of California, Berkeley.
- Frederick Emmons Terman Papers (SC0160). Department of Special Collections and University Archives, Stanford University Libraries, Stanford, Calif.
- Charles Vincent Litton Papers, 1912-1972, Banc Mss 75/7c. The Bancroft Library, University of California, Berkeley.
- Harvard University Archives regarding the Radio Research Laboratory at Harvard University: http://oasis.lib.harvard.edu/oasis/deliver/~hua09005
- Motorola, Inc. Legacy Archives Collection (Schaumburg, Illinois)

Subjects and Indexing Terms

- Electrical engineers--United States
- Inventors--California--Santa Clara Valley (Santa Clara County)
- Radio--Receivers and reception--Design and construction.
- Stanford University--Alumni and alumnae

Elliott Patent Materials Series 1 1913-1968

Language of Material: English
Physical Description: 5.75 Linear feet
Scope and Contents note
During much of his career, Elliott independently designed, developed, and marketed various radio apparatus, such as push-button, remote control and clock control mechanisms for radio receivers and transmitters. His work resulted in over 80 U.S. patents issued from 1920 through 1966. This series contains documents related to Elliott’s invention patents and is divided into three subseries: Elliott’s Patent Lists and Related Abstracts, Patent Records By Case Number and Patent Records Without Case Numbers and Related Documents.

Subjects and Indexing Terms
- Clock radios
- Radio--Equipment and supplies--Patents--United States.

Box 1 Patent Lists and Related Abstracts Subseries 1.1 1937-1953

Language of Material: English
Physical Description: 0.25 Linear feet
Scope and Contents note
Documents related to Elliott’s invention patents. Includes various lists of Elliott’s patents with related abstracts. Note that the patents lists do not include all of Elliott’s many patents.
<table>
<thead>
<tr>
<th>Box 1-11</th>
<th><strong>Patent Records by Case Number</strong> Subseries 1.2 1932-1951</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language of Material: English</td>
<td></td>
</tr>
<tr>
<td>Physical Description: 5.5 Linear feet</td>
<td></td>
</tr>
<tr>
<td>Scope and Contents note</td>
<td></td>
</tr>
<tr>
<td>Documents related to Elliott's Patent Applications as designated by Case Number.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 11, 12</th>
<th><strong>Patent Records Without Case Numbers and Related Documents</strong> Subseries 1.3 1913-1968</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language of Material: English</td>
<td></td>
</tr>
<tr>
<td>Physical Description: 0.5 Linear feet</td>
<td></td>
</tr>
<tr>
<td>Scope and Contents note</td>
<td></td>
</tr>
<tr>
<td>Various documents related to Elliott's patents and inventions, not assigned Case Numbers. Includes correspondence between Elliott and his patent attorney, John Flam, during October 1925 and February 1927 through March 1929. Also includes Elliott's father Wilbur's patent for an Ellipsograph (1913, Patent No. 1,055,303).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 12</th>
<th><strong>License Agreements and Related Documents</strong> Series 2 1921-1948</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language of Material: English</td>
<td></td>
</tr>
<tr>
<td>Physical Description: 0.25 Linear feet</td>
<td></td>
</tr>
<tr>
<td>Scope and Contents note</td>
<td></td>
</tr>
<tr>
<td>This series contains license agreements and related documents regarding Elliott's various patents and inventions. Also includes related correspondence regarding Elliott's license agreements with the U.S. Government, Galvin Manufacturing Corporation, Oak Manufacturing Company and the Radio Research Laboratory at Harvard University.</td>
<td></td>
</tr>
<tr>
<td>Subjects and Indexing Terms</td>
<td></td>
</tr>
<tr>
<td>Galvin Manufacturing Corporation.</td>
<td></td>
</tr>
<tr>
<td>Harvard University. Radio Research Laboratory.</td>
<td></td>
</tr>
<tr>
<td>Oak Manufacturing Company.</td>
<td></td>
</tr>
<tr>
<td>Clock radios</td>
<td></td>
</tr>
<tr>
<td>License agreements</td>
<td></td>
</tr>
<tr>
<td>Radio--Equipment and supplies--Patents--United States.</td>
<td></td>
</tr>
</tbody>
</table>
Box 13  **Interference Testimony and Related Documents** Series 3 1930-1945

- **Language of Material:** English
- **Physical Description:** 0.25 Linear feet
- **Scope and Contents note**

This series contains documents regarding three patent interference proceedings: Radio Corporation of America v. Radio Engineering Labs., Inc., 293 U.S. 1 (1934), Loy E. Barton v. Harold F. Elliott (Interference No. 70,658) and Mastney and Williams v. Elliott (Interference No. 81,126).

The Radio Corporation of America v. Radio Engineering Labs., Inc. documentation includes Elliott's 1930-1931 research regarding oscillator patents while employed at RCA-Victor Company, inc. and related notes and correspondence. Note that this court case has been cited in the more recent Microsoft Corp. v. i4i Limited Partnership et. al., 563 U.S. ___ (2011) as having established the "clear and convincing" evidence standard required to overturn an already issued patent.

In Loy E. Barton v. Harold F. Elliott (Interference No. 70,658), Barton claimed that Elliot's Automatic Gain Control patent application (Serial No. 628,629) interfered with Barton's Automatic Volume Control with Noise Suppression patent application (Serial No. 640,946). The documentation includes Elliott's interference testimony and related correspondence (1935-1937); however, there does not appear to be sufficient information to determine the outcome of this interference proceeding.

In Mastney and Williams v. Elliott (Interference No. 81,126), Edward J. Mastney (from Oak Manufacturing Company) claimed that Elliott's Control Mechanism (1941, Serial No. 424,234, Elliott Cases 25 and 29) interfered with Mastney's Preselecting Mechanism (1942, Patent No. 2,293,299). It appears that this interference claim was eventually dropped. A related interference claim (Interference No. 82,100) was also dropped. Includes related correspondence (1941-1945).

**Subjects and Indexing Terms**

- Barton, Loy E.
- Mastney, Edward J.
- Oak Manufacturing Company.
- Radio Corporation of America.
- Radio Engineering Labs., Inc.
- RCA-Victor Company, inc.
- Patent suits--United States
- Radio--Equipment and supplies--Patents--United States.

Box 14, 15  **Legal Counsel Correspondence** Series 4 1922-1969

- **Language of Material:** English
- **Physical Description:** 0.75 Linear feet
- **Scope and Contents note**

This series consists of correspondence between Elliott and Legal Counsel Laurence B. Dodds, John Flam, H. Rowan Gaither, Jr., Howard P. King, Foorman L. Mueller, T.G. Norris, Frederic E. Supple and Eugene C. Taylor. Because Elliott was simultaneously developing, patenting and marketing his many inventions, correspondence in this series may overlap with correspondence in Subseries 1.2. (Patent Records By Case Number), Subseries 1.3. (Patent Records Without Case Numbers and Related Documents), Series 2. (License Agreements and Related Documents) and Series 3. (Interference Testimony and Related Documents).

**Subjects and Indexing Terms**

- Attorney and client
- Patent lawyers
**Patent Documents Collected for Reference Series 5 1887-1959**

Language of Material: English
Physical Description: 1.5 Linear feet
Language of Materials note: Some patent documents are in French and German.
Scope and Contents note
This series contains more than 475 patents that Elliott collected for his professional research, including British, French and German patents and related articles, as well as Elliott’s general correspondence with the U.S. Patent Office.

Subjects and Indexing Terms
- Patents
- Reference sources

**Federal Telegraph Company Series 6 1915-1938**

Language of Material: English
Physical Description: 6.25 Linear feet
Scope and Contents note
From 1916 to 1922, Elliott worked at the Federal Telegraph Company as a Chief Draftsman, Production Manager and Engineer in Charge of the design of high power radio transmitting equipment. From 1922 to 1925, he served as the Consulting Engineer in charge of designing the transmitting equipment for the Trans-Pacific project (“the Chinese project”) for the Federal Telegraph Company and its subsidiary, the Federal Telegraph Co. of Delaware. Federal Telegraph Company had planned to construct four radio transmission stations in China to be located at Shanghai, Peking (Peking or Beijing), Canton, and Harbin. However, in 1924 the Chinese project came to a standstill. According to Elliott, the instability of the Chinese government, the beginning of short wave radio, and conflicts between the Federal Telegraph Company and R.C.A. caused the Chinese project to be delayed. Elliott wrote “It was not until 10 years later that R.C.A. finally established a short wave circuit to Shanghai.”

This series consists of documents related to Elliott's employment with the Federal Telegraph Company and is divided into eight subseries: Correspondence and Related Documents, Reports, Blueprints and Oversized Documents, Assorted Data, Computations and Sketches, Work Diaries and Related Documents, Photographs, and Assorted Documents.

Subjects and Indexing Terms
- Beal, Ralph R.
- Federal Telegraph Company.
- Goldmark, Henry
- Pratt, John Haraden, 1848-1938
- Schwerin, R. P.
- Terman, Frederick Emmons, 1900-1982
- Wing, Charles B.
- Communications, Military
- Construction contracts--China
- Defense contracts
- Electric arc
- Radio and television towers
- Radio stations--California--San Diego
- Radio stations--Guam
- Radio stations--Maryland--Annapolis
- Radio stations--Oregon--Hillsboro
- Radio--Installation on ships
- Telegraph, Wireless--History
- Telegraph, Wireless--Pacific Ocean--History
Correspondence and Related Documents Subseries 6.1 1916-1938

Language of Material: English
Physical Description: 2.5 Linear feet

Box 18  December 1916 - April 1920 December 1916-April 1920

Language of Material: English
Physical Description: 0.5 Linear feet
Scope and Contents note
Correspondence, memoranda, computations and technical drawings on subjects including automatic timing relays for the Sayville, Annapolis, Liberty, El Cayey and Columbia Stations; 2 kW arc set developments; summary of experimental work done on single wave signaling systems (September 24, 1919 to October 14, 1919); U.S. Navy contract work; Lafayette Radio Station (Bordeaux, France) and Guam Radio Station coupled compensation signaling system; specifications for power machinery for Radio Stations.

Box 19  May 1920 - February 1921 May 1920-February 1921

Language of Material: English
Physical Description: 0.5 Linear feet
Scope and Contents note
Correspondence, memoranda and technical documentation related to arc converter and signaling system installations at Guam, San Diego, Annapolis stations; San Diego testing schedules; mica condensers, U.S. Navy contracts; contract with the Pacific Rolling Mill Company (Nevada) for radio towers in Santa Clara County, California, and Hillsboro, Oregon; construction contracts for radio towers; assorted Federal Telegraph equipment design memorandum and drawings.

Box 20  March 1921 - March 1922 March 1921-March 1922

Language of Material: English
Scope and Contents note
Memoranda, technical drawings and project reports on subjects including, but not limited to, 350-1,000 kW arc transmitters, San Diego high speed tests; Marsh and Hillsboro stations; 1,000 kW power plant; correspondence and memoranda between Elliott and Ralph R. Beal, Haraden Pratt, J. A. Miller, Suydam, Schwerin.

Box 21  April 1922 - March 1923 April 1922-March 1923

Language of Material: English
Physical Description: 0.5 Linear feet
Scope and Contents note
Correspondence, notes, expense account records, and technical data primarily related to planning and specifications for the "Chinese project," as well as the San Diego high power station, Pearl Harbor and Cavite high power stations. Includes correspondence surrounding hiring of Consulting Engineer Henry Goldmark to review Chinese station design proposals from Wing & Beebee engineering firm.

Box 22  April 1923 - June 1924 April 1923-June 1924

Language of Material: English
Physical Description: 0.5 Linear feet
Scope and Contents note
Correspondence primarily between Elliott and Ralph R. Beal related to Chinese project; wind pressure testing on cables; budget estimates for Chinese project; Elliott's expense account reports; correspondence between Elliott and Wing regarding Chinese project; correspondence regarding proposed 100 kW transmitter at Marsh and Bolinas stations.
Box 23

**1925-1938 1925, 1927, 1933 and 1938**

- Language of Material: English
- Physical Description: 0.5 Linear feet
- Scope and Contents note
  
  Correspondence between Elliott and Ralph R. Beal on issues including work orders for Chinese project; 100 kW and 1000 kW arc converters; status of equipment manufacturing for Chinese project; antenna and mast technical details. Correspondence between Elliott and Scholtz regarding Marsh station anemometers; Shanghai antennae. Assorted correspondence between Elliott and other Federal Telegraph Company staff regarding wind instruments at Marsh station; billing; cost analysis; technical issues surrounding 1000 foot masts for China.

Box 23-27

**Reports** Subseries 6.2 1917-1924

- Language of Material: Bini; Edo
- Physical Description: 2.0 Linear feet
- Scope and Contents note

  During his employment at the Federal Telegraph Company, Elliott retained copies of 113 engineering reports. (A complete list of the Federal Telegraph Company Engineering Reports is available from History San Jose). Note that some of the reports are in draft form; some of the reports were not signed off by the engineer that completed the report; and over 20 of the reports are undated.

Box 27

**Blueprints, Oversized Drawings and Related Documents** Subseries 6.3 1916-1924

- Language of Material: English
- Physical Description: 6.0 Linear feet 12 map folders
- Scope and Contents note

  Technical drawings and blueprints for Federal Telegraph Company stations and equipment, including but not limited to: Mare Island Naval Yard blueprints; Buenos Ayres (Buenos Aires) Radio Station blueprints and designs; Elliott’s “Combined Wave Changes and Transfer Switches”; drawings of arc converter cooling plates; assorted wiring diagrams; mast and antenna blueprints; 2 kW arc component drawings; 1000’ steel guyed mast blueprints from Wing & Beebee; assorted blueprints for Marsh Station and Hillsboro; Shanghai Station Drawings by Henry Goldmark engineers; wiring diagrams for Lafayette Radio Station (Bordeaux, France).

Box 28, 29

**Assorted Data, Computations and Sketches** Subseries 6.4 1915-1926

- Language of Material: English
- Physical Description: 1.0 Linear feet 2 manuscript boxes
- Scope and Contents note

  Includes test data and computations on coupled compensation signaling systems, 2 kW arc sets, 100 kW loading inductor for He’eia, 5 kW arc radio transmitter for ship service, radio frequency resistance of antenna wires, and single wave signaling at San Diego.
Federal Telegraph Company Series 61915-1938

Work Diaries and Related Documents Subseries 6.5 1919, 1920 and 1924

Language of Material: English
Physical Description: 0.25 Linear feet
Scope and Contents note

Elliott's time records and work diaries for November 1919, January 1920, and January - October 1924, as well as engineers C. H. Suydam and H. P. Miller's work diaries for January-September 1924.

Photographs Subseries 6.6 1910-1924

Language of Material: English
Physical Description: 0.25 Linear feet 2 folders, 1 map folder
Scope and Contents note

Two folders of photographs related to Elliott's work with Federal Telegraph Company, and an oversize map of the world showing all of the Federal Telegraph Company high power stations (more than 30 kW) and their connections. "The Federal Telegraph Company manufactures Arc Radio Transmitters varying in size from 2 to 1,000 Kilowatts. This map shows only the larger radio stations using Federal Arc Radio Transmitters. No stations of less than 30 Kilowatts are shown. A large number of smaller transmitters have been built for merchant and naval vessels and small land stations." Features three photographs: "U.S. Naval High Power Radio Station, San Diego, California"; "1,000 Kilowatt Arc Converter"; and "30 Kilowatt Arc Converter."

Assorted Documents 1906-1925

Language of Material: English
Physical Description: 0.25 Linear feet
Scope and Contents note

Includes a 1917 legal opinion regarding the heterodyne patent; contents of Elliott's reference binder; and the contents of Haraden Pratt's reference binder.

Galvin Manufacturing Corporation/Motorola, Inc. Series 7 1929-1953

Language of Material: English
Physical Description: 10.0 Linear feet 6.75 linear feet, 11 map folders and 77 photos
Scope and Contents note

In 1937, Elliott demonstrated his home radio set with clock and push button tuning to Paul Galvin of the Galvin Manufacturing Corporation (Galvin). This demonstration led to a licensing agreement for Galvin's exclusive use of Elliott's tuner in auto sets and the production of a push button automobile radio. While working with Galvin as a Consulting Engineer, Elliott developed other radio apparatus, such as a portable table model radio, radio tuners for military communication equipment and a solenoid (or motor drive) for mechanical push button tuners. This series includes documents related to Elliott's work with Galvin during the years 1937 through 1945 and is divided into six subseries.

Subjects and Indexing Terms
Galvin Manufacturing Corporation.
Galvin, Paul, 1895-1959
Mitchell, D. H.
Motorola, inc.
Stellner, Walter H.
Clock radios
<table>
<thead>
<tr>
<th>Box 31, 32</th>
<th><strong>Correspondence and Related Documents</strong> Subseries 7.1 1932-1953</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language of Material: English</td>
<td></td>
</tr>
<tr>
<td>Physical Description: 0.75 Linear feet</td>
<td></td>
</tr>
<tr>
<td>Scope and Contents note</td>
<td>Includes correspondence between Galvin and the Warren Telechron Company; and internal correspondence between Elliott and other Galvin employees especially D.H. Mitchell (Galvin's Chief Engineer) and Walter H. Stellner (Galvin Vice President).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 32-43</th>
<th><strong>Technical Drawings: Tuners, Clocks and Assorted Parts</strong> Subseries 7.2 1929-1947</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language of Material: English</td>
<td></td>
</tr>
<tr>
<td>Physical Description: 5.25 Linear feet</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 43, 44</th>
<th><strong>Sketches</strong> Subseries 7.3 1936-1945</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language of Material: English</td>
<td></td>
</tr>
<tr>
<td>Physical Description: 0.5 Linear feet</td>
<td></td>
</tr>
<tr>
<td>Scope and Contents note</td>
<td>Sketches of the home tuner set, solenoid tuner, gear tuners, and slug tuner.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 43, 44</th>
<th><strong>Blueprints, Oversized Drawings and Related Documents</strong> Subseries 7.4 1938-1947</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language of Material: English</td>
<td></td>
</tr>
<tr>
<td>Physical Description: 3.0 Linear feet11 map folders</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 59</th>
<th><strong>Photographs</strong> Subseries 7.5 1937-1947</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language of Material: English</td>
<td></td>
</tr>
<tr>
<td>Physical Description: 0.25 Linear feet77 photographs</td>
<td></td>
</tr>
<tr>
<td>Scope and Contents note</td>
<td>Photographs of assorted clock faces and parts, Galvin/Motorola manufacturing facilities and assembly line workers.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 44</th>
<th><strong>Assorted Materials</strong> Subseries 7.6 1938-1941</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language of Material: English</td>
<td></td>
</tr>
<tr>
<td>Physical Description: 0.25 Linear feet</td>
<td></td>
</tr>
<tr>
<td>Scope and Contents note</td>
<td>Primarily instruction manuals and radio station call letter tabs for clock/tuners.</td>
</tr>
</tbody>
</table>


Language of Material: English

Physical Description: 2.5 Linear feet

Scope and Contents note

In early 1927, Elliott began designing and producing radio receivers for home use for the Victor Talking Machine Company. From 1929 through 1931, he worked as a Consulting Engineer at the company. This series is divided into four subseries: Correspondence and Related Documents, Technical Memos and Reports, Photographs and Technical Drawings.

Subjects and Indexing Terms

RCA-Victor Company, inc.

Clock radios
Box 45  
**Correspondence and Related Documents** Subseries 8.1 1927-1932  
Language of Material: English  
Physical Description: 0.25 Linear feet  
Scope and Contents note  
Correspondence between Elliott and Victor employees, including Edward J. Mastney and N.E. Wundelich; between Elliott and R.C.A. - Victor’s Patent Department regarding patents for the Stabilized Amplifier System (Serial No. 311,491), Selective Radio Receiver (Serial No. 271,862) and the Electronic Vacuum Tube System (Serial No. 186,039); and between Victor employees and third-party parts vendors.

Box 45  
**Technical Memoranda and Reports** Subseries 8.2 1930, 1933  
Language of Material: English  
Physical Description: 0.25 Linear feet 1 folder, including 18 photographs  
Scope and Contents note  
Engineering Department memos and technical reports on radio receivers, including RCA Radiotron and Cunningham Types: 2A7, 6A7, 2B7, 6B7; Radiola 1930 Super-Heterodyne; Four-Circuit T.R.F. Development Receiver (includes photographs); Atwater Kent model 70 Receiver; and the development of radio receiver equipped with “Selectivity-Fidelity” Switching Means.

Box 59  
**Photographs** Subseries 8.3 undated  
Language of Material: English  
Physical Description: 0.25 Linear feet 4 photographs  
Scope and Contents note  
Victor Radio Photographs (#20041, #20042, #20043 and #20044).

---

**Technical Drawings** Subseries 8.4 1928-1929  
Language of Material: English  
Physical Description: 2.0 Linear feet 2 map folders (9 drawings)  
Scope and Contents note  
Group of technical drawings, primarily of radio receiver assembly and base.

**Radio Research Laboratory at Harvard University** Series 9 1939-1946  
Language of Material: English  
Physical Description: 1.25 Linear feet  
Scope and Contents note  
In February 1942, Dr. Frederick E. Terman convinced Elliott to join the Radar Counter-Measures Laboratory developing at the Massachusetts Institute of Technology. (Eventually the laboratory moved to Harvard University and became known as the Radio Research Laboratory.) The series includes documents related to Elliott’s work as a Consultant with the Radio Research Laboratory at Harvard University during the years 1942 through 1945 and is divided into five subseries: Correspondence and Related Documents, Technical Manuals, Pamphlets and Reference Notebooks and Technical Drawings.

Subjects and Indexing Terms  
Harvard University. Radio Research Laboratory.  
Terman, Frederick Emmons, 1900-1982  
World War, 1939-1945
Box 45  **Correspondence and Related Documents** Subseries 9.1 1942-1946

- **Language of Material**: English
- **Physical Description**: 0.25 Linear feet
- **Scope and Contents**

  Assorted correspondence and memoranda related to Elliott's employment and moving expenses; license agreements with Galvin; authorizations to travel abroad; Terman's transition from the Radio Research Laboratory back to Stanford University.

Box 46  **Technical Manuals, Pamphlets and Reference Notebooks** Subseries 9.2 1939, 1943-1946

- **Language of Material**: English
- **Physical Description**: 0.5 Linear feet
- **Scope and Contents**

  While at the Radio Research Laboratory, Elliott managed to save technical manuals, pamphlets and reference notebooks that had previously belonged to Colonel O. W. Miller from the M.I.T. Radar School of the Army Electronics Training Center.

---

**Technical Drawings** Subseries 9.3 1943 and undated

- **Language of Material**: English
- **Physical Description**: 2.0 Linear feet 2 map folders (6 drawings)

**Hewlett-Packard Company** Series 10 1945-1966

- **Language of Material**: English
- **Physical Description**: 1.5 Linear feet
- **Scope and Contents**

  Beginning in 1953, Elliott worked as a consultant at the Hewlett-Packard Company. While the consulting arrangement continued into the early 1960s, it is not clear when Elliott stopped working with Hewlett-Packard. The series includes documents related to Elliott’s work as a Consultant with the Hewlett-Packard Company during the years 1953 through the early 1960s and is divided into six subseries: Correspondence and Related Documents, Technical Drawings and Related Documents, Technical Reports, Technical Articles, Brochures, Bulletins and Catalogs and Assorted Materials.

Subjects and Indexing Terms
Hewlett-Packard Company.

---

Box 47  **Correspondence and Related Documents** Subseries 10.1 1956-1957

- **Language of Material**: English
- **Physical Description**: 0.25 Linear feet
- **Scope and Contents**

  Internal correspondence between Elliott and Hewlett-Packard Company employees; inter-office correspondence regarding the 560A Digital Recorder (printer); Elliott's reports on his work testing magnets and armatures.
Box 47-49  **Technical Drawings and Related Documents** Subseries 10.2 1954-1966
- Language of Material: English
- Physical Description: 1.25 Linear feet
- Scope and Contents note
  Drawings include the crop thinner clutch, tuner and timer; gear tuner; ticker printer; digital shaft positioner; oscilloscope camera; other assorted parts.

Box 49  **Technical Reports** Subseries 10.3 undated
- Language of Material: English
- Physical Description: 0.25 Linear feet
- Scope and Contents note
  Includes a technical report entitled “A Small, Fast Digital Data Printer” by Edgar A. Hilton and Harold Elliott (Undated). The report includes two technical drawings, one graph and two photocopies of parts.

Box 49  **Technical Articles, Brochures, Bulletins and Catalogs** Subseries 10.4 1945-1960
- Physical Description: 0.5 Linear feet

Box 49  **Other Companies** Series 11 1932-1966
- Language of Material: English
- Physical Description: 2.5 Linear feet
- Scope and Contents note

**Assorted Professional Materials** Series 12 1923-1966
- Language of Material: English
- Physical Description: 14.0 Linear feet2.25 linear feet plus 25 map folders and 1 oversized box

Box 52, 53  **Correspondence and Related Documents** Subseries 12.1 1923-1966
- Language of Material: English
- Physical Description: 0.75 Linear feet
- Scope and Contents note
  Elliott’s correspondence with vendors, financial institutions, and colleagues. Includes discussion between Cyril F. Elwell and Elliott about possible television and radio patents (1933); correspondence between Elliott and Lincoln Walsh regarding post-war work; correspondence between Elliott and various professional contacts regarding his clocks and tuners, timing and tuning mechanisms and detent dial (1949-1952).
Technical Drawings, Oversized Drawings and Related Documents Subseries 12.2 1924-1966

Language of Material: English
Physical Description: 13.0 Linear feet 1 manuscript box and 25 map folders

Scope and Contents note
Elliott's drawings, on a variety of paper mediums, of his inventions, including push pull systems; Model D (TV Clock), Model E (Range Clock), Models G and H (Range and TV Clocks), and Model N; clock faces; auto theft alarm; clock radio tuners; washing machine/dryer timer; "Magic Memory Clock", and a "Minute/Kitchen Timer."

Technical Manuscripts Subseries 12.3 1952 and undated

Language of Material: English
Physical Description: 0.25 Linear feet

Scope and Contents note
Three manuscripts authored by Elliott: patent specifications for an Electric Burglar Alarm (Undated), "An Engineer's Viewpoint" (Undated), and "Kinetic Ether Theory Speculations upon Some Problems in Contemporary Physics" (June 1952).

Marketing Proposals Subseries 12.4 1948-1966

Language of Material: English
Physical Description: 0.25 Linear feet

Scope and Contents note
Proposals prepared by Elliott to market his inventions, many including technical drawings and photographs, of latch-type and gear-type multiple revolution tuners, radio clocks and tuners, multiple revolution detent dials, preselector clocks, and precision timers for radio, television and appliances.

Photographs Subseries 12.5 circa 1916-1965

Physical Description: 1.5 Linear feet

Scope and Contents note
Black and white photographs primarily taken by Harold Elliott of his own inventions, mainly his radio clock and tuner parts and assembly photographs. Also includes a series of professional portraits of Elliott with his relay set and clock taken by Berton Crandall of Palo Alto, California, between 1937-1941, some of which were featured in the 1941 article, "Stanford in Radio," part of a feature, "Stanford on the Job in Electrical Engineering."

Technical Pamphlets, Brochures and Catalogs Subseries 12.6 1921-1969

Language of Material: English
Physical Description: 0.25 Linear feet

Scope and Contents note
Assorted bulletins, catalogs for radio and electric equipment, including John A. Roebling's Sons Company, Majestic, Weston, General Electric, and Leeds & Northrup - Micromax.
Professional Organizations Subseries 12.7 1911-1969

Language of Material: English
Physical Description: 0.25 Linear feet

Scope and Contents note
Correspondence and receipts related to Elliott's professional organization memberships and subscriptions, including the Engineers Club of San Francisco, American Institute of Electrical Engineers, and the Institute of Radio Engineers.

Harold F. and Winifred E. Elliott Personal Papers Series 13 1900-1965

Language of Material: English
Physical Description: 8.25 Linear feet

Scope and Contents note
Personal correspondence, financial and real estate records, educational material, assorted reference, and photographs belonging to and created by Harold F. Elliott and his wife Winifred Estabrook Elliott. Included are Elliott's plans and architectural drawings for their residence at 800 Westridge Drive, Portola Valley, California; Elliott's personal photographs beginning with his student days at Stanford between 1911-1916 through to artistic photographs of the Santa Cruz Mountain foothills around his home, taken circa 1950-1970. 

Subjects and Indexing Terms
Automobile travel--West (U.S.)
Dwellings--Design and construction
Home economics--Accounting
Marriage
Photography
Portola Valley (Calif.)
Southwest, New
Stanford University

Correspondence Subseries 13.1 1922-1969

Physical Description: 2.75 Linear feet

Scope and Contents note
Personal correspondence of Harold F. Elliott and Winifred Estabrook Elliott. Includes correspondence between Harold and Winifred while they were dating and during the early years of their marriage; correspondence between both Harold and his mother, and Winifred and her mother; correspondence between Winifred and her sister Marion; correspondence with other family members and friends. Other significant personal correspondence relates to Harold Elliott's photography interests, his involvement with Stanford University as both a lecturer (1932-1946) and as a class fundraising representative in the 1950s and 1960s. Assorted financial and mail order correspondence is also included.
<table>
<thead>
<tr>
<th>Box 67-70</th>
<th>Financial and Household Records Subseries 13.2 1916-1969</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language of Material: English</td>
<td></td>
</tr>
<tr>
<td>Physical Description: 1.75 Linear feet</td>
<td></td>
</tr>
<tr>
<td>Scope and Contents note</td>
<td></td>
</tr>
<tr>
<td>Harold and Winifred Elliott's medical records (Harold Elliott was a diabetic) and correspondence, automobile insurance and maintenance records, banking and investment records, taxes, household moving receipts and invoices, assorted household receipts and invoices, and real estate inquiries. This subseries includes Harold Elliott's architectural and interior design plans, and background research for the home he designed at 800 Westridge Drive, Portola Valley, California (originally part of Menlo Park), as well as Westridge subdivision architectural committee documents, and background on the debate over incorporation of Portola Valley between 1957-1960.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 71</th>
<th>Educational Materials Subseries 13.3 1918-1934</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language of Material: English</td>
<td></td>
</tr>
<tr>
<td>Physical Description: 0.5 Linear feet</td>
<td></td>
</tr>
<tr>
<td>Scope and Contents note</td>
<td></td>
</tr>
<tr>
<td>Harold Elliott's loose notes and instructional texts from his courses at the Stanford University Graduate School of Business (1933-1934), and Winifred Estabrook's educational material from San Jose State Normal School and Stanford University. Of note are her handwritten lecture notes taken during summer courses at Stanford University (1918, 1920), which appear to be from Lewis Terman's class (Education 17) on the hygiene of school children, as well as lecture notes from courses under Pauline Sears and Ephraim Douglas Adams.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 71, 72</th>
<th>Assorted reference and mementos Subseries 13.4 1903-1969</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language of Material: English</td>
<td></td>
</tr>
<tr>
<td>Physical Description: 0.75 Linear feet</td>
<td></td>
</tr>
<tr>
<td>Scope and Contents note</td>
<td></td>
</tr>
<tr>
<td>Small number of Winifred Estabrook Elliott's childhood mementos, including her personal diary (1909-1911). Harold and Winifred Elliott's assorted reference material, including travel brochures, investment circulars, musical performance and art exhibition programs, photography equipment brochures, and news clippings about Harold Elliott's photography exhibitions and talks at local photography clubs (1906, 1947-1953).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 73-76</th>
<th>Photographs Subseries 13.5 1900-1965</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language of Material: English</td>
<td></td>
</tr>
<tr>
<td>Physical Description: 2.5 Linear feet</td>
<td></td>
</tr>
<tr>
<td>Scope and Contents note</td>
<td></td>
</tr>
<tr>
<td>Approximately 1170 black and white photographs taken by Harold Elliott, including a large series of prints from his days at Stanford University (1911-1916), extensive images of early outdoor recreation and picnics with unidentified friends/family members (circa 1908-1929), as well as his later exhibit photographs (circa 1947-1965). Includes a small number of family portraits. Elliott’s artistic photographs are primarily of California and Southwestern landscapes, including mountain scenes, coastal wildlife and beaches, desert sands and cliffs, and many of the foothills and oaks around his Portola Valley home. There are a small number of images of Boston, Massachusetts churches; and a series from travels in Europe.</td>
<td></td>
</tr>
</tbody>
</table>