Collection Summary
Title: John Ericsson Papers
Span Dates: 1821-1890
Bulk Dates: (bulk 1842-1886)
ID No.: MSS19877
Creator: Ericsson, John, 1803-1889
Extent: 1,500 items ; 11 containers ; 4.4 linear feet ; 6 microfilm reels
Language: Collection material in English, and Swedish
Location: Manuscript Division, Library of Congress, Washington, D.C.
Summary: Engineer and inventor. Correspondence, writings, design specifications, articles, memoranda, technical notes, financial and legal papers, drawings, printed matter, and miscellany relating primarily to Ericsson's activities in marine engineering, especially his work on screw propellers and his design of the steamship Princeton and the ironclad Monitor. Includes correspondence of Ericsson's biographer, William C. Church.

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.

People
Adlersparre, A.--Correspondence.
Browning, S. B.--Correspondence.
Chandler, William E. (William Eaton), 1835-1917--Correspondence.
Church, William Conant, 1836-1917--Correspondence.
Dahlgren, John Adolphus Bernard, 1809-1870--Correspondence.
Delamater, Cornelius Henry, 1821-1899--Correspondence.
Elworth, Hjalmar--Correspondence.
Ericson, Nils--Correspondence.
Ericsson, John, 1803-1889.
Fox, Gustavus Vasa, 1821-1883--Correspondence.
Griswold, John A. (John Augustus), 1818-1872--Correspondence.
Haswell, Chas. H. (Charles Haynes), 1809-1907--Correspondence.
Horsford, Eben Norton, 1818-1893--Correspondence.
Ingersoll, Robert Green, 1833-1899--Correspondence.
Jones, William Gore--Correspondence.
Ogden, Francis Barber, 1783-1857--Correspondence.
Oscar II, King of Sweden, 1829-1907--Correspondence.
Paulding, Hiram, 1797-1878--Correspondence.
Sargent, Epes, 1813-1880--Correspondence.
Sargent, John Osborne, 1811-1891--Correspondence.
Seward, William Henry, 1801-1872--Correspondence.
Smith, Joseph, 1790-1877--Correspondence.
Stockton, Robert Field, 1795-1866--Correspondence.
Welles, Gideon, 1802-1878--Correspondence.

Organizations
Monitor (Ironclad)
Princeton (Steamship)

Subjects
Anti-submarine warfare.
Armored vessels.
Destroyers (Warships)
Floating batteries.
Hydrometer.
Marine engineering.
Naval architecture.
Ordnance, Naval.
Propellers.
Pyrometers.
Shipbuilding.
Solar energy.
Warships--Turrets.
Warships.

Places
United States--History, Naval--19th century.

Occupations
Engineers.
Inventors.

Administrative Information

Provenance
The papers of John Ericsson, engineer and inventor, were given to the Library of Congress by Agnes M. Church in 1945 and 1955. Additions were received as a deposit of the Naval History Society, 1913, and by purchase, 1975.

Processing History
The papers of John Ericsson were processed in 1980. The finding aid was revised in 2003.

Transfers
Photographs have been transferred to the Library's Prints and Photographs Division where they are identified as part of these papers.

Copyright Status
The status of copyright in the unpublished writings of John Ericsson is governed by the Copyright Law of the United States (Title 17, U.S.C.).

Access and Restrictions
The papers of John Ericsson are open to research. Researchers are advised to contact the Manuscript Reading Room prior to visiting. Many collections are stored off-site and advance notice is needed to retrieve these items for research use.

Microfilm
A microfilm edition of part of these papers is available on six reels. Consult reference staff in the Manuscript Division concerning availability for purchase or interlibrary loan. To promote preservation of the originals, researchers are required to consult the microfilm edition as available.

Preferred Citation
Researchers wishing to cite this collection should include the following information: Container or reel number, John Ericsson Papers, Manuscript Division, Library of Congress, Washington, D.C.
Biographical Note

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1803, July 31</td>
<td>Born, Vermland Province, Sweden</td>
</tr>
<tr>
<td>1815</td>
<td>Commissioned to make drawings for the Gota Canal Co.</td>
</tr>
<tr>
<td>1815-1820</td>
<td>Assistant leveler and leveler at various stations of the Gota Canal Co.</td>
</tr>
<tr>
<td>1820</td>
<td>Ensign, 23d Regiment Rifle Corps, Swedish army</td>
</tr>
<tr>
<td>1821</td>
<td>Commissioned second lieutenant</td>
</tr>
<tr>
<td>1825-1826</td>
<td>Constructed a condensing flame engine of ten horsepower</td>
</tr>
<tr>
<td>1826</td>
<td>Went to London, England</td>
</tr>
<tr>
<td>1827</td>
<td>Commissioned captain and later resigned from the Swedish army</td>
</tr>
<tr>
<td>1828</td>
<td>Designed steam fire engine for which he received the gold medal of the Mechanics Institute of New York in 1840</td>
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<tr>
<td></td>
<td>Made the first application to navigation of the principle of condensing steam and returning water to the boiler in the ship Victory</td>
</tr>
<tr>
<td></td>
<td>Designed self-acting gun lock later applied to wrought iron gun of the Princeton</td>
</tr>
<tr>
<td>1829</td>
<td>Designed and constructed the steam locomotive Novelty</td>
</tr>
<tr>
<td>1830</td>
<td>Introduced &quot;link motion&quot; for reversing locomotive engines</td>
</tr>
<tr>
<td>1833</td>
<td>Introduced the &quot;caloric&quot; engine</td>
</tr>
<tr>
<td>1833-1834</td>
<td>Experimented with submerged propellers</td>
</tr>
<tr>
<td>1836</td>
<td>Invented and patented the screw propeller</td>
</tr>
<tr>
<td></td>
<td>Married Amelia Byam</td>
</tr>
<tr>
<td>1837</td>
<td>Built steam vessel with two screw propellers</td>
</tr>
<tr>
<td>1838</td>
<td>Constructed the Robert F. Stockton, an iron screw steamer</td>
</tr>
<tr>
<td>1839</td>
<td>Came to the United States</td>
</tr>
<tr>
<td>1841</td>
<td>Furnished designs for the first screw-propelled warship, the Princeton, commissioned in 1844</td>
</tr>
<tr>
<td>1851</td>
<td>Exhibited inventions at United States division of the World's Fair in London</td>
</tr>
<tr>
<td></td>
<td>Developed design and plans for the Ericsson, a ship propelled by &quot;caloric&quot; engines, completed in 1853</td>
</tr>
<tr>
<td>1854</td>
<td>Developed plans for a submerged armored vessel with guns in revolving shot-proof cupola placed centrally on deck</td>
</tr>
<tr>
<td>1861</td>
<td>Built Monitor, an armored ship embodying the features designed in 1854</td>
</tr>
</tbody>
</table>
1869 Constructed thirty steam gunboats for the Spanish government

1881 Devised the Destroyer, a submarine torpedo boat

1883 Erected "sun motor" which ran on solar energy at New York

1889, Mar. 8 Died, New York, N.Y.

Scope and Content Note

The papers of John Ericsson (1803-1889) span the years 1821-1890, with the bulk of the material falling within the years 1842-1886. The collection consists of correspondence, design specifications, articles, memoranda, technical notes, financial and legal papers, drawings, and printed matter.

Ericsson's papers relate mainly to his designs and scientific pursuits following his emigration from England to the United States. Early letters, mainly correspondence with Robert Field Stockton, concern Ericsson's "caloric" engine and the development of the screw propeller as a means of propulsion for ships. In 1841 by contract with the United States Navy, Ericsson designed the Princeton, the first screw-propelled warship with motive machinery below the water line. His papers include correspondence, specifications, and notes relating to the construction of this ship, an early effect in modern naval construction.

The collection reflects Ericsson's continued interest in naval warfare. An earlier design for an armored vessel which Ericsson sent to Napoleon III in 1854 is included in his papers. After 1861 the papers contain numerous letters and other documents pertaining to the design and construction of the Monitor, the ironclad ship which defeated the Merrimac in 1862 and inspired the United States and other maritime nations to build armored monitor fleets. The progress of seafaring countries in accepting the ironclad vessels as components of their navies can be traced in Ericsson's correspondence.

After the Civil War, Ericsson turned his attention to the vulnerability of armored ships and revived his earlier idea of a system of submarine attack using submerged lighter weight torpedo boats which featured speed and guided torpedoes as countermeasures to the impregnability of the ironclad ships. His plan was embodied in a boat which he called the Destroyer, and his papers from the late 1860s to 1888 contain letters detailing his efforts to sell the system to the United States and other maritime nations. Letters to S. B. Browning, his agent in London for all European countries except Sweden, depict Ericsson's strategy for creating interest in the Destroyer in England and eventually persuading the British Admiralty to purchase a vessel for test trials. Other topics related to naval defense include gun installations, floating batteries, revolving turrets, development of fleets, and the general outfitting of ships of war.

Letters to editors of scientific and naval journals describing Ericsson's designs and often responding to critiques made by other scientists and naval officers are interspersed throughout the correspondence. References to his work on solar energy can be found in several letters in the latter part of the 1860s. The specifications and technical notes file contains other papers relating to his designs and ideas, including materials on the pyrometer, the hydrometer, and other apparatuses which he exhibited at the 1851 World's Fair in London, as well as notes on various engines with which he was associated. Many of the letters are in Swedish, particularly the family correspondence. Correspondence from 1889 to 1890 consists of letters addressed to Ericsson's biographer, William Conant Church.


Organization of the Papers

The collection is arranged in six series:

- Diaries, 1841-1842
• Family Correspondence, 1860-1883
• General Correspondence, 1821-1890
• Writings File, 1833-1880
• Financial Records, 1844-1889
• Miscellany, 1836-1887
## Description of Series

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<th>Series</th>
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<tr>
<td>BOX 1</td>
<td><strong>Diaries, 1841-1842</strong></td>
</tr>
<tr>
<td>REEL 1</td>
<td>Extract from Ericsson's daily journal.</td>
</tr>
<tr>
<td>BOX 1</td>
<td><strong>Family Correspondence, 1860-1883</strong></td>
</tr>
<tr>
<td>REEL 1</td>
<td>Letters exchanged between Ericsson and his brother, Nils Ericson, and his son, Hjalmar Elworth. Arranged chronologically.</td>
</tr>
<tr>
<td>BOX 1-4</td>
<td><strong>General Correspondence, 1821-1890</strong></td>
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<tr>
<td>REEL 1-5</td>
<td>Letters received, retained copies and drafts of letters sent, copies of cablegrams, and memoranda. Arranged chronologically.</td>
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<tr>
<td>BOX 5</td>
<td><strong>Writings File, 1833-1880</strong></td>
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<tr>
<td>REEL 5-6</td>
<td>Copies and drafts of articles, drawings, specifications, technical notes and memoranda, and poems. Arranged alphabetically by type of writing.</td>
</tr>
<tr>
<td>BOX 6-11</td>
<td><strong>Financial Records, 1844-1889</strong></td>
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<td>Correspondence, notes, receipts, and checkbook stubs. Arranged chronologically.</td>
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<td>BOX 11</td>
<td><strong>Miscellany, 1836-1887</strong></td>
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<tr>
<td>REEL 6</td>
<td>Biographical data, extracts and copies of articles relating to Ericsson and his inventions, legal papers, miscellaneous lists, technical papers, notes, and printed matter. Arranged alphabetically by type of material.</td>
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Container List

Available on microfilm. Shelf no. 18,203

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| BOX 1 REEL 1 | **Diaries, 1841-1842**  
Extract from Ericsson's daily journal. |
| BOX 1 REEL 1 | Extract from daily journal, 1841, Feb.-1842, Feb. 28 |
| BOX 1 REEL 1 | **Family Correspondence, 1860-1883**  
Letters exchanged between Ericsson and his brother, Nils Ericson, and his son, Hjalmar Elworth.  
Arranged chronologically. |
| BOX 1 REEL 1 | 1860-1883  
(2 folders) |
| BOX 1 REEL 1 | **General Correspondence, 1821-1890**  
Letters received, retained copies and drafts of letters sent, copies of cablegrams, and memoranda.  
Arranged chronologically. |
| BOX 1 REEL 1-2 | 1821, 1832, 1837-1863  
(14 folders) |
| BOX 2 REEL 2-3 | 1864-1869  
(11 folders) |
| BOX 3 REEL 4 | 1870-1881  
(11 folders) |
| BOX 4 REEL 4-5 | 1882-1890, undated  
(13 folders) |
| BOX 5 REEL 5-6 | **Writings File, 1833-1880**  
Copies and drafts of articles, drawings, specifications, technical notes and memoranda, and poems.  
Arranged alphabetically by type of writing. |
| BOX 5 REEL 5-6 | Articles |
"American and English Iron Clads," 1862
"Improvements in Actuating and Regulating the Speed of Telegraphic Instruments," 1859
"Improvements in Street Locomotives," undated
"The Loss of the Captain," 1870
"Motive Engines," 1861
"Movable Torpedos," 1879
"New System of Naval Attack," with draft and fragmentary copy, 1854
"Submarine Warfare," 1880
"The Turret of the Pacific," 1862
List of articles by Ericsson

Poems
Specifications and technical notes
Centrifugal forces of the earth, 1870
Engines, 1836-1867
Miscellany
Notes and reply to charges by Sir John Ross in controversy over the Victory (steamship), 1833
Notes on meters, gauges, and other mensuration apparatus, 1849[?]
Notes on the moon, 1870
Screw propeller, 1837-1858
Ships
Dictator (bark), 1866
Ericsson (ship), 1854
Princeton (steamship), 1842-1846
Specification for an ironclad shot-proof steam floating battery
Spherical dynamic register
Drawings and engravings of designs

**Financial Records, 1844-1889**

Correspondence, notes, receipts, and checkbook stubs.
Arranged chronologically.

**Miscellaneous, 1844-1887, undated**

(2 folders)
Checkbook stubs
1844-1862
(6 folders)
1862-1871
(7 folders)
1871-1877
(8 folders)
1877-1882
(13 folders)
1882-1886
(10 folders)
### Box 11
**Miscellany, 1836-1887**

Biographical data, extracts and copies of articles relating to Ericsson and his inventions, legal papers, miscellaneous lists, technical papers, notes, and printed matter.

Arranged alphabetically by type of material.

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<td>Box 11 REEL 6</td>
<td>Awards and prizes, lists of</td>
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Biographical data
- Contributions to the centennial exhibition, 1877, Aug. 29
- Contributions to the Kungliga Bibliotheket, Stockholm, Sweden, 1877, Oct. 17
- Extracts and copies of articles relating to Ericsson and his inventions, 1860-1887
- Legal papers, agreements, affidavits and patent papers, 1836-1887
- Lists of ironclad vessels in the United States Navy during the Civil War, 1878

Miscellaneous
- Naturalization papers, 1848
- Printed matter
- Sketch of Ericsson at twenty-one years of age