

**Guide to the John Ericsson Letter on Fire Engine Design,
1859 August 25
MS0349**

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at
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DESCRIPTIVE SUMMARY

Repository: The Mariners' Museum Library
Title: John Ericsson Letter on Fire Engine Design
Inclusive Dates: 1859 August 25
Catalog number: MS0349
Physical Characteristics: 1 letter (correspondence)
Language: English
Creator: Ericsson, John, 1803-1889

BIOGRAPHICAL SKETCH

John Ericsson was born in the province of Vermland, Sweden, on July 31, 1803. The son of a mining engineer, Ericsson showed an early interest in mechanics. By the age of ten, he had designed and constructed a miniature sawmill and by 13, he was a cadet in the Swedish navy. By the age of 17, he entered the Swedish army, joining as an ensign in the 23rd. Corps, a specialized engineering unit for the army. While serving in the army, Ericsson became interested in steam engines and developed the theory for his caloric engine, which operated on the principle that air heated to very high temperature could be used to drive engines.

In 1826 Ericsson published a paper on his work to develop a caloric engine. That year he demonstrated his invention to the British Society of Civil Engineers. Although the engine failed in the demonstration, Ericsson impressed the English engineer John Braithwaite. Braithwaite was impressed with the young Swede's determination and offered him a position as partner in his firm. In the ten years that Braithwaite and Ericsson worked together, they developed some 30 new inventions, including an evaporator, a depth finder, a series of improved engines, a steam engine with a surface condenser, and, what is of interest here, a steam fire engine.

By 1836, Ericsson had patented a design for the screw propeller. An American naval officer, Robert Stockton, was impressed with Ericsson's propeller and persuaded him to immigrate to the United States. In 1839, with Stockton's influence, Ericsson was awarded a contract to build a screw-propelled warship for the United States Navy. Launched in 1843, the USS *Princeton* was the first warship in naval history to be designed and built as a screw-powered ship. During the ship's trials in 1844, one of the guns exploded killing several dignitaries on board. Efforts by the Navy to assign the blame to Ericsson, led the engineer to redirect his creativity into civilian fields.

By June 1861, Confederate forces started the conversion of the USS *Merrimack* into the CSS *Virginia*. Secretary of the Navy, Gideon Welles, countered with the creation of a board to build an ironclad vessel. After presentations and negotiations, Ericsson's design of the USS *Monitor* was accepted. *Monitor's* successful battle with the Confederate ironclad *Virginia* on March 9, 1862, made Ericsson a hero in the North. Throughout the rest of the Civil War, Ericsson was involved in the design and construction of a number of ironclad monitor type vessels of the United States Navy.

After the Civil War, Ericsson continued his work on maritime and naval technology. He designed ships for foreign navies, experimented with submarines and self-propelled torpedoes, and worked on technologies as exotic as solar energy. Ericsson continued to work on his invention until his death in New York City on March 8, 1889. In August 1890, following a memorial service at New York, his body was placed on board the cruiser *Baltimore*, which carried him across the Atlantic to his native Sweden for burial.

SCOPE AND CONTENT

This collection consists of a single page letter dated 25 August 1859 handwritten by Ericsson to an unknown gentleman addressed as “My dear Sir”. The letter discusses engine design and purchase and refers to Messrs Button and Blake of the Button and Blake Fire Engine Co. and their desire for more power in their engine. The technical specifications of a specific engine type, in all probability of a fire engine, are discussed, as well as a brief promise in the post script to cure the trouble with a swing motor – “a matter of two minutes work,” according to Ericsson. The letter is interesting in that it shows Ericsson still involved as late as 1859 with the steam fire engine, which he and Braithwaite had invented thirty years earlier.

The letter is organized into 1 folder.

ADMINISTRATIVE INFORMATION

Accession Number

CA99

Accession Date

1992

Restrictions

The collection is open to all researchers.

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Preferred Citation

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Note to Users

Due to the fragile and rare nature of the collection, researchers are requested to handle the materials with caution and in accordance with prescribed archival practices. When using these materials, please preserve the original order of the collection.

RELATED MATERIALS

The Library has several other collections of letters by Ericsson either in his hand or in that of his secretary: John Ericsson Letter on Caloric Engines, 1858, (MS0464); John Ericsson Letter, 1864, (MS0312); and John Ericsson and Samuel Taylor Letters, 1887, (MS0188). In addition to these, one other collection includes manuscript letters written by Ericsson: Isaac Newton Jr. Family Papers, 1829-1932 (MS0013).

FILE GUIDE

BOX 1

Folder 1

Letter

Letter from John Ericsson to unidentified correspondent, dated August 25, 1859

SOURCES CONSULTED

Thulesius, Olav. *The Man Who Made the Monitor: A Biography of John Ericsson, Naval Engineer*. Jefferson, NC: McFarland & Company, Inc., Publishers, 2007.

SUBJECTS

Fire engines-Design and construction

Ericsson, John, 1803-1889

Button and Blake (Waterford, N.Y)