

## **The Construction of USS Monitor and its impact on the Upper-Hudson Valley**

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Photo # NH 59543 USS Monitor. Watercolor by Oscar Parkes



The Hudson Valley region of New York State played a major role in the Union's struggle, and later success during the American Civil War (1861-1865). The creation of the famous ironclad vessel, the USS Monitor is a clear example of this effort, and was completed from start to finish, within the region. Although the infamous battles at Hampton Roads between the Monitor and her nemesis *CSS Virginia* did not physically take place in the Hudson Valley, the building of the monitor deeply impacted the Hudson Valley by creating economic stimulation at home. While the war waged on in the border states of the Union and the Confederacy, the backbone of the northern war effort: labor, entrepreneurship, and military innovation-all were being exercised in the Hudson Valley by the Monitor's contractors. No one task during the war stands out as more monumental amongst the Upper-Hudson Valley's accomplishments than the building of the USS Monitor. This new era of naval warfare could not have been brought about without the Hudson Valley's manufacturing capacity and the men who made it happen.

Swedish inventor, and designer John Ericsson crafted the USS Monitor in a crucial time for the Union Navy. Ericsson had undertaken designs of Ironclad ships previously for European nations including France under Napoleon III however these were always rejected. What was most impressive about the Monitor was its rotating turret, which unlike *CSS Virginia*, could turn 360 degrees, and possessed two 12-inch cannons. This ship also bore ironclad armor that outmatched *CSS Virginia's*. These two structural components were the result of outstanding craftsmanship, savvy engineering and excellent armor. All the metal components and armor on the ship were forged in the fires of Troy's Iron manufacturing plants during the Civil War.<sup>1</sup> Aside from his clever designs, Ericsson himself has a peculiar story, also rooted deeply in the history of the Hudson Valley during the era of the Civil War.

Although John Ericsson was born in Sweden, this controversial and provocative designer would find his permanent nest perched deep up the Hudson River in Rhinebeck. John Ericsson was considered a child prodigy from a young age, given the title of surveyor for prominent canal builders in Sweden at the young age of fourteen years old. Stories tell that Ericsson was followed around with a stool so that he could reach the blueprints in his surveying efforts in his early teens. Ericsson's life was not always so effortless however, and when he arrived in England to further the success of his steam engine design, he found his design was not up to the standard the English needed, being that the British used coal, not the wood his design burned in the fire. Ericsson also married a young woman named Amelia Byam; the marriage was so unsuccessful that they quickly separated and remained so, until her death. Although life as an adult was not

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<sup>1</sup> <http://americancivilwar.com/monitor.html> Union Navy Ship: *USS Monitor*.

proving to be as rewarding as his childhood years were, Ericsson soon found his work was demanded in the states, where the young engineer was contracted to design the USS Monitor. He found a home in the Valley and remained for the duration of his life.<sup>2</sup>

On his arrival to the United States, Ericsson was first recruited for designing a propeller engine for the US Navy. Robert Stockton, an American captain had Ericson design propellers for the vessel, and eventually sought funding for the Swedish designer to build a frigate. The two men only received enough funding to build a 700-pound sloop; this Sloop would be called the infamous USS Princeton. The Princeton was brought out on its first venture by the naval board and the Secretary of State, Abel P. Upshur. Upon firing the cannons on the vessel for the first time, the newly mounted cannon backfired, killing eight important political figures, including Upshur and the Naval Secretary Thomas Gilmer. Although Stockton was responsible for the cannon's poor design and functioning, the Navy Captain blamed Ericsson, leaving Ericsson to find new refuge in New York State where he lived.<sup>3</sup>

Ericsson went on to work for Cornelius Henry DeLamater, a native of Rhinebeck New York, who financed a great deal of Ericsson's project, resulting in a close friendship between the two, calling each other by their casual names, "John", and "Henry". This close relationship came in handy when the Monitor was being built because the DeLamater plant, located in Greenwich Village, New York proved adequate to make the Propellers and the Steam Engine in haste for the vessel's completion, which would take place near Manhattan in Greenpoint, Long Island.<sup>4</sup>

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<sup>2</sup> [wikipedia.org/wiki/John\\_Ericsson](https://wikipedia.org/wiki/John_Ericsson)

<sup>3</sup> Ibid.

<sup>4</sup> [westnews.org West View: "The Voice of The West Village: History of Delamater Iron Works"](https://westnews.org/West_View:_The_Voice_of_The_West_Village:_History_of_Delamater_Iron_Works).

The building of the Monitor was a difficult and lengthy process, but for its achievements, the vessel was well worth its efforts. Naval history was changed forever on March 8, 1862 when the battle that raged between the *CSS Virginia* and the *USS Monitor* on that day marked the first battle between two Ironclad ships in United States history. The draw between the two ships that day put an end to *CSS Virginia's* disastrous campaign against the Union's navy; defeating the wooden ships, *USS Cumberland*, and *USS Congress* with ease, due to its iron clad armor. Although neither ship sank the other during the battle between the two ironclads, the *USS Monitor* proved a military achievement for the Union, being that the North now had an equal or better Iron Clad ship than the South.<sup>5</sup>

One of the greatest contributions the *USS Monitor* made was not just its decisive arrival at Hampton Roads, but the economic contributions that were made in the Hudson Valley during the war to complete the vessel. In order to construct the ship in such a hastily fashion, the Congress and the Union could only trust worthy and competent architects.

In the southern area of Troy, Rensselaer and Albany Iron Works alongside John Ericsson, pitched the design of the *Monitor* to President Abraham Lincoln. Ericsson had recently become an American citizen in 1839 and was not thoroughly trusted by the administration. The brilliant inventor's design was the least conventional of the designs proposed to Congress for iron clad ships, but his experience with other iron ship designs while in Europe made an impression on the financiers. With a little help from some

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<sup>5</sup> <http://www.history.navy.mil/photos/sh-usn/usnsh-m/monitr-u.htm>

politically connected businessmen, the building of the USS Monitor was almost ready to go into effect.<sup>6</sup>

Cornelius S. Bushnell, who was a railroad man and entrepreneur out of New Haven, Connecticut, helped persuade Troy's prominent steel manufacturers to take a look at Ericsson's at the project. Bushnell and his friends in Troy used their connections to obtain a letter of recommendation from the Governor of New York to Congress and The White House, which would persuade the two branches that their ship would be the most successful against the *CSS Virginia*. Lincoln, who was anxious to equally match the *CSS Virginia* immediately, helped the Ironworkers present the building plans regarding the Monitor to the naval board by accompanying the gentlemen in person. Unfortunately, the Navy had a negative perspective on the Swedish designer, whose most recent ship USS Princeton's cannons backfired, resulting in the death of the Secretary of the Navy and seven other important figures. However with the endorsement of Abraham Lincoln, the men were finally able to get around this grudge, and in January of 1862, the building of the USS Monitor began.<sup>7</sup>

Although the building of the hull took place much further south on the Hudson, in what is now Greenpoint, Brooklyn; in Troy, New York, a great deal of structural contributions were being made towards its completion.

“The majority of the iron plates, bolts, nuts, and rivets were manufactured in New York State. Holdane & Company, the Albany Iron Works, and the Rensselaer Iron Works provided tons of flat plates, and angle iron. The Niagara Steam Forge pounded out the eight-inch thick port stoppers. The turret and machinery were made at the Novelty Iron Works”<sup>8</sup>

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<sup>6</sup> Don Rittner, *Capital District Civil War Series #9: Troy's Ironclad History*.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

Albany Iron Works (also known as Corning, Winslow & Co.) built the deck plates, the hull skirt, and the angle iron for the frame. The Rensselaer Iron Works made the rivets and the bar iron for the pilothouse.<sup>9</sup>

The prominent Troy Steel industry was owned by wealthy merchants, most notably among them was the elder millionaire Erastus Corning. Erastus Corning is still a commonly spoken name in the Upper-Hudson Valley due to his enormous public and Economic contributions in the region during his lifetime. Corning served three terms in congress representing the 14<sup>th</sup> district of New York or the Troy/Albany region. His terms in congress began in 1857 and although he took a brief break from politics from 1859-1861, he returned and served two consecutive terms in the 37<sup>th</sup> and 38<sup>th</sup> congress, more commonly referred to as the “War Congress.”<sup>10</sup>

Corning was the epitome of a die-hard Democrat, and with that, he was an outspoken critic of Abraham Lincoln, as well as the war. It was clear that with Corning’s reputation being somewhat at stake, his business partner John F. Winslow had to convince him to undergo the building of the Monitor. Winslow urged that he and his partner take on the magnanimous task of building the ironclad ship for the benefit of the North. In September 1861, Winslow reported: “We have... propositions before the War & Navy Departments, and with attention, we shall secure a fair proportion of what is

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<sup>9</sup> USS Monitor has Rensselaer Ties: *Rensselaer Magazine* (Troy, New York 2002)

<sup>10</sup> George Rogers Howell, Jonathan Tenney, Bi-centennial history of Albany: History of the county of Albany., Volume 2 , pages 535-545.

wanted.”<sup>11</sup> Although the team of ambitious entrepreneurs developed a bunch of iron and/or steel products during the war, no project they underwent matched the aims of the *USS Monitor*. The manufacturing of the iron for the ship was placed under a deadline, a task which Albany Iron Works would have previously not undergone. However, the owners of the plant wanted to prove to themselves, as well as the newly convinced naval board who signed the contract, that they could produce a ship that would defeat the *CSS Virginia*. John A. Corning and John F. Winslow promised to build and complete the Iron clad armor for the naval vessel within 100 days. Not only did the determined businessmen put a tremendous amount of pressure on the completion process, they insisted on not being paid until the ship set sail and underwent the hardships of naval warfare.

The building of the hull of the *Monitor* was awarded to Thomas F. Rowland, the agent of Continental Iron-Works in what is now Brooklyn. The completion of the ship met the 100-day deadline that Bushnell and Winslow had promised the Congress. After the *USS Monitor* was shipped out of Greenpoint on March 6<sup>th</sup>, 1862 the investors received a net profit of \$79,857.40, approximately \$20,000 each, proving their determination and hard work on the endeavor paid off generously.<sup>12</sup>

When looking back at Troy’s contributions during the Civil War, one must note that there were many tasks the Upper-Hudson region undertook in addition to building the *Monitor* during this period. These tasks included many steel products, which were being produced for the favor of the Union. It is estimated that during the Civil War, as

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<sup>11</sup> Erastus Corning: Merchant and Financier, 1794-1872  
By Irene D. Neu 54.

<sup>12</sup> George Rogers Howell, Jonathan Tenney, Bi-centennial history of Albany: History of the county of Albany., Volume 2 , 540.

much as 8 tons of steel a day went into manufacturing cannons for the North. The Iron champions in Albany devised an innovation on the fastening of railroad tracks during the war as well. These new “solid-lip railroad chairs” were being turned out by the thousands as the North repaired many of the destroyed railroads on the border of the Northern and Southern warring-states.<sup>13</sup> Contracts to fortify iron products the Union used in the war, whether weapons or railroad fasteners, proved to aid the war effort in the North considerably, as well as stimulate the economy of the Hudson Valley at a historic proportion. Although these tasks were meaningful, both to the benefit of the Union during the war, as well as the Hudson Valley’s economy, they do not rival the building of the USS Monitor.

The completion of the *Monitor* was a result of the Upper-Hudson Valley steel manufacturers determination. The historic residents of Troy and Albany such as Erastus Corning who engaged in civic duty and entrepreneurial endeavors had now conquered a new frontier, creating a military wonder. Corning, Winslow, Ericsson and Bushnell all helped to erect a vessel that would advance naval warfare forever. It is obvious in retrospect that the building of the *USS Monitor* greatly impacted the manufacturing capacity of the Hudson Valley, making Troy New York the leading supplier of the Union for steel parts. The USS Monitor also stands out as the Hudson Valley’s most significant contribution to the war due to its prevention of *CSS Virginia*’s further strategic progress. On December 32, 1862 the Monitor and the *USS Rhode Island* set out towards the Carolina Coast in order to fortify a blockade. The weather was expected to be pleasant during the journey, however it surprised the crew with a huge storm in the area of Cape

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<sup>13</sup> Ibid.



Hatteras and took the ship and six out of sixty two of her men down with her. Although the Monitor sunk eight months after it shipped out of Greenpoint, the vessel served as not only a contender against the southern navy, but a major stimulator to the Hudson Valley and its economic well-being.