

The Iron that Helped Save a Nation:  
How One Company in the Hudson River Valley Helped Secure the American Revolution

Joseph H. De Lisle Jr.  
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Hudson River Valley Institute Internship  
Dr. Schaaf

The Hudson River Valley remains one of the most historically significant areas in all of America. Franklin Roosevelt, regarded as one of the greatest presidents ever, was born in Hyde Park. The Valley also serves as a host to IBM and West Point. However, arguably the most important fixture of the Hudson River Valley remains vastly under researched and remains mostly unknown. An unknown hero, whom America may just owe her very independence to, presides in the Valley. This iron producing company, known as Sterling Ironworks helped secure New York, and in doing so, helped give the colonists a key strategic position along the Hudson River. From providing cannons, ammunition, and anchors, to building the great West Point chain, Sterling Ironworks was a crucial company for the colonists in their battle for independence.

Before actually going into Sterling Ironworks, it is important to touch upon the development of iron production. “Ancram, (dismantled in 1854) was New York’s first ironworks, located at a small waterfall” (Diamant 92). This was a “cold-air furnace” created in 1743 and “produced true molten iron, replacing an earlier, less efficient bloomery” (92). The iron came from “unusually pure (up to 45 percent) concentrations of reddish brown hematite, imported” from “the rich Chatfield and Davis ore beds at Salisbury” (92). However, it remained “prosperous until after the Revolution” (McMackin 67). After the Revolution, Sterling and other local iron production facilities absorbed most of the business from Ancram because of more modern furnaces, forges, etc. In fact, before the West Point Chain was created, Ancram produced a chain for the Continental army, which ended up failing, to be used at Fort Montgomery (which broke giving Sterling Ironworks the opportunity to be chosen to make the West Point Chain.)

Sterling Ironworks probably remained the most important iron producer during the Revolutionary War. In fact, Sterling Ironworks was “the most extensive in New York until the [20<sup>th</sup>] Century” (Swank 140). Originally known as Noble, Townsend & Company’s Sterling, it was used to hammer “local ore directly into wrought iron bolts, edges for wooden tools, axe-heads, crude firebacks, grates, wagon tires, plowshares and other essential colonial iron items too heavy or too costly to continue to import from Great Britain” (Diamant 142). They used “a typical colonial blast furnace [...] cranked by a water wheel” which “generated a steady flow of air” (151). In order to keep the fire going, the stove would need to be “continually charged with charcoal previously smoldered from four-foot billets of forest hardwoods [...], chunks of iron ore pried from the thick local veins of magnetite, and lime flux (151). Each “day’s furnace operation consumed an acre of forest” just to keep the fire going (147). In fact, “the design of the Sterling blast furnace evolved into Pittsburgh’s behemoths” (152). The “[p]roduction was primitive, but it was effective” (153). Unsurprisingly, iron demand greatly increased during the American Revolution as it provided the “Continental Army with arms and ammunition and supplying anchors for Navy warships” (Gorman 1). After the American Revolution, Sterling’s owner bought more land resulting in the addition of “fourteen Sterling mines and two charcoal blast furnaces” (Botshon 10). With the turning of the new century, iron production still remained key, especially because of the War of 1812 and the Civil War. However, the “Panic of 1873 and other misfortunes of the economy were national events” which speed up the demise of iron production at Sterling and other nearby ironworks (12). Meanwhile, the iron produces “was being forced to compete with the rich Mesabi Range ores of Minnesota, which were considerably cheaper to produce”

(12). As the 19<sup>th</sup> Century rolled on most iron production began to fade away even though “ore was still being taken from a few of the mines to be shipped to more modern furnace facilities in Pennsylvania and elsewhere” (14). After a small hiccup of production for World War I, Sterling was shut down for good. The legacy of Sterling, however, will always be that of creating the West Point chain for Washington.

Understanding the importance of controlling the Hudson, and with the failure of the Fort Montgomery Chain, colonial leadership began looking for some other way to take control of the river. In response to this problem, General James Clinton wrote to General Gates saying, “A Chain or boom at a part of the river called the West Point, where it is quite narrow and the wind, owing to the crookedness of the River, very uncertain, with proper works on the shore to defend it and water-batteries calculated to annoy Shipping, would, in my opinion, perfectly obstruct the navigation” (Diamant 135). However, they realized in order to make this chain, the “furnace had to be capable of hurriedly smelting and forging a massive chain at least twice as strong as the one [...] at Fort Montgomery. With supporting floats and hardware, the new links had to be tough enough to arrest the movement of a 44-gun enemy warship favored by wind and tide. At the same time, they had to be light enough to permit seasonal manhandling in and out of the river” (141). Although there was some debate over where to place the chain, “West Point had been favored by a considerable number of the patriots from the first and by the middle of January it was officially chosen as the location for the new chain” (Sheffield 1). On “the 5<sup>th</sup> of July [1778]” the “New York provincial congress met at Poughkeepsie” regarding where to create this gigantic chain (1). Eventually, they decided on using Sterling Ironworks even though “the government already owed that facility a large

amount of money” (141). After “three days negotiating specification and delivery” the company’s owner agreed and began work right away (142). Time remained the key ingredient to the mix and as such “the colonial army guaranteed Sterling owner William Townsend a large workforce and he in turn agreed to keep his forging and welding fires operating around the clock” (Botshon 10). With the agreement in place, the colonial army could only wait and hope the Sterling Ironworks would be able to quickly produce this gigantic chain to secure the Hudson River.

Production started immediately. The project would call for “a 750-link chain of two-inch bar iron, with eight swivels and 80 clevises” (Diamant 142). In fact:

Throughout February and March of 1778, the Sterling ironworks operated 24 hours a day, reddening the dark winter skies with periodic showers of sparks each time the great stone stack was recharged. An attendant necklace of charcoal-making tumuli smoldered all over the surrounding Ramapo hills [...] Botshon 10.

Surprisingly, “in the space of six weeks the whole chain was completed” (Swank 139). When the production finished, the colonists used “[r]elays of sledges drawn by pairs of oxen” to deliver the chain [...] to Samuel Brewster’s small foundry” where it would be “assembled and connected for rafting down the river” (Diamant 155). The trip was not long, but would “require considerable care and effort” (Sheffield 7). The trip would end up taking fewer “than 100 trips” to deliver the “sledge load, weighing slightly more than half a ton, consisted of nine links, plus a huge joining clevis and pin” to the shipping point (Diamant 155). From the New Windsor shipping point, the links “were floated down to West Point” (156). As the chain was being put into place it was fastened “to a huge rock crib in Chain Cove between Horn Point and Love Rock on the West bank” across “the 25-fathom-deep Hudson to a similar structure on the east bank [...] at the

Constitution Island capstan” (156). “The chain was laid in place on April 30, 1778” (Gorman 1). After being put in place, a boom was added. This “was designed to float slightly downstream [...] to help absorb the shock of an approaching enemy warship” and was “designed of logs about a foot in diameter, 15 feet long, and spaced four feet apart [...] connected by 15 tons of iron bolts (184), clips (142), chain links (58), swivels (21), bands (8), and clevises(7)” (Diamant 157). However, since the Hudson freezes, “it was necessary to detach the boom and chain” to prevent it from braking each winter (159). During the winter, the boom and chain came down and when it became spring time, it went back up, and was fixed with new logs as the need arose. In 1783 the chain was removed for the winter and “was never again replaced in the waterway” (172). Part of the legacy of the West Point Chain is not what happened to it, but what did not happen as it “remained untested, as the British never did attempt to cross it” (Gorman 1).

As the war ended, the focus turned on what to do with this gigantic iron chain which helped save a nation. Some said melt the links to sell iron blocks, others said hold onto it just in case there is ever a need for it again. One Brigadier General wrote, “In making military arrangements for peace, a possible war has the first consideration” (178). There was still a general fear that with British control of Canada, there was a need to ensure the Hudson could be quickly controlled. Almost two decades after the chain came down the last time, it “remained government property, piled high on the Hudson shore near West Point’s ‘Red House’” (178). During the Jackson “presidency, the government finally decided to dispose of the West Point chain” (179). However, in order “to honor the original colonies, 12 chain links and a swivel” were removed (182). What was left of

the chain, beside the 12 links saved and the links given out to officials, was “relegated to the West Point Foundry furnaces [...] to be melted down for other uses (Diamant 2).

Right from the very beginning of the war, both sides quickly focused on gaining and securing control of the Hudson. Both “sides appeared to accept as a military given the need to control the Hudson” (Diamant xi). George Washington himself mentioned, “The importance of the Hudson River in the present Contest, and the necessity of defending it, are Subjects which have been so frequently and fully discussed, and are so well understood, that it is unnecessary to enlarge upon them” (xii). He would go on to mention:

[W]hen it is considered that the river runs through the a whole State; that it is the only passage by which the enemy from New York, or any Part of our Coast, can ever hope to cooperate with an army from Canada; that the possession of it is indispensably essential to preserve the Communication between the Eastern, Middle and Southern states; and further, that upon its Security, in a great Measure, depend our chief Supplies of Flour [...] xiii.

Likewise, General Clinton believed that should the British “seize and hold the river’s highlands, the revolutionaries would find it not only difficult to join forces, but even to feed their troops” (xiii). During the war, the chain secured the Hudson, but “from New York City north to Peekskill, the Royal Navy could still operate at will” (156). Even though the British had access between these two cities, the “British War Office’s dream of another invasion force sailing north to Albany was permanently shattered” (156). One British soldier wrote, “It is by this important posts [...] that the Americans are able to keep possession of the North River, and a communication between the Northern and Southern Provinces, and [...] had *we* kept possession of the north River, the war would have been over by this time” (160). The Chief Engineer of the Continental Army noted that:

In all the lands to the east of the river, there is no flour. In the lands to the west there is no meat. As to the other things necessary to an army [...] the two parts of the continent have an absolute need for each other. If one supposes their communications broken, each will be able to maintain an army in the field for only three months. 161.

What remains very clear is that all sides understood the strategic importance the Hudson River provided. As the war progressed, it became even clearer that whoever controlled the Hudson would have control of, at the very least, the north. In the end, the chain “effectively drove the [...] conflict to the Southern states, unquestionably shortening the war (Diamant 1).

The Sterling Ironworks would give rise to many other iron producers during the end of, and immediately after, the Revolutionary War. In the 1780s, the Augusta Furnace “produced bar iron, crowbars, anchors, and other ware” (Botshon 11). In 1797, Ramapo Works was created. In 1804, the first company to produce “blistered steel” was produced by the Southfield ironworks (11). Arguably the most famous production facility to arise out of Sterling’s shadow was the Greenwood Furnace. This company “became famous for its design and production of the Parrot gun, considered the most effective artillery weapon of the Union army” (11). The Wawayanda Furnace that was created in 1846 was made to specialize “in making wheels for railroad cars” (12). Albany “broadened its manufacturing base” to include stoves (Howe 45). Troy, New York benefited very much from the increase in iron production, especially with regards to stoves. After being created in 1818, the Troy Air Furnace “quickly entered business by casting stoves for the Starbuck and Gurley Company in 1821” (44). In fact, “Troy’s major industries, according to value added, were primarily based on iron and textile products” (47). The three firms that “dominated the iron industry” during the time period were the Albany Iron Works,



the Burden Iron Works, and the Rensselaer Iron Works (47). At the close of 1860, “nine producers of iron products (excluding stoves)” were located in “Rensselaer County with \$159,040 in value added and 831 workers” and at the same time “the two producers of nails and spikes had \$111,500 in value added and employed 316 workers” (47). Stove production was divorced from iron production as it “became a separate industry” around 1830 (47). Iron was becoming a key aspect of not only the Hudson River Valley’s economy, but also of New York State’s economy as well. Ultimately, the local economies “spawned forges and furnaces and villages around the mines” and “an entire local culture grew up around the iron industry” (Botshon 12).

All too often, when talking about the American Revolution we rightfully focus on the so-called “big events” or turning points like Saratoga or Benedict Arnold’s treason. However, in doing so, heroes go unnamed and forgotten as history passes by. One of those heroes is a business long since forgotten. Sterling Ironworks remains one of the most important businesses in the history of this county. Because of them, and because of that chain, the young Americans were able to secure the Hudson and move the battleground to the South. The iron production of Sterling Ironworks was critical in securing the Hudson. This chain will forever remain a symbol of not only the struggle for freedom, but for a group of people who linked together and proclaimed enough is enough.

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