

## Pine Grove Furnace and the American Revolution v4.1

### Iron as a spark for the Revolution

In the decades before they fought for independence, the American colonists were making significant amounts of iron -- indeed by 1775 they produced about one-seventh of the world's output, which was more pig and bar iron than England made herself. Fearing this competition, England tried to promote the interests of manufacturers in the mother country by restricting specific aspects of iron production on the opposite shore of the Atlantic.

As summarized in *Wikipedia*, “the **Iron Act of 1750** was one of the legislative measures introduced by the British Parliament [going back almost a century], seeking to restrict manufacturing activities in British colonies, particularly in North America, and encourage manufacture to take place in Great Britain... The Act was designed to restrict the colonial manufacture of finished iron products and steel. Existing works could continue in operation, but no expansion would be possible in the output of... knives, scythes, sickles and other edged tools... nor a steel furnace to make steel [but very little steel was produced in that era]...” nor nails nor some other non-ferrous metal products. “This was a continuation of a long term British policy, beginning with the British Navigation Acts, which were designed to direct most American trade to England and to encourage the manufacture of goods for export” back to the colonies. This was part of the economic policy of *mercantilism*.

Note that England did not ban all ironworks: under mercantilism the colonies were in fact *encouraged* to produce pig iron and bars of wrought iron, which in theory could be sent to Great Britain, transformed into finished (more expensive) products, then exported back across the ocean. Furnaces making pig iron for this trans-Atlantic exchange were not illegal. Pine Grove (which started smelting most likely in the early 1770s), like many other iron furnaces, was situated in the remote mountains because that's where raw materials were to be found: iron ore, limestone, trees for charcoal, and water power off the steep mountainside. The furnace was not being hidden from government agents nor from the British army, as is sometimes claimed.

### Pine Grove Furnace contributes to the fight for independence

The well-known historian Arthur Bining wrote in 1943 that “If the iron industry had not reached this stage [of advanced development] prior to 1775, it is doubtful whether the colonists could have defended themselves against the British Army.” Clyde Sanders and Dudley Gould in their 1976 book *History Cast in Metal* further suggested “Historians of the American Revolution have failed to give proper credit to colonial foundrymen. Without their energy and ability that rebellion would have retrogressed into an unsuccessful insurrection.”

All of this region's furnaces aided the Revolution by casting a wide range of items critical for the military, including “camp kettles” (cooking pots) and “salt pans” (to evaporate saltpeter for making gunpowder). However, very few ironworks had the specialized knowledge and capacity to cast large artillery pieces. Pine Grove Furnace did not produce cannons but did make tons of “Shells and Shott” for the rebel army. One order in 1780 listed 8- and 10-inch shells and 18- and 24-pound shot. It has been suggested that some projectiles made at Pine Grove Furnace were used in the ultimate battle of the Revolution, at Yorktown, based on purchase dates.

Charcoal from Pine Grove Furnace was supplied to Washingtonburg, the armory in Carlisle (today the site of the Carlisle Barracks and U.S. Army War College), likely in order to create crucible steel from wrought iron. In that era, steel could be made only in relatively small quantities, and steel was not produced at the existing local ironworks. This business interaction between Pine Grove Furnace and Washingtonburg was perhaps arranged by George Stevenson, a former owner of the Pine Grove Furnace property (from 1762 to 1772). Stevenson was closely involved in managing the armory in Carlisle.

### Ironmasters

The Iron Act of 1750 and its predecessors were poorly enforced. Nonetheless, the restrictions angered most American businessmen. It should come as no surprise that many ironmasters were strong supporters of the Revolution. Among them was **Michael Ege** (1753-1815), eventually owner of four local furnaces including Pine Grove (Ege first became a part owner of Pine Grove near the end of the struggle for independence.) Lieutenant Colonel Michael Ege was second in command of the 5th Battalion of the York County Militia formed in 1777; as was typical for militia, there is no indication that Ege served in combat. Michael Ege's patriotism was described in a local obituary as follows:

“For this country he felt all that zeal and warmth of attachment which exalts the citizen into the patriot; and his country’s confidence in him was attested by the commission he held in the army of the militia during the revolutionary war for asserting the liberties and independence of the states.”

*(Klines Weekly Carlisle Gazette, September 6, 1815)*

**Joseph Thornburgh** (1752-1821) and his brother Thomas, sons of Pine Grove Furnace builder and ironmaster Robert Thornburgh, also became part owners of this ironworks near the end of the Revolution. Joseph had been appointed in 1777 as “Wagonmaster-General” of the Continental Army, with the rank of Lieutenant Colonel.

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WEDNESDAY, June 18, 1777.

A letter from **Joseph Thornburgh**, wagon-master general, dated camp, at Middlebrook, June 16, and directed to general Mifflin, was read :

*Ordered*, That it be referred to the board of war.

*Resolved*, That **Joseph Thornburgh**, wagon-master general, have the rank of lieutenant-colonel in the army of the United States.

*A petition from Philip Clark, Richard Wessett, and others, was read.*

Also serving was **William Lusk** (1742-1799), a later co-owner of Pine Grove Furnace who is prominent in business ledgers from 1785 to 1791. Lusk fought in the 7<sup>th</sup> PA Regiment of the Continental Army, which was raised in Carlisle in 1776 and included the famous ironmaster Samuel Van Leer of Reading Furnace.

### Furnace Workers

Recruits with critically needed skills such as iron workers were typically exempted from frontline duties, and were instead sent to industrial sites (or allowed to remain where they already worked).

One local example of this is **James Cuddy** (1754-1839) who emigrated from Ireland to Philadelphia with his brother John in August 1774. They volunteered for patriotic service in early 1777 in York County. Although initially enlisted as a “militia man,” when James reported having worked in a foundry in Ireland he was “immediately sent to Pine Grove Furnace” as an “artificer” where he assisted in making artillery shells. (A pension application many decades later claimed he helped in casting cannon here, though this is not credible.) When he went to Pine Grove Furnace, “at the same time **William Fallis** and **Stephen Carr**, Englishmen by birth and **James Calhoon** an Irishman were selected and sent with him.” After “proving himself to be a valuable workman” for “a considerable time” under ironmaster “**Col. Thornburg**,” James Cuddy was sent to the Hughes (Antietam) Furnace in Maryland and then to Hill’s Ironworks in South Carolina, both of which cast cannons and made other items of military importance. He was discharged after the ironworks in South Carolina was burned by the British Army in 1780. Interestingly, James Cuddy’s belated 1835 pension petition to the U.S. government was denied, as was his widow’s later attempt, because of a lack of written documentation and he “did not serve in a military capacity” and “did not render service in the field.” It does not appear that he was ever formally enrolled in the “Corps of Artificers” who worked at the various revolutionary armaments sites such as Washingtonburg in Carlisle. Meanwhile, it was said that his brother John served in the militia and was killed at the famous Battle of King’s Mountain in North Carolina in 1780, not far from Hill’s Ironworks (several incomplete modern lists of battle participants do not include John Cuddy).

Another remarkable story is that of Andreas or **Andrew Bumbaugh** (with many alternative spellings such as Brumbaugh, Baumbach, Bombach, and so on). He was born in Schmalkalden, Germany in 1746 or 1747 and died at Pine Grove Furnace in 1822. Bumbaugh arrived in America in May 1777 as part of the Hessian forces hired by the British government. He deserted in June 1778 -- that summer, there was a high rate of desertion among Hessians during a march from Philadelphia to New York -- and was soon hired as a “master miner” at Pine Grove Furnace. By 1787 he was in charge of all mining operations here. His name occurs frequently in the business records in this period and he was so valued by the iron company that they built him a substantial house in 1791. Married in 1779, Andrew and Katharina Bumbaugh had eight children -- all born at Pine Grove Furnace between 1781 and 1795. As a side note, Brumbaugh was [apparently innocently] involved in passing counterfeit bank notes by associates of the famous outlaw Lewis the Robber in the early 1800s.