

JOSEPH PERKIN ARMS THE REVOLUTION

By MATTHEW SKIC



Among the dozens of surviving French muskets imported into the United States during the Revolutionary War, many feature stocks marked with the initials "IP." The same initials can also be found stamped on the interior of lock plates of some of the arms made at Rappahannock Forge in Virginia during the war. Fowling pieces, pistols, and rifles from the 1770s and 1780s feature "PERKIN" engraved on their lock plates in serif letters or in a scrolling banner. (Fig. 1) These firearms are evidence of Joseph Perkin's roughly 40-year career as a gunsmith, from the 1760s until his death in 1806. Perkin finished his career as the first superintendent of Harpers Ferry Armory, one of two armories established by the United States following the adoption of the Federal Constitution in 1787. Merritt Roe Smith's classic book *Harpers Ferry Armory and the New Technology: The Challenge of Change* analyzes Perkin's crucial role in establishing Harpers Ferry and overseeing its initial production runs.¹ Notably, Perkin led the design of the Model 1803 rifle, the "first regulation rifle to be manufactured at the government armories."² (Fig. 2) Perkin left his mark on Federal-era arms making, but scholars of American firearms know little about the early days of his career.

Where did Perkin learn to be a gunsmith? How did he rise to become the first superintendent at Harpers Ferry? Based on a firmer understanding of his biography and geographic movements, this article claims that Perkin defined his abilities as a gunsmith while he worked to equip the American Army during the Revolutionary War. Perkin directed firearms manufacturing and repair operations at Rappahannock Forge in Virginia and later the Continental Armory in Philadelphia. His war-time leadership in the American gunsmithing trade and his working relationship with Samuel Hodgdon launched him into a position of seniority in the United States' armory system during the 1790s.

Origin

Joseph Perkin learned to be a gunsmith within Birmingham, England's specialized craft culture. Baptized on February 12, 1737 in Handsworth, Staffordshire, he grew up near Birmingham.³ (Fig. 3) His father, John Perkin, was a gunlock filer in West Bromwich, a small town just west of Handsworth.⁴ Joseph may have learned to be a gunsmith from his father or through an apprenticeship with another Birmingham-area smith. Specialization defined gunsmithing in the region and increased efficiency within the trade. Each smith's shop served a purpose in a network of firearms production. Certain smiths made gunlocks or barrels, filed parts, or assembled firearms for their living, rather than producing entire guns, lock, stock, and barrel. Specialization allowed gunsmiths to focus on one aspect of firearms production instead of constantly switching between tools and techniques to build all the necessary parts for a gun.⁵ Some of Birmingham's smiths also produced parts for military firearms within the British Ordnance System of Manufacture.

Figure 1 - Detail of fowling piece, Joseph Perkin, Philadelphia, Pennsylvania; c.1785. Walnut, steel, iron, brass. Collection of Tom Grinslade.

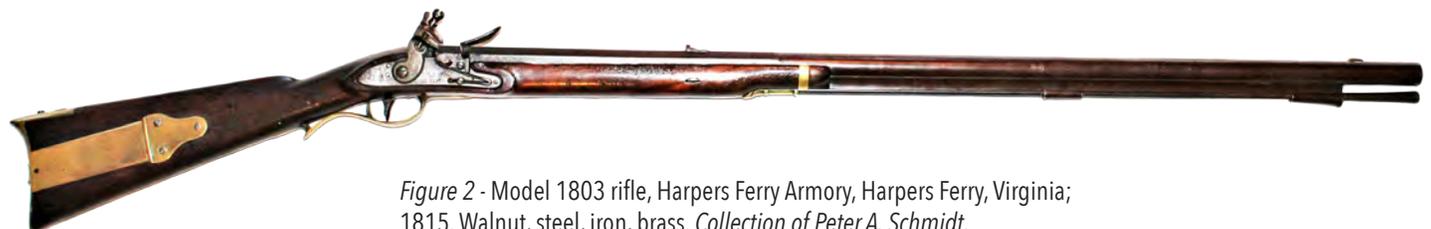


Figure 2 - Model 1803 rifle, Harpers Ferry Armory, Harpers Ferry, Virginia; 1815. Walnut, steel, iron, brass. Collection of Peter A. Schmidt.

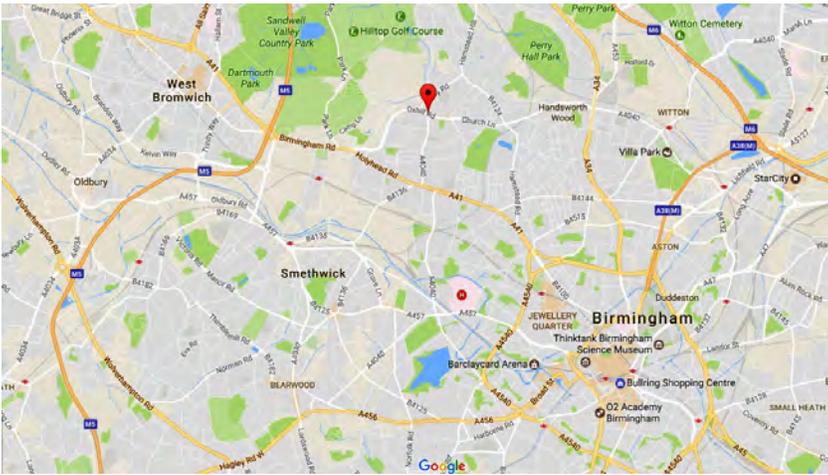


Figure 3 - Handsworth, the location of Joseph Perkin's baptism, is north of Birmingham, England. Courtesy of Google Maps.

Early on in his career, Joseph Perkin became known as a gun lock specialist. His father's skills in gun lock filing (the refining and polishing stage necessary to make a quality lock) likely influenced the younger Perkin's skills. The earliest known record of Perkin's gunsmithing dates to the late-1760s. Church records state that he worked in the "Gun Lock Trade" at a Moravian community in Bristol, England. Although raised in the Church of England, Perkin moved to Bristol with "a real mind to be possessed by our Saviour's holy Humanity and Blood" and soon became a Moravian in a small but growing congregation.⁶ Centered in what is now eastern Germany, the Moravian Church engaged in missionary work that reached England, North America, and the Caribbean during the 18th century. Based on the idea of Radical Piety, or strict individual religious practice, the Moravians established settlements of organized communities that emphasized craft industry.⁷ Perkin spent approximately five years in Bristol (c.1766-1771). While there, he took on at least one apprentice to learn the "Gun Lock Smith Trade" and sought to expand the capacity of his workshop.⁸ The craft-centered Moravian community provided Perkin with the opportunity to develop his trade skills.

Perkin moved to North America in 1771 by way of New York City and continued his work as a gunsmith.⁹

Name	geboren	Wohner	Religion	Verheirat.	Jahr Landgang
1 Joseph Perkin büchsenmacher	ao 1737 d. 17 febr.	antworts in Stafford shire O. Eng.	Engl. Kirch	a. 1772.	1771. 17 Sept. may N. York Eng.
1 Willhelmina grö. Heymann	1749 14 febr.	non Hatten burg.	Luther.	b) 1779 10 Jun.	ao. 1773. 28 in dind.
Sudaria			Ret.		1771. Christ

Figure 4 - Detail of a membership catalog of the First Moravian Church of Philadelphia, May 18, 1785. MC Phila I 531, Moravian Archives, Bethlehem, Pennsylvania. Translated from German, the column titles from left to right are: name, birth date, birth location, religion, marriage date, and date of immigration. Perkin is listed as a *büchsenmacher* or gunsmith. Note that he immigrated to North America by way of New York.

(Fig. 4) His motives for immigration are currently unclear, but Perkin may have seen colonial America as an opportunity-rich land for a tradesman where he could establish his own shop. Both surviving arms and period newspapers provide evidence of Perkin's gun lock work in New York.¹⁰ However, Perkin only lived in New York for a few years before relocating to Philadelphia and then to Virginia.¹¹

Rappahannock Forge

On April 19, 1775, the Revolutionary War began at the battles of Lexington and Concord. Each of the 13 colonies responded to the bloodshed by mobilizing for war. The Continental Congress recommended that each province should "set and keep their gunsmiths at work, to manufacture good fire locks, with bayonets."¹² In Virginia, James Hunter, a wealthy merchant and planter, offered the province his services to produce weapons at the ironworks he owned outside of Fredericksburg, known as Rappahannock Forge. The colony took up his offer and Hunter set his employees to work, including Joseph Perkin.¹³

A recruiting call for gunsmiths to come work at Rappahannock Forge published in *The Pennsylvania Evening Post* on October 19, 1775 likely inspired Perkin to move south and work at Hunter's ironworks. John Strode, manager of Rappahannock Forge, paid for the advertisement that called for "a gunsmith, a complete artist, able to take charge of a shop, and twenty-four hands under his care and direction."¹⁴ Strode sought to expand the firearms production capabilities of the forge by hiring skilled workers from Philadelphia. Strode made a logical choice. In 1775, four master gunsmiths, supported by an unknown number of journeymen and apprentices, worked in the largest city in North America. Blacksmiths, white-smiths, and brass founders also called the city home. They too possessed skills that could be valuable at Rappahannock Forge.¹⁵ Perkin took advantage of the job opportunity in Virginia and moved there in the late-fall of 1775.¹⁶

Perkin possessed gun lock making skills that few American gunsmiths mastered at the beginning of the Revolutionary War. As a result, Strode kept Perkin "chiefly at Gunlocks" at Rappahannock Forge.¹⁷ Access to quality imported gun locks from Great Britain de-emphasized the importance of American gunsmiths, especially those that lived in cities, prior to the war. The intricate lock mechanism with its three

steel springs and small parts took time and skill to forge, file and assemble. The use of imported locks helped American gunsmiths economize their labor and time. However, a halt to the importation of British goods to America in the 1760s and 1770s due to colonial protests and the outbreak of the Revolutionary War increased demand for domestically produced gun locks to arm American soldiers. Perkin's skills became more valuable and he put them to good use at Rappahannock Forge.¹⁸ His influence may have even spread to the nearby, state-operated Fredericksburg Gun Manufactory. In one letter from 1776, the manufactory's manager wrote, "we have been mostly employ'd in repairing Old Gunns since we began and had only one Gunn Lock maker who has instructed many others who begin to be very expert."¹⁹ Since he worked so close to Fredericksburg, Perkin could have been this unnamed lock making instructor.

Joseph Perkin's initials, "IP," are stamped on the inside of lock plates found on surviving pistols, muskets, and wall guns made at Rappahannock Forge. (Fig. 5 and 6) Nathan Swayze's study of arms made at the forge record these markings, but Swayze did not attribute them to any individual.²⁰ Based on a new understanding of Perkin's role as the gun lock expert at Rappahannock Forge, these marks can safely be attributed to him. However, it is unclear if the presence of his initials designates a gunlock he inspected or locks that he made himself. Since Perkin only worked at Rappahannock Forge from 1775 to 1778, "IP" stamped locks date from those years. As an interesting side note, the initials "FK" can also be found on the lock plates of other surviving Rappahannock Forge firearms. (Fig. 7) Those initials likely refer to Frederick Klette, another immigrant gunsmith recruited from Philadelphia to work at the forge at the same time as Perkin.²¹



Figure 5 - Detail of musket, Rappahannock Forge, Falmouth, Virginia; 1775-1778. Walnut, steel, iron, brass. 2010.02.0046 Photograph taken by the author, used with permission from the Museum of the American Revolution. According to Nathan Swayze, the initials "IP" are stamped on the interior of the lock plate of this musket, likely the inspection mark of Joseph Perkin.



Figure 6 - Musket, Rappahannock Forge, Falmouth, Virginia; 1775-1778. Walnut, steel, iron, brass. 1989.0748.01 Courtesy of the National Museum of American History, Smithsonian Institution. Nathan Swayze also states that the initials "IP" are stamped on the interior of the lock plate of this musket, likely the inspection mark of Joseph Perkin.



Figure 7 - Musket lock, Rappahannock Forge, Falmouth, Virginia; 1775-1781. Steel, iron. 1982-231 The Colonial Williamsburg Foundation, Museum Purchase. Note the "FK" initials on the lock plate, the mark of Frederick Klette. Joseph Perkin employed a similar style stamp with his own initials to mark locks made at Rappahannock Forge.

Perkin did more than just contribute his technical skill at Rappahannock Forge. He also helped expand the factory's operations, an experience that would help in his future leadership at the Continental Armory in Philadelphia and at Harpers Ferry. During his tenure at Rappahannock Forge, Perkin claimed that he helped organize and lead the gunsmithing work under John Strode. He described his role to the Continental Congress in 1781:

That your memorialist has been usefull by instructing in the Art of making small Arms & constructing works for that purpose that in the year 1775 he was engaged to go to Virginia to construct & superintend a Manufactory on the falls of Rappahannock for making small Arms & that he did construct the well known Hunters Factory & instructed in the different Branches of making guns & other small Arms with success for the space of three years.²²

More research may reveal details about Perkin's leadership. When Perkin made the decision to return to Philadelphia in October 1778 because of "his bad state of Health," he brought with him a gunsmithing resume that caught the attention of the Continental Congress.²³

The Continental Armory

After the British Army left Philadelphia in June 1778, the Continental Congress' Board of War sought to establish the city as a supply manufacturing hub for the Continental Army. Beginning in 1779, the Department of the Commissary General of Military Stores created a network of facilities in the city responsible for making cartridges, casting brass objects like gun mounts and belt buckles, and making leather accou-

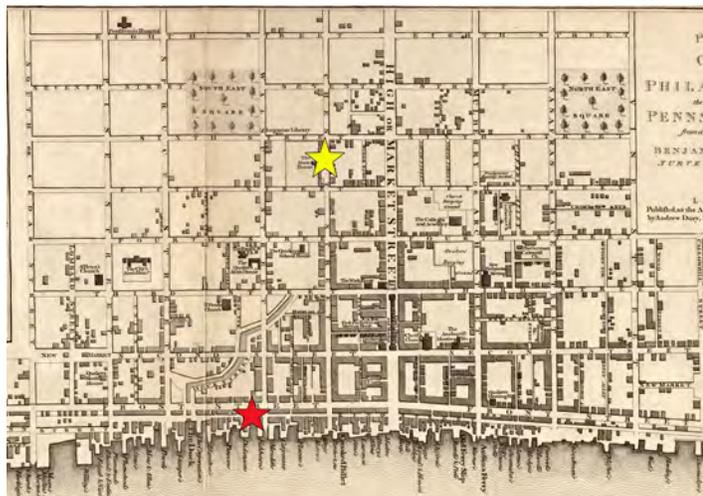
tirements. The department founded the Continental Armory to make and repair firearms for the army. The Board of War appointed Joseph Perkin as superintendent of that armory in March 1779.²⁴

The roots of the Continental Armory in Philadelphia go back to early 1777 when General George Washington appointed Lieutenant Colonel Benjamin Flower to be the first Commissary General of Military Stores.²⁵ (Fig. 8) Flower's appointment signaled a reorganization of the American arms supply system, which had previously been left up to individual provinces per the Continental Congress' directive from 1775. Flower's department attempted to establish an armory in the city in the summer of 1777, but the British takeover of Philadelphia in the early fall halted the efforts.



Figure 8 - Portrait of Colonel Benjamin Flower, unattributed, Philadelphia, Pennsylvania; 1777-1781. Watercolor on ivory, later gilt metal case. Image courtesy FREEMAN'S.

Building upon his work at Rappahannock Forge, Perkin spent the first year in his new post turning the Continental Armory into an operational facility. His chief tasks included hiring a staff, preparing the shop spaces, and ensuring that his future workers would have adequate tools. The Commissary General's department rented a building on Water Street to house



the facility.²⁶ (Fig. 9) No receipts that document the preparation of the Continental Armory for production are known to exist. However, by early 1780, Perkin and his workers began their arms repair operations.

As superintendent of the Continental Armory, Joseph Perkin learned to manage a huge and demanding gunsmithing operation. He oversaw the intake of gun parts and damaged muskets and the output of assembled or repaired arms. Many muskets and pistols came to the armory directly from the war front. Other firearms repaired at the Continental Armory included French muskets and gun parts imported to the United States because of the Franco-American military alliance against the British.²⁷ During the Continental Armory's period of operation in 1780 and 1781, its employees repaired over 5,500 muskets.²⁸ They also assembled thousands of muskets from prefabricated parts. The armory did not operate on its own, but depended on a network of production facilitated by Commissary General Flower and his subordinate Samuel Hodgdon. For example, the Brass Foundry, another Continental establishment, provided cast brass musket mountings including trigger guards, side plates, butt plates, and ramrod pipes to the armory. Private craftsmen helped the armory as well. In a six-month period in 1780, Perkin received 1,384 new bayonets made by Philadelphia blacksmiths to pair with muskets being assembled or repaired under his direction.²⁹ He also received hundreds of gunstocks and gunstock splices (for damaged forestocks) from Henry Fraley, a carpenter from Germantown, Pennsylvania.³⁰

Joseph Perkin managed a large staff at the Continental Armory to complete this challenging workload. In 1780, 29 men worked at the facility.³¹ Two of these men, John Meggs and Peter Lessley, worked at the Pennsylvania Gunlock Factory in 1777, a short-lived attempt by the Pennsylvania Committee of Safety to establish a gun making factory in the state.³² Gunsmiths James Walsh and Jacob Baldwin, who are known to have made muskets for the Pennsylvania Committee of Safety in 1776, plied their trade at the armory. Perkin even employed a British prisoner named Francis Wigstead.³³ A clerk assisted Perkin with bookkeeping. All the workers received both pay and rations. For his superintendence, Perkin received one meal and a daily wage of \$10 from the Commissary General. In 1779, he petitioned the Board of War for a pay increase due to the depreciation of Continental currency. The committee increased his per diem pay to 30 dollars later that year.³⁴

Figure 9 - A plan of the city of Philadelphia, the capital of Pennsylvania, from an actual survey, Andrew Dury, London, England; 1776. G3824.P5 1776.E2 Geography and Maps Division, Library of Congress. The red star marks the approximate location of the Continental Armory on Water Street. The yellow star marks the location of the Pennsylvania State House (Independence Hall).

Perkin oversaw firearms repairs, parts making, assembling, and marking at the Continental Armory. Lists of tools at the armory suggest the facility's daily operations.³⁵ Hand saws, draw knives, planes, and braces point to restocking. Swages for rammers, sling swivels, cock jaws, and pans promoted the uniformity of wrought iron parts. The armorers used mandrills to forge and shape barrels and borers to clean and smooth out their interiors. Armorers also marked muskets as property of the United States per a directive of the Continental Congress from 1777 to combat theft of property: "all Arms and Accoutrements belonging to the United States . . . shall be stamped and marked with the Words United States."³⁶ Joseph Perkin received "US" stamps and "copper brands US" from the Commissary General to mark muskets on their stocks, lock plates, and barrels.³⁷ Little information is known about the division of labor within the armory, but specialization may have helped increase the factory's efficiency in completing such a wide variety of work.³⁸

A large "IP" mark found on the stocks of numerous surviving imported French muskets has a potential connection to Perkin's superintendence of the Continental Armory. (Fig. 10) This "IP" mark can be attributed to Perkin since he had such a significant role in repairing firearms for the Continental Army and because the mark correlates with Perkin's use of his initials on gun locks made during his tenure at Rappahannock Forge. At the Continental Armory, Perkin inspected the work quality of his employees and likely marked the firearms he approved. Armory records indicate that Perkin received "Copper Brands" from the Commissary General, but their specific purpose is not listed.³⁹ Could these unidentified brands be Perkin's initials used to mark musket stocks at the armory? It is currently unknown. After the Continental Armory closed in 1781, Perkin may have continued using the "IP" mark to indicate his work to repair and clean firearms for the United States through private contracts. That possibility makes it difficult to positively associate the "IP" mark with Perkin's tenure at the Continental Armory.

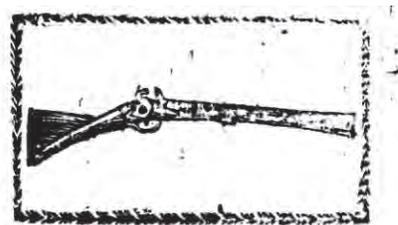
In 1781, the Commissary General's department decided to close the Continental Armory and shift the workload of firearms repairs solely to gunsmiths working on private contracts. Although Perkin no longer had a facility to superintend, he continued his working relationship with the Commissary General's department. Samuel Hodgdon became the de-facto Commissary General of Military Stores as Benjamin Flower suffered with an illness in 1780 and 1781. Soon after Flower died in 1781, Hodgdon (the new Commissary General) made the executive decision to close the armory and cut the costs of his department. The expense of feeding and paying 29 armorers and a superintendent led to the closure. Perkin himself suffered from the department's funding issues and noted to Congress in February 1781 that he had re-



Figure 10 - Detail of Model 1763 musket and bayonet, Royal Manufactory at Maubeuge, Maubeuge, France; 1763-1766. Walnut, steel, iron. 2008-124A The Colonial Williamsburg Foundation, Museum Purchase. The Friends of the Colonial Williamsburg Collections Fund. Note the "IP" near the butt of the stock which may be an inspection mark of Joseph Perkin.

ceived no pay in seven months. His rations also diminished.⁴⁰ Engaging Philadelphia's gunsmiths in private contracts to complete necessary repairs proved to be less expensive for Hodgdon's department than running the armory. Joseph Perkin and other city gunsmiths such as John Nicholson, William Dunwick, Samuel Coutty, and James Walsh made routine deliveries of repaired and assembled firearms to Hodgdon's Carpenters' Hall headquarters between 1781 and 1783. Joseph Perkin established a partnership with Samuel Coutty to complete repair contracts.⁴¹ (Fig. 11)

Through his work at Rappahannock Forge and the Continental Armory, Joseph Perkin oversaw the fabrication and repair of thousands of arms during the



Perkin and Coutty,
At the corner of Second and Spruce-streets, Philadelphia,
BE G leave to acquaint their Friends and the Public in general, that they carry on the GUN and PISTOL making in all its branches, where gentlemen may be supplied with Guns and Pistols of the neatest and best quality, on the shortest notice and most reasonable terms
They also blue and brown Gun Barrels in the neatest manner.
N. B. A small quantity of Ship Musquets to sell.

Figure 11- The Pennsylvania Gazette, Philadelphia, PA; May 2, 1781, Courtesy of Accessible Archives.

Revolutionary War. His work was crucial to the success of the American Army. Perkin matured in his trade during the war as he gained experience in managing both personnel and demanding workloads. His notoriety as a gun lock expert set him apart from other American gunsmiths, especially at Rappahannock Forge. Perkin's wartime gunsmithing resume launched him on a course for leadership in making and repairing firearms for the newly independent United States.

After the War

Following the Revolutionary War, Joseph Perkin was the senior gunsmith in Philadelphia. He made firearms for civilian customers and completed arms repair and maintenance contracts for the United States. He completed his biggest contract between February and September 1784 in a partnership with John Nicholson. The two smiths cleaned and repaired 11,587 muskets during those months.⁴² Perkin's leadership of the gunsmiths' contingent at the Grand Federal Procession in Philadelphia on July 4, 1788 (a celebration of the ratification of the new Constitution of the United States) epitomized his rank among the city's smiths.

The new Federal government opened work opportunities for gunsmiths like Perkin. He had a stake in whether the United States would establish a regular army under its new constitution. A regular army would mean consistent supply demands that Perkin could try to fill. Under Henry Knox's leadership as Secretary of War in President Washington's administration, the War Department began to reorganize Federal stores of arms and develop plans for an armory system to supply a small, regular army. Congress also authorized a plan "for the erecting and repairing of Arsenals and Magazines" in 1794 that allocated funding for the creation of up to four national armories.⁴³ The government ended up establishing two armories (Springfield and Harpers Ferry) supported by regional arsenals. The armories would make and repair firearms while the arsenals would serve as maintenance and storage facilities.

Joseph Perkin's working relationship with Samuel Hodgdon during the Revolutionary War proved to be crucial to Perkin's success in the latter stages of his gunsmithing career. (Fig. 12) Samuel Hodgdon, who served as Intendent of Military Stores for the War Department, requested that Perkin be involved in the Federal armory plan. In 1792, Hodgdon appointed Perkin to take over operations at New London Arsenal in southwest Virginia to try to revive that disorganized facility. Perkin took the job, but he was not very successful at the venture. However, Hodgdon provided his friend

from the late war with a new assignment in 1798. That year, the War Department appointed Perkin to be the first superintendent of the brand-new Harpers Ferry Armory.⁴⁴ Perkin could build upon his experience of establishing two firearms factories during the Revolutionary War (Rappahannock Forge and the Continental Armory) as he worked to make Harpers Ferry operational.



Figure 12 - Pistol, Joseph Perkin, Philadelphia, PA; 1781-1785. Walnut, steel, iron, brass. Perkin made this pistol for Samuel Hodgdon. *Collection of Craig D. Bell. Photograph by Frank Martin.*

Perkin's leadership at Harpers Ferry is the most famous part of his legacy as a gunsmith. However, his role in arming American soldiers during the Revolutionary War should not be overlooked. Perkin proved himself to be a good candidate to direct the nascent factory at Harpers Ferry because he was a leading American gunsmith during the fight for independence. When Perkin died at Harpers Ferry in 1806, Graceham Cemetery in Frederick County, Maryland was the closest Moravian burying ground. (Fig. 13) That is where his body is to this day. While the exact location of Perkin's grave is unknown, he is likely buried under a flat, blank headstone in the male section of the cemetery. Perkin's unmarked stone is a metaphor for the lack of scholarly attention to his long career as a gunsmith, specifically his work during the Revolutionary War. Hopefully, this article will help make that metaphor disappear.



Figure 13 - Joseph Perkin is buried in Graceham Moravian Cemetery, near Thurmont, MD. *Courtesy of Ed and Helen Flanagan.*

Endnotes

- 1 Merritt Roe Smith, *Harpers Ferry Armory and the New Technology: The Challenge of Change* (Ithaca, NY: Cornell University Press, 1980), 37-62.
- 2 *Ibid.*, 56.
- 3 "Joseph Perkins," February 12, 1737, Birmingham, England, Church of England Baptisms, Marriages and Burials, 1538-1812, digital image, Ancestry.com; Mss., PhA: Catalog of the Moravian Community in Philadelphia, 1781, Moravian Archives, Bethlehem, PA.
- 4 "Mid-18th century Birmingham Gunmakers & their apprentices," Birmingham Gun Museum, http://www.birminghamgunmuseum.com/media/Mid_18th_Century_Birmingham_Gunmakers_and_their_apprentices.pdf.
- 5 J.F. Hayward, *The Art of the Gunmaker Volume Two Europe and America 1660-1830* (London: Barrie and Rockliff, 1963), 227.
- 6 Thank you to Dr. Scott Paul Gordon who alerted me to Perkin's presence at the Moravian community in Bristol, England; Jonathan Barry and Kenneth Morgan, eds., *Reformation and Revival in Eighteenth-Century Bristol* (Bristol, UK: Bristol Record Society, 1994), 127.
- 7 Wendy A. Cooper and Lisa Minardi, *Paint, Pattern, and People: Furniture of Southeastern Pennsylvania, 1725-1850* (Winterthur, DE: Henry Francis du Pont Winterthur Museum, 2011), 42-44; Barry and Morgan, 110.
- 8 Barry and Morgan, 129.
- 9 Mss., PhA: Catalog of the Moravian Community in Philadelphia, 1785, Moravian Archives, Bethlehem, PA.
- 10 Arms historian Frank M. Sellers first speculated that Joseph Perkin worked in New York, but he appears to have speculated without supporting evidence, see Frank M. Sellers, *American Gunsmiths: A Source Book* (Highland Park, NJ: The Gun Room Press, 1983), 235; Bill Ahearn, *Flintlock Muskets in the American Revolution and other Colonial Wars* (Lincoln, RI: Andrew Mowbray Publishers, 2005), 124-125; "TWO FOWLING PIECES LOST," *Rivington's New York Gazetteer* (New York, NY), September 16, 1773, accessed December 21, 2015, *America's Historical Newspapers*.
- 11 Joseph Perkin to Continental Congress, Feb. 27, 1781, *Memorials Addressed to Congress 1775-88*, vol. 8, *Papers of the Continental Congress*, 142, digital image, Fold3.com.
- 12 *Journals of the Continental Congress, 1774-1789*, ed. Worthington C. Ford et al. (Washington, DC, 1904-37), 3:322 (November 4, 1775).
- 13 Nathan L. Swayze, "The Rappahannock Forge," *American Society of Arms Collectors*, 1976, 3, http://americansocietyofarmscollectors.org/wp-content/uploads/2013/05/B033_Swayze.pdf; Jerrilyn Eby, *Laying the Hoe: A Century of Iron Manufacturing in Stafford County, Virginia* (Westminster, MD: Heritage Books, 2007), 149; Erik Goldstein, "To Drive Through Cap and Skull of a British Dragoon: Signed American Cavalry Swords of the Revolutionary War," *The Chronicle of the Early American Industries Association* 68, no. 3 (September 2015): 87-88.
- 14 "At the Ironworks," *The Pennsylvania Evening Post* (Philadelphia, PA), October 19, 1775, accessed September 10, 2015, *America's Historical Newspapers*.
- 15 Matthew Skic, "'Muskets for the use of the United States': Philadelphia's Gunsmiths during the War for Independence" (Master's thesis, University of Delaware, 2016), 33-36.
- 16 Joseph Perkin to Continental Congress, Feb. 27, 1781, *Memorials Addressed to Congress 1775-88*, vol. 8, *Papers of the Continental Congress*, 142, digital image, Fold3.com.
- 17 Strode to Dearborn, February 12, 1807 Office of the Secretary of War, Letters Received, NARA; Eby, 149; Perkin's presence at Rappahannock Forge is confirmed in "Store Ledger #3, Falmouth, VA 1774-1791," microfilm M-1144.5, 202, Rockefeller Library, Colonial Williamsburg Foundation.
- 18 Skic, 39-40, 49, and 53.
- 19 Fielding Lewis to George Washington, February 4, 1776, *Founders Online*, National Archives, accessed February 20, 2016, <http://founders.archives.gov/documents/Washington/03-03-02-0181>.
- 20 Nathan L. Swayze, "The Rappahannock Forge," *American Society of Arms Collectors*, 1976, 3, http://americansocietyofarmscollectors.org/wp-content/uploads/2013/05/B033_Swayze.pdf
- 21 Eby, 110 and 194-195; Klette worked as an indentured servant under Philadelphia gunsmith Thomas Palmer before moving south to Virginia, see "Frederick Klette," October 21, 1772, *Records of Indentures, 1771-1773*, Philadelphia, PA, Microfilm 307, Downs Collection, Winterthur Library; Klette apparently remained in Virginia after the war, one rifle that he made survives in a private collection, see Shumway, *Rifles of Colonial America*, Vol. II, 534-537.
- 22 Joseph Perkin to Continental Congress, Feb. 27, 1781, *Memorials Addressed to Congress 1775-88*, vol. 8, *Papers of the Continental Congress*, 142, digital image, Fold3.com.
- 23 *Ibid.*
- 24 *Ibid.*
- 25 George Washington to Benjamin Flower, January 16, 1777, *George Washington Papers*, letter book 2, 231, Library of Congress.
- 26 Merchants worked out of a building on Water Street referred to as "late the Continental armory" in 1783, see "Campbell & Kingston," *Independent Gazetteer* (Philadelphia, PA), October 18, 1783, accessed February 20, 2016, *America's Historical Newspapers*.
- 27 Bob McDonald, "'The arms and accouterments belonging to the United States shall be stamped ...' Markings on Continental Army Muskets," accessed April 5, 2016, <http://www.scribd.com/doc/181283657/Bob-McDonald-The-arms-and-accouterments-belonging-to-the-United-States-shall-be-stamped-Markings-on-Continental-Army-Muskets>.
- 28 Robert F. Smith, "'A Veritable . . . Arsenal' of Manufacturing: Government Management of Weapons Production in the American Revolution" (PhD diss., Lehigh University, 2008), 150.

- 29 Journal of Military Stores (March 1780-March 1781), March-August 1780, digital image, Fold3.com.
- 30 Journal of Military Stores (March 1780-March 1781), August 1 and October 23, 1780, digital image, Fold3.com; Henry Fraley Parcel, Germantown, PA, 1775, Mapping West Philadelphia, accessed April 5, 2016, <http://www.archives.upenn.edu/WestPhila1777/view-parcel.php?pid=2045>; Samuel Fitch Hotchkiss, *Ancient and Modern Germantown, Mount Airy and Chestnut Hill* (Chestnut Hill, PA: P. W. Ziegler & Company, 1889), 317, Google Books.
- 31 "Continental Line Artillery Artificers 1777-1783," Pennsylvania Archives, series 5, III, 1128, digital image, Fold3.com.
- 32 "Muster Rolls Related to the Associators and Militia of the City of Philadelphia," July 1777, Pennsylvania Archives, series 6, I, 35-356, digital image, Fold3.com; Skic thesis.
- 33 "Continental Line Artillery Artificers 1777-1783," Pennsylvania Archives, series 5, III, 1128, digital image, Fold3.com.
- 34 Joseph Perkin to Continental Congress, Feb. 27, 1781, Papers of the Continental Congress, 142, digital image, Fold3.com.
- 35 Journal of Military Stores (March 1780-March 1781), December 14, 1780, digital image, Fold3.com.
- 36 Journals of the Continental Congress, 1774-1789, 7:74 (January 30, 1777).
- 37 Journal of Military Stores (March 1780-March 1781), August 19 and December 14, 1780, digital image, Fold3.com.
- 38 Samuel Hodgdon to Joseph Perkin, April 28, 1780, Letters Sent by Samuel Hodgdon and by Benjamin Flower, March 22-December 30, 1780, Supply Records, Numbered Record Books, RG 93, National Archives, digital image, Fold3.com
- 39 Journal of Military Stores (March 1780-March 1781), July 12, 1780, Numbered Record Books, RG 93, National Archives, digital image, Fold3.com.
- 40 Joseph Perkin to Continental Congress, Feb. 27, 1781, Papers of the Continental Congress, 142, digital image, Fold3.com.
- 41 "Perkin and Coutty," *The Pennsylvania Gazette* (Philadelphia, PA), May 2, 1781, accessed October 24, 2015, Accessible Archives.
- 42 Perkin and Nicholson Payment, February 5 and September 6, 1784, Record of Money Received and Disbursements, October 1781-October 1788, digital image, Fold3.com
- 43 Roe Smith, 28.
- 44 *Ibid.*, 37-62.