



Figure 1. "Battle of Paoli," Xavier Della Gatta, 1782. Valley Forge Historical Society, Valley Forge, PA.



Figure 2. Close up view of "Battle of Paoli" showing "Five Green Men." Herman O. Benninghoff II collection. ("Green Men" are in the upper grouping of the enlargement)

Art and Archaeology and the Study of the American War for Independence

Herman Benninghoff II

A major difficulty encountered in weapons study for the period of the American War for Independence is the identification of specific firearm models (exactly which firearm models were issued to what units in the field and where?).

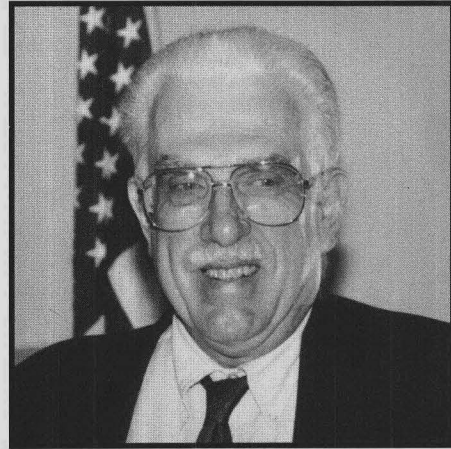
During the 19th century record keeping and serialization of weapons, especially firearms, was expanded. The development of photography in the mid-nineteenth century assisted the identification of specific models. Compounding the problem of firearms identification for the Revolutionary War is information indicating that a large quantity and variety were used.

Most of the eighteenth century was occupied with colonial wars. This contributed to the North American continent being awash in firearms by the time of the American War for Independence.

In almost 50 years of research I have found no archival information indicating more than a generic reference to the specific model dates of firearms issued to, or used by, military units during the Revolutionary War. We do have references to British muskets, carbines, short muskets, Dutch muskets, fusees, French muskets and, in some cases, barrel lengths, etc. I am unaware of any information that specifies, for example, a French Model 1763. With the aid of archival information, scholars have been able to increase the probability of defining specific models; however, the details of identification are usually a deduction.

There are exceptions by degree. British military rifles used in the Revolutionary War have a good probability of definition. Research has identified specific rifle models as a result of work done previously by Chuck Darling and continuing research by Dr. DeWitt Bailey (Bailey's work is contained in a soon-to-be-released publication).

A question can be raised whether we need to be concerned about such details. My answer is that we don't, unless, as students, military historians and collectors, we are interested in the many examples of 18th century firearms that appear in collections and on the "market" without satisfying any known archival description. Do parts from a Royal Forrester's carbine, or a Ferguson breech loading rifle, or brass furniture from a previously unidentified French musket, all found in British and American military encampments of the Revolutionary War, mean anything? But I am getting ahead of the story.



This presentation is directed towards combining archival research with examination of art and archaeological evidence to improve the level of weapons understanding. I have chosen one example of art from several possibilities to illustrate support for this approach.

The specific example is one of two paintings by an Italian artist, Xavier Della Gatta. The two paintings are in the collection of the Valley Forge Historical Society, Valley Forge, PA. As far as we know, Della Gatta never visited North America (he was noted for night scenes of eruptions on Mount Vesuvius). One painting is titled "The Battle of Germantown" and the other "The Paoli Massacre." It is the latter painting that we will examine. Della Gatta is thought to have painted "Paoli" in 1782. It depicts the action on the night of Sept. 21, 1777, when British forces made a surprise night attack on Americans commanded by General Anthony Wayne with disastrous results for the Americans.

A close examination of this painting (Figure 1) reveals that all the details appear to be correct. British soldiers are not firing weapons, only Americans. The British General Grey had all the flints removed the firearms prior to the attack in order to avoid any misfiring that could alert the Americans; only swords and bayonets were to be used. He received the nickname "No Flint Grey" for his actions. The details of the uniforms and accoutrements appear correct with a slight Italian flavor to the designs of the headgear.

There is a diary of an American soldier¹ describing the shelters that are clearly illustrated in the painting.² The soldier, Joseph Plumb Martin, was probably not at Paoli, but he was involved in the Battle of Germantown, October 4,

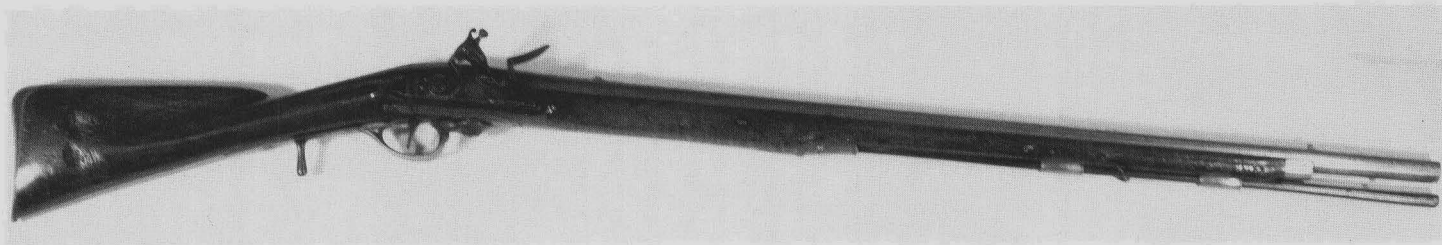


Figure 3. Ferguson Breechloading Rifle. 1776 British Board of Ordinance Contract. National Park Service, Morristown, N.J.

1777, several weeks after Paoli. It is challenging to understand how an artist with no known military experience, who never traveled to North America, could be this accurate.

Ten days before Paoli, during the Battle of Brandywine, a British Captain named Patrick Ferguson and his riflemen are credited with using the famous "Ferguson" breechloading rifle.³ Archival information and research performed by Dr. DeWitt Bailey confirms the use of the rifles at the Battle of the Brandywine (Figure 3).

The measurements of the "Ferguson" rifle⁴ are: *overall length: 49 $\frac{3}{8}$ "*; *barrel length: 34 $\frac{1}{8}$ "*. This compares with a British regulation Short Land Pattern musket: *overall length: 57 $\frac{3}{4}$ "*; *barrel length: 42"*. There is a difference of approximately eight to ten inches between the lengths of the two firearms.

Ferguson was seriously wounded at Brandywine and after the battle, orders were thought to have been given for the rifles to be stored. Ferguson's men were to be returned to their original units until the Captain's recovery. This has been interpreted by most military historians to mean that Ferguson's breechloading rifles were not involved in further actions during the American War. After the Battle of Brandywine the rifles seem to have disappeared from the pages of history.⁵

Examination of the Della Gatta painting reveals some interesting possibilities. We have archival descriptions of Ferguson's riflemen, including the design and color of their uniforms and accoutrements. They probably wore green jackets, light colored trousers, and their cross belts were buff or grey in color.

An interesting fact about the Ferguson breech loading rifle is that it was one of the few rifles used during the Revolutionary War equipped with provision for a bayonet. However, there is no archival description of the bayonet. The rifle on display at Morristown, N.J. has a provision for a non-standard bayonet. A close-up of the Della Gatta painting reveals the following information (I refer to the close up as the "Five Green Men"—see Figure 2).

There are five soldiers, dressed in what appears to be riflemen's uniform, exhibiting weapons of a relatively short

length. The weapons have bayonets which appear longer than standard size. They protrude from the bottom of the rifle muzzle rather than the standard and traditional position for British bayonets of the 18th century, which is to the right of the muzzle. Could these be some of Ferguson's men with their rifles? Quite likely, but there is no archival support for such a conclusion. However, Paoli was ten days after Brandywine. Reviewing the diary from an aide de camp of the British General Howe does not close the door on the Ferguson rifles use after Brandywine.⁶

The only bayonet identified and described as a "Ferguson" bayonet is in the collection of The Smithsonian Institute in Washington, D.C. Observation of the Della Gatta painting provided sufficient reason to examine the bayonet in the Smithsonian's collection. The bayonet was accompanied by a breech loading rifle owned by either Captain Abraham dePeyster or his brother Frederich. They were officers in Ferguson's command during the southern campaign of 1780. Abraham was with Ferguson at the time of his death during the Battle of Kings Mountain, S.C. on October 7, 1780. The rifle in the Smithsonian's Collection was thought to be a gift from Ferguson. The dePeyster rifle, in the Smithsonian's Collection is not a British Board of Ordinance weapon,⁷ but rather a private contract example. While similar in design, the dePeyster rifle does not have the same dimensions as the Board of Ordinance example in Morristown, N.J. I could find no photos or evidence that the "Ferguson" bayonet had ever been checked for fit on either the rifle at Morristown, N.J. or Washington, D.C.

If the painting is correct, the bayonet from the Smithsonian's collection would probably fit both the Morristown and dePeyster rifles and protrude from below the muzzle. Remember, the continuing question is how this painting could so accurately depict an event by an artist who had no personal experience with the subject? Research on the Della Gatta paintings by Thomas J. McGuire and published in *The Surprise of Germantown, October 4th, 1777* investigates the origins of both Della Gatta paintings. His research strongly suggests that the two paintings by Xavier Della Gatta, in the possession of the Valley Forge Historical Society, were

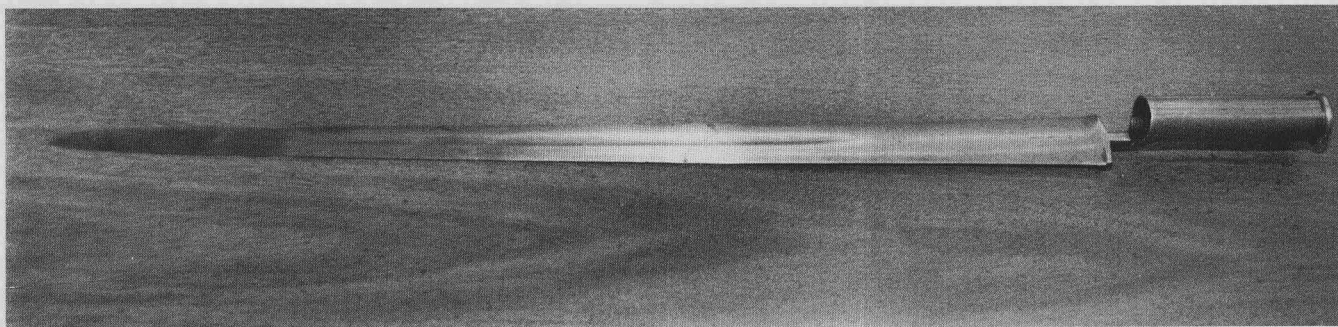


Figure 4. Profile of "Ferguson" bayonet from the Smithsonian collection.

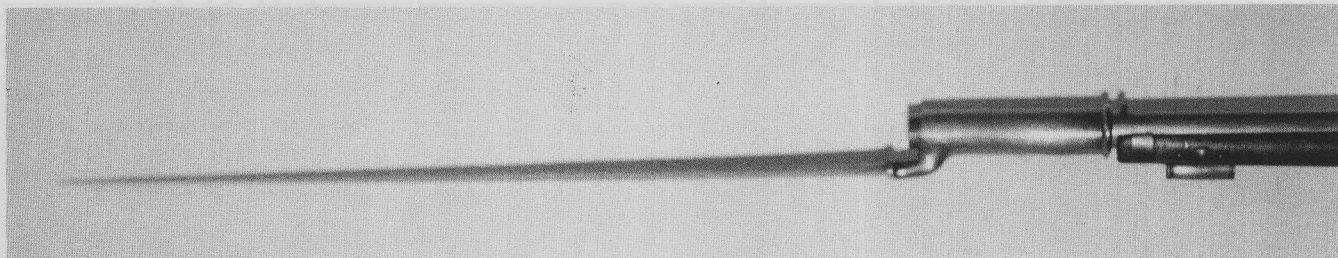


Figure 5. Profile of the Smithsonian bayonet attached to the dePeyster rifle manufactured by the British gunsmith D. Egg.

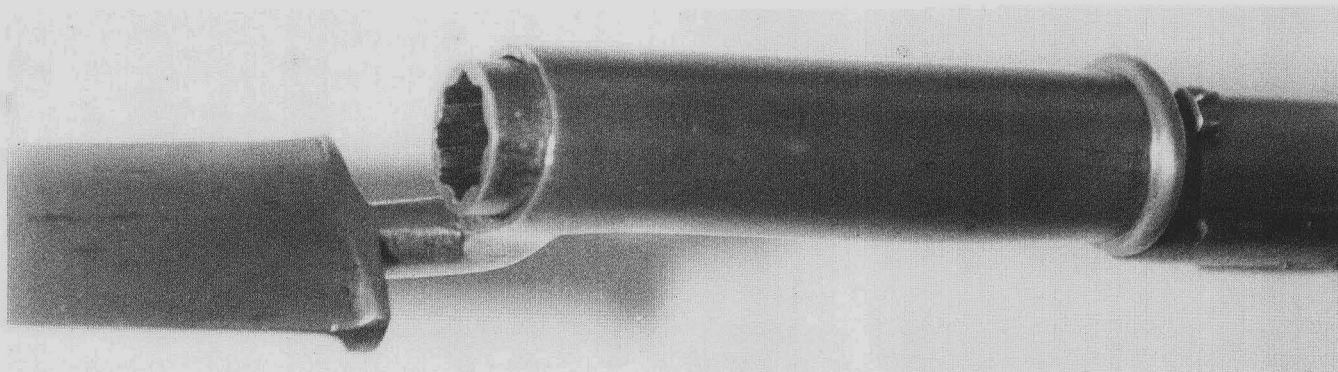


Figure 6. Close up of the Smithsonian "Ferguson" bayonet attached to the dePeyster breechloading rifle in their collection.

commissioned by one or both of two British Officers:⁸ Lieutenant Martin Hunter, 52d Regiment of foot, 2d Battalion of Light Infantry, or his friend Lieutenant Mansart St. George, also from the same Battalion and Regiment. Both Hunter and St. George were engaged at Brandywine where St. George was wounded. Hunter participated in Paoli.

A visit to the Smithsonian's collection, as a member of the Society, during the McLean, Virginia, meeting and with the help of Craig Nannos and George Shumway, both the Ferguson bayonet and dePeyster breech loading rifle were photographed. This presentation is the first time that the information has been offered.

The Della Gatta painting indicated a non-standard position for the "Green Men" bayonets. It indicated a position protruding from below the muzzle of the "Green Men" rifles. Again, to my knowledge the "Ferguson" bayonet in the Smithsonian's collection had never been photographed on the dePeyster rifle.

Figure 4 shows a profile of the Smithsonian bayonet. The measurements of the Ferguson bayonet are: *overall length: 29 $\frac{5}{8}$ "*; *blade length: 24 $\frac{5}{8}$ "*. The measurements of a standard British land pattern bayonet are: *overall length: 22"*; *blade length: 17"*. The Smithsonian bayonet is significantly longer than the Standard British issue by seven or eight inches.

Figure 5 shows a profile of the Smithsonian bayonet attached to the dePeyster rifle, indicating a non-standard protrusion from below the muzzle.

Figure 6 shows a close up of the bayonet attachment.

As you see in Figure 6, the muzzle of the rifle protrudes about $\frac{5}{16}$ of an inch beyond the collar of the bayonet. One would expect the muzzle end of the bayonet collar to be more even with the muzzle of the rifle. The rest of the fit is strong and firm, but this mismatch suggests that the Smithsonian bayonet, while designed for this style and form of rifle, was probably not intended for this specific example. Measurements of the bayonet and the Board of Ordinance rifle on

display at Morristown, N.J., suggest a closer fit, indicating that the Smithsonian bayonet may have been paired originally with a Board of Ordinance rifle.

This investigative approach suggests how art, artifacts and archival information can be examined and provide information previously unknown. In addition, there is archaeological evidence regarding the Ferguson rifle. It will be forthcoming in Dr. Bailey's soon-to-be-published text involving British rifles in North America. This research suggests a wider use of the Ferguson Rifle than previously thought.

ARCHAEOLOGICAL COMPARISONS

For 20 years I have been examining archaeological evidence from a number of geographical areas. Some of the areas are still under study and will not be revealed. The examination has identified twenty distinct models of firearms and I am certain more will be identified.

As indicated previously, archival information alone does not usually specify models by years in sufficient detail to identify clearly the firearms used by various military units. The archives can be clear regarding the quantities manufactured during specific years or the quantities ordered by specific contracts. The difficulty is determining the models issued to soldiers in the field. To answer the question, "what specific arms were used at a particular time or place," archaeological evidence is one of the most conclusive items that can be used to help identify specific arms.

Examining archaeological evidence provides a set of

challenges. The archaeological site requires scrutiny in order to determine if any site contamination is involved. When examining evidence from Revolutionary War sites, it is important to assure that the site represents the period under study and not a different period. When in doubt I have chosen to reject evidence from sites that have an indication of contamination, however there is always some residual risk.

Archaeologists seldom communicate with archivists and neither seem inclined to deal with collectors. Fortunately in this Society we have members who qualify as collectors, archivists and archaeologists.

The major approach, for determining potential contamination, was through archival research. A judgement was required for each individual site. Archaeological evidence has identified specific firearm models with British, French, Spanish, American and other European origins. I have chosen a few examples for this presentation and hope to reveal more in the future, if the interest merits. The examples shown are from specifically American sites, but examples from British sites are under study. While the emphasis for this presentation is on musket parts, the whole study involves a variety of items, including swords, bayonets and pistols.

The sites studied are in New England, New Jersey and Virginia. They will not be identified because every effort is made to select sites with a minimum possibility of increasing traffic and site contamination.

The Virginia site has the highest possibility of site contamination because it continued in use after the Revolutionary War. However, there are reasons to believe that the

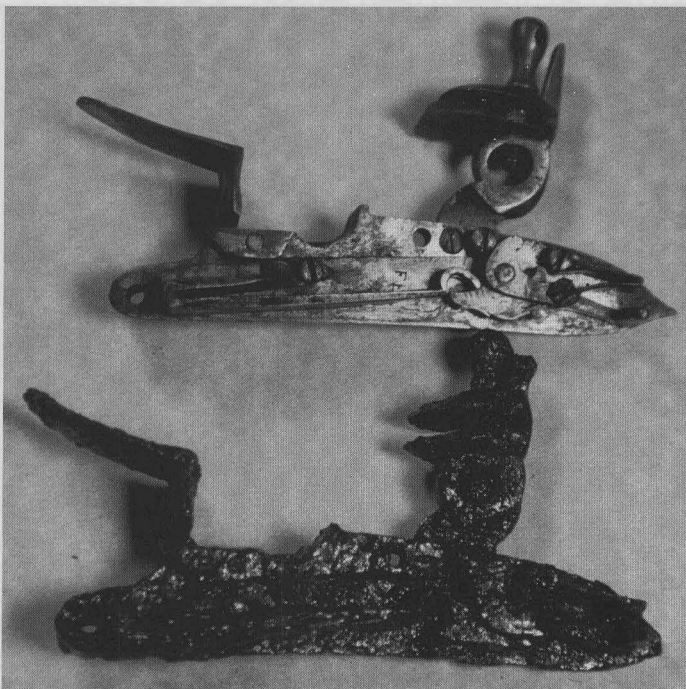


Figure 7. Inside of 1763 Model French flintlock compared to archaeological specimen found in vicinity of an unnamed Revolutionary War site. Herman O. Benninghoff II Collection.

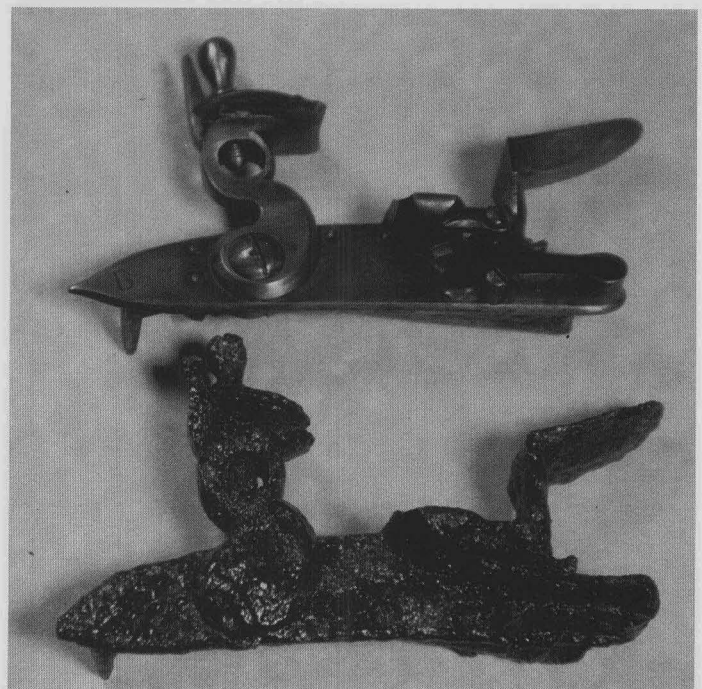


Figure 8. Outside of 1763 Model French flintlock compared with archaeological specimen. HOB II Coll.

items chosen for study have a high probability of representing the Revolutionary War period.

Figures 7 and 8 show two lockplates (inside & outside views). The lower of the two is an archaeological specimen recovered from an area near the battle of Monmouth. The other is an example of an identified French Model 1763 musket. We have used examples from private collections in the research to compare with archaeological specimens. Firearms in private collections were disassembled to compare with corresponding archaeological specimens.

The lockplate has been removed from the musket for comparison purposes with the archaeological specimen. There are technical design features from model 1763 French musket lock that are particular to that model.

Figure 9 shows the lock of a model 1717 French Rampart gun with its corresponding sideplate. These were removed from an example of an identified collection piece. Below the sideplate from the collection piece is an archaeological specimen of a sideplate fragment. Figure 10 shows the archaeological sideplate fragment overlapped on the collection example. We have found archaeological specimens of frizzen and external bridle that compare with the model 1717 rampart example. All the archaeological specimens of the model 1717 were found in an American 18th century military site in Virginia.

Figure 11 shows a comparison of brass mounts (1763 style and form) found on a previously unidentified musket, probably of French origin. The brass mounts have been removed from the collection musket (the three top items) to compare with the three archaeological specimens below. At the bottom is a brass sideplate from the collection piece and below it a brass sideplate archaeological fragment found with the three bands. Figure 12 is the same as Figure 11 with the brass archaeological sideplate fragment overlapping the collection sideplate. We are not certain exactly what model this is (research is continuing), but the archaeological specimens were found in an American 18th century military site.

Had we found the archaeological specimens without being able to find a corresponding collection piece we would have been uncertain what they represented. On the other hand the collection piece was not identified until the archaeological specimens were found. These specimens suggest the availability and presence of this model brass mounted musket at the time of the American War.

Figure 13 shows an outside view of a French model 1774 musket flintlock removed from a collection piece. The hammer has been removed to compare it with an archaeological specimen found in the area of an American Revolutionary War encampment site in New Jersey. In addition to the

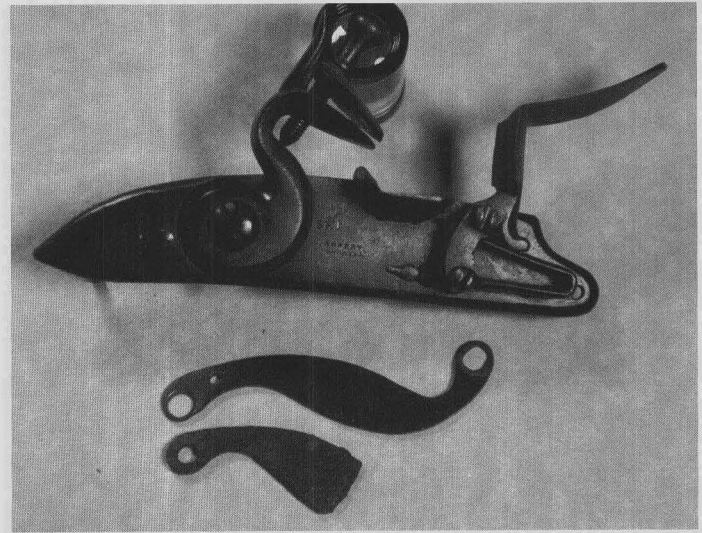


Figure 9. 1717 Model French Rampart flintlock and sideplate, showing the archaeological sideplate fragment, excavated from the area of an unnamed American Revolutionary War site, compared to the collection example. HOB, II Coll.

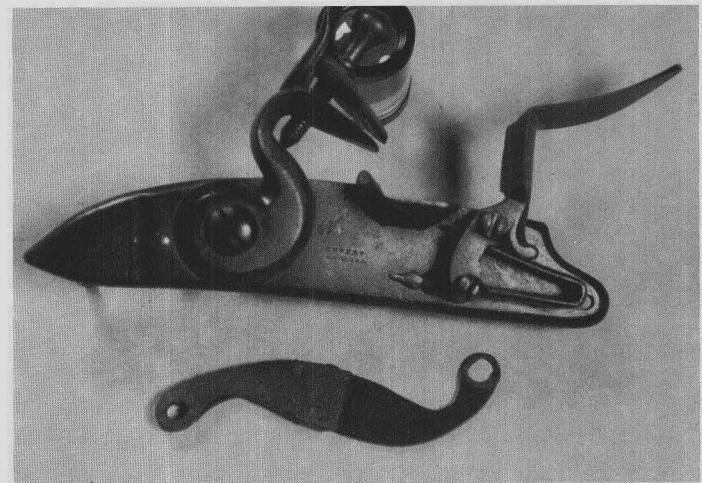


Figure 10. Same as Figure 9 with the archaeological sideplate fragment overlapping the collection sideplate in order to show the similarity. HOB, II Coll.



Figure 11. Comparison of brass mounts from French style musket with archaeological parts. Top three (left to right) are barrel bands removed from the collection example of a previously unidentified musket. Second row (left to right) are archaeological bands matching those on the collection example. At the bottom is a complete brass sideplate from the collection example compared to an archaeological brass sideplate fragment. All the archaeological specimens are from the same unnamed American Revolutionary War site. All the collection samples are from the same musket. HOB, II Coll.

hammer there is an excavated tumbler from the same area. At one time there was some doubt whether the Americans were in possession of this specific French model, but the archaeological specimens suggests the presence of the model with the Americans. Figure 14 is an inside variation of Figure 13.

Every once in a while the adrenaline rises when something completely unexpected is found. While not a firearm part, it was the only one of its kind known at the time of its discovery. Since then another is known to have been found. The only other example of a similar item with a different design and incomplete was found in a British camp many years ago by the American archaeologists Calver and Bolton.

Figure 15 is an archaeological specimen excavated in the area of an American military campsite in New Jersey. It is one of two known.

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NOTES

1. *Private Yankee Doodle*. Joseph Plumb Martin, Easter Acorn Press, 1988 Edition. p. 98 “. . . we were obliged to put up huts by laying up poles and covering them with leaves, a capital shelter from winter storms” (Right side of painting for “wig wams”).

2. *The Surprise of Germantown, October 4th, 1777*. Thomas J. McGuire, Clivden of the National Trust for Historic Preservation and Thomas Publications. Page 20 illustrates and describes wigwams similar to Martin in Note 1.

3. In 1776 the British Board of Ordinance ordered and received 100 breechloading rifles. It is known that rifles from this contract were issued to Ferguson's men. Exactly how many rifles were issued or used at the Battle of the Brandywine is unclear. Continuing research by Dr. DeWitt Bailey is examining this subject.

4. The only identified British Board of Ordinance breech loading rifle from the original contract of 100 is on display at the National Park Service Museum in Morristown, N.J.

5. There is no archival support for the use of the rifle in any engagement other than Brandywine. However there is continuing investigation and research by Dr. DeWitt Bailey.

6. *AT GENERAL HOWE'S SIDE 1776-1778*. Captain Freidrich von Muenchhausen, translated by Ernst Kipping & Samuel Smith, Philip Freneau Press, Monmouth Beach, N.J., 1974, p. 67, no. 50:

“Capt Patrick Ferguson, commander of the English riflemen had been wounded at Brandywine, and because their number had been so reduced, orders on September 13 read, ‘The British riflemen are to join the Light Companies of the Regiments to which they respectively belong.’” (KP I:495).

7. It was common practice, at the time of the American war, for British officers to purchase their personal weapons. Normally they were not supplied by the British Board of Ordinance. Research indicates that the pattern breechloading rifles used by Captain Ferguson were supplied by the well-known London gunsmith Durs Egg; however Egg was not involved in supplying the 1776 British Board of Ordinance contract for 100 rifles.

The dePeyster rifle in the Smithsonian collection was made by Durs Egg under private contract and probably a gift to dePeyster from Ferguson.

8. *The Surprise of Germantown, October 4th, 1777*. Thomas J. McGuire, Clivden of the National Trust for Historic Preservation and Thomas Publications. Page 98, Endnote 13.



Figure 12. The same as Figure 11 with the archaeological brass sideplate fragment overlapping the collection sideplate. HOB, II Coll.



Figure 13. A French model 1772/74 musket lock from a collection example with its hammer removed in order to compare it with an archaeological hammer excavated from the area of an unnamed American Revolutionary War encampment site. In addition there is an excavated tumbler that was found next to the hammer. HOB, II Coll.



Figure 14. The same as Figure 13, but shows the inside of the musket lock from the collection example. HOB, II Coll.

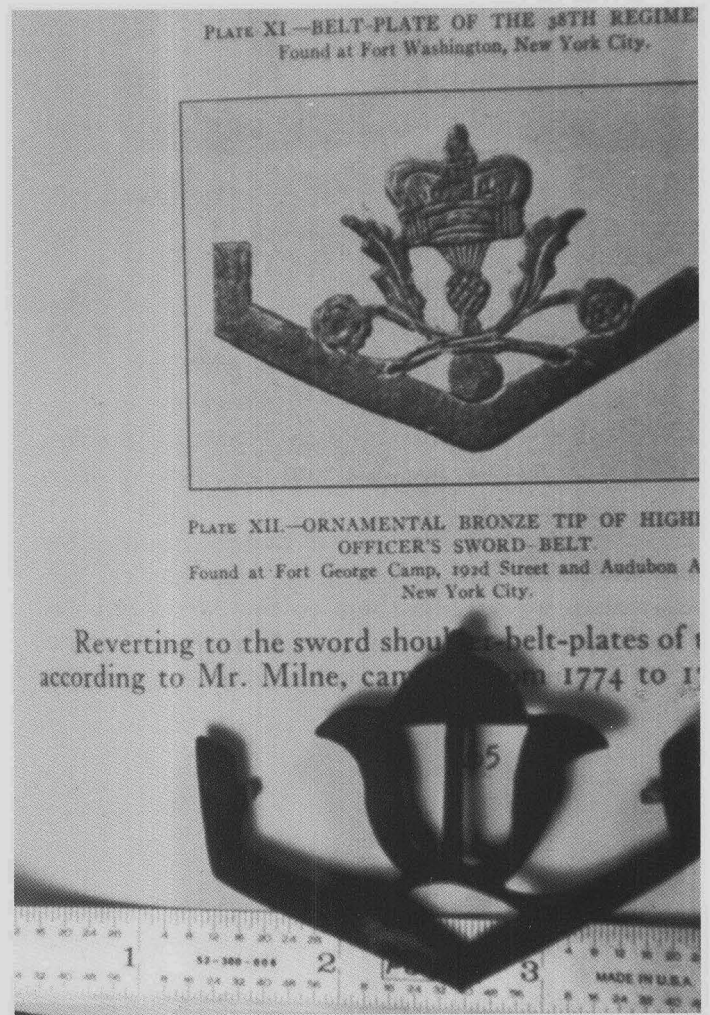


Figure 15. Archaeological specimen of an American sword belt tip compared with picture of British specimen. HOB, II Coll.



You saw balloons in Albuquerque? Did you see *both* of these? On the left is one that *some* ASAC members got when they went on a real balloon ride; on the right is the one designed by Betty Peterson, working with the March Company of Albuquerque, that was given to *all* ASAC members who were there. They were made in China, and Ron Peterson thinks the March Company helped design both of them. They are outstandingly attractive, and we thank the Peterson's for "our" balloon.