Broken Muskets 1783-1800

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In the continuing quest to discover and identify legitimate collectable firearms from the period of the American War for Independence era, it might help to examine one specific area of a **complex** process. We are able to identify the more pristine examples from the 1783-1800 period, but even that can present some questions about the extent of the firearm's participation because of its pristine condition. There is a whole range of firearms with legitimate examples of repairs, assemblages, and modifications that occurred during the firearm's useful life. The repairs may also be the work of a modern gunsmith who uses advanced gunsmithing techniques with a level of expertise that challenge identification as modern innovations. When we see a musket that appears to have a replaced barrel or stock, does this mean the firearm is bogus? The safe approach may be to conclude that it is bogus, but in reality it may not be.

THE CHALLENGES!

So why this presentation? To remind collectors and students of American military firearms about the challenges associated with identifying American muskets of Revolutionary and the post-Revolutionary period. It seems relatively easy to identify what may appear to be *untouched, attic,* or *pristine* pieces, but even they can have variations that are sometimes difficult to attribute to their original manufacture. The difficulty of identification is further compounded during the second quarter of 19th century, when many remaining specimens were apparently converted to the percussion ignition. The technological advancement of percussion conversions is followed with mass reconversions by modern gunsmithing artists attempting to recapture some perceived original form when many of the American muskets probably had no similarity to a theoretical original condition. This presentation explores some of what they did in the period 1783 to 1800 with muskets to extend the useful life. Some of the pieces may exist today, and the question is, can we identify them before dismissing them as an awkward-appearing firearm?

EXAMINATION

Research indicates that 18th century American military firearms with average or more usage probably differed significantly in appearance from the original form as supplied by their maker, especially by the end of the American War for Independence and certainly by the beginning of the 19th century. Added to this are the modifications made to 18th century firearms throughout much of the 19th century to extend their useful life, that is, percussion conversions. I have addressed this in a previous presentation to the American Society of Arms Collectors entitled "The Evolved Longarm in North America 1750-1850."[1] We have a difficult task sifting through this time strata, something like an archaeologist sifting through layers of earth when they discover sites built on sites.

This examination explores one area—repairs performed in the two decades after the American War for Independence—that may influence the appearance of any surviving specimens. This examination borrows heavily from previous research and is primarily a rearrangement of published data. Some original source material has been used, but it does not alter the conclusions of existing research. It does confirm previous research.

After the American War, the new United States was awash in firearms by 18th century standards. As Bill Guthman stated in *U.S. Army Weapons—1784-1791,* "the muskets alone numbered in the "tens of thousands."[2] If you include state arsenals, the figure may be in the hundred thousands.

Figure 1. An American musket (circa 1800) with a black walnut stock, British Long Land Pattern barrel reduced to 42″ in length and a lock made in Liege (Belgium). It is U.S. surcharged on the lock and stock. There is an "M" stamped on the barrel near the breech (probably signifying a Maryland association). A faint "IP" (Joseph Perkins?) is pressed in the stock to the rear of the sideplate.

George Mollar's *American Military Shoulder Arms,* Volumes I and II, details the accounts and locations where many repairs, modifications, and alterations were performed.[3]

Few of the firearms repaired during the last two decades of the 18th century exist in an 18th century repaired form. More may exist in a modified form because of a continued approach by both military and civilian gunsmiths to repair, refurbish, and reassemble firearms from useable parts. Attempting to identify these firearms today and their participation in the American War for Independence is further complicated by weapons imported after the war. Without a strong provenance that follows the firearm from use during the American War to the present day, I have concluded, as others have, that it is impossible. Even firearms that have a strong provenance often have later embellishments by owners, such as "sporterizing" or commemoration inscriptions.

I examine the period 1783 to 1800 arbitrarily, because there are sufficient data indicating what *they* did with "broken muskets," and there is no contamination by the later "conversion to percussion era," which adds a totally different perspective to earlier flintlock firearms. The question I asked is, what would one of these repaired muskets look like?

Repair of muskets did not begin after the American war. It was done in a systematic manner during the war. This suggests that the Continental Army used a quantity of "issued" firearms that were in other than original condition. The relevant point is that American muskets were in a constant state of repair and evolution.

Typical of the information on the repair process is indicated in the returns of the Continental Artillery's winter encampment at Pluckemin, New Jersey, December, 1778 to June, 1779. While Pluckemin was an artillery encampment, it served as a major repair depot for the Continental Army. An examination of the military stores lists of Pluckemin shows those firearm parts available for repair.[4] By deduction, an assumption can be made that if parts were stored they were considered vital in any repair process (Table 1).

A disappointment with the Pluckemin information is that there is no listing of specific repairs, and this requires us to speculate that if parts were stored then repairs were made using the stored parts.

Before examining repairs, it is important to place in context how large a number of firearms were in the country during the American War. It was these pieces on which most of the repairs were performed.

There are three main sources for firearms repaired in the period 1783 to 1800. They are:

1. Firearms in North America before 1775
2. Firearms imported into North America between 1775 and 1800
3. Firearms made or assembled in North America between 1775 and 1800

Before 1775

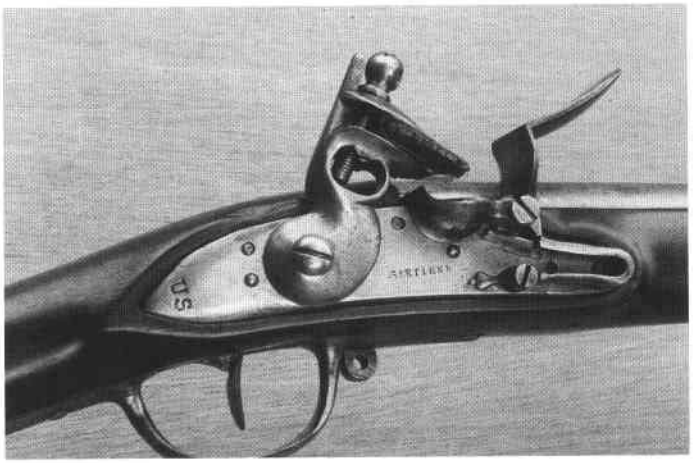
Sir Jeffery Amherst, Virginia governor, had written in 1759, "most People in North America have arms of their own. . . ."[5]

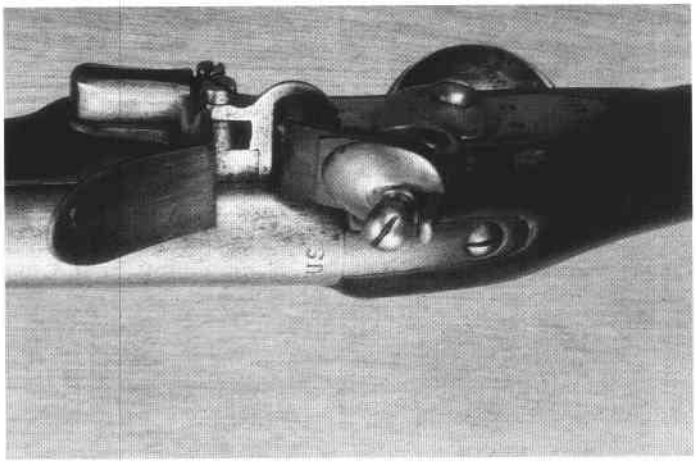
Civilian ownership of firearms in Europe was either restricted or discouraged. In some countries, possession of firearms was punishable by death. In North America, there was a completely different culture, attitude, and mentality toward firearms. Many of the pristine, highly decorated, and artistically created European firearms were a social or economic statement.

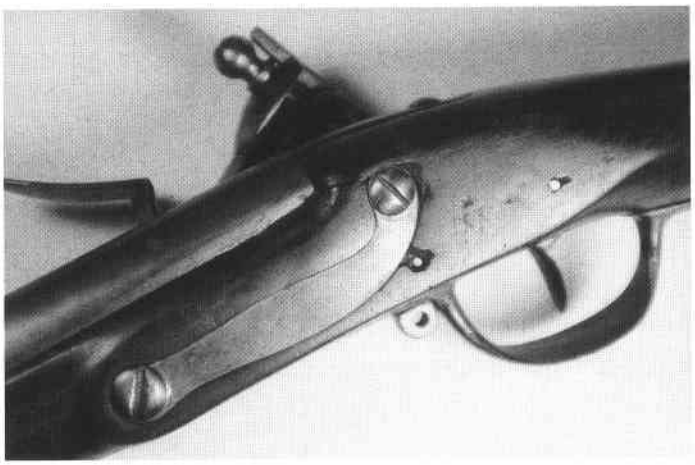
Table 1. Pluckemin Returns[4]

Cocks	144
Cock pins	144
Large hammers	144
Hammer springs	144
Fuzee cocks	24
Cock pins	24
Hammers	24
Hammer springs	24
Pistol cocks	24
Pistol hammers	24
Gun barrels	No quantity available

NOTE. Damaged muskets for repair, 1,978 (one repair depot during a 6-month period and repair facility did not reach optimum manning levels until 31 March 1779).







Figures 2-5. French M 1772/74 with a 42" barrel. U.S. surcharging on the lock and barrel. "X/V" faintly pressed into stock to the rear of the sideplate, suggesting modifications done at the Schuylkill Arsenal in Philadelphia (circa 1794). An "IP" (Joseph Perkins?) is pressed into the stock at the rear of the triggerguard. finial.

North American firearms were considered commercial goods and actively traded by both the French and English until the close of the French and Indian War.[6] The North American's attitude toward firearms affected modifications and repairs. There was an emphasis on operational or functional performance. Often it was a life-and-death consideration to get the firearm operational. In addition, there was a relative parts scarcity, and many earlier firearms served as parts sources for firearms repaired and manufactured later.

How would one of these firearms appear if we had it in our possession today? Frankly, I don't know. I am certain it would be much different from a *pristine* original piece.

Imported 1775-1800

Added to the existing base created during the earlier decades of the eighteenth century came an influx of firearms during the American War. A review of information indicates at least two major surges of firearm importation into the United States. The first included those imported during the war (including captured pieces). It is impossible to determine precisely how many of these early imported firearms served the Continental Army versus those that were under state control. But in either situation, many were repaired.

The second firearms surge began circa 1794 and lasted into the early years of the 19th century. The arms imported came from a variety of European countries, including Great Britain, Holland, and some of Germanic origin. Many firearms from the second surge may be difficult to distinguish from firearms imported during the American War for Independence. Although it is difficult to distinguish between firearms imported during the two surges, there are data about the quantities.

A partial list of French firearms received in American ports from February 1776 to August 1781 (probably most were military models) indicates in excess of 101,918 (some unsubstantiated figures place this quantity as high as 200,000). Some were considered second-hand (obsolete), but many were described as "unused and exceptionally good" as well as "a great bargain."[7] There are indications that Sweden, Spain, and Holland supplied military stores in quantities larger than normally appreciated.

A second surge of completed firearms began circa 1794, when Congress authorized the procurement of additional arms and ammunition.[8] The procurement included approximately 9,500 British musket and carbines and an additional 6,500 muskets of unidentified origin.[9] Added to these were a quantity of firearms received from American contractors. In addition to these completed firearms, there were huge quantities of firearm parts imported. The parts included partial listings and quantities (Table 2).

Table 2. [10]

1777	
	15,400 barrels for muskets
	8,200 barrels for ramphart muskets
	6,000 short barrels for cavalry
1780	
	Fourteen chests of gun mountings
1781	
	16,020 ramphart musket barrels
1778-1781	
	More than 40,000 gunlocks imported.

Made or Assembled in North America Between 1775 and 1800

The first surge included firearms made by American gunsmiths. It is impossible to determine precise quantities, but it was substantial. Many states acquired firearms for both their use and that of the Continental Army. A sample of the data indicates the magnitude of the procurement. In 1775 and 1776, Virginia ordered 2,098 rifles and 3,325 muskets. In addition, the Committee agreed to buy from one gunsmith "all the good muskets that shall be made by the 5 or 6 hands he mentions by the Ist December next."[11] Returns from Springfield Armory show 13,441 muskets made between 1795 and 1800.[12]

1794-1800 (Second Surge)

There were a number of private contractors supplying muskets through the U.S. contracts of 1794 and 1798.[13]

Parts were imported during the second surge, beginning in 1794, but not nearly as many as in the first surge, associated with the American War for Independence.[14] Although some of the imported parts were used to repair existing firearms, many were probably used to create assembled weapons. These assembled firearms became repair candidates in the same manner as any other 18th century flintlock.

A REVIEW OF EIGHTEENTH CENTURY GUNSMITHING PRACTICES

Each 18th century firearm was a hand-crafted item reflecting the skill, personality, temperament, and experience of its creator or creators. All firearms were individually made, and there was no interchangability of parts as defined in today's terms. Even the military pieces, often made to

Table 3. Locks, Stocks, and Barrels

Locks
1. Mend lock plates
2. Supplying locks to muskets and pistols
3. Float pan
4. Make new pan
5. Mend pan
6. Braze and harden a tumbler
7. Drill out tumbler pins
8. Fit main spring
9. Repair sears and tumblers
10. Fit hammer springs
11. Fit sear and spring
12. Fit hammer
13. Fit lock
14. Join lock to barrel
15. Fit lock to gun

Stocks
1. New brass nose caps
2. Fit heel plates to stocks
3. Stock American arms with black walnut
4. Stock English muskets with black walnut
5. Fit side pieces to stock
6. Make French and English swivels (sling swivels?)
7. Fit guards to French stocks
8. Mend swivels
9. Tail pipe repair
10. Fit tail pipe to stock
11. New stock for pistols with black walnut
12. Repair broken wrists
13. Glue two pieces (of the stock) together and hold with wire
14. Glue two pieces (of the stock) together and use brass plates prior to adding wire
15. Glue two pieces (of the stock) together and use two screws instead of wire
16. Glue two pieces (of the stock) together and secure with heavy cord
17. Splice stocks
18. Splice arms with old wood
19. Splice with new and old wood
20. Fit bands and springs (French or French-style muskets?)

Barrels
1. Square barrel at breech
2. Bore out barrel
3. Cut off barrel
4. New bushing for barrels (controversial characteristic in making a determination of reconversion)[19]
5. Add loop on barrel (for pin or key?)
6. Braze sights (probably rifles)
7. Straighten barrel
8. Remove dents from barrels

Miscellaneous
1. Fit pipes from the rough
2. Weld steel ramrods together and fit

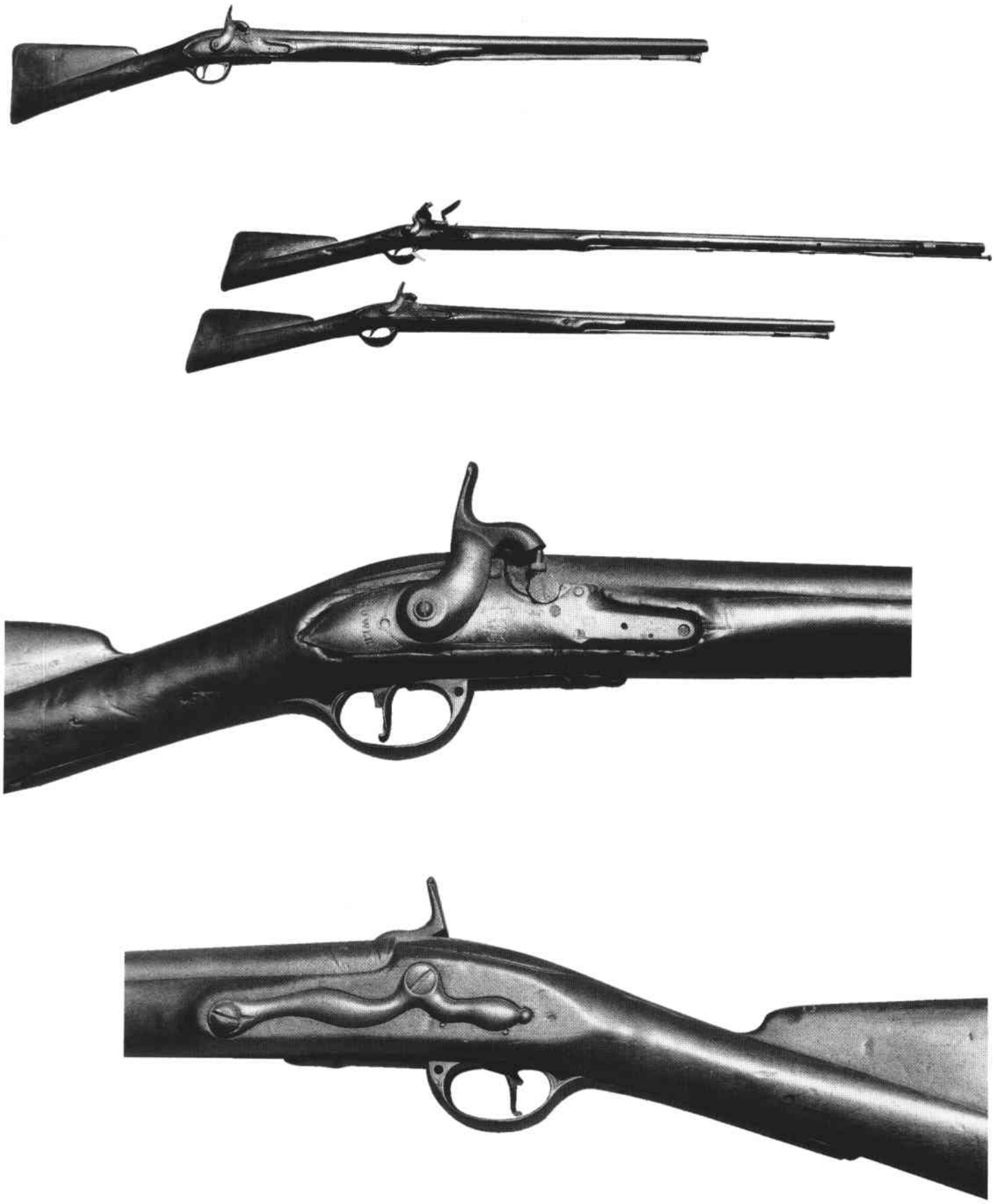
NOTE. On 2 May 1787, Congress passed a resolution directing the Secretary of War to sell unserviceable arms, ammunition, and other stores taking up needed space in the arsenals.[20]

Table 4. Extract of Ordinance of Muskets, 15 December 1793[21]

Springfield	
French, new	6,678
French, old	55
Stands of arms	7,360
French	706
English	12
Without ramrods	214
Damaged	8,617
Ft. Rensselaer	
Damaged	44
Philadelphia	11,434
Damaged	1,482
Georgetown	
Damaged	15
New London	
British	993
French	238
Manchester, VA	6
Damaged	16
Fort Washington	689
Damaged	639
Fort Hamilton	27
Damaged	45
Fort Jefferson	16
Pittsburgh	275
Fort Franklin	39
Aggregate Abstract	31,015
Damaged	15,670

patterns, usually needed modification before parts could be changed from one piece to another. Gunsmiths were used to working on firearms one at a time. They accepted, as a part of their mind set, the individuality of firearms even when made to patterns. Modifications, repairs, and refurbishing were an accepted practice and not the standardization of today that includes interchangability of parts. This is an important psychological point because anyone today viewing an 18th century musket that was in use for a long time span might be appalled at its lack of visual uniformity or cosmetic appeal. Cosmetic considerations of appearance were less important in North America than Europe. These *evolved firearms* are primarily a North American endeavor as far as the potential quantities.[15]

We have difficulty today trying to identify legitimately repaired firearms from potential modern alterations. Many 18th century civilian gunsmith records describe repairs and modifications, but they rarely are as descriptive as those reported by Continental armories after the American War. Although these reports concern actions performed on arms belonging to the United States, there is every reason to



Figures 6-9. British Long Land Pattern musket converted to civilian use as a shotgun, circa 1840. One of the rarest examples of an American War period firearm. Most have been reconverted to flintlock percussion in an attempt to recapture a perceived original form.

believe that the similar actions were performed by civilian gunsmiths. The details are clear on the Continental Armoires records because they were paid for on the specific work they performed, thus generating a list of those actions.[16]

The following is a summary of operations performed on the locks, stocks, and barrels of 18th century United States military firearms to extend their useful life. Although these operations reflect the work done at national arsenals, it should be noted that the States were performing similar operations (Tables 3, 4, and 5).[17]

A letter written on 1 May 1800 by James Monroe, then Governor of Virginia, indicates just how seriously the states considered their firearms and repair. Monroe wrote to a field commander, Lieutenant Colonel George Deneale (probably Virginia Militia):

> In 1793, sixty stands of arms were delivered to Captain George Deneale for the use of his Light Infantry of the 60th Regiment of Militia; and in 1798 two hundred and fifty were ordered to Alexandria for the use of that Corporation. Under a late regulation it is indispensibly necessary that the arms be retaken into the hands of the Government that they may be repaired and afterwards distributed as the law directs. . . .
>
> Should any of the said arms be lost, which it is hoped is not the case, you will please state by whom and by what means, that the publik may be indemnified. . . .[18]

Table 5. Return of Ordinance, at the United States Arsenal on the Banks of the Schuylkill (Philadelphia) for 1805[22]

Fit for Service	
8,992	Charleville muskets (new)
5,625	British muskets
795	Brass mounted ships muskets
715	Charleville muskets, complete
354	Common French muskets
60	Carbines
11	Pattern muskets
8	Common muskets
8	Ships muskets
6	French fusils
2	Pattern artillery muskets
16,576	Aggregate
Unfit for service	
983	Horseman's carbines
750	New muskets
367	English muskets
333	Iron mounted muskets
291	Charleville muskets
174	Brass mounted muskets
172	German muskets
72	Bell muzzle carbines
4	Ship muskets
2	Fowling pieces
2	Pieces for buccaniers
1	Pat rifle (Ferguson)
3,151	Aggregate

IN SUMMARY

A significant difference in mindset exists between the American military culture in the 18th century and today, regarding *issued* and consequently *useable* firearms from an appearance consideration. Modern military issued firearms are cosmetically uniform. Obvious alterations or repairs from weapon to weapon are not acceptable. Although repairs and alterations are performed on modern military weapons, only the most skillful observers would probably detect any variation.

In the 18th century, the visual tolerance for obvious variations in American military firearms was extensive by modern standards. Any of us viewing a Continental Army unit in the field or the later Federal Armies of the late 18th century would probably be struck by the lack of visual or cosmetic uniformity in the soldiers' firearms.

Modern collectors are gripped with the same culture contamination as a modern soldier, who would consider it strange to be issued a weapon with obvious or crude repairs unless under the most challenging of conditions. Collectors who search for United States American military firearms of the 18th century and expect them to be in pristine or so-called untouched condition are searching for something that rarely existed. Utility and serviceability of firearms was an American military priority in the 18th century. Cosmetic considerations were much less important.

NOTES

1. Benninghoff, Herman O., II, "The Evolved Longarm in North America," *The American Society of Arms Collectors, Bulletin No. 64,* May 1991, 64/13-64/21.

2. Guthman, William H., *U.S. Army Weapons—1784-1791.* The American Society of Arms Collectors, 1975.

3. Moller, George D., *American Military Shoulder Arms,* (Niwot, CO: University Press of Colorado, 1993), Volumes I & II.

4. Sekel, Clifford, Jr., *The Continental Artillery in Winter encampment at Pluckemin, New Jersey December, 1778-June, 1779,* A Thesis Presented to the Faculty of the Graduate School Wagner College, in Partial Fullfillment of the Requirements for the Degree Master of Arts in History, August 1972.

5. Gill, Harold B., Jr., *The GUNSMITH in Colonial Virginia* (Williamsburg, VA: The Colonial Williamsburg Foundation, 1974), p. 13.

6. Hamilton, T. M., *Colonial Frontier Guns,* (Chadron, NE: The Fur Press, 1980).

7. Gluckman, Arcadi, *United States Muskets, Rifles and Carbines,* (Buffalo, NY: Otto Ulbrich, 1948), pp. 60-61.

8. Moller, George D., *American Military Shoulder Arms,* (Niwot, CO: University Press of Colorado, 1993), Volume II, pp. 1, 2, 31, 62.

9. *Ibid.,* pp. 2, 4-7.

10. *Ibid.,* Volume I, pp. 141-142.

11. Gill, p. 34.

12. Fuller, Claud E., *Springfield Shoulder Arms 1795-1865,* (Glendale, NY: S and S Firearms, 1986), p. 130.

13. Moller, Volume II, pp. 123-124.

14. Gluckman, pp. 60-61; Volume II, pp. 1-18.

15. Benninghoff, pp. 64/13-64/21.

16. Guthman, pp. 9-20.

17. Gill, pp. 22, 64-68.

18. Original letter in *Benninghoff Collection of the American Revolution.*

19. On page 157 of Moller (Volume I), there were a series of letters between July 1792 and January 1793 from General Anthony Wayne to Secretary of War Henry Knox requesting that certain muskets have the vents plugged and then redrilled to reposition the vent. Obviously the plugging and redrilling of barrels was not foreign to the experience of 18th century technology. One question is how we would interpret such an example if it were in our possession today?

20. Guthman, pp. 15-16.

21. Gluckman, Appendix I.

22. Fuller, p. 133.