

# Confederate Infantry Longarms

By Curt Schmidt

With the very real threat of war in 1860 and the arrival of war in 1861, the South was in a weak position compared to the North. The South was essentially an agrarian society with an agrarian culture and tradition. At the start of the war the South had practically no military or industrial facilities within its borders that could manufacture military arms. The only rolling mill was the Tredegar Iron Works in Richmond. The South's biggest boon was the capture of the arsenal and armory at Harpers Ferry by the Confederate state of Virginia and the subsequent removal of its manufacturing machinery to Richmond for rifle-muskets and its rifle works to Fayetteville, North Carolina under the Confederate Government.

Beyond works and machinery the South was immediately plagued by a lack of manpower forcing would-be arms makers to have to start from the bottom up or from scratch trying to set up production without skilled workers, laborers, facilities to put them in, and then try to secure raw materials which were normally always in short supply or too scarce or non-existent.

Into this problem, numbers of inventors, entrepreneurs, businessmen, gun shop owners, gunsmiths, and craftsmen attempted to step up and equip the Southern soldier. Driven by pride in the new nation, business competition, and sometimes personal dreams and schemes, a number of Confederates attempted to produce arms.

By and large, Confederate arms fell into three areas based on source:

1. Liberated arms from Federal arsenals and armories in the South (national, state, and private), as well as recycled battlefield pickups either put directly into Confederate service or refurbished and issued.
2. Foreign arms purchased in Europe and run through the Federal blockade.
3. Arms produced in the South.

The numbers and relationships between these changes as the war went on. The massive undertaking to create armed soldiers started out with liberated arms in storage at the Federal arsenals, and Southern state militia armories. Being inadequate and largely obsolete smoothbore .69 muskets or rifled-muskets; appeals for donations, and collection drives produced a variety of stop-gap civilian arms such as shotguns and bear or deer rifles.

As Yankee arms of the latest models became available at times from battlefields left under Confederate control became more common, and particularly as obsolete or undesirable foreign made arms were being sold to Confederate purchasing agents in the early years of the war, regiments and companies were often able to upgrade say from old smoothbore flintlocks to the latest Minie/Pritchett rifle-muskets and rifles.

Into this evolving mix, came the contributions of Southern arms makers.

*Federal sources.*

At the beginning of the war, the Confederacy obtained arms already in storage within the Confederacy by securing national armories and arsenals:

	Muskets	Rifles
Richmond, VA	-----	4,000
Fayetteville, NC	25,000	2,000
Charleston, SC	20,000	2,000
Augusta, GA	28,000	3,000
Mt. Vernon, AL	20,000	2,000
Baton Rouge, LA	27,000	2,000
TOTALS	120,000	15,000 (1)

This initial supply was originally thought more or less enough when supplemented to meet the needs of a very small national army for a war that was going to be over in a few months at most.

While “muskets” and “rifles” may sound impressive, it is important to take a look at the types that the Confederates found in storage.

*The Model 1822 (aka M1816 Types I, II, and III).*

The reenacting community’s near total dependence upon the U.S. Model 1861 “Springfield” and the British P1853 “Enfield” (incorrect 4<sup>th</sup> Models or them retroverted/defarbed to the ACW correct 33<sup>rd</sup> Model) for everything between 1861 and 1865 creates a historically misleading and incorrect impression.

Out of the roughly 503,000 longarms in Northern armories on hand in the spring of 1861, almost 400,000 were .69 smoothbores- a mix of smoothbore, altered to percussion, rifled, rifled and sighted M1822’s, a few M1835/1840, and M1842 muskets. Out of the roughly 135,000 arms seized and held in the South, some 100,000 were .69’s as well. As a result, through 1862, these arms would dominate the Federal Army as well as the Confederate Army and could still be seen in some units marching in the May 1865 victory parade in Washington D.C.

United States firearms had evolved down from the French M1763/66/68 “Charleville” series and had been determined superior over the British New Short Land Pattern (aka “2<sup>nd</sup> Model Brown Bess”) and its replacement the India pattern (aka 3<sup>rd</sup> Model Brown Bess). However, problems with hand-made guns, non-interchangeable parts, drifting from patterns, and variations at the Springfield and Harpers Ferry armories as well as multiple contractors were supposed to have been resolved with the new Model 1812 musket. They were not. Attempts to create a standardized new musket were harder than expected and failed, creating confusion and controversy that lasted seven years and was not really ended until 1831. This were the modern typology of M1816 Types I, II, and III appear versus period writings and records that talk about the M1816, M1822, and M1831 muskets.

Almost as soon as the first of the new M1812 muskets came out in 1815, there were problems the worst of which was still the lack of one formal pattern or model! In November of 1816 three prototypes or patterns were made at Springfield. But, even as the patterns circulated Springfield went ahead and made changes that appeared in the first six prototype samples made in 1817. Amid much head shaking, things were still at Square One. To readdress the problem once and for all, in 1822 it was decided to make up thirty sample arms at Springfield and Harpers Ferry with the best being selected for copying and production at the national armories and among contractors. A Harpers Ferry made musket was chosen and became the Model of 1822 in the 1841 Ordnance Manual (today aka M1816 Type II). In addition to minor changes, the M1822 was browned. (The M1816 name is traced to Arcadi Gluckman who in his seminal 1959 work Identifying Old U. S. Muskets, Rifles & Carbines looked at the 1816 document calling for the making of six samples in 1817 and created the “M1816” nomenclature which has largely since stuck with collectors and reenactors.)

Unfortunately, there were still some of the same issues as the muskets were hand-made and varied between the armories and the contracts for guns made between 1822 and 1831. Once again an attempt was made to fix the issues. Springfield would make the revised musket from 1831 through 1840, and Harpers Ferry from 1831 through 1844, along with a number of contractors. The “M1816 Type III” returned to being struck bright.

*The Model 1835 (aka M1840).*

As other countries began looking at modernizing their armies, some in the United States realized that the current model musket was basically a copy of a nearly seventy year design. Still being enamored of the French, the committee formed by the Secretary of War looked around and arrived at the conclusion that the French M1822 musket was the “most perfect.” In 1835 Harpers Ferry was ordered to manufacture the new pattern arms as the Model 1835 musket. As with the Model 1816, the Model 1835 would see many alterations and changes and not go into production until 1838, when Springfield made arrangements to make it as well. Springfield retooled, and in September 1839 started the new M1835 but still turned out M1822’s through 1840. Harpers Ferry, although having a head start, dallied as well, making M1822’s and never getting around to changing over at all.

As history often repeats itself, problems with the M1835 called for changes to be made early in 1840 delaying full production and giving rise to the M1835 being called the Model 1840.

### *The Model 1842.*

The invention of the percussion cap to replace flintlock ignition was relatively slow to catch on. Once again American eyes looked to Europe, and in 1839 the Secretary of War authorized the Ordnance Department to send a committee to Europe to study not only armories and arsenals but also the latest in firearm designs and improvements. So a snoot to miss much, the delegations "tour" was set to include England, Scotland, Belgium, France, Prussia, Sweden, and Russia.

This came somewhat as a surprise as the United States had already produced a percussion ignition long arm at Harpers Ferry in the Model 1833 Breechloading Carbine (Hall's Patent) and would go on to produce five more models before the programs to alter flintlock muskets to percussion starting in the 1840's. Having just more-or-less ironed out the problems with the M1835 musket the decision was made to just replace the flintlock and flintlock type breech with a percussion lock and a percussion bolster for the barrel and scrap the M1835/M1840 altering inventory to percussion and rifling and sighting them.

With few minor differences, the Model of 1842 was essentially the M1835/1840 with a percussion lock and breech. With lessons seemingly finally learned and resolved, the M1842 would be the first musket produced at Springfield and Harpers Ferry with interchangeable parts (true on paper but not all parts will interchange between the armories all of the time in practice).

With production of the M1842 starting at Harpers Ferry in 1843 and at Springfield in 1844, it would see limited service as the premier longarm during the Mexican War of 1846-1848. Out of some 275,000 made, about 167,000 were still in use or in storage in various national and state armories at the beginning of the Civil War. Their being around, they were issued in large numbers to both Federal and Confederate troops in 1861.

### *Extended Life: Flintlock to Percussion Alterations.*

Part of the government's decision to adopt a percussion longarm (musket and rifle) in 1841 included ending the production of flintlock arms. With so many smoothbore flintlocks in .69 on hand and in storage, someone had the brilliant idea to give them new leases on life and extend their service life by having them altered to percussion. To get a handle on the potential number of arms involved, the Ordnance Department in June of 1847 called for a survey or inventory of muskets made before 1832.

Critical inspections were done, dividing muskets into four (4) classes:

1<sup>st</sup> Class. Muskets made since 1831 to be kept in storage and not issued.

2<sup>nd</sup> Class. Muskets made between 1821 and 1831 to be pulled for conversion to percussion

3<sup>rd</sup> Class. Muskets made between 1812 and 1820 not suitable for conversion but good enough for emergency issuance

4<sup>th</sup> Class. Muskets made before 1812 as well as muskets made after 1812 that are damaged and unworthy of repair. These were to be pulled and sold.

The inspection process stalled with the war with Mexico but with troops and arms returning, the survey was continued. The survey of primary arsenals and arsenals accounted for 707,011 muskets of all classes as follows:

Class 1: 293,734

Class 2. 76,185

Class 3. 30,221

Class 4. 24,236 including 2,365 foreign made muskets.

According to the report, some 369,919 muskets were set aside for alteration or conversion to percussion. Work progressed using several alteration methods such as the 1st U.S. type or "French," the 2<sup>nd</sup> U.S. type known as the "Belgian," and a third after the July 1855 decision that future arms would be made rifled in .58 calibre, attention was given as to how the alteration process of upgrading smoothbores could be done by rifling or rifling and sighting to use the new .69 Elongated Ball (Minie).

First consideration went to the M1842 muskets, followed by the older M1822 muskets.

Between 1856 and 1859, the two national armories altered 14,182 M1842 muskets with shallow rifling and long range rear sights, 4,363 of which being rifled only. In addition 9,126 bright and brown M1822 muskets were also altered by one of two methods:

1. The Third Type alteration achieved by replacing the breech end with a bolster to handle the increased pressures of the .69 Minie ball that "cone in barrel" versions could not well handle due to thin barrel walls.
2. A mechanical primer of a number of types, the most famous being the Maynard tape primer mechanism first under contract with Edward Maynard made by Daniel Nippes starting in 1848 and then in 1853 and 1854 having the government buy Maynard out and give the contract to E. Remington & Sons between 1855 and 1859,

### *Civil War Implications.*

The spectre of war as early as 1859 led the Ordnance Department to take a look and survey the numbers of weapons “on hand” that could be used in case of armed conflict. The Ordnance Department report for January 1861 states that the number of muskets of all types in various arsenals and armories was 525,948 of which 115,024 were held in facilities in the “South.” The previous 1859 survey found 275,744 M1822’s, 14,765 M1822 Maynard conversions, 33,631 M1822/M1835 percussion conversions, 213,155 M1842’s, and 25,105 M1855 rifle-muskets the majority of which at Harpers Ferry (8,599), Springfield (5,303), and Benicia CA (2,252 with 5,000 more in transit) and only 610 at Baton Rouge and 543 at San Antonio arsenals for a total of just 1153 in the South. But, looking at numbers, the most common longarms available, on hand, in 1861 was the M1822 musket in some original or altered form. As a result many a soldier on both sides, would start the war with a .69 arm of some kind and carry it until replaced with the .58 Springfield, the .577 Enfield, or any of a variety of other .54 or .58 calibre domestic or foreign made firearm.

Exact numbers of guns taken by Confederate forces from federal arsenals is not known largely due to post war propaganda deliberately withholding or under reporting the actual numbers. For example, arms taken at Harpers Ferry range from none, to 400, to 2,000, to 15,000 in reverse order.

The majority of overall war time infantry longarms used by Union soldiers were either manufactured at Springfield Armory by the government or purchased from sixteen contractors. It was also a portion of these arms that fell into Confederate hands for use as captures and battlefield pick-ups.

An 1866 report by the Ordnance Department of war time acquisitions of the federal government listed:

-1,472,614 ‘Springfield rifle muskets’

-428,292 Enfield rifle-muskets obtained from England

-795, 544 “all other muskets and rifles”

Springfield type arms make over 53% of the total number of longarms used.

This would be partially reflected in Confederate service

### *The Model 1855 Rifle-Musket.*

Innovations in rifle longarm technology *were* moving along in Europe at a quickening pace largely due to the efforts of the French and British moving towards a smaller more “bullet”

configured projectile *in* a rifled bore centering mostly around the designs of the French Delvigne, Thouvenin, and Minie, and the English Wilkinson and Pritchett.

The U.S. War Department decided to update the small arms of the U.S. military and ordered the Ordnance Department to both go to Europe to investigate, as well as set up trials and tests. This was done, and between 1853 and 1855 a series of three experiments were conducted looking at the best or most advantageous projectile shape, the length of the barrel, and the best form of bore rifling. In July of 1855, the Board of Ordnance having reviewed the findings recommended to Secretary of War Jefferson Davis that a small arms bore of .58 elongated ball (Minie/Burton) and barrel length of 40 inches be adopted. Approved by Davis, the recommendations evolved into the new M1855 Rifle Musket that included the paper roll primer Maynard system.

Between 1857 and 1861, 41,115 M1855 Rifle Muskets were made at Springfield Armory with 12,158 being produced at Harpers Ferry. The first version (today's Type I) was made between 1857 to July of 1859. The second version (today's Type II) was made between 1859 and early 1861. Enough were still in service in 1862 to see the War Department issue a manual for their use, "*Rules for the Management and Cleaning of the Rifle Musket, Model 1855.*"

#### *The Model 1861 Rifle Musket.*

All had not been rosy with the new M1855 Rifle Musket. One particular complaint centered on the weapon being rendered useless by the paper roll primers falling out of the lock, or their being ruined by moisture or rain. The Ordnance Board convened in Washington D.C. in May of 1860 to review the problems, as well as side issues such as browned weapons particularly rifles, rusting in storage, and the value of patch/grease/implement boxes in the butt stocks.

Their recommendation was to retain the M1855 configuration, but eliminate the Maynard tape primer system in favor of standard percussion caps, keep and not eliminate the patchbox (a new circular one had been suggested for the new rifle musket and that appears in the 1861 Ordnance Manual and 1863 Confederate Ordnance Manual), set the rear sight at three inches from the breech, and reduce the diameter of the ramrod head to reduce sticking. With the exception of the patchbox, the M1861 was about to be born when a new plan was approved in February of 1861. Springfield was given the task to set up the patchbox, and Harpers Ferry the job of redesigning a new lock and hammer. Plus innovations by Samuel Colt were seen as a positive, and there was already talk of shifting from the new Model 1861 to the Special Model 1861.

The outbreak of war in April, and particularly the capture of the rifle-musket works as part of the Virginia capture of Harpers Ferry would complicate things.

Harpers Ferry had already suspended production of the later model M1855 Rifle Musket anticipating having to retool for the new M1861. Springfield had also slowed down and was

starting to retool its operation. With the loss of Harpers Ferry, the government realized that Springfield was inadequate for the new needs, and set about expanding its staff and facilities after August of 1861.

For 1861, Springfield was able to produce 9002 rifle-muskets, only a slight improvement over 1860's 8,000 and on average about 1,000 a month. While exact numbers are not known, or time frames, the rollout of new M1861's to Union troops in the field was slow and small for 1861. However, with the late 1861 boosts, a total of 265,129 Model 1861 rifle-muskets were made at Springfield in 1861 and 1862.

#### *The Model 1861 Contract Rifle Muskets.*

As the very real prospects that the war was not going to be over quickly grew, it became immediately clear that Springfield Armory could not meet the demands for arms even in an enlarged and accelerated form going to three shifts seven days a week.

Almost immediately, a number of private arms makers and would-be arms producers started seeking contracts from the federal government to make M1861 Rifle Muskets. Ultimately, there would be twenty successful contractors making copies of the M1861 that were essentially M1861's in all ways except for the lock plate stampings and minor details such as stock and barrel stamp styles and forms totaling 491,438 (or roughly two-thirds of the total) between 1861 and early 1865.

#### *The Special Model 1861 Contract Rifle Musket.*

One of the arms producers that came forward in April of 1861 seeing in patriotism a chance for profit, was Samuel Colt. Colt saw a chance to change from supplying the private sector, to really doing well in the government arms business. Apparently unaware that the M1855 rifle-musket had already been nixed, he sought a contract or contracts to make them. He was able to obtain a July 1861 contract to make the new M1861 rifle-musket, but immediately had other ideas. Colt had acquired the P1853 "Enfield" machinery in Hartford Connecticut and Windsor Vermont left over from the bankrupted firm of Robbins & Lawrence caused by the British cancelling their contracts after they had set up machinery in England.

Colt saw the opportunity to be able to produce a rifle-musket cheaper than could Springfield. But more importantly, the "Enfield" type changes made to the M1861 design was an improvement and just happened to coincide with the Ordnance Department talk about making improvements to the M1861 version of the M1855 such as the M1861's weak curved hammer that on the M1855 curved around the lock plate hump. Colt's changes would be formalized in the M1863 Rifle Musket.

Although Colt had a jump, he had problems and did not start production until February of 1862 by which time SM1861 rifle-muskets made under similar contract by Amoskeag Manufacturing of Manchester RI, and Lamson, Goodnow & Yale Company of Windsor VT (the

successors t Robbins & Lawrence) had them flowing starting in September of 1862 beating Colt's first by a weeks.

Colt would go on to produce 75,000, Lamson, Goodnow & Yale 50,000, and Amoskeag 27,001 for a total of 152,001 or roughly one-fourth of all contract arms made. (Plus a few hundred assembled from surplus parts by Lamson when their company folded early in 1865.)

*The Model 1863 Rifle Musket (today aka M1863 Type I).*

The M1863 Rifle Musket was formally approved in February of 1863, not as the usual call for a board and with testing, etc., but more so as a continuing outgrowth of previous discussions about the short comings of the M1855 rifle-musket that resulted in the new M1861 that reached a head in April of 1862. It was also obvious that Samuel Colt's Special Model 1861 rifle-musket was seen as worth pursuing even the adoption of his SM1861 ran contrary to the interchangeable parts requirement of arms.

The Model 1863 was essentially yet another revision or improvement on the M1855 and M1861 rifle-musket with basically a different breech and bolster lacking a clean-out screw, an Enfield style hammer, the swell in the ramrod and its shaft made larger using a spring rather than the swell to hold it in the stock, open screw tightened blued bands instead of solid band, no band springs, and a color case hardened lock plate and hammer.

During March through December 1863, 273,265 M1863 rifle-muskets were made at Springfield creating a new production record.

A small but unknown number of M1863 rifle-muskets were made by several contractors who seemingly volunteered to change their production of their contracts for M1861's.

*The Model 1864 Rifle Musket (today aka as the M1863 Type II).*

Field reports coming in in the summer and fall of summer of 1863 reported problems mainly with the M1863's barrel bands becoming loose, the M1855 socket bayonet being loose, and the ramrod "jag" needing help to extract balls more easily led to discussion and correspondence to remedy them. To that list was added a simplification of the rear sight leaves. After much correspondence in late 1863, a revision to the M1863 was approved in December of 1863 as the Model 1864 (today aka as the Model 1863 Type II) rifle-musket out of the controversy on the period Ordnance folks and officers being lax and often talking about the Old Model and the New Model (which was commonly done).

And to simply production, the M1864 returned to having its color case hardened hammer and lock, and blued bands (sometimes blued screws) returned to being struck bright.

Between 1864 and early 1865, a total of 255,040 were made by Springfield Armory with no known contractor made examples. These would be given extended life shortly after 1865 as the basis for the new evolving Allin type "trapdoor" breech loading rifle conversions.

*The Virginia and "Richmond" (C.S. Armory Richmond) Rifle Musket.*

For all practical purposes, despite their evolutionary changes, the state of Virginia made and more larger produced "Richmond" rifle-muskets are essentially the later model M1855 Rifle Musket (M1855 Type II) being made by the Confederates on captured Harpers Ferry machinery.

In brief and to over generalize, the Confederates used Harpers Ferry parts until they ran out, then used their own manufactured replacement parts to keep up production of the M1855 rifle- musket with the obvious visual difference being an almost yearly reduction in the lock plate starting out with the full outline and then modifying the lock plate machinery to reduce the Maynard tape primer's "hump" to save on iron use. Or substituting brass for Harpers Ferry's iron butt plate and nose cap.

In broad terms, Richmond rifle-muskets roughly date based upon the height of their lock plate humps:

1. High or full hump from October 1861 through March of 1862.
2. Medium or "low" hump from March of 1862 when William Wentzel altered the cutting machinery for the lock plate. This made a "medium" hump and included a relief or recess to facilitate the percussion cap. March would also be the last of the iron butt plates.
3. Surviving originals show some variation in what is medium to low hump heights. At times, the top of the forward hump area may rise 3/16 inches above the barrel, at other times 1/8 inches with the finishing on the top of the hump being flatter on some and slightly rounded on others.

Using actual C.S. Richmond records in the form of production reported in pay roll records as well as estimates based on letters and reports, it is now shown that Richmond produced 31,014 rifle-muskets between October of 1861 and January of 1865.

Reproduction Firearms: The World of Out-of-the Box Commercial, After-Market "Defarbed" Work, Custom Built Offerings, Restored Originals, and Indian Model Guns or Decorator Guns

*A brief history.*

The history or reproduction firearms can be traced to the beginnings of the North-South Skirmish Association in May of 1950 at the Berwin Rod and Gun Club in Murkirk, Maryland and the creation of the association in 1956. At that time, choices of firearms to be used in competition had to be originals and later originals with replacement modern barrels.

In 1956 Val Forgett and William Edwards were talking about the feasibility and possibility of having reproduction Colt M1851 Navy's made which led to a relationship with the Brescia Italy gunmaking industry in 1958 to make a reproduction Colt M1851 Navy and then a brass framed "Griswold & Gunnison" type reproduction revolver. In 1958 Forgett thought it would be worthwhile to make a reproduction longarm, and Edwards suggested the Remington M1863 Contract Rifle.

Meanwhile, the production of reproduction Civil War arms sparked an outcry from among some Civil War era gun collectors. Their fears were that the reproductions would lead to widespread fakery and counterfeiting with them being aged and sold as originals. Collectors were split, but the minority who were vocal as well as respected such as John S. duMont waged a campaign to stop the new business.

In response, the Italian arms industry made concessions, those largely being that reproduction arms would be visually close, but would lack the exactness in size, shape, and configuration as well as having built-in "mistakes" such as wrong size or dimensions, wrong bore or chamber sizes wrong grip angles, wrong number of twists, having the rifling or twist go in the wrong direction, or having modern screws instead of Period. In addition, the arms would lack the correct Period makers' stamps and inspectors' cartouches and would carry modern Italian proof house stamps as well as maker information, importer information and location, and sundry warnings such as caliber and "Use Blackpowder Only."

In 1974 Val Forgett (Navy Arms) came out with a mixed model reproduction M1863/M1864 to supplement the 1958 "Zouave" and the 1970 "Mississippi" rifles. In 1974, Parker Hale of England came out with their P1853 inspired 4<sup>th</sup> Model based "P1853 Enfield Musketoon," followed by their "P1858 Naval Rifle" in 1977ish, and their rifle-musket in 1979ish. Not to be outdone, the Italians, who had had a hand in the Parker Hale project, cloned cheaper copies for themselves.

With the rise of interest in N-SSA skirmishing competition, and with the slow but steady small growth of reenacting in the early 1980's culminating in the explosion of interest starting with the 125<sup>th</sup> Anniversary Event series in 1986, the M1861 rifle-musket would be the next to appear. Dixie Gun Works contracted to have a M1861 made in Japan by Miroku, followed by an M1863. The Italians also released M1861's, one by Armi Sport and one by Euroarms. (Later Pedersoli would offer their own with higher quality control and a higher price.

In the 1990's the Italians would realize that they had the basis (close enough with but a few changes) to expand their range and market by utilizing models already in production. That would lead to a variety of spin-offs such as the "M1816" incorrectly reworked from their M1777 "Charleville;" a Colt style drum-in-side percussion alteration to their M1816 but with a civilian style wrong hammer, and a backdating of their M1861 to become a Richmond rifle-musket or an M1855 rifle-musket.

Also, beginning in 1995, Colt themselves created a limited line (1995-1998) of redone/refinished Italian made parts for the Special Model 1861 and built to higher standards as part of their Signature Series blackpowder offerings. Having already done the work, the Italians were quick to offer their own line of SM1861's with Amoskeag and Lamson, Goodnow & Yale markings.

To really complicate matters, the Italian makers alter, change, or make modifications to their products every so many years on average. So for the consumer there are several "variations" or forms of the same gun depending upon the age of the gun. As a result it can be very difficult to impossible to make universal statements about the quality and features. For example the first generation of Armi Sport M1861 rifle-muskets had plated stamped brass butt plates, barrel bands formed of sheet metal shaped into bands and welded close, a too thin lock plate, and a bogus looking hammer. Reproduction Italian P1853 Enfields had incorrect 4<sup>th</sup> Model Baddeley bands made of anodized black brass rather than heat blued iron 3<sup>rd</sup> Model Palmer bands. Or, some had brown painted stocks sealed with clear gloss polyurethane varnish sealer.

### *Reenacting and Living History Implications.*

There are five important and critically vital factors to remember when it comes to reproduction firearms:

1. The first is that reproductions were born out of a need or desire to NOT make reproductions actual authentic reproductions of original arms but to make them fall somewhere on a Sliding Scale of Imperfection where they resemble but do not copy the salient features and "looks" from a distance such as five, ten, or fifty feet away.
2. That Civil War reenacting evolved down different streams or along varying branches that had different requirements, needs, and wants for the level of historical accuracy, correctness, and authenticity for their firearms
3. That both Reenacting and Living History developed its own culture that while there were really focused and often precise requirements for the materials, patterns or models, and construction for uniforms and gear, a blind eye or at best a wink-and-nod was given to having accurate reproduction firearms. So, even with the rise of the Authenticity Movement non-accurate and incorrect firearms was, is, common and acceptable.
4. As a result of Nos. 1-3, the Italian reproduction firearm industry both well learned and became entrenched in a business model that the reenacting community as consumers would continue to line up to continue to buy what the Italian industry offered. (The two exceptions, to a limited extent, are the M1842 musket and the new Pedersoli P1853 Enfield which reflect some few criticisms and suggestions for improvement made by the Civil War community.

5. That over time, the exact nature of commercial offerings have changed every so many years so that one cannot talk about a reproduction M1861 Springfield or P1853 Enfield without realizing that one many have one of a number of slightly varying and differing versions even by the same maker. And in general, the near rule is that while some things improve, other things such as dimension and weight have incorrectly increased to where a reproduction is larger and heavier in as much as two pounds over the original it is supposed to be a reproduction of.

### *Out-of-the-box Commercial.*

Out-of-the-box Commercial offerings refer to the purchase and use of reproduction arms right out of the box as sold. For many newcomers to reenacting that is all they know as they or they units are fine with that level of authenticity or they believe their purchase is accurate and authentic otherwise the seller could not sell it.

### *After-Market Defarb Work.*

“After market” refers to either personal efforts or commercial services to try to improve upon the authenticity and accuracy of the out-of-the-box commercial offering whether it is actually brand new or has been used for years as is.

“Defarb,” “defarbing,” or “de-farbing” refers to attempts to remove what is wrong or incorrect about a commercial reproduction and the attempt to make it appear more like an original firearm. (So-called defarbing is a nearly useless and nebulous word or term because the scope and scale of Defarb work is so broad that it takes in a wide range.

Here is a partial list of some “defarb” work:

1. Removing the polyurethane stock finish and replace with linseed oil.
2. Removing the modern Italian stampings such as proof house stamps, makers’ name, importers name and address, calibre notice, black powder use only, and modern Italian serial numbers not required by U.S. Federal and State law (Hobby Myth that it is.)
3. Stripping the stock and dyeing it to more closely look like American Black Walnut on American arms
4. Removing and replacing bogus modern metal treatments or finishes such as cyanide simulated color case hardening or cyanide coloring posing as heat blued finishes on Enfield bands. Or modern hot tank type high gloss “wet black ink” bluing. Or mirror bright buffing machined barrels and locks, etc.,
5. Adding through restamping the Period Correct barrel stampings or stock markings and inspectors’ cartouches as used by Springfield, Harpers Ferry, Richmond, or for the Enfield the Birmingham Small Arms Trade, London Armoury, or commercial London makers.

6. Replacing incorrectly shaped or configured gun parts with correct restored original parts or reproduction of actual original parts not Italian versions
7. Removing oversized and excess stock wood to both lighten the overall weight but also to improve the look and flow of lines and mortising.

Usually, and in most circles where out-of-the-box is not the standard, the minimum defarbing required is usually just No. 1 and No 2.

Obviously, everyone has their own firearm knowledge, skill levels, and tools to do Defarb work. However, as it gets more and more complicated it can exceed what most lads bring to the table. For example, restamping metal and wood requires expensive hardened steel stamps. Stripping already stamped pieces requires skill and talent. Trying to get crisp, deep, and clean stamps in modern hard steels is next to impossible without a large several ton stamping press as hammer blows tend to glance off or leave very shallow incorrect imprints. As a result, advanced Defarb work may be best done by professionals.

### *Custom-Builds.*

Custom built guns are those built by amateur or professional gun maker/gun stockers recreating exact or exacting reproductions of original guns. By and large, the custom making of guns is a continuation of the Frontier tradition of gun makers working from scratch or from commercially available copies of original parts. Although not necessarily associated with Civil War military guns, the same knowledge, skills, craft, and art was applied largely as an outgrowth of the North-South Skirmish Association (N-SSA)

In the N-SSA, firearms that can be used are originals in proper condition, mass produced association approved for use commercial offerings, or custom-builds. Unfortunately perhaps, the N-SSA holds a double standard when it comes to reproductions. Traditionally, commercially made arms such as Italian imports get use approval with many errors and flaws that the custom made guns cannot pass review and inspection having. So, N-SSA style custom builds are exact reproductions except that some may have barrels with the wrong twist or rate of twist, or have sight modifications for 50 yard competition as well as individual shooter eye advantage or aid.

Even though modern reenacting largely grew out of N-SSA roots, reenacting went on to embrace the commercial offerings and pretty much almost universally ignored the possibility of actually being able to have a Period Correct or otherwise authentic firearm to use. Some defend or argue that the near total lack of authentic firearms in reenacting is a matter of not knowing about the custom building sources and resources. Other wags have groaned that it is a matter of hypocrisy of not wanting to pay 2-3-4 times the cost of an Italian commercial gun. And giving themselves permission to use a "farby" gun with their authentic clothing and kit. But now with the rise of the Euro and inflation, the cost of the new generation of Italian guns often

exceeds the cost of used custom builds, and even a new custom build may only be 1.5 or 2 times the cost of the Italian gun.

### *Originals/Restored Originals.*

For a number of years early on some reenactors and living historians thought that the most authentic firearm had to be an original because it was that was what was actually used in the Civil War. Unfortunately that would have been true had their choice of originals been surviving originals in the look, appearance, and condition they were in during the Civil War. Using a relic or antique with 150 years plus of age, wear, tear, use, and abuse or misuse, complicated by faded finishes, missing finishes and treatments, blackened stocks, dry fungus rotted stocks, insect eaten stock holes, missing parts, incorrect or wrong readded parts, homemade repairs with Elmer's' Glue or Plastic Wood, screws, or nails. etc., etc., is hardly authentic or period.

Instead, there is the refurbished and/or restored original. There is a crossover here with using restored or minty parts from a damaged original to receive new life mounted on say a new custom reproduction stock. But, the ultimate expression of this choice is fully restoring an original to its Civil War appearance and condition. There are a small number of lads who do this, and a small number of professional sources that also do the work. It is considered a radical thing, as Collecting Culture holds that the value and resell ability of an original is destroyed and mostly lost when even professionally and correctly "restored." But to those that choose this route, it is just the cost of "doing business" in having the ultimate firearm added to their impression and efforts.

There are also some negatives, such as the market for original parts leads some dealers and sellers to cannibalize or strip down surviving originals just for their parts as the profits from the parts may be three, four, five times the value of the intact gun.

### *Indian Export Model Guns or Decorator Guns.*

As a result of the fireplace and home decorating craze of the 1960's and 1970's, was a fad to hang a musket or rifle above one's new fireplace in the American frontier tradition. These tended to be non-firing, "non gun non firearm" decorators or "wall hangers' made more or less to somewhat look vaguely like a real gun or often more like an antique one.

About the same time, a new industry took hold in Japan that took zinc and plastic model guns that were fairly moderately enough close look-alikes to the real guns for the Japanese collectors market where real gun ownership was banned after World War II. The product line was expanded to include real wood for grips and stocks. As the concept caught on, and collectors became more demanding, a whole line of interesting and varying modern and

antique firearms were made to a high degree of visual but not structural or metallurgical quality as they were not made to chamber a round or fire one.

With the rise of the cost of Italian reproduction arms, the unavailability of many types of 19<sup>th</sup> and 18<sup>th</sup> century reproduction firearms, and the decline in the Economy, someone somewhere thought to take one of the low cost model guns and see if it could be made to fire.

Because the model and decorator non-guns are not firearms, they are not regulated or subject to the Indian Government firearms laws regarding materials, manufacture, and testing/proofing. To prevent them from being made to fire, the flintlocks types have no touch holes, and the percussion types have solid cones or nipples. Once shipped out of the country, several importers either sell them as is, drill out the touch holes or vents, and harden and temper springs or frizzens for them to be able to spark. Some do a single "proof" to see whether the metal and construction will survive a blank or live round being fired.

The quality of Indian model or decorator guns is varied depending upon the nature of the contract for how much detail goes into the cost, and how skilled individual shop or factory workers are in creating simulated parts from photographs. Typically, they are not very close to the original unless they are on the higher end 1:1 model scale.

For the most part, most all can be jury rigged to fire blanks and even live rounds. The larger issue of safety is that while their varied barrel and breech designs will contain a blank charge and even a live round if not overloaded there is grave concern among more knowledgeable people and people with firearms backgrounds who understand things such as pressure and metal fatigue, how pressures can be exceeded by accidental multiple chargings or a dirty bore, or how stressed metal can progressively lead to a catastrophic failure.

Seen as ticking time pipe bombs, and with a few explosions, numbers of groups and events are banning Indian model guns and decorators posing as firearms from events. However, pending more accidents, injuries, deaths, and then criminal prosecution and civil law suits many feel comfortable in using them in spite of the dangers.

### *What to choose as a longarm?*

Ideally, and most historically, one's choice and one's unit's choice of a longarm should be dictated by what type of longarm the unit and time period of the unit being portrayed were actually issued and used. However, that is often complicated by missing documentation as to what weapons they were or there is no reproduction made.

Civil War reenacting traditions and history have largely evolved since the 1980's to make the M1861 Springfield rifle-musket the preferred longarm for Federals and the P1853 Enfield rifle-musket the preferred Confederate longarm. Initially, because the Enfield was reproduced before the M1861 Springfield, it was the only option at the time for a universal 1861-1865 use

as the M1863 reproduction is too late for 1861 and 1862 events. Even though both the Enfield and the M1861 Springfield are a bit too late for the most early of 1861 in terms of representative numbers, the ability to be able to cover the whole war made them legion. By the same token, the M1842 Musket is generically a good choice for 1861 through 1865 even though it was phased out by the advent of Springfield production and Enfield importation- plus it would not have been seen mixed in with .58 arms due to ammunition supply issues and some reenacting units do not like trying to stack M1842's with Springfields and Enfields.

In generic terms of what was prevalent or commonly found during the (entire) Civil War, physical numbers of longarms make for an interesting view as well as concept:

1. The P1853 Third Model Enfield rifle-musket. While an exact count is not known, somewhere between 800,000 and 1,000,000 were imported for use by the North and the South.
2. The M1861 rifle-musket and the M1861 Contract rifle-musket with over 700,000 made.
3. The arsenal and contractor made 1822 in some form original or altered, with over 324,000 on hand in 1859.
4. The Model 1842 musket with about 275,000 made and with 213,155 smoothbore versions on hand in 1859 plus 33,633 on hand rifled.
5. The Model M1863 rifle musket with 273,265 made in 1863.
6. The Model 1864 rifle-musket with 255,040 made in 1864 and early 1865.
7. The Special Model 1861 Contract rifle-musket with 152,001 made between 1862 and early 1865.
8. The Model 1855 rifle-musket with 47,115 made between 1857 and 1861 with 24,105 on hand in 1859.
9. For Confederates, the Richmond Armory rifle-musket with 31,014 being made between October 1861 and January 1865.

For the Civil War soldier on both sides, for the overwhelming part the central government and sometimes the individual states issued weapons. A common concept was to arm and equip by regiments and if the availability of the same type of firearm did not cover the entire regiment, then "by like companies." For reenacting, in the absence of a set unit standard, often times a new recruit may buy a particularly longarm simply because he does not know the unit or impression research and documentation, or he simply "likes the look" of one gun over the other and the problem with using say a M1864 Rifle Musket for 1861-1863 events is not an issue of any kind or at any level.

*The best of the worst, or trying to make a silk purse out of a sow's ear.*

*The "Enfield."*

Previously we had looked at the vague hobby concept of trying improve the weaknesses and defects of mass produced reproduction Civil War era firearms through so-called defarbing or defarb work stretched out across a vague Sliding Scale of Imperfection as to how much or little or none is required to accurately interpret and portray a Civil War soldiers and to have a Believable Image for oneself, one's pards, and the spectating public.

The best of the worst reproduction Enfield was made by a now gone joint venture of the English Parker-Hale, Ltd. company and the Italians known as the "Parker Hale" Enfield. It was made using the original pattern gauges but sadly is the P1853 4<sup>th</sup> Model rifle-musket NOT used in America (with extremely few late war exceptions). While the form is correct, it still lacks the correct markings and stampings.

Considered by many to be the best "out of the box" P1853 Third Model Enfield rifle-musket is the new offering by Davide Pedersoli who bought out Euro Arms (Euroarms). While it still has size and weight issues, and is made of the incorrect American Black Walnut, it is the closest reproduction available. However, it still need some defarb work as it carries modern Italian stampings as well.

Next is the Armi Sport (aka Armi-Chiappa) version, it being the P1853 Fourth Model not used in the Civil War. The more recent version comes with the correct Third Model Palmer bands but they are cyanide colored rather than heat blued.

Next in line is the Euro Arms (aka Euroarms, aka Armi San Paolo)) P1853 4<sup>th</sup> Model rifle-musket. Euro Arms was recently bought out by Pedersoli.

And last, as a mix between Armi Sport and Euro Arms, is the Italian (Euro Arms spin off) "Parker Hale" P1853 4<sup>th</sup> Model Enfield it being essentially a cheaper version of what the English Parker Hale was. Some refer to it as the Italian Parker Hale versus the "British Parker Hale Parker Hale."

### *The "M1861 Springfield."*

Overall the best M1861, M1863, and Richmond rifle-muskets ever made were the limited production offerings of Mike Yeck of Dundee, Michigan in the late 1970's and early 1980's. Unfortunately, quality control issues and prices higher than Italian imports doomed the effort. These are legendary in their Holy Grail scarcity.

In the top of the bottom or best of the worst realms, the next "best" is the Dixie Gun Works/Miroku M1861 roughly from the 1980's but continuing a bit longer into the 1990's in kit form.

Next is the fairly recently made M1861 by Pedersoli using parts made by Euroarms but to Pedersoli's higher or tighter specifications and Pedersoli quality control. As a result, they are priced higher than Euroarms or Armi Sport.

Third in line is the Euroarms M1861.

Fourth is Armi Sport.

*The M1855 Rifle Musket.*

Having already made an M1861 rifle-musket, both Euroarms and Armi Sport realized that with few additional production changes they could offer an M1855 rifle-musket. Euroarms chose to make a late model M1855 (aka Type II) while Armi Sport elected to offer the early model (aka Type I).

In brief, all of the problems associated with the M1861's are found with the M1855, as well as other such as incorrect rear sights as Armi Sport simply used the rear sight form their rifled-and-sighted M1842 while Euroarms conveniently used their M1861 rear sight both of which are wrong for the M1855.

*The Richmond Armory Rifle Musket.*

As with slightly modifying their M1861 production to offer a M1855 rifle-musket, both Euroarms and Armi Sport made a few changes and released a Richmond rifle-musket. The Euroarms version has an "1862" dated lock plate, and the Armi Sport carries an "1863" date.

*The M1863 Rifle Musket (aka Type I)*

Euroarms offers a M1863, and also makes them for importer Dixie Gun Works.

I believe that Navy Arms also imported the M1863 made by Euroarms.

*The Model 1864 (aka M1863 Type II).*

With the exception of the 1958 introduction of the Remington M1863 Contract Rifle (aka "Zouave," the first reproduction Civil War longarm 'three bander" was the Italian made "M1864 Springfield" by the now defunct Navy Arms Company in finished as well as kit form. It is considered by some to be a "mix model M1863 and M1864 as it is basically a M1864 but with some M1863 parts likely the result of its original prototype having some parts swapped out.

Miroku of Japan, and the importer Dixie briefly offered a M1863 in finished and kit form. Unfortunately as with their M1861 quality control seems to have been an issue and varies over early versus later production which may have contributed to both the Miroku M1861's and M1863's demise.

*The Special Model 1861 Rifle Musket.*

After an initial failed effort within the North-South Skirmish Association membership in the early 1990's, Colt took over and had SM1861 parts made in Italy and then assembled to Colt standards starting in 1995 as part of their "Signature Series" of blackpowder Colts. Because it was marketed as "made in the USA" and being a true Colt Colt, it was higher priced than its Italian competitors and sales were sluggish enough to see it dropped in 1998.

In 1998, Chattahoochee Black Powder Arms, a powder distributor took up the slack and started selling Italian made SM1861's but with Amoskeag and J, G & Y markings.

*The Model 1842 Musket.*

The Armi Sport M1842 musket is the best overall "out-of-the-box" reproduction requiring the least amount of defarb work other than the replacing of the cast-on steel front sight which should be replaced with a brass bladed version.

As with the "variations" that can use the basic M1861 rifle-musket, the Italians later offered the M1842 smoothbore or a rifled-and-sighted version form. Between 1856 and 1859, a total of 14,182 M1842's were altered, of which 4,363 were rifled only and not given a long range rear sight.

*The Model 1822 Musket (aka M1816).*

As had been done with the M1816 rifle-musket to spin off the M1855 and Richmond rifle-muskets, Pedersoli basically took their M1777 "Charleville" and reworked it to become their so-called M1816 musket. Because of the errant "Model 1816" label, the Pedersoli carries the 1816 date.

Having the M1822, Pedersoli also reworked it slightly to make a percussion alteration. The version they selected was not the common Belgian or French "cone in barrel" conversion but rather the "drum in side" method. However, what they chose to do was use Colt's M1854 Russian and Italian Contract Musket side drum but not with a Colt hammer (these being M1822's altered by Colt). AS a result, one needs a fiction such as the Colt hammer was lost and replaced with civilian style hammer by a Southern gunsmith. It could potentially be swapped out for a correct Colt hammer, but they are extremely scarce and impossible to find.)

## Commercially Available Defarb Resources

There are a number of individuals and businesses who offer a full range of (so-called) defarbng services on a progressive scale of fee-for-service defarb items across the wide range of accuracy or authenticity modifications or replacements. Some do brilliant work, others average work, and each has their supporters and detractors. They are listed here as a matter of availability and it up to the reader to do the research of the literature so as to meet their defarb needs by being an educated consumer and informed customer.

-Todd Watt is considered by many to be the premier retroversion and after-market defarb gunsmith around.

-Bill Osborne of Lodgewood Manufacturing offers defarb services as well as being a source for original parts, reproduced original parts, and defarb services.

-Terry Schultz of The Company Quartermaster offers defarbed Enfields struck bright.

-John Zimmerman of Harpers Ferry, West Virginia offers custom-built arms as well as defarb services but has sometimes come under criticism for less than professional work and incorrect work at times. Work attributed to him has been brilliant as well as incorrect or shoddy.

## Summary

Firearms remain the last bastion of accepted farbery in Civil War reenacting and living history. With few exceptions even at the most hard-core and authentic minded end of the spectrum, many make excuses and near blindly look the other way when it comes to their weapons that they do not accept or allow for their uniforms and equipment.

The list or reproduction firearms errors and weaknesses are extensive and detailed specifically to the gun model or type. Historical points and what can be done or not about them can be found in archived and on-going posts and discussions on several Civil War on-line boards. They are also addressed in Craig Barry's [The Civil War Musket: A Handbook for Historical Accuracy---Lock,, Stock, and Barrel.](#)

An example of "detail" can be seen in one of my past postings on the reproduction Model 1861 Rifle Musket::

"In addition to the wood and metal finish, and Italian markings:

1. Quality Control varies (fit and finish vary).
2. A barrel that is heavier, wider, thicker, of a different taper, and off a few thousandths from .580. and weighs almost two (2) pounds more than the original Some Armi Sport barrels are slightly shorter than 40 inches.
3. A barrel that lacks the "V, P, Eagle head" stampings for "viewed, proofed, and accepted into Government service."
4. A lockplate that is thin and inlet too deep (flush) with the lock mortise, and that is thin enough to be screwed down to the point of binding the internals.
5. The lock "internals" are not always properly hardened, tempered, finished or polished.
6. A cone (nipple) that may have too small of flash hole (so-called "N-SSA competition nipple").
7. A cone bolster that is squareish rather than gently rounded.
8. An Italian hardwood stock instead of American Black Walnut, of larger dimensions and proportions to accommodate the larger barrel.
9. A weak profile, thicker, and more squareish comb on the stock.

10. The hammer is shorter of a slightly different configuration than the original.
  11. A thicker wrist on the stock. And a squared and not rounded comb profile.
  12. Band springs with squared instead of rounded ends, and the stock mortising that are shallow and square ended.
  13. A nose cap with a weak profile and indistinct features.
  14. A butt plate with a short tang with a different shape, as well as a tang with a shallower curve. And the "US" stamp stamped incorrectly below the tang screw. It is stamped metal not cast, and the tang is flat not gently rounded.
  15. Sling swivels that are screwed on instead of riveted.
  16. The absence of the rectangular or sometimes oval two or three letter "inspector's cartouche" stamp (or sometimes two stamps) on the stock flat opposite the lock where the lock screws go.
  17. Markings and stampings, such as the eagle motif, and year or production, year of barrel production, etc. that resemble but do not match the original markings.
  18. Missing "U's" for "up" on the right side of the barrel bands (original bands have an internal taper that allows them to slide over the tapered forestock, so "up" is important...).
  19. Metal used to be finished mirror bright instead of Period Armory Bright. However the newer Armi Sports have gone too far and "frost" the barrels now, which can be restored to a period sheen with a little Elbow Grease work.
  20. Older Euroarms had thin metal stampings for buttplate, and the bands were thin strips of steel welded together instead of castings.
  21. These reproductions vary a little among themselves over time, so some features may change a little depending upon how "old" the particular Armi Sport is. Newer ones have the "V, P, Eagle head," barrel proofs, and band "U's" (for this side "up"), rivets instead of band screws, etc.,
- Armi Sport M1861's have a reputation for misfires partially because of the bolster design (a 90 degree flash channel), weak mainspring, shorter hammer throw than the originals, and "N-SSA Competition" cone (nipple) with a pin point sized vent.
- The internal lock parts are castings of soft, low-carbon steel, and not fit, finished, or properly hardened and tempered. As a result, they are soft and will not last as long as "originals."
- All in all, when all is said and done, the Japanese "Miroku" reproduction is the "best" (hate that term) or "best of the worst." They are no longer made, but float around used.
- Second Best, is the Euroarms because it is "closest" to the original M1861 (by degree only). Its lock will take original parts, which actually would cost more than the whole Euroarms Springfield, BUT also take reproductions of original parts for many years of no lock failures."

The following is a partial list of complaints made against reproduction firearms:

1. **Cost.** With the fall of the U.S. and the rise of the Euro, the cost of some new guns has pushed passed the \$1,000 line. When a moderate amount of defarb work is added, the out-of-pocket cost can run as much as \$1,200-\$1,500. That can be compared to the cost of an authentic custom-built at say \$1500-\$2,000. It also becomes interesting when used custom-builts can be found for as little as \$500-\$600 sometimes. It is also interesting when some lads will have three or four defarbed reproductions totaling over \$2,000 but balk at having an authentic custom made firearm for the same or less money.
2. **Accuracy in details.** Having been made purposely to be discernable from originals and hard to fake or counterfeit, AND the Civil War Community having readily accepted and used whatever the Italian firearm industry has made for over 50 years, they are simply not accurate or authentic when it comes to materials, finishes, markings, stampings, etc. And many or most do not care much or at all or shrug their shoulders and make excuses.
3. **Weight and Bulk.** Reproductions can weigh from one pound or over two pounds more than the originals and typically are "beefier," larger, and bulky to handle and carry.
4. **"Misfires."** Seemingly random or nonexistent quality control issues can make for lock malfunctions. Improperly heated and tempered mainsprings can be too light or bear trap heavy. Production simplifications to the percussion cap flash channel or touch hole and the use of small vented competition cones (nipples) can lead to misfires due to weak caps and the right angle turn of the flash channel. Improperly cleaning clogs both the cone and the flash channel.
5. **Bayonet issues.** This is not so much the fault of the reproduction firearms but more the fault of low quality Indian or Pakistani reproduction bayonets that are of random sizes so as to be too small and not fit or too large and rattle around.
6. **Complaints and Suggestions.** A number of lads, over the years have complained, written to, and even talked to the Italian arms making companies even sending images of originals and even originals for use in correcting problems. Unfortunately, the business model and past 50-some year history give them little or no incentive to change much.

Reproduction firearms have evolved along lines that that have not kept pace with the rise of authenticity standards that strive toward the use of Civil War period raw materials, patterns and forms, and methods of construction or manufacture in clothing and equipment. The impossible lack of any national organization to unite the diverse Reenacting Community under one set of enforced standards for high levels accuracy and authenticity allows for wide variations. Combined with the Italian reproduction firearm industry's history and business model these factors have led many reenactors and living historians to lack knowledge about historical firearms, to lack research references or access to originals, to have little or no interest in authentic weapons, and to continue to line up in numbers to purchase whatever the Italian reproduction firearm industry choses to make.

With the rise of interest in greater historical faithfulness and accuracy in uniforms, gear, and weapons in the mid 1980's and particularly in the late 1990's, numbers of reenactors and living historians at individual levels and often times at group or unit levels have tried to raise the bar and make improvements (aka "defarbs") to the stock out-of-the-box Italian commercial products.

At its minimum, that often involves no more than the removal of the modern bogus barrel stampings and the stripping of glossy polyurethane varnish stock finish to be replaced by modern boiled linseed oil alternatives. At its maximum, that can involve removing excess wood, reshaping incorrect shapes and contours, dyeing or tinting the incorrect stock wood, replacing incorrect parts with restored original or reproduced original parts, adding correct barrel markings or stock stampings such as inspectors' cartouches, properly hardening parts and fine tuning the lock action, and removing the incorrect modern metal finishes and correctly simulating, replicating, or duplicating them.

Last, there are very few who personal growth and Mental Picture of what they see themselves doing and where they see themselves fitting in leads them further down the Sliding Scale of Imperfection. Those few, those very few, realize that there is only so much one can do to an incorrect reproduction firearm to try to make it "less wrong and more right" before one sadly realizes that the attempt at a silk purse still marred by its being a disguised sow's ear. While Perfection is an unreachable goal, as sometimes things cannot be done 100% such as in the use of iron rather than modern hard barrel steels for barrels, much to the naked eye unaided by chemical or metallurgical tests things cannot be perceived as "not right" in the otherwise exacting world of custom made reproductions known as "custom builds" that are the ultimate form or reproductions.

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