

MODEL 1841 RIFLES VIRGINIA ALTERATION – HARPER'S FERRY CONNECTION

by George Susat

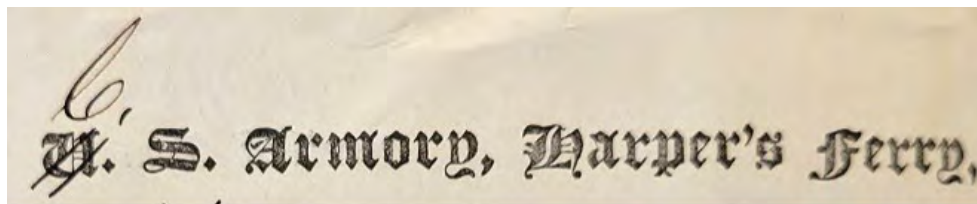


Figure 1. Images of C.S.A. soldiers from Louisiana (left), North Carolina (center) and Texas (right) with Model 1841 rifles.

In April 1861 the secession crisis escalated. The bombardment of Fort Sumpter led to a series of events: President Lincoln called for troops, Virginia seceded and Virginia Gov Lecher called for troops. While, President Davis was inaugurated in Montgomery, Alabama on February 18, 1861; the secession of Virginia and other states changed the situation. Virginia offered Richmond as the capital, which was accepted. The Confederate (C.S.) government set the date of July 20 to start functioning in Richmond. All over the south troops were being organized, enlisted and begin training. In addition, all those new troops were going to need arms, uniforms and equipment. Troops, arms and supplies started moving across the south.

Abandonment of Harpers Ferry

Lt. Rogers of the U. S. mounted rifle regiment, and his contingent of troops were instructed to hold the Armory and Arsenal if possible, and destroy it if needed. In the surrounding area several units of Virginia State troops, were waiting. With the secession of Virginia on April 17, 1861, Lt. Rogers decided it was time to destroy what he could and retreat with his limited force. Lt. Roger's men had placed combustibles in the Arsenal and the Musket works complex. Those were ignited and the last federal presence left north into Maryland. Townspeople came out of their homes and

worked to put out the fires. Virginia State units in the area came into town and assisted in firefighting duties. The Federal Arsenal and Armory at Harpers Ferry came under control of the State of Virginia.

Virginia started mobilizing the state militia. Robert E. Lee was commissioned as a major general in the Virginia State Troops. Several locations were established for troops, equipment and supplies to be concentrated. Some locations, such as Harpers Ferry, were close to the border and were intended to be defended. Others were spread out over the state close to the areas from which they were to concentrate troops. Additionally, the C. S. government ordered troops from other states to Virginia. Concentration centers included Staunton, Richmond, Norfolk, Lynchburg, Culpeper Courthouse, Harpers Ferry and Williamsburg. In Richmond, an inventory was taken at the Richmond Armory.

"RICHMOND Armory, April 30, 1861. General J. E. Johnston, Virginia Volunteers:

Sir : On inquiry from the armorer here, I find we have on hand the following arms: Altered muskets, 1,500; flint-muskets, 6,000; English muskets, 300; Sharp's carbines (rifled), 93; Harper's Ferry rifles (sword-bayonets), 300; Virginia altered rifles, 250; flint-rifles, 300; T.J. S. altered rifles, 50 ; revolvers

of all kinds, 170 ; flint-pistols, 400.

I have the honor to remain, general, your obedient servant,

JNO. S. SAUNDEES, Captain Virginia Volunteers."¹

The entire south was taking inventory of weapons on hand. Most were smoothbore .69 caliber muskets, many still flintlocks. There were, however, thousands of Model 1841 rifles across the south.

Inventory of Model 1841 rifles in the south

From 1849 until 1860 - 10 southern states drew a total of 8,751 rifles under the 1808 Militia Act. Mississippi had the most with over 1,700 and Alabama the fewest with 310, except for Arkansas with zero.²

In 1859 the Secretary of War transferred 10,000 1841 rifles to arsenals in five southern states:

- 2,000 to Fayetteville, North Carolina
- 2,000 to Charleston, South Carolina
- 2,000 to Augusta, Georgia
- 2,000 to Mt. Vernon, Alabama
- 2,000 to Baton Rouge, Louisiana³

This brought the total of 1841 rifles in the South to almost 19,000. This represented the highest number of rifled weapons in the South. Almost all of the 1841 rifles were unaltered, still in .54 caliber and no provision for a bayonet. There were a number of Harpers Ferry altered 1841 rifles, which had provisions for a saber bayonet but were still in .54 caliber.

Harpers Ferry, West Virginia

On April 27 Col. T. J. Jackson was ordered to Harpers Ferry to take command. His orders included:

- Defending the state;
- Preparing the arms making equipment for transfer to Richmond;
- Enrolling companies called to service;
- Organizing regiments from enrolled companies.
- Salvaging arms, and parts from the Armory⁴

In the communication between Col. T. J. Jackson and Maj. Gen. Robert E. Lee, there is an ongoing discussion of allowing the rifle works to perform as much production as possible. The focus on preparing the machinery for moving is on the Musket works machinery. Maj. Gen. Lee instructed Col. Jackson to offer a bounty of \$5 for any modern arms picked up by troops or citizens in dealing with the fire. A grading scale was established for lesser quality arms. Col. Jackson was also authorized to issue what he had to troops enrolled into his command. In his correspondence Col. Jackson comments about the 1st Kentucky, about 480 strong is requesting arms. He mentioned that he offered them percussion conversions, but they refused. It appears that in May or June they were issued 1841 rifles.

Lynchburg, Virginia

On May 1st Lt. Col. E. K. Smith was informed that three regiments from Tennessee, two from Alabama, two from Mississippi and one from Arkansas would concentrate at Lynchburg. This was in addition to the troops from Virginia that were present or in the

process of mobilization. Gen. A. Early arrived in Lynchburg on May 16, 1861 and took command of the Virginia forces there. He found a number of independent companies of infantry and artillery. Their state of equipment and weapons varied. His initial report talked about how most of the companies had only basic military training.⁵ From the correspondence, troops arriving would be inspected for weapon and equipment status and military training. When the unit progressed to an acceptable level, often it would be assigned to a different location closer to the border. In addition to troops, many southern states sent shipments of arms. North Carolina sent 1,500 of their 1859 allotment of 1841 Remington Rifles to Virginia. With the shortage of rifled weapons, many units had the two flank companies issued rifles and the other eight companies issued smoothbore muskets. Five hundred rifles of the allotment of 1841 rifles for North Carolina were issued to North Carolina companies. Also, Alabama sent 1841 rifles to Virginia from their 1859 allotment. Several regiments were issued 1841 rifles in Virginia including the 1st Kentucky, 2nd Tennessee and 7th Tennessee. In the first quarter of 1862, 1,552 saber bayonets were issued to: 3rd Alabama Infantry, 6th Alabama Infantry, 1st Kentucky, 21st Mississippi, 2nd and 7th Tennessee.⁶

The period from April through June, 1861 presented many moving parts. It was a situation changing almost daily. Virginia companies reporting for duty at various levels of arming and training. Companies, battalions and regiments also were entering Virginia from other states, again with various levels of arming and training. Weapons and equipment were moving into Virginia from other states as well as within the state to troop collection areas. Inspectors were traveling from one location to another assessing the troops.

Culpeper, Virginia

In Culpeper an inspection was performed on the units there with a total of 675 men. Of these men 305 had arms. One company of 100 men had 100 flintlock arms and no equipment and no ammunition. Three of the companies had about half their men armed but no ammunition. The group in total had 1,900 cartridges.⁷ At this time troops were being issued smoothbore muskets still in flintlock. Correspondence often mentions "muskets made as percussion" and "Altered Muskets". Even into 1862 some troops in the field were carrying flintlock muskets. Also, some units with 1841 rifles were having modifications to attach saber bayonets. In Lynchburg, William B & Cyrus Fisher repaired 65 rifles of Capt. George Fields company. This repair included providing saber bayonets and attachment. It is important to note that the receipt was in the captain's name and for his company's rifles. William B & Cyrus Fisher also converted flintlock arms to percussion for the South. During this spring of 1861 modifications to 1841 rifles to accommodate bayonets in the Virginia theater seem to be made on unit levels with local gunsmiths.⁸ While data is scarce, given that Richmond Armory was not operational, and the speed that units were moved around, local sources seem the most likely. This is supported by the difference shown in surviving examples.

The most prolific of the gunsmith alterations seems to be Hapoldt in South Carolina, there is documentation of several hundred alterations.⁹ His alteration method has been identified. He added a bayonet lug to the barrel. With the addition of a bayonet lug, the front barrel band needed to be modified so be able to be removed from the barrel. Hapoldt's method was to leave the front top bar-

rel strap and remove material from the lower portion of the front of the barrel band. This enlarged the front opening to provide room for the bayonet lug to fit through when the band was removed. The typical definition of "The Virginia Alteration" has been any C. S. alteration that is not a Happpoldt.

Given the nature of the fluidity of the spring and summer of 1861, many gunsmiths across Virginia and or the rest of the south performed this work. There are examples of many different styles of alteration. This work was unlike the pre-war modifications made to military arms. A design was not submitted for review and approval. Rather, perhaps on a company level, a gunsmith was hired to make the modifications to the best of his ability. He might make the bayonets or purchase the bayonets from another source. It is rare to find a surviving rifle with identification to a particular unit and have the matching bayonet.

In addition to the work of shortening the front barrel band and permanently attaching a saber bayonet lug, another option was developed by several bayonet manufacturers. Various detachable metal rings were produced and mated to bayonets. Boyle and Gamble in Richmond produced rings and bayonets. Boyle and Gamble marked their rings. The ring slipped over the end of the barrel and had a screw that when tightened, held it tight to the barrel. The ring and bayonet would be fitted together and stamped with mating numbers. This solution could be sent to the field and installed by military ordinance personnel. Other bayonet manufacturers such as Cooke and Brothers and Kenansville also produced rings.

Harper's Ferry, West Virginia

In looking back at Lt. Rogers report, a court of Inquiry was held in November 1861 to look deeper into the situation.

Lt. Rogers testified in a court of inquiry:

*ROOM OF COMMITTEE ON NAVAL AFFAIRS,
November 15, 1861.*

The following is an excerpt from his testimony that clarifies any damage to the rifle works.

".....The rifle works were situated half a mile up the Shenandoah from the main works, where the troops were, and were left undestroyed; no attempt to destroy them being made for the reason that it would probably have led to the defeat of the plan which had been formed, as I was surrounded by spies and persons in the interest of the rebel cause, who watched every movement and everything that was done. I feared that by attempting too much I should fail in everything, and therefore confined myself to what I was certain could be accomplished." ¹⁰

This report states the Rifle works suffered no damage from the Federal army forces that burned the Arsenal and the Musket works. Col. T. J. Jackson was ordered to report to Harpers Ferry on April 27. When he arrived, Philip Burkhardt asked to take control of the Rifle works and stated he could put together 1,500 arms.

Payroll records exist for the period of April 18, 1861 through June 10, 1861.¹¹ There are separate records for the Musket works and the Rifle works. It is interesting to note that the Musket works records are signed by a Transportation Office while the Rifle works records are signed by Master Armorer Philip Burkhardt. The records are also signed by the commanders of Harpers Ferry. I ex-

amined the payroll records for the period from April 18 through the end of June for both the Musket works and the Rifle works. The original records are lists of names of the employees, a description of the work or their job title and a number of days worked. It is interesting that the Musket works and Rifle works are two separate series of forms. The Musket works are written on individual forms with printed heading for the U.S. Armory Harpers Ferry. The "U" is typically marked through and a "C" hand written above it. The work listed under the Musket works is predominantly related to making crates and packing machines, tools and parts. The Rifle works records are preprinted forms bound into books and have the "US" crossed out by hand and "RIFLE" written in.

Musket Works – Payroll Records

The Musket Work forms are signed by "M. E. Price, Master of Transportation" (Figure 2). The musket works payroll records list a total of 262 men working during this period. Most fell under the Transportation Department; however, several other departments were present. Other departments were: carpentry with 11 workers, the smith with 31 workers and the machine with 29 workers and the forging with 28 workers. While most workers in the forging listed their tasks as moving machinery, there are some exceptions. In April 1861, H. W. Chapman spent six days "casting and fixing grape shot", Jacob Crout spent six and one-half days "making case hard S" and Wm. Kirby spent nine days "making case hard S" and Wm. Nicholson spent eight days "casting grape". In May 1861 Both Chapman and Nicholson spent 25 ¾ days "casting grape."

While there are a few entries of employees assembling arms, they are only a few individuals. For example, from April 18 to May 18 Otho Hewitt spent 26 days "Cleaning and assembling guns" and from May 18 to June 1 he spent 12 days "assembling guns". Another type of effort was going on at the Musket works; fabricating ammunition. From April to June 1, 25 men put in 557 ½ man days on "Cartridges". One carpenter noted "Mounting Cannons" for his task.

Rifle Works – Payroll Records

The Rifle works payroll records are separate from the Musket works payroll. The same heading on the preprinted forms have both letters of the "US" crossed out, but "RIFLE" is written above (Figure 3). I counted over 150 separate names in the list of employees. The trades mentioned were: filer - 85, forger - 29, barrel borer - 7, miller cutter - 7, temperer - 6, grinder - 3, browner - 4, ramrods - 3, polisher - 5, driller - 1, rifler - 5, turner - 3, annealer - 2, assembler - 4 and barrel straightner - 1. What is not shown in any of these payroll reports is a summary of the work accomplished.

1841 Harpers Ferry Rifles

A number of years ago I purchased a Harpers Ferry 1841 rifle which was somewhat unusual. It had no sight or bayonet modification but was in .58 caliber and had a number stamped inside the lock and lock recess. The previous owner mentioned he thought it was a C. S. alteration. Then when Trevor Bovie's collection was dispersed I purchased a "Virginia Alteration" Harpers Ferry 1841 rifle. This rifle had a sliding leaf rear sight, a bayonet lug and the upper barrel band had been shortened. This rifle was also .58 caliber and had a number stamped inside the lock and lock recess. I was familiar with the rifle pictured in Murphy and Maddus's book *Confederate Rifles and Muskets* that had an identification to the 1st

Rev. M. E. Price
 Foreman.

Duplicate.

No. 3

Approved: M. E. Price
 Mast. of Transportation

Approved: Newton Harper
 Late Mas. Genl. Comd

Approved
 T. J. [unclear]
 Col. Va. Vt. C.
 Late Capt. P. M.

Figure 2. Signature on the payroll records for the Musket works at Harpers Ferry signed by M. E. Price, Master of Transportation (top) and listing of workers, their occupation and time worked at the Musket works at Harpers Ferry from April 18 1861 to June 1st (bottom).

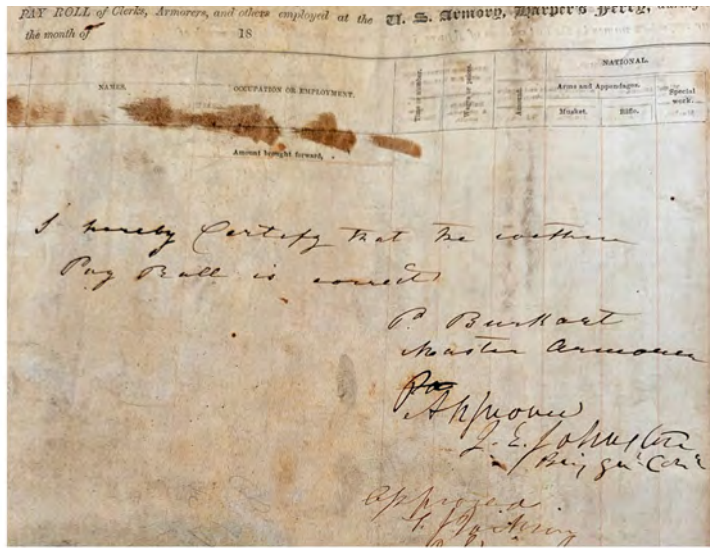
PAY ROLL of Clerks, Armorer, and others employed at the **U. S. Armory, Harper's Ferry,** during the month of April 18th 1861 to June 1st 1861

NAME	OCCUPATION OR EMPLOYMENT	Days or parts	Rate	Amount	MONTHLY		
					Amount	Exp.	Special work
Amount brought forward							
	Machinist & Foreman	55	2.00	28.14			
Geo. H. Buehler	Machinist	12	1.50	2.20			
Sam. S. Jones	Cartridges	382	1.25	10.90			
Chas. H. Wilson	"	32	.90	3.90			
Mrs. Corde	Moving Machinery	10	1.50	2.69			
Dan. Boyle	Cartridges	31	.90	5.80			
Mrs. Kelley	Moving Machinery	20	.90	4.00			
Mrs. Foubie	"	29	1.35	11.80			
Thos. Wright	Cartridges	13	1.25				
Chas. P. Jones	"	11	1.25				
J. R. Martin	Repairing Arms	21	1.50	7.98			
James Smith	Cartridges	36	1.50	10.61			
Dolph. Clouston	Packing Machinery	15	1.90	9.91			
Geo. Nichols	"	36	1.90	18.31			
J. Harrington	Cartridges	32	.90	11.90			
Marshall Kripps	"	34	.90	9.72			
Cesar Gumpf	"	33	1.50	9.25			
C. Harrington	"	32	.90	2.84			
Walt. Duke	"	33	.90	.18			
Walt. Cavalier	"	34	.90	5.81			
Wm. Sawalys	Packing Machinery	21	1.50	4.17			
Wm. Cox	Cartridges	34	.90	5.46			
Lorain Duke	"	32	.90	2.92			
Walter Crutcher	"	27	.90	5.43			
Wm. Kelley	"	15	.90	5.52			
Mrs. Schilling	"	32	.90	5.24			
Wm. P. Long	Machinery	33	1.50	10.48			
Martin Wood	Labeling Boxes	32	1.70	6.17			
Lucius Smith	Cartridges	27	.90	7.23			
Mrs. Steadman	"	21	.90	7.51			
Wm. Schilling	"	17	.90	2.58			
Amount carried forward							

Kentucky.¹² Indications were that his rifle was issued to the companies of the battalion that later became part of the 1st Kentucky. I was able to contact someone who pointed me to Fred Novey, who had studied the Long 1st Kentucky 1841 rifle. It too had a number stamped inside the lock and lock recess. The number 62 was in a font that matched the font in my two rifles. So, I started researching the time frame when the Harpers Ferry complex was under Virginia control. These three rifles in .58 caliber and two

with C. S. "Virginia" alterations to the front barrel bands could be part of a group that were converted. Another Harpers Ferry rifle came to my attention in Chip Beckford's collection. While this rifle does not have a stamped number, there is a scratched roman numeral inside the lock in a similar location to the stamped numbers. (Figure 4)

In comparing these four examples the one constant is that they all are .58 caliber. The rear sight differs and one does not have a



PAY ROLL of Clerks, Armorer, and others employed at the ^{Rifle} U.S. Armory, Harpers Ferry, ^{factory}
the month of May, to the 3rd of June 1861

NAMES	OCCUPATION OR EMPLOYMENT.	Time or number.	Wages or price.	Amount.	NATIONAL.	
					Arms and Appurtenances.	Special work.
				Market.	RIFL.	
Amount brought forward,		Days				
Burkhardt Philip	Master Armorer of Co. Factory	50	8.44	192.50		
Duck, Walter S	Clerk of R. P. Foreman	30	4.00	120.00		
Young, Geo. J	Foreman	13	2.60	33.80		
Kenneth, James	Tamperman	7 1/2	1.90	14.25		
x Mill, Samuel	Grinder	20	1.90	38.00		
+ Auger, George	Shiler	18 1/2	1.80	33.30		
+ Nicholson Robert	"	15 1/2	1.90	29.45		
+ Burk, G. W.	"	24 1/2	1.00	24.50		
Leubart, Henry	Gate Keeper	26	1.25	32.50		
x Leroy, Wm. J	Shop tender	24 3/4	1.15	28.46		
+ Stahl, John W.	Shiler	24 1/2	1.90	46.07		
+ Stahl, John	"	25	2.00	50.00		
+ Graham, Wm.	"	25	1.80	45.00		
+ Graham, Wm. M.	Browner	21 1/2	.75	16.31		
+ Graham, Emory C.	Shiler	22 3/4	.75	17.06		
x Bender, George	Browner &c	27	1.10	29.70		

Figure 3. Top picture shows signature of P. Burkhart, Master Armorer and bottom picture shows "Rifle" inserted in title.

bayonet alteration. The work on the front barrel bands indicated southern work. Two of the four have Benton rear sight or rear sight base. Were some of these altered rifles left over from earlier alterations, ones that had some issue or did not pass inspection? The work on the rifling has been described and shallow, again suggesting subpar work according to prewar standards. Perhaps these 1841 rifles were worked on during the period of Virginia operation. I would be interested in hearing from members who have

similar Harpers Ferry 1841 rifles.

Harpers Ferry 1841 Rifle #7

This rifle is dated 1852 on the lock and 1854 on the barrel. The lock is stamped "7" inside the lock on the thick portion of the lock-plate under the bolster (Figure 5). The same number is stamped in the wood, in the lock recess. The full-length barrel has both the original style front sight and rear sight. There is no bayonet lug on

Figure 4. Three rifles – no stamped number above rifle #7 above rifle #97. Two show modification to front barrel band for bayonet lug alteration. #97 has 1855 rifle saber bayonet.



the barrel. The original front barrel band has not had any alteration at all. The ramrod appears to be an original style 1841 ramrod with brass ring at the front replaced with an iron tapered ring. The barrel is in .58 caliber and rifled with three shallow grooves. The barrel has typical Harpers Ferry proof and WW over P inspectors marks.

Harpers Ferry 1841 Rifle #62

This rifle is dated 1850 on the lock and 185(?) on the barrel. The lock is stamped “62” inside the lock on the thick portion of the lockplate under the bolster. The same number is stamped in the wood, in the lock recess. The barrel has 1855 rifle style front sight and Benton pattern rear sight. The bayonet lug is similar in design

to the 1855 rifle lug. The original front barrel band has been shortened and the stock shortened as well. The ramrod appears to be an original style 1841 ramrod with brass ring at the front replaced with an iron tapered ring. The barrel is in .58 caliber and rifled with three shallow grooves. This rifle is marked F E long on the brass sideplate. F E Long was a member of the 1st Kentucky infantry and this weapon was issued to the 1st Kentucky at Harpers Ferry in either May or June of 1861.

Harpers Ferry 1841 Rifle #97

This rifle is dated 1853 on the lock and 1853 on the barrel. The lock is stamped “97” inside the lock on the thick portion of the lockplate under the bolster. (Figure 6) The same number is

Figure 5. The yellow circle shows the location of the stamped numbers.



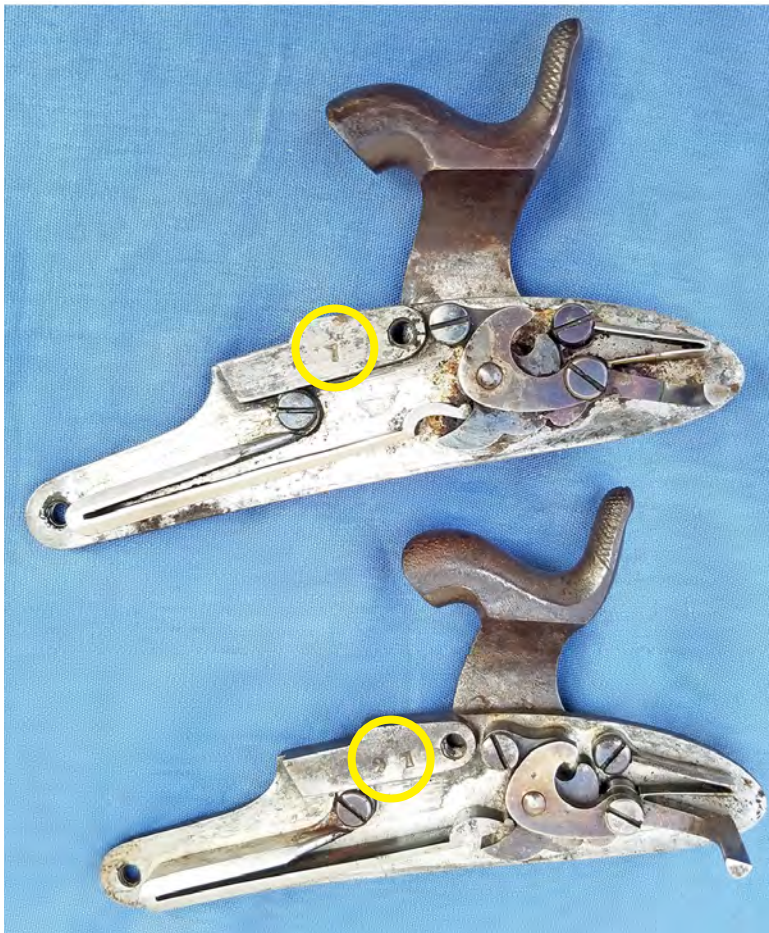


Figure 6. Rifles #7 and #97 The yellow circles shows the location of the stamped number inside the lock.

stamped in the wood, in the lock recess. The barrel has the original style front sight and sliding leaf pattern rear sight. The bayonet lug is similar in design to the 1855 rifle lug. The original front barrel band has been shortened and the stock shortened as well. The ramrod appears to be an iron ramrod used with the Harpers ferry armory altered rifles from the 1856-7 timeframe. The barrel is .58 caliber and rifled with three shallow grooves. The barrel has WW over P in front of the VP and Eaglehead.

Harpers Ferry 1841 Rifle - no stamped number

This rifle is dated 1845 on the lock and 1854 on the barrel. This example has no stamped number inside the lock or in the lock recess. It does however have a scratched roman numeral on the inside face of the lock near the location of the stamped numbers. The full-length barrel has an 1855 rifle front sight and had a Benton rear sight that has a tall block rear sight. The bayonet lug is similar in design to the 1855 rifle lug. The original front barrel band has been shortened and the stock shortened as well. The

barrel is in .58 caliber and rifled with three shallow grooves.

Conclusion

The common element in these four arms is that the bore is .58 caliber. Next, three have saber bayonet lugs. Without a summary of the work performed we can speculate. It does seem that some 1841 rifles had alteration work performed at the Rifle works during the period of Virginia control. The Rifle works were intact with a trained work force. As to new production there is an interesting situation. The Rifle works later in the summer of 1861 was moved to Fayetteville, North Carolina and went into production. Phillip Burkhart became the master Armorer there and much if not most of the workforce followed. An early problem there was that the rifle machinery did not have a set of lock making machines. At Harpers Ferry the 1855 lock making machinery was at the Musket works. So, for a while Richmond made locks for Fayetteville. In 1862, Fayetteville produced their own lock making machinery. Looking back to this spring of 1861 period, the Rifle works would

have been hampered by not having lock manufacturing machinery. The suggestion here is that with a functioning Armory and work force in addition to assembling parts found into complete long arms, modifications of existing arms seem possible. The latest report under U.S. operations shows approximately 600 1841 rifles in storage. While three of the examples show the addition of numbers, it is not known what the numbers represent. The fourth example without stamped numbers adds some suggestion that the

stamped numbers are probably not a serial number system. Perhaps the stamped numbers relate to a work team. It is also interesting to note that rifle number 97 and the unnumbered rifle front barrel band was modified in the same way. Two of these examples have either a Benton rear sight or the base of a Benton rear sight. I suggest that some of these 1841 rifles were bored out to .58 caliber and had saber bayonets added at the Rifle works during the time when Virginia forces occupied Harpers Ferry.

Endnotes

- ¹ *Official Records of the war of the Rebellion*. Series I, Volume 2. p. 792
- ² Murphy, John M. and Howard Madaus. *Confederate Rifles and Muskets*. Graphic Publishing. 1996. p.358
- ³ *Ibid.* p. 341
- ⁴ *Official Records of the war of the Rebellion*, Series I, Volume 2. p. 785
- ⁵ *Ibid.* p. 851
- ⁶ Murphy, *opt. cit.* p. 349
- ⁷ *Official Records of the war of the Rebellion*, Series I, Volume 2. p. 819
- ⁸ Murphy, *opt. cit.* p. 358
- ⁹ *Ibid.* p. 343
- ¹⁰ Lt Rogers report and testimony Extracts from Senate Rep. Com. No 37, 37th Congress 2nd Sess.
- ¹¹ Virginia. Department of Confederate Military Records. Harpers Ferry Rifle Factory records, 1861. Accession 27684. .35 cubic feet. Library of Va.
- ¹² Murphy, *opt. cit.* p. 351

