

# The Veterans Memorial Museum Newsletter



**Aug 2019**

The Museum is open Wednesday - Saturday 10 a.m. until 4 p.m.  
To set up a tour call the Museum at 256-883-3737 during Museum hours.

## Museum News

- **July 2** Twenty to thirty-five people from The Young World Christian Academy in Huntsville toured the Museum.
- **July 3** Students from the Vision of Learning Academy located in Huntsville, Alabama toured the Museum.
- **July 4** The Museum was open. Ralph Olsen and Don Davis a Member of the Museum staff cooked and served hot dog to Museums staff and friends of the Museum.
- **July 20** 1<sup>st</sup> Lt. Bill Varnedoe served as a navigator with the 8th Army Air Force 385<sup>th</sup> bomb group, based in England. His B-17 was dubbed "Possible Straight," because the last three numbers on its tail were 1, 2, 3. He flew 26 combat missions over Europe during World War II. Bill Vanadoe gave a talk in the 8<sup>th</sup> Air Force room at the Museum, and was honored by the Vietnam Veterans of Americ.  
*Bill Varnedoe in 1945 and 2009*
- **July 26** A Program Executive Office from the Redstone Arsenal had a meeting at the Museum.



- Retired Air Force Lt. Col. Richard "Dick" Cole-the last surviving member of the Doolittle Raiders passed away on April 9, 2019 in San Antonio at the age 103.. He took part in the Doolittle Raid on April 18, 1942, serving as the co-pilot to Jimmy Doolittle in the lead airplane of the raid. The Doolittle Raid was the first U.S. counterattack on the Japanese mainland after Pearl Harbor. After retiring from the military he was still active in serving his fellow veterans helping bring awareness to Disabled American Veterans (DAV) and its mission.



Lt. Col. Richard Cole

## Upcoming Events

The following events are scheduled at the Museum:

- **The North Alabama Chapter of the 8<sup>th</sup> Air Force Historical Society** meets the **first Friday of the each month** at the Sunny Street Cafe on the SW corner of Slaughter Rd. & US 72. Order and eat as you wish; the formal meeting starts at 12 noon.
- **The Knights of Columbus** is conducting a breakfast on the **third Sunday of the each month** from 9 to 11 am. Each month the Knight of Columbus breakfast benefits a local charity.
- **OCT 25:** RSA Retiree Activity Day – Redstone Arsenal
- **Nov. 2<sup>nd</sup>:** Cullman Veterans Day event 9:00am to 3:00pm at the Veterans Park at Sportsman Lake. - Free
- **Nov. 4<sup>th</sup>:** 50<sup>th</sup> Anniversary of the Vietnam War Lecture Series 10:00am to 1:00pm at the Jackson Center Free
- **Nov. 4<sup>th</sup> to 11<sup>th</sup>:** Veterans Day Week
- **Nov. 8<sup>th</sup>:** YMCA Prayer Breakfast - Free to vets
- **Nov. 11<sup>th</sup>:** Veterans Day Parade – Free
- **November 11: Attention veterans!** The U.S. Veterans Memorial Museum cordially invites you to a celebration of your service and sacrifice to our nation. Please join us for refreshments, a tour of the museum, and a time to share your stories with those in attendance. Admission is free to all, Saturday, November 11 at 12 PM to 3 PM. Donations gladly accepted.





## Breech Loading Rifle and Carbines

by Stephen Pitts

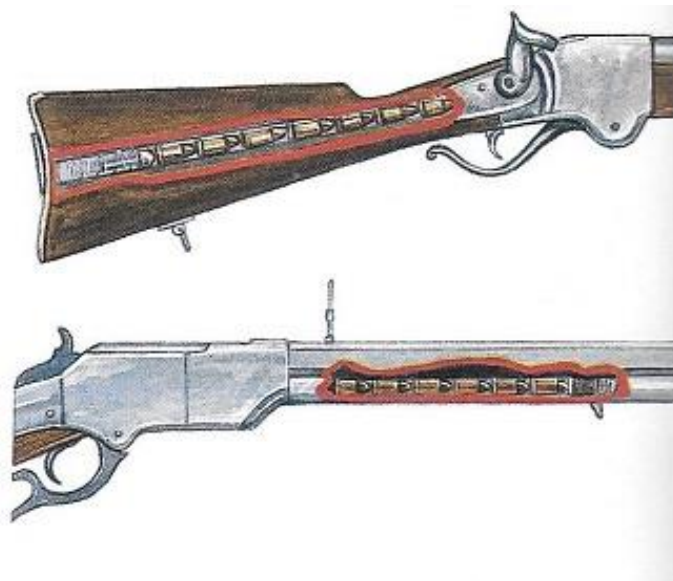
The difference between a Rifle and Carbine is the length of the barrel. The longer the barrel the greater was the accuracy. The Civil War is called the "first modern war" for many reasons; one of these reasons is because of breech-loading rifles. Breech-loading rifles loaded their bullets at the back of the gun. Using a breech-loading gun, ammunition could be loaded much faster and shots could be fired at the enemy much quicker. In addition, these rifles could have multiple bullets loaded into them at one time. Realizing this, both the Union and Confederate armies scrambled to equip their armies with breech-loading rifles. However, manufacturing difficulties prevented many of these innovative weapons to be distributed. Most soldiers were left with older muzzle loading rifles. Many different breech-loading rifle models were used during the Civil War. Manufacturers of early cartridge arms had to invent methods of naming cartridges since no established convention existed then. One of the early established cartridge arms was the Spencer repeating rifle, which Union forces used in the American Civil War. Its name was



Civil war Rifles and Carbine on display at the Veterans Museum

Based on the chamber dimensions, rather than the bore diameter, with the earliest cartridge called the "No. 56 cartridge", indicating a chamber diameter of .56 in; the bore diameter varied considerably, from .52 to .54 in. Later various derivatives were created using the same basic cartridge, but with smaller-diameter bullets; these were named by the cartridge diameter at the base and mouth.

The Spencer repeater (top) took a tube of 8 copper cartridges, loaded through the butt. In tests it fired 21 shots a minute, including changing tubes twice. The Henry rifle (bottom) could fire 15 cartridges from a magazine under the barrel in just 11 seconds. Both guns fed the next cartridge up into the breech when the trigger-guard lever was lowered and raised.



The Breech-loading Rifles and Carbines below are listed in order they are on display at the Veterans Memorial Museum. The # is the inventory control number assigned to each item in the Veterans Museum.

### **#1185 -- 1852 Sharps .52 caliber rifles Breech Loading Rifle Musket**

Of the half-million or so “breech-loading” rifles and carbines purchased from twenty different arms makers by the U.S. Ordnance Board during the Civil War, nearly 20 percent were produced by the Sharps Rifle manufacturing Company, of Hartford, Conn. Official records of ordnance purchased by the United States government from January 1, 1861 to June 30, 1866 show that a total of 80,512 carbines and 9,141 rifles of Sharps manufacture were delivered. The Sharps Carbine was a classic single-shot rifle design of the mid-1800s and featured heavily by both sides of the American Civil War (1861-1865). Its design stemmed from firearms designer Christian Sharps who spent time in the employ of others before striking out on his own as a gun-maker in 1851 (forming the "Sharps Rifle Manufacturing Company" of Hartford, Connecticut). In 1852 arrived his Sharps Model 1852 Saddle Ring Carbine, a shortened long gun suitable for mounted troops and close-quarters fighters. The reduced-length weapon was a considerable advantage over full-length forms.



*1852 Sharps .52 caliber rifles*

The Model 1852 was a traditionally-arranged weapon system seating a metal barrel within a solid wooden stock with only a single band being used. A large hammer was set to the right side of the receiver and managed by the primary hand's thumb. The weapon relied on a percussion cap for ignition of the primer compound and the resulting force sent the bullet down the barrel and out of the muzzle. The trigger was under slung at the neck of the weapon in the usual way and a wiry trigger guard doubled as a lever which provided access to the breech. Despite its single-shot capability, the Model 1852 was a breech-loaded firearm, which made its effectiveness in-the-field leaps ahead of comparable muzzle-loading types.

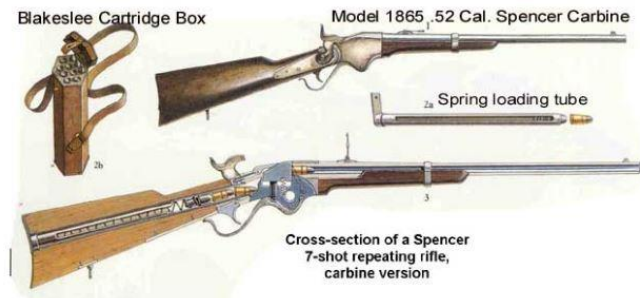
### **# 1186 -- Spencer 1865 .52 caliber Repeating Loading Carbine**

The Spencer Repeating Rifles and Carbines were early American lever action firearms invented by Christopher Spencer.



The Spencer was the world's first military metallic cartridge repeating rifle, and over 200,000 examples were manufactured in the United States by the Spencer Repeating Rifle Co. and Burnside Rifle Co. between 1860 and 1869. The Spencer repeating rifle was adopted by the Union Army, especially by the cavalry, during the American Civil War but did not replace the standard issue muzzle-loading rifled muskets in use at the time. Among the early users was George Armstrong Custer. The Spencer carbine was a shorter and

lighter version designed for the cavalry. 94,196 of these rifles were produced. The design for a magazine-fed, lever-operated rifle chambered for the .56-56 Spencer rim fire cartridge was completed by Christopher Spencer in 1860. Called the Spencer Repeating Rifle, it was fired by cocking a lever to extract a used case and feed a new cartridge from a tube in the butt stock. Like most firearms of the time, the hammer had to be manually cocked after each round in a separate action before the weapon could be fired. The weapon used copper rim fire cartridges, based on the 1854 Smith and Wesson patent, stored in a seven-round tube magazine. A



spring in the tube enabled the rounds to be fired one after another. Rounds could be loaded individually or from a device called the Blakeslee Cartridge Box, which contained up to thirteen (also six and ten) tubes with seven cartridges each, which could be emptied into the magazine tube in the butt stock. The .56-56 Spencer's first number referred to the diameter of the case just ahead of the rim, the second number the case diameter at the mouth; the actual bullet diameter was .52 inches. It is interesting to note that the employment of rapid fire was not favored by the Department of War Ordnance as they were thought to promote over use of ammunition and contracts for such weapons were initially denied. Wastage of ammunition would put more strain on the logistics train which was already overburdened railroads and tens of thousands of more mules, wagons, and wagon train guard detachments. The Spencer rifles were also much more expensive than the Springfield rifle-muskets. After witnessing a demonstration of the rifle, Lincoln was impressed with the weapon, and ordered Gen. James Wolfe Ripley to adopt it for production. Ripley disobeyed him and stuck with the single-shot rifles. The Spencer repeating rifle was first adopted by the US Navy and later by the US Army and it was used during the American Civil War where it was a popular weapon. Gettysburg was the first major battle of the war where Spencer rifles were used. They were used at the Battle of Chickamauga and had become common in the Western armies by 1864. During the course of the war, Spencer rifles were carried by a number of Union cavalry and mounted infantry regiments and provided the Union army with a firepower advantage over the Confederates. The Spencer proved to be very reliable under combat conditions, with a rate-of-fire in excess of 20 rounds per minute compared to standard muzzle-loaders, with a rate of fire of 2–3 rounds per minute. One of the advantages of the Spencer was that its ammunition was waterproof and hardy, and could stand the constant jostling of long storage on the march.

## # 1187 -- 1856 Burnside carbine .54 caliber Breech Loading Carbine-Rifle

The Burnside carbine was a breech-loading carbine that was commonly used during the American Civil War. The carbine was designed and patented by Ambrose



He resigned his commission in the U.S. Army to devote himself full-time to develop the weapon. The carbine used a special brass cartridge also invented by Burnside. Pressing the weapon's two trigger guards opened the breech block which allowed the user to insert a cartridge. When the trigger was pulled, the hammer struck a percussion cap and

caused a spark; a hole in the base of the cartridge exposed the black powder to this spark. The unique, cone-shaped cartridge sealed the joint between the barrel and the breech. Most other breech-loading weapons of the day tended to leak hot gas when fired, but Burnside's design eliminated this problem. In 1857, the Burnside carbine won a competition at West Point against 17 other carbine designs. However, few of the carbines were immediately ordered by the government.



*Burnside cone-shaped cartridge*

This changed with the outbreak of the Civil War. Over 55,000 were ordered for use by Union cavalrymen. This rifle was the third most popular carbine of the Civil War. There were so many in service that many were captured and used by Confederates. A common complaint by users was that the unusually shaped cartridge sometimes became stuck in the breech after firing. On the basis of ordnance returns and ammunition requisitions, it has been estimated that 43 Union cavalry regiments were using the Burnside carbine during the 1863-1864 period. Additionally, 7 Confederate cavalry units were partially armed with the weapon during this period.

### **#1188 -- 1857 Smith Carbine .50 caliber**

#### **Breech Loading Carbine-Rifle**

The Smith Carbine was a 0.50 caliber breech-loading rifle patented by Gilbert Smith on June 23, 1857. The rifle successfully completed the military



trials of the late 1850s. It was used by various cavalry units during the American Civil War. The Smith Carbine was unique in that it broke apart in the middle for loading. Also, it used rubber cartridges which sealed the gases in the breech. One disadvantage was that these cartridges were difficult to remove. The carbines were built by Massachusetts Arms Company of Chicopee Falls, Massachusetts; the American Machine Works in Springfield, Massachusetts; or the American Arms Company in Chicopee Falls. The name of the distributor for the manufacturer, Poultney & Trimble of Baltimore, Maryland, is frequently stamped on the carbine's receivers.



*Smith Carbine Ammunition*

### **#1189 -- 1851 Maynard .50 caliber**

#### **Breech Loading Carbine-Rifle**

The Maynard carbine was a breech-loaded carbine used by cavalry in the American Civil War. The First Model was manufactured between 1858



and 1859 of which about 5,000 were made. In United States service it was distributed to the 9th Pennsylvania and 1st Wisconsin cavalry regiments, United States Marines aboard the USS Saratoga and the United States Revenue Cutter Service. Many Maynard carbines were in Confederate hands during the war; 5,000 in .35 calibers were purchased by Florida, 650 in .50 by Georgia, and 325 in .50 and 300 in .35 by Mississippi. Around 800 were purchased by militias in South Carolina and Louisiana. The Second Model

or Model 1863 was manufactured between 1863 and 1865. Over 20,000 were made. This model lacked the tape primer and stock patch box. The rifle was used by the 9th and 11th Indiana cavalry regiments and 11th Regiment Tennessee Volunteer Cavalry, among others. The Maynard had good long-range accuracy. Confederate sharpshooters made extensive use of it, especially during the Siege of Charleston. When the gun's lever was depressed, the barrel rose.



Maynard carbine with opened breech

This opened the breech for loading. Afterwards the lever was raised to close the gun's breech. Once cocked, the loaded weapon could be primed by either placing a percussion cap directly on its nipple or by using Maynard's priming system to advance a primer to the nipple. The brass Maynard cartridge lacked an integral percussion cap. Instead, a small hole in the middle of its base fired it when the external cap was detonated. The cartridge, which had a wide rim permitting swift extraction, was re-loadable up to 100 times. This was a significant feature for the Confederate troops equipped with it. Another significant feature was that the use of a metallic cartridge prevented gas escape at the breech which was a serious concern for early externally primed breechloaders.



Maynard Ammunition

## #1190 -- 1858 Starr .54 caliber Breech Loading Carbine-Rifle



The Starr carbine was a breech loading single-shot rifle used by the United States Army. Designed in 1858, the Starr was typically used by cavalry soldiers in the American Civil War. In January 1858 Ebenezer Starr submitted his design for the single-shot, breech-loading rifle to the Washington Armory for testing and evaluation. During testing, the rifle had no misfires, and its accuracy was better than average. Testers reported that if the gas seal could be improved, the weapon would be better than its rival, the Sharps carbine. The rifle was adopted as the Model 1858 carbine. Between 1861 and 1864, over 20,000 were produced by the Starr Arms Company of Yonkers, New York. The Model 1858 was designed to fire paper or linen cartridges. In 1865, the government ordered 3,000 Starr carbines chambered to use metal cartridge. These were very successful, and an additional 2,000 were ordered. Although the Starr carbine had proven to be effective during the Civil War, it was not successful during the trials of 1865 by the U.S. trials board and no further rifles were ordered. During the war, the Starr Arms Company had been the fifth largest supplier of carbines and the third largest supplier of .44 caliber single action pistols. After the war had ended, and without government contracts, Starr could no longer compete with larger manufacturers like Winchester, Sharps, and Colt, and the



Starr carbine linen cartridge



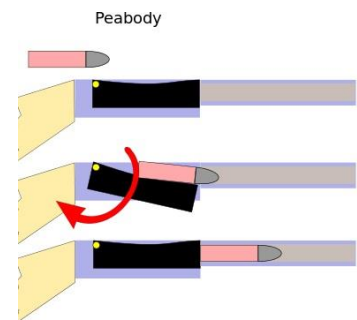
Starr carbine metal cartridge

company closed in 1867. The Starr carbine was similar in design to the Sharps carbine. The Starr had a longer receiver and a distinctive web between the tail of the breech lever and the underside of the butt. The Starr carbine had a .54 caliber barrel 21 inches in length. The weapon had an overall length of 37.65 inches. The weight was 7.4 lbs. They were not designed to accommodate a bayonet. The Starr carbine had a three-position rear sight which was composed of a standing block and two folding leaves. The Starr carbine fired paper or linen cartridges that were ignited by conventional percussion caps. The weapon fired reliably as long as the lengthy flash channel was kept clean. The Starr carbine was produced in two versions. These were the Model 1858 and the Model 1865. The Model 1858 could fire linen or paper cartridges made by Starr, and could also fire similar cartridges made for the Sharps carbine. The Model 1865 version fired the metal 56-50 Spencer rim fire cartridge. This version had a significantly redesigned hammer and breech block.

### #1191 -- 1862 Peabody .50 caliber Breech Loading Carbine-Rifle

The Peabody action was an early form of breech loading firearm action. The heavy breechblock tilted downwards across a bolt in the rear of the breechblock and was operated by a lever under the rifle.

The Peabody action most often used an external hammer to fire the cartridge. The Peabody action was developed by Henry O. Peabody from Boston, Massachusetts. It was first patented on July 22, 1862. The Peabody was not perfected in time for the American Civil War.



The Peabody breech loaded carbine and brass cartridges

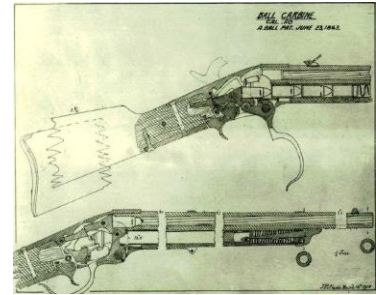
However, a few were entered in the trials of 1864 and performed well. Peabody carbines and rifles were manufactured by the Providence Tool Company, Providence, Rhode Island; c. 1866–1871. The total production was, 112,000 for all models. Calibers were: .45 Peabody rim fire; .45-70 Government; .50 rim fire; 50-70; .433 Spanish; 10.4 mm rim fire Swiss. The barrel length for the carbine was 20". The barrel length for the rifle 33". The receiver was casehardened, the barrel blued, had iron mountings and a walnut stock. The majority of Peabody's production was for foreign contracts.

### #1192 -- The 1864 Lamson & Ball .54 caliber Repeating Loading Carbine-Rifle

The Lamson & Ball repeating carbine was one of the last Civil War arms manufactured. An initial order of 1,000 units was placed in June of 1864 but not actually delivered until April and May of 1866. The delay was caused by the government changing the caliber after the order had been placed, from .44 to the newly standardized .56-50 Spencer cartridge. The manufacturer was E.G. Lamson, an



industrialist who had purchased the defunct Robbins & Lawrence rifle factory in 1858. He did this with the intention of making sewing machines and other mechanical products, and was eager to take advantage of the opportunity to take arms contracts once the Civil War erupted. The Ball carbine is mixture of Spencer and Henry elements, comprising an independent hammer and lever like a Spencer, but an under-barrel tube magazine with a capacity of 7 rounds similar to a Henry rifle. The most interesting feature of the Ball was that it split the chamber into two separate pieces. The lower one



Lamson & Ball repeating carbine

was used as a cartridge elevator. This system worked quite well when new, but developed accuracy problems as the components started to wear with use. For a time, the lever-action long gun settled the issue of repeat-fire performance for the standard army infantryman.

These breech-loaded weapons were used effectively during the American Civil War (1861-1865) where there still proved a reliance on single- and double-shot, breech-loading types. In many of the lever-action designs, the reloading function was settled by management of a lever at the trigger area which cleared the firing chamber of spent casings and also introduced a fresh cartridge. A tube magazine effectively supplied a constant supply of ammunition for the gun. Some of the more famous lever-action rifles were made by Winchester factories during the mid-to-late 1800s. Another important lever-action rifle was the E.G. Lamson Ball Lever-Action Carbine. They were completely conventional in appearance as lever-actions of the period: double-banded, two-piece wooden walnut stocks. They utilized iron sights, a tubular magazine under the barrel assembly and a lever that also served



.59-50 Long Rim fire rounds

as the trigger guard. The carbine was chambered in .50 caliber and fired the designated .56-50 Spencer rim fire cartridge. To avoid confusion in identification of the round it was designated .56-50 cartridge. This was a self-contained cartridge which was a vast improvement over the old cap-and-ball system. The weapon used .56-50 Spencer ammunition, a later variation of the .56-50 Spencer round. A small number of weapons were converted after the Civil War to fire .44 Long Rim fire rounds instead. Overall length measured 37 inches with a 20 inch barrel assembly. The result was a fine lever-action carbine suitable for scouts, sharpshooters, infantrymen and mounted troops. It was compact enough to use effectively in close-quarters battle but long enough to reach out to targets at range. The cartridge provided good man-stopping power at range and seven cartridges were carried, ready-to-fire, in the tubular magazine. The guns arrived in 1864 and interested the Union Army enough for an order to be secured for 1,000 carbines. These arrived in May of 1865 - though the War Between the States ended in April of that year making the Ball lever-Action Carbine a rarity in circulation. Design is attributed to Albert Ball of Worcester, Massachusetts and manufactured by Lamson & Company of Windsor, Vermont.

### #1193 -- 1841 Jenks .50 caliber Breech Loading Carbine-Rifle

The Jenks carbine was a slender and elegant breech loading system patented by South Carolinian



William Jenks in 1838. It was tested by the US Navy in 1841, and was found to be quite successful. The Navy proceeded to adopt it and ordered 1,000 rifles and 5,250 carbines from N.P. Ames in the early and mid 1840s. The last 1,000 carbines were a separate contract which made use of the Maynard tape primer system. This contract was purchased from Ames by the Remington Company, which manufactured those carbines. The Army also tested the Jenks system, but found it completely unsuitable possibly due to a misunderstanding of the correct powder charge and projectile. Mechanically, the Jenks uses a bolt which slides forward and rear connected to a larger action lever on the top of the receiver. Opening the lever retracts the bolt, opening a round port through which a ball and powder charge are dropped into the breech. Shortly before the Civil War, most of the guns in Navy inventory were modified to extend this round loading port into an elongated oval, which allowed the use of paper or linen cartridges instead of loose powder.



*Jenks bolt action carbine*

### **#1194 -- The 1865 Palmer .50 caliber Rim fire rounds single-shot bolt action rifle**

The Palmer model 1865 carbine is a single-shot bolt action rifle patented in 1863 by E. G. Lamson and Company of Shelburne Falls, Massachusetts. 1000



Palmer carbines were delivered to Union forces in the American Civil War one month after the war ended. All of these rifles which were designed to be carbines for cavalry soldiers were later sold to civilians after the war. The rifle was the first bolt action rifle to be accepted for use by the US Army Ordnance Department.

Unlike traditional bolt actions which contain the firing pin centered in the bolt, the Palmer's bolt was machined from a solid block of tubular metal. The bolt had screw type lands and grooves to lock the bolt in place via a short handle. The hammer of the weapon which was located on the right side of the receiver holds the firing pin at the tip. A tooled, milled slot can be seen on the head of the bolt canted toward the right side which allows a slight opening for the firing pin atop the hammer to strike the rim fire cartridge, which was usually the 56-50 rim fire. The bolt was designed for single shot action, and the cartridges were loaded one at a time. The design was revolutionary. It was seen at the time as a simple breach modification to weapons of the time period to accept metallic cartridges instead of the traditional powder, ball, wad, ram rod and percussion cap which consumed time during loading procedures. The designer understood that gunsmiths could hopefully modify current percussion rifles from the breach of the gun in the same way flintlocks were modified to percussion using a simple process. The disadvantage of the rifle was the positioning of the hammer where the firing pin hits the rim of the cartridge, and the small space on the bolt where the two parts meet with the bullet rim when the trigger is pulled. Ultimately the actions of rifles like the Spencer rifle and the Sharps rifle were preferred over the Palmer. Its unique design is a predecessor of all modern bolt action rifles.



*Palmer model 1865 carbine*

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## #1195 -- 1864 Joslyn .52 caliber Breech Loading Carbine-Rifle

The Joslyn Rifle is a series of rifles produced in the mid-19th century. The term is often used to refer specifically to the Joslyn Model 1861/1862. This was the first mass-produced breech-loading rifle produced at the Springfield Armory. Benjamin Franklin Joslyn was known as one of the most interesting gun designers during the U.S. Civil War. He was known for his constant clashes with sub-contractors and the Federal Government more than he was for the quality of his arms. His disputes with the government lasted long after the Civil War had ended. In 1855, Joslyn designed a breech-loading carbine. After successful tests, the U.S. Army ordered 50 of these rifles in 1857 in .54 caliber. The Army quickly lost interest in the rifle, but in 1858 the U.S. Navy ordered 500 of these in .58 caliber. Production problems resulted in only 150 to 200 of these rifles being delivered in 1861. In 1861, Joslyn designed a new version of the Joslyn Rifle using a metal rim fire cartridge. The Federal Ordnance Department ordered 860 of these carbines. These were delivered in 1862. Most went to units from Ohio. In 1862, Joslyn received an order for 20,000 carbines. Delivery on these weapons started in 1863, but by the time the Civil War came to an end only half of these had been delivered. The Model 1864 featured many small improvements and refinements to the Model 1862 design. It could fire either the .56-52 Spencer rim fire cartridge or a proprietary .54 caliber rim fire cartridge made by Joslyn. It was surprising in its numbers. 12,500 were built and issued to Union troops. The brass metalwork was case-hardened, but otherwise, it is for game purposes identical to the Model 1862. After the Civil War, in private hands, some were modified to fire different calibers and cartridges; at least two other chamberings are known to collectors .52-56 Sharps was the military cartridge.



*Joslyn breech-loading carbine*

## #1196 -- Burnside 1864 .54 caliber Breech Loading Carbine-Rifle

The Burnside 1864 is a .54-caliber, percussion, single-shot, breech-loading weapon that used a tapered or cone shaped brass cartridge containing the bullet and powder. 55,567 of these rifles were produced. It is a .54 caliber carbine manufactured by the Burnside Rifle Co., in Providence, Rhode Island. General Ambrose Burnside was an official in the company before the war but was not involved in wartime development of the weapon. The Burnside carbine employed an unusual cone shaped metal cartridge for use in a percussion system. Period literature refers to the Model 1863, although none are marked with this date. Collectors have referred to this model generally as the "5<sup>th</sup> model". This model represented small improvements over the earlier models, specifically the placement of a guide screw on the right side in the middle of



*Burnside 1864 .54 caliber Rifle*

the receiver to facilitate smoother operation during loading. Initial production, up to approximately 19,000, feature "Model 1864" stamped on the top of the breech. Later production reverted back to use of the 1856 patent date (#1187). Standard features include an iron butt plate, a single iron barrel band, a saddle riding bar and ring on left side, and a strap hook on bottom of butt. The double hinged iron loading lever also serves as a trigger guard. The rifle has a hinged sight, and the chamber is tapered for the unique Burnside metal cartridge with a priming hole in the bottom for percussion.

### **General Information**

The American Civil War rifle-musket and Caliber Rifle collection was donated to the Veterans Museum by a family from Birmingham, Alabama.

*The U.S. Veterans Memorial Museum located in Huntsville Alabama is a 501c3 not-for-profit organization. There are more than 30 historical military vehicles from World War I to the present as well as artifacts and other memorabilia dating back to the Revolutionary War. Displays include a "Merci" 40 et 8 boxcar from World War I, a Cobra attack helicopter, a collection of jeeps, Sherman tanks and Stuarts, a half-track and flags, maps, uniforms and other artifacts from every U.S. conflict. The Museum is located just west of Memorial Pkwy in John Hunt Park at 2060A Airport Road, Huntsville, Al 35801. The U.S. Veterans Memorial Museum is dedicated to promoting the accomplishments of American military men and women.*

The Museum's web page is [www.memorialmuseum.org](http://www.memorialmuseum.org).

The Museum email of is [usvetnewsletter@gmail.com](mailto:usvetnewsletter@gmail.com)

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If you would like to be "ADDED" to our mailing list, send "Add to Newsletter" to [usvetnewsletter@gmail.com](mailto:usvetnewsletter@gmail.com)

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