



# Battle Cry

Founded 1961,  
Newsletter of the Sacramento Civil War Round Table  
P.O. BOX 254702  
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**Volume 49, No 4**  
**April, 2009**  
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**Deadline is 1:00PM, last**  
**Wed. of the month before**  
**the regular meeting. Items**  
**can be given the editor by**  
**hand, mail or e-mail.**

- <http://sacramentocwrt.com/>

**President's Message:** It is quite apparent why Professor Gerald Henig was designated an outstanding lecturer by his alma mater. He held the interest and attention of our audience throughout his excellent account of the exploits of William Tillman, a free black seaman who single-handedly captured a Confederate privateer, seized vessel from his captors and returned it to New York Harbor. It is not surprising that he received the adulation of Northerners and achieved notoriety overnight. What is amazing, however, is that despite intensive newspaper coverage at the time, the story and Tillman himself were lost to history. Thanks to Jerry for bringing it to light. Our members tried very hard to give Dr. Henig assistance in tracking down the rest of the story but it sounds as if he has exhausted all possible resources to learn what eventually happened to Tillman. It was a great pleasure to meet Jerry and his son and we would welcome another visit along the way. It is always a joy to bring in speakers from other areas and we have been blessed to host many excellent presenters over the years.

On that subject the October 23-25, 2009 West Coast Conference in Clovis has been announced and full details are available at [www.chattanooga2009.com](http://www.chattanooga2009.com). Speakers are William Glenn Robertson, Steven Woodworth, Wiley Sword, Jim Stanberry, James Ogden, Lee White, and Christopher Young. Dave Davenport and Evan Jones have planned a program packed with information and Evan will also give a talk. Those of us who attended last fall will recall his discussion of Jubal Early. Much hard work goes into these conferences as several of us will attest. Our group has always strongly supported and attended in large numbers and I hope we will continue to do so. If some of you do not have computer access please let me know and I will get schedules to you.

Gibson Ranch weekend is rapidly approaching and I still need a few more intrepid volunteers for the school program, Friday May 15<sup>th</sup>. In the event you've missed this fun activity it's an interesting experience leading a group of young students around five stations manned by re-enactors who explain their functions. These include infantry, artillery, a soldier's life, sharp-shooting, civilian life, and occasionally cavalry or battlefield medicine. Students arrive over a three hour period and we repeat the cycle three times. Fifteen is our required number but a few extra are welcome as a reserve. After the last round we are awarded lunch. I've always found this a rewarding half day and end up learning something new. Please consider joining us. On Saturday and Sunday, May 16 & 17, our club maintains a booth wherein we provide information to interested passers-by. Two volunteers each half day are required. We are also asked to give a half-hour talk each day. The subject this year will be Lincoln. Volunteers are appreciated.

Don't miss April's meeting, Wed. the 8<sup>th</sup>. Stu Howe will speak on California Volunteers in the Civil War. Come early for dinner and social hour.

**Don Hayden, President**

## Treasurers Report

The cash balance following the March 11, 2009 meeting was \$2,437.41. Thanks to John Zasso, other members, and guests, the raffle brought in \$74.00.

**George W. Foxworth, Treasurer**

## MINUTES

Sacramento Civil War Round Table  
Wednesday, March 11, 2009  
Hof Brau Restaurant, Watt Avenue, Sacramento

Attendance-36

### Members-33

Don Hayden, President  
George Foxworth, Treasurer  
Edie Keister, Secretary  
Joan Beitzel  
George Beitzel  
Ken Berna  
Roy Bishop  
Marsha Cain  
Harvey Cain  
Ardith Cnota  
Mitchell Cnota  
Fred Elenbaas

Alan Geiken  
Bob Hanley  
Scottie Hayden  
Nancy Hayden  
Stu Howe  
James Juanitas  
Phil Mendes  
Jim Middleton, Editor  
Betty Mitchell  
Maurice Mitchell  
Mark Penning  
Horst Penning

Paul Ruud  
Kris Scivoletto  
Nicholas Scivoletto  
Richard Sickert  
Drew Van Winkle  
Robert Williams  
Silver Williams  
Maxine Wollen  
John Zasso  
Guest-3  
Gerald Henig  
Adam Henig  
Aleathea Simmons

1. Meeting started at 7:00. Members and guest welcomed by President Hayden. Conference at Huntington the first weekend in April. Volunteer list for Gibson Ranch sent around. West Coast Conference this fall in Fresno mentioned- a show of hands as to who would think a \$225 fee would affect attendance.
2. Our speaker was Gerald Henig who spoke on Williams Tillman- "The Unions First Black Hero." It was a fascinating story of a steward becoming a ships Captain (Over night!) Professor Henig also brought copies of his book, "A Nation Transformed" and signed them. Thank you Gerald!
3. Raffle was held and meeting adjourned at 8:25 PM.

Edie Keister  
Secretary

<b>Coming Programs 2009</b>		
April 8 <sup>th</sup>	Stu Howe	California Volunteers in the West
May 13 <sup>th</sup>	Dave Davenport	2 <sup>nd</sup> Battle of Winchester
June 10 <sup>th</sup>	Larry Tagg	The Unpopular Mr. Lincoln
July 8 <sup>th</sup>	Ray Bisio	Lee, the Trader
Aug. 12 <sup>th</sup>	Jim Stanberry	The Importance of the Shenandoah Valley

Book Review by M. Wolf  
*Escape on the Pearl* by Mary Kay Ricks

Mary Kay Ricks has written an absorbing account of the failed attempt of 80 slaves to escape from Washington, DC on a schooner, the Pearl, in 1848. Mrs. Ricks leads tours in Washington, and has lectured on the incident at the Smithsonian. Her book, while serious history, reads like a novel.

She has an exciting and important story to tell, and weaves a history of slavery in the Chesapeake, the abolition movement, and electoral politics into her narrative. Prominent and lesser-known personalities of pre-war America are depicted: Henry Ward Beecher, Horace Mann, and Gerrit Smith are part of the story.

On April 15, 1848, 80 slaves, mostly household servants, left their lodgings after dark, and met at a wharf on the Potomac, where the Pearl, captained by two white men, was waiting to sail down the river into Chesapeake Bay, then to "the northernmost reach" of the bay, where the Underground Railroad would take over.

In the morning, the slaves' owners realized what had happened, and a fast pursuit ship was dispatched to overtake the Pearl. The ensuing events placed slavery, which Congress had kept on a back burner (through gag rules and other devices), to the forefront of debate and controversy. The Fugitive Slave Law of 1850 and the tumultuous decade of the 1850's was at hand.

Ms. Ricks tells of the trials of the captains, civil unrest in Washington, the sale of some of the captured slaves to slave traders, and the eventual fate of some of the principals. She has done extensive research in diaries, census records, and the Runaway Slave Book of the DC Department of Corrections (with entries beginning in 1848), found in a former prison in Lorton, VA in 1991. She has used these references to trace the slaves, their ancestors, and their descendants from the early 19th century to the present.

The detailed stories of escape and capture, the operations of slave traders, families torn apart and partially, never totally reunited, puts a human face on the South's "peculiar institution." One wonders how a nation founded on liberty and equality allowed slavery to persist as long as it did. Readers will develop a renewed admiration for its victims and for the brave men and women of both races who fought it at great risk to their lives.

# **The Advent of Shoulder Fired Rifles and the Resulting Influence on Infantry Tactics**

## **Part I The Hardware**

This two part article is an extension of a short discussion in the Sept. 04 edition of the *Battle Cry* titled “Muzzle-loaders, Breech-loaders and Related Matters. That discussion embraced the basic principles and evolution of rifled weaponry and the role of the sharpshooters in the Civil War. Part II of this present discussion subtitled, *The New Infantry Tactics* may appear in the *Battle Cry* at a later date. During the 1850s the rifle-musket began to replace the relatively inaccurate smoothbore musket in ever-increasing numbers, both in Europe and America. This process, accelerated by the Civil War, ensured that the rifled shoulder weapon would be the basic weapon used by infantrymen in both the Federal and Confederate Armies.

The standard and most common shoulder weapon used in the Civil War was the Springfield .58 caliber rifle-musket, Models 1855, 1861, and 1863. In 1855, the U.S. Army adopted this weapon to replace the .69 caliber smoothbore musket and the .54 caliber rifle. In appearance, the rifle-musket was similar to the smoothbore musket. Both were single-shot muzzle-loaders, but the rifled bore of the new weapon substantially increased its range and accuracy. The rifling system chosen by the United States was designed by Claude Minié, a French Army officer. Whereas earlier rifles fired a round, nonexpanding ball, the Minié system used a hollow-based cylindro-conoidal projectile slightly smaller than the bore that could be dropped easily into the barrel. When the powder charge was ignited by a fulminate of mercury percussion cap, the released powder gases expanded the base of the bullet into the rifled grooves, giving the projectile a ballistic spin.

The Model 1855 Springfield rifle-musket was the first regulation arm to use the hollow-base, .58 caliber Minié bullet. The slightly modified Model 1861 was the principal infantry weapon of the Civil War, although two

subsequent models in 1863 were produced in about equal quantities. The Model 1861 was 56 inches long overall, had a 40-inch barrel, and weighed 9 pounds 2 ounces. It could be fitted with a 21-inch socket bayonet (with an 18-inch triangular blade, 3-inch socket) and had a rear sight graduated to 500 yards. The maximum effective range of the Springfield rifle-musket was approximately 500 yards, although it had killing power at 1,000 yards. The round could penetrate 11 inches of white-pine board at 200 yards and 3 1/4 inches at 1,000 yards, with a penetration of one inch being considered the equivalent of disabling a human being. Range and accuracy were increased by the use of the new weapon, but the soldiers' vision was still obscured by the clouds of smoke produced by its black powder propellant.

To load a muzzle-loading rifle, the soldier took a paper cartridge in hand and tore the end of the paper with his teeth. Next, he poured the powder down the barrel and placed the bullet in the muzzle. Then, using a metal ramrod, he pushed the bullet firmly down the barrel until seated. He then cocked the hammer and placed the percussion cap on the cone or nipple, which, when struck by the hammer, ignited the gunpowder. The average rate of fire was three rounds per minute. A well-trained soldier could possibly load and fire four times per minute, but in the confusion of battle, the rate of fire was probably slower, two to three rounds per minute.

In addition to the Springfields, over 100 types of muskets, rifles, rifle-muskets, and rifled muskets ranging up to .79 caliber were used during the Civil War. The numerous American-made weapons were supplemented early in the conflict by a wide variety of imported models. The best, most popular, and most numerous of the foreign weapons was the British .577 caliber Enfield rifle, Model 1853, which was 54 inches long (with a 39-inch barrel), weighed 8.7 pounds (9.2 with the bayonet), could be fitted with a socket bayonet with an 18-inch blade, and had a rear sight graduated to a range of 800 yards. The Enfield design was produced in a variety of forms, both long and short barreled, by several British manufacturers and at least one American

company. Of all the foreign designs, the Enfield most closely resembled the Springfield in characteristics and capabilities. The United States purchased over 436,000 Enfield-pattern weapons during the war. Statistics on Confederate purchases are more difficult to ascertain, but a report dated February 1863 indicates that 70,980 long Enfields and 9,715 short Enfields had been delivered by that time, with another 23,000 awaiting delivery

While the quality of imported weapons varied, experts considered the Enfields and the Austrian Lorenz rifle-muskets very good. Some foreign governments and manufacturers took advantage of the huge initial demand for weapons by dumping their obsolete weapons on the American market. This practice was especially prevalent with some of the older smoothbore muskets and converted flintlocks. The greatest challenge, however, lay in maintaining these weapons and supplying ammunition and replacement parts for calibers ranging from .44 to .79. The quality of the imported weapons eventually improved as the procedures, standards, and astuteness of the purchasers improved. For the most part, the European suppliers provided needed weapons, and the newer foreign weapons were highly regarded.

All told, the United States purchased about 1,165,000 European rifles and muskets during the war, nearly all within the first two years. Of these, 110,853 were smoothbores. The remainder were primarily the French Minié rifles (44,250), Austrian Model 1854s (226,294), Prussian rifles (59,918), Austrian Jagers (29,850), and Austrian Bokers (187,533). Estimates of total Confederate purchases range from 340,000 to 400,000. In addition to the Enfields delivered to the Confederacy (mentioned above), 27,000 Austrian rifles, 21,040 British muskets, and 2,020 Brunswick rifles were also purchased, with 30,000 Austrian rifles awaiting shipment

Breech-loaders and repeating rifles were available by 1861 and were initially purchased in limited quantities, often by individual soldiers. Generally, however, rifles were not issued to troops in large numbers because of technical problems (poor breech

seals, faulty ammunition), fear by the Ordnance Department that the troops would waste ammunition, and the cost of rifle production. The most famous of the breech-loaders was the single-shot Sharps, produced in both carbine and rifle models. The Model 1859 rifle was .52 caliber, was 47 1/8 inches long, and weighed 8 3/4 pounds, while the carbine was .52 caliber, 39 1/8 inches long, and weighed 7 3/4 pounds. Both weapons used a linen cartridge and a pellet primer feed mechanism. Most Sharps carbines were issued to Federal cavalry units

The best known of the repeaters was probably the seven-shot Spencer, .52 caliber, which also came in both rifle and carbine models. The rifle was 47 inches long and weighed 10 pounds, while the carbine was 39 inches long and weighed 8 1/4 pounds. The first mounted infantry unit to use Spencer repeating rifles in combat was Colonel John Wilder's "Lightning Brigade" on 24 June 1863 at Hoover's Gap, Tennessee. The Spencer was also the first weapon adopted by the U.S. Army that fired a metallic rimfire, self-contained cartridge. Soldiers loaded rounds through an opening in the butt of the stock, which fed into the chamber through a tubular magazine by the action of the trigger guard. The hammer still had to be cocked manually before each shot

Better than either the Sharps or the Spencer was the more technologically advanced Henry rifle. Never adopted by the U.S. Army in large quantity, it was purchased privately by soldiers during the war. The Henry was a sixteen-shot, .44-caliber rimfire cartridge repeater. It was 43 1/2 inches long and weighed 9 1/4 pounds. The tubular magazine located directly beneath the barrel had a fifteen-round capacity with an additional round in the chamber. Of the approximately 13,500 Henrys produced, probably 10,000 saw limited service. The government purchased only 1,731

The Colt repeating rifle (or revolving carbine), Model 1855, also was available to Civil War soldiers in limited numbers. The weapon was produced in several lengths and calibers, the lengths varying from 32 inches to 42 1/2 inches while its calibers were .36, .44, and .56. The .36 and .44 calibers were made to chamber six shots, while the .56

caliber had five chambers. The Colt Firearms Company was also the primary supplier of revolvers, the .44 caliber Army revolver and the .36 caliber Navy revolver being the most popular (over 146,000 purchased). This was because they were simple, sturdy, and reliable.

The cavalry was initially armed with sabers and pistols (and in one case, lances); Federal cavalry troopers quickly added the breech-loading carbine to their inventory of weapons. However, one Federal regiment, the 6th Pennsylvania Cavalry, carried lances until 1863. Troopers preferred the easier-handling carbines to rifles and the breech-loaders to awkward muzzle-loaders. Of the single-shot breech-loading carbines that saw extensive use during the Civil War, the Hall .52 caliber accounted for approximately 20,000 in 1861. The Hall was quickly replaced by a variety of carbines, including the Merrill .54 caliber (14,495), Maynard .52 caliber (20,002), Gallagher .63 caliber (22,728), Smith .52 caliber (30,062), Burnside .56 caliber (55,567), and Sharps .54 caliber (80,512). The next step in the evolutionary process was the repeating carbine, the favorite by 1865 being the Spencer .52-caliber seven-shot repeater (94,194). (The excellent Bennett Carbine Collection was on display and discussed at the 2008 West Coast CWRT Conference in Fresno-Clovis)

Because of the South's limited industrial capacity, Confederate cavalymen had a more difficult time arming themselves. Nevertheless, they too embraced the firepower revolution, choosing shotguns and muzzle-loading carbines as their primary weapons. In addition, Confederate cavalymen made extensive use of battlefield salvage by recovering Federal weapons. However, the South's difficulties in producing the metallic-rimmed cartridges required by many of these recovered weapons limited their usefulness.

In this interlude the Field Artillery had also introduced rifled weaponry. (See *Battle Cry* Mar.08 article) The most common pieces were the 10-pounder Parrott and Rodman, and the 3 inch Ordinance rifle. The latter were sturdier and generally considered to be more accurate and reliable than the Parrott.

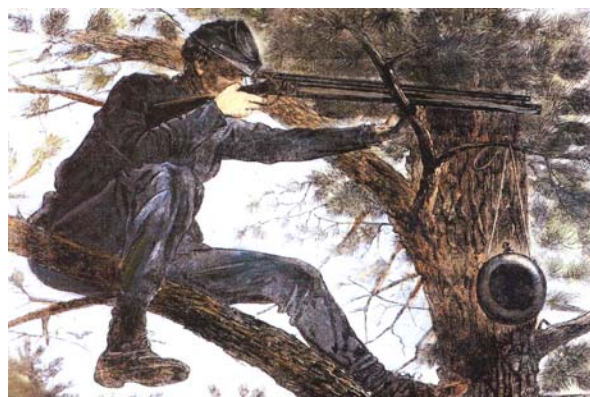
In concluding this discussion on Civil War infantry weapons, it may be of interest to some to note the trajectory sketch on the graphics page of a Springfield Rifle-Musket M1963 compared to that of a WWII era Garand M1 Rifle. Both assume a rifleman firing from a kneeling position 40 inches above ground at a target 300 yards distance at that height. Corresponding maximum projectile heights are 83 inches and 42 inches, due to the respective muzzle velocities of 950 and 2800 feet per second; and bullet calibers of .58 vs. .30. A message here is that range estimation during the Civil War was extremely critical. Just call it all "Ballistics 101".

#### References:

"Staff Ride Handbook" by W. Glenn Robertson, Army C&GS College, Fort. Leavenworth, Kan. 1992

"Arms and Equipment of the Civil War" by Jack Coggins, 1962

**Bob Williams: 24 March 09**



Civil War Rifleman

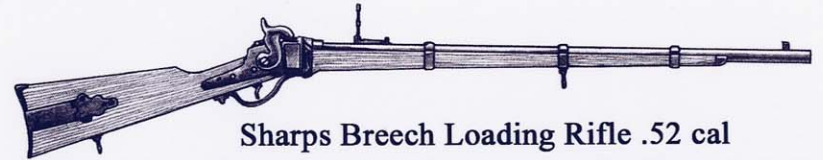


World War II Rifleman

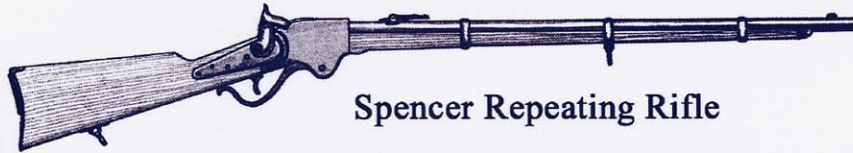
# Infantry Weapons of the Civil War Graphics Page



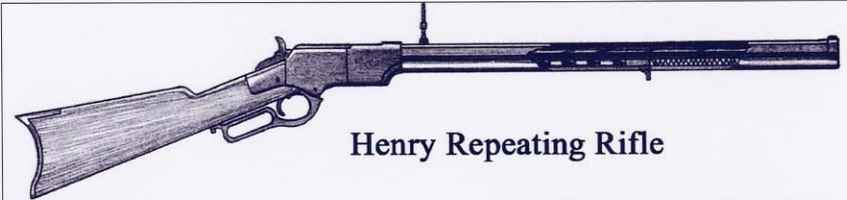
Springfield M1861 Rifle-Musket .58 cal with 18 inch Bayonet



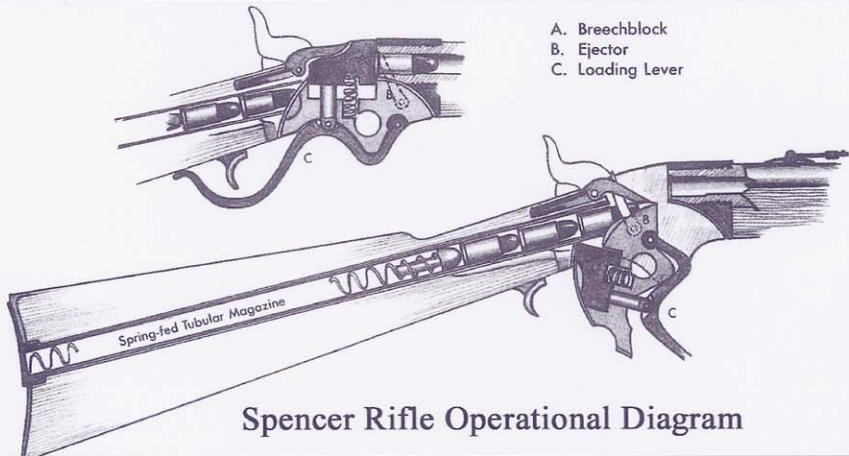
Sharps Breech Loading Rifle .52 cal



Spencer Repeating Rifle

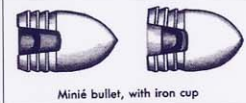


Henry Repeating Rifle

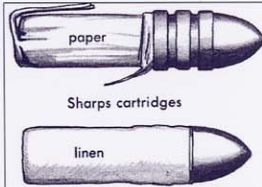


Spencer Rifle Operational Diagram

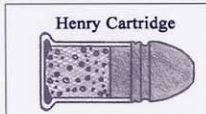
- A. Breechblock
- B. Ejector
- C. Loading Lever



Minié bullet, with iron cup



Sharps cartridges



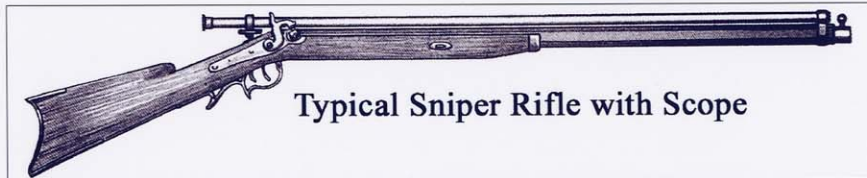
Henry Cartridge



Henry Rifle Operational Diagram

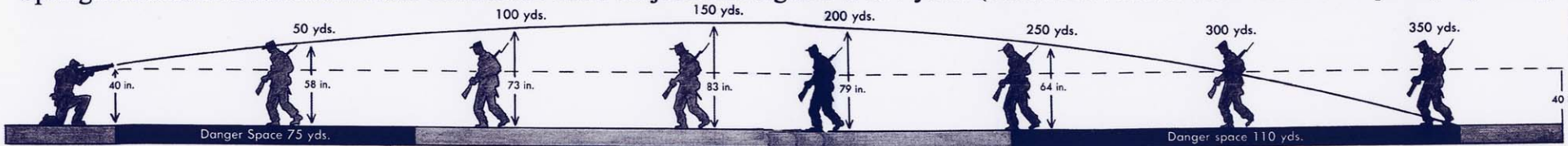


Colt Revolving Rifle M1855 .56 cal



Typical Sniper Rifle with Scope

## Springfield M1863 Rifle-Musket and Garand M1 Rifle Trajectories Sighted at 300 yards (Rifle Muzzle Velocities are 950 and 2800 feet per sec, respectively)



Danger space areas for rifled musket sighted for 300 yards. Figures given are approximate heights of trajectory above line of sight, plus 40 inches. Sighted for 500 yards, at midrange bullet would pass well over head of horseman;

danger spaces would be very small. By comparison, height of trajectory at midrange of .30 caliber M1 sighted for 300 yards is 7.2 inches above the line of sight.