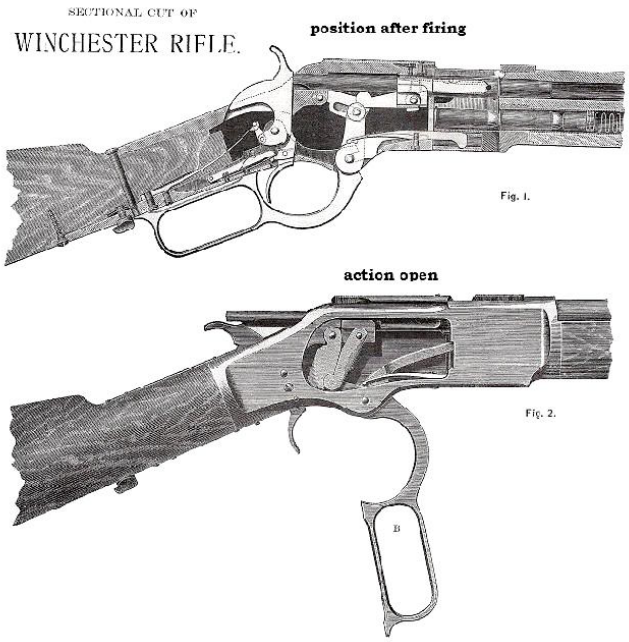
Rifles Part IV. Oliver's Army: Lever-Action Repeaters

Repeaters

A "repeating rifle" features a magazine which feeds rounds into the breech through the action of some mechanism. While a revolver is technically a repeater, around the time of the Civil War, the terms "repeater" and "repeating rifle" became specifically attached to lever-action repeaters such as the Spencer, the Henry, or the Winchester. The Deadlands Armory follows suit, using the term "repeater" for a rifle which uses a loading lever to chamber the next round. This lever usually doubles as the rifle's trigger-guard. Because early repeating mechanisms could not accept long rounds like the .45-70 Government cartridge, the first generation of repeating rifles was limited in accuracy, range, and stopping power. Of course, they achieved staggering rates of fire, which many shooters considered adequate compensation.



Repeater History

The idea for a repeating firearm is as old as warfare itself, and history is full of bizarre designs for guns with multiple barrels, rotating turrets, and other such unwieldy mechanisms—even Leonardo da Vinci sketched a repeating ballista operated by a human hamster wheel! It was the seventeenth century, however, when the modern lever-action repeater was first conceived, with two independent workshops inventing similar mechanisms—Michele Lorenzoni of Florence, and the Kalthoff family of middle Europe. Both designs utilized a pair of tubular magazines, one

filled with lead balls and the other with gunpowder. The Lorenzoni system was operated by a crank, while the Kalthoff system used a lever-like ratchet which doubled as a trigger-guard. It is not definitively known which system came first, or whether they were both inspired by an earlier design. Both systems went through several refinements over the years, but it took almost two centuries before the idea finally came to full fruition in Oliver Winchester's famous rifle.

A Brief History of the Winchester

In 1848, Walter Hunt was awarded a patent for his "Volition Repeating Rife." This patent formed the basis for the "Volcanic" repeaters developed by the short-lived Volcanic Repeating Arms Company. Founded by Horace Smith and Daniel B. Wesson, the company employed master gunsmith Benjamin Tyler Henry, and counted Oliver Winchester as a main investor. After Smith & Wesson left to form their own revolver company, Winchester purchased Volcanic Arms and reorganized it as the New Haven Arms Company in 1857. It was here that the famous Henry repeater was developed. In 1865, while Oliver Winchester was in Europe, Benjamin Henry tried to freeze him out and legally rename the company after himself; in response, Winchester struck back, using his superior assets to reorganize the company as the Winchester Repeating Arms Company in 1866. Henry's right-hand man, Nelson King, was given Henry's old job as superintendent. As his profits grew, Oliver Winchester simply bought out his competition. The individual entries below expand on this story, and if read in sequence, offer a brief history of the modern repeating rifle.

The Armory: Repeaters

Kalthoff Repeating Flintlock
1650-1700?, Europe, lever-action flintlock. Caliber .50, Range 5/50/100, Capacity 5, Rate of Fire 1/2, DAM 2d10, STR d6, Very rare. Notes: These stats are for the 1660 rifle depicted below, which was created in London by the Dutch gunsmith Haerman Barnevelt, a former apprentice of Caspar Kalthoff and the personal gunsmith of King Charles II. There are many versions of the Kalthoff-style repeater, each handcrafted and ranging in capacity from five to twelve shots.

From their origins in Germany, the Kalthoff family spread across Europe and established themselves as gunsmiths *par excellence*, manufacturing many beautiful pieces for tsars and kings from Moscow to London. The "Kalthoff repeater" was a specialty piece, produced over the years in numerous lengths, calibers, and magazine capacities, from wheel-lock smoothbores to flintlock rifles. Despite this incredible variation, most Kalthoff repeaters follow the same basic design. For the sake of *Deadlands 1876*, the Barnevelt rifle depicted above will be described. Like most Kalthoff repeaters, the Barnevelt contains two internal magazines—a forestock magazine for lead balls, and a magazine behind the flintlock for gunpowder. The reloading lever doubles as the trigger-guard, not unlike the Winchester of two hundred years later! To reload the rifle, the user tips the muzzle upwards and cycles the lever. This activates a mechanism which drops a fresh ball into the breech from the upper magazine, while a "carrier" shuttles a charge of gunpowder into position from the lower magazine. To conclude the reloading cycle, the mechanism distributes some gunpowder into the pan, closes the frizzen, and cocks the hammer.

Innovative and forward-thinking, the Kalthoff mechanism was also very complex, and required specialized maintenance. Kalthoff repeaters were found only in the hands of the wealthy, the nobility, or special elite units assembled by those who could afford their upkeep.

Cookson Volitional Flintlock
1680–1800?, UK/USA, crank-action flintlock, smoothbore. Caliber .55, Range 5/50/100, Capacity 7, Rate of Fire 1/2, DAM 2d10, STR d6, Very rare. Notes: These stats are for the 1750 flintlock depicted below, made in Boston by John Shaw. There are many versions of the Cookson-style repeater, each handcrafted and ranging in capacity from seven to twelve shots.

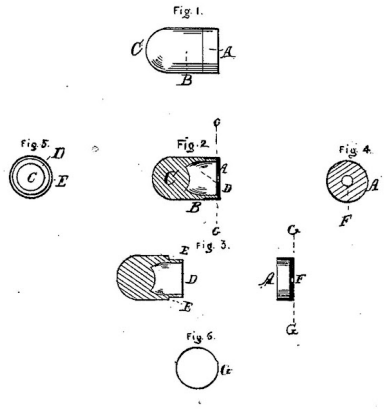
One of the most famous gunsmiths in the Lorenzoni tradition was John Cookson, who historians believed relocated from England to Boston in the late 1600s. For reasons unknown, Cookson called his version of the Lorenzoni system the "Volitional" repeater. In 1750, John Shaw, another English gunsmith transplanted to Boston, produced a series of muskets generally known as John Shaw's Cookson Volitional Repeaters.

Following the Lorenzoni system, the Volitional Repeater has both magazines in its buttstock, with a crank on the left side of the gun activating the reloading mechanism. To operate the gun, the user directs the muzzle downwards and turns the crank halfway. A two-chambered revolving breechblock rotates beneath the twin magazines, where gravity drops a lead ball into one chamber and a measure of powder into the other. The rifle is tilted upwards, and the remaining half-turn of the crank delivers the powder and shot into the breech, doles out primer into the pan, lowers the frizzen, and sets the hammer at half-cock. To fire the musket, the shooter fully cocks the hammer and pulls the trigger.

Shaw produced several models of the Cookson Repeater, including one that got him killed. Attempting to display the gun's resistance to rain, Shaw was demonstrating the repeater during a thunderstorm. After firing a few successful rounds for admiring Bostonians, Shaw was struck by lightning and killed instantly!

Hunt "Volition" Repeating Rifle
1848, USA, lever action. Caliber .54 Hunt rocket ball, Range 5/50/100, Capacity 12, Rate of Fire 1, DAM 2d10, STR d6, Exceptionally rare. Notes: On a Natural 1, a Volition repeater jams, requiring a successful Repair roll to fix.

Walter Hunt was a New York inventor of tremendous ingenuity but little business sense. Having invented the safety pin, the fountain pen, a nail-making machine, and even a precursor to Howe's sewing machine, Hunt often failed to capitalize on his work by cheaply selling his patents to those with greater resources or higher ambitions. This was certainly the case for his innovations to firearms, which eventually evolved into the modern Winchester repeater long after Hunt's name was no longer attached. In 1848, Hunt was granted a patent for his "rocket ball," an early example of caseless ammunition. A Hunt rocket ball resembled a standard conical bullet, but like a Minié ball, it had a hollow base designed to expand upon firing to grip the rifling and form a gas seal. Unlike a Minié ball, however, a rocket ball wasn't packaged with a linen cartridge of black powder—it contained its own propellant, a charge of gunpowder tucked into the hollow of the ball itself. A pierced metal cap fixed to the base of the rocket ball secured the charge and kept it waterproof. When a "percussion pill" was struck by the hammer, the primer sparked through the tiny hole in the base of the cap and ignited the gunpowder. Upon discharge, the rocket ball separated from this cap, which was left behind in the breech as the bullet, well, rocketed out of the barrel. The leftover cap found itself in front of the next rocket ball, which thrust the cap ahead of itself when fired, a convenient mechanism of extraction which also scrubbed the barrel of gunpowder residue.



A year later, Hunt patented a rifle designed to fire his rocket ball—the intriguingly-named "Volition Repeating Rifle," a clear callback to the Cookson repeater. Hunt's rifle featured a ring-like trigger, a "percussion pill" magazine system, and a tubular under-barrel magazine designed to hold twelve rocket balls. Its most innovative feature was the action—the shooter pulled down the trigger-lever in order to work an internal sliding bolt, which fed the next rocket ball into the chamber. Essentially a prototype, there are very few original Volition Repeaters in existence. Even in *Deadlands 1876*, this great-grandfather to the Winchester is extremely rare!

Hunt-Jennings Repeating Rifle
1848–1851, USA, lever action. Caliber .54 Hunt rocket ball, Range 5/50/100, Capacity 12, Rate of Fire 1, DAM 2d10, STR d8, Rare. Notes: On a critical failure, a Jennings repeater jams, requiring a successful Repair roll to fix.

Expensive to manufacture and complicated to produce, the Volition repeater never entered mass production. Walter Hunt sold his patents to his associate George Arrowsmith, the owner of a machine shop that employed a gunsmith named Lewis Jennings. After Jennings made some improvements to Hunt's design, Arrowsmith sold the patents to Connecticut rail baron Courtlandt C. Palmer. Palmer then contracted the Robbins & Lawrence Company of Windsor, Vermont to mass-produce 5000 rifles. The foreman of the R&L shop was a man named Benjamin Tyler Henry. Working with R&L, Jennings continued to tinker with Hunt's design, creating a series of models variously known as Hunt-Jennings repeaters, Jennings repeaters, or Jennings rifles. Although each iteration simplified and streamlined Hunt's original design, three critical flaws kept the rifle from achieving success. The first was the rocket ball itself, which limited the volume of gunpowder propellant and resulted in low muzzle velocities and short ranges. The second was a problem known as "leading." The high number of rocket balls passing through the barrel quickly coated it with lead, significantly decreasing the diameter of the bore and leading to fouling or even impairment. The third flaw remained the complexity of the lever action and the primer system. Indeed, after producing only a thousand Jennings repeaters, R&L switched the remainder of the production run to single-shot, breech-loaded conversion models.

Smith-Jennings Repeating Rifle
1851–1852, USA, lever action. Caliber .54 Hunt rocket ball, Range 5/50/100, Capacity 12, Rate of Fire 1, DAM 2d10, STR d8, Very rare. Notes: On a critical failure, a Smith-Jennings repeater jams, requiring a successful Repair roll to fix. The Second Model "Pregnant frame Jennings" is shown below, converted to single-shot breechloading.

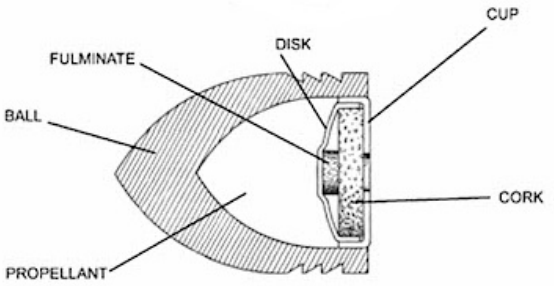
Unwilling to abandon his $10,000 investment, Courtlandt Palmer hired a Massachusetts gunsmith named Horace Smith to serve as the lead developer for his Hunt-Jennings rifle. Working at R&L under Benjamin Henry, Smith improved the rifle by simplifying its action, thereby bringing the repeater once step closer to its final Winchester form. Produced in three distinct models over two years, the Smith-Jennings eliminated the oval trigger guard, but kept the ring-type lever-trigger, under-barrel magazine tube, and awkward pill priming system. Despite Smith's improvements, the rifle was still under-powered and over-complex. Production was discontinued in 1852, and work on Hunt's patent was reduced to wishful, spare-time tinkering.

Volcanic Repeating Carbine

1855–1860, USA, lever action. Caliber .41 Volcanic rocket ball, Range 6/60/120, Capacity 20, 25, 30*, Rate of Fire 1, DAM 1d6+1d8, STR d6, Very rare. Notes: Because the carbine's magazine is related to its barrel length, the longer the barrel the higher the capacity: the 16½" carbine has a capacity of 20, the 21" carbine has a capacity of 25, and the 24" carbine has a capacity of 30. On a critical failure, a Volcanic repeater jams, requiring a successful Repair roll to fix. The New Haven Volcanic 21" Carbine is shown below, with detachable stock.

The Smith & Wesson Volcanic Rocket Ball

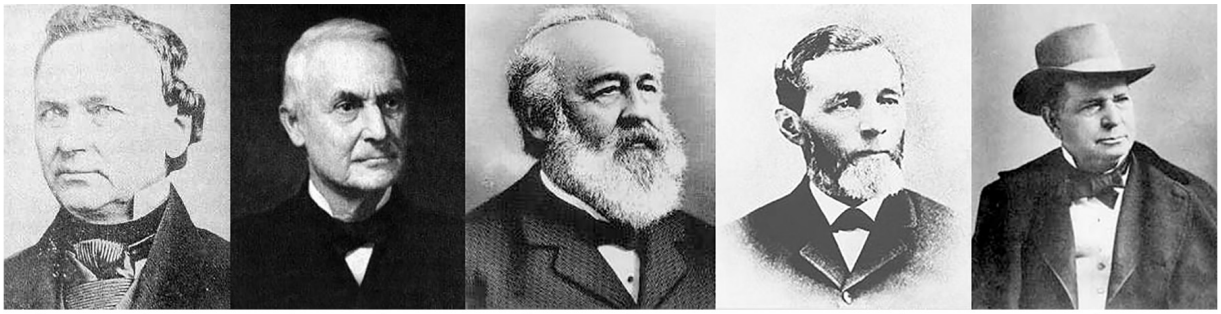
During his tenure at Robbins & Lawrence, Horace Smith came into contact with a gunsmith hired to improve George Leonard's pepperbox pistol. This man was named Daniel Baird Wesson. Over the next few years, Smith and Wesson discussed their projects, shared their difficulties, and debated recent innovations in cartridge-based ammunition. In 1854 they were granted a patent for an improved rocket ball and the mechanism to fire it. With additional funding from Courtlandt C. Palmer, they founded the "Smith & Wesson" company in Norwich, Connecticut, and soon hired Benjamin Tyler Henry as shop superintendent.



The new Smith & Wesson "Volcanic" rocket ball improved upon Hunt's design by placing the primer charge inside the ball itself, encased in a glass "cup" at the rear of the round. This eliminated the complicated primer pill mechanism. Smith & Wesson's first product was the Lever Action Repeating Pistol of 1854.

Smith & Wesson No. 2 Lever-Action Repeating Pistol, Navy Model

Unfortunately for Smith and Wesson, their pistol suffered from performance issues, and a year later Courtlandt Palmer reorganized Smith & Wesson as the "Volcanic Repeating Arms Company" and began looking for additional investors. Once of these was a New Haven businessman named Oliver Fisher Winchester, a clothing manufacturer who became attracted to firearms by the success of Colt's revolver. As Palmer made moves to finally depart the firearms business, Oliver Winchester soon became Vice President of Volcanic Arms.



Volcanic Repeating Arms Company

The history of Volcanic Arms is convoluted, and during its three years in existence the company gradually lost the majority of its founders. Horace Smith departed soon after the failure of the repeating pistol, Benjamin Henry returned to Robbins & Lawrence, and after Courtlandt Palmer sold off his shares, Daniel Wesson was the last to leave Oliver Winchester standing alone. However, during the time they worked together in various configurations, this collection of ambitious capitalists and brilliant gunsmiths laid the foundation for the future of riflery, and produced several key transitional firearms known as Volcanic repeaters.

Volcanic Repeaters

The father of the Henry rifle and the grandfather of the Winchester, a Volcanic repeater employs a tubular magazine located underneath the barrel, and features a ringed trigger-guard which functions as the action lever. When pulled down, the lever activates the breeching mechanism, sliding back the breechblock bolt and cocking the hammer. The upstroke inserts a fresh cartridge and returns the bolt, sealing the breech and leaving the hammer at full cock. As the rounds are discharged, a spring-loaded follower keeps pressure on the remaining rocket balls, pushing them down the magazine and feeding them into the action. The follower is attached to a curved metal tab, which projects from a slot beneath the magazine running its entire length. An empty Volcanic repeater is reloaded by pulling the follower tab towards the end of the muzzle and locking it in place, after which the two-inch tip of the barrel can be rotated aside to give access to the magazine. Because the follower slot is open to the elements, the barrel and action are easily fouled, and without proper maintenance, a Volcanic repeater is prone to jamming.

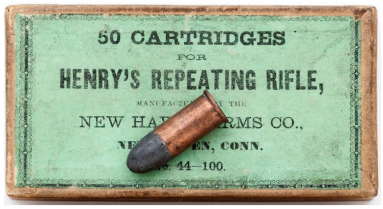
“New Haven” Volcanic Repeating Carbine
1857–1860, USA, lever action. Caliber .41 Volcanic rocket ball, Range 6/60/120, Capacity 20, 25, 30*, Rate of Fire 1, DAM 1d6+1d8, STR d8, Rare. Notes: Because the carbine’s magazine is related to its barrel length, the longer the barrel the higher the capacity: the 16½” carbine has a capacity of 20, the 21” carbine has a capacity of 25, and the 24” carbine has a capacity of 30. On a critical failure, a Volcanic repeater jams, requiring a successful Repair roll to fix.

In 1856, Daniel Wesson departed Volcanic Arms and rejoined his old partner Horace Smith to found the “Smith & Wesson Revolver Company.” Oliver Winchester bought out the remaining shareholders and moved Volcanic Arms to New Haven, Connecticut, renaming it the “New Haven Arms Company.” A shrewd—some might say unethical—businessman, Winchester made sure that he owned all the patents, while the New Haven Arms Company was merely “contracted” to produce “his” firearms. In this manner, Winchester finally acquired all the patents previously owned at one time or another by Walter Hunt, George Arrowsmith, Lewis Jennings, Courtlandt C. Palmer, Horace Smith, Daniel Wesson, and Benjamin Henry! Unfortunately, having lost his star gunsmiths, Winchester found himself in charge of a firearms company with nobody who knew much about firearms. With Robbins & Lawrence going through bankruptcy because of a cancelled contract with Enfield, Winchester persuaded Benjamin Tyler Henry to return to Connecticut and serve as his plant superintendent. While Henry focused on the next generation of rifle and cartridge, New Haven Arms continued to manufacture repeaters based on the Volcanic patents, now stamped “New Haven” but still bearing the trade-name “Volcanic.”

New Haven Volcanic No. 2 Navy Pistol with ivory grips

Henry Repeating Rifle
1860–1866, USA, lever-action. Caliber .44 "Henry flat," Range 20/200/400, Capacity 16, Rate of Fire 1, DAM 2d8, STR d8, Uncommon. Notes: On a Shooting roll of Natural 1, the user must make an additional Shooting roll or the rifle jams, requiring either a Repair roll or 1d4+1 rounds to fix. A character carrying a loaded Henry repeater is prone to accidental discharges; as per Marshal discretion upon various precipitating events. Unless the shooter is wearing gloves or stabilizing the rifle on an inanimate object, every six rounds of continuous fire incurs a cumulative −1 penalty to the shooter's Attack roll (max −4) because of barrel heating.

The immediate predecessor to the Winchester, the Henry repeater was designed by Winchester's armory superintendent, Benjamin Tyler Henry, and was based on the earlier Volcanic Repeater developed by Smith & Wesson. Firing Henry's new rimfire cartridge, the rifle was more accurate, less complex, and had a longer range than Volcanic repeaters using rocket balls.



Patented on October 16, 1860, the Henry rifle employs a tubular magazine located underneath the barrel, and features a distinctive oval trigger-guard which functions as the action lever. When pulled down, the lever activates the breeching mechanism, sliding back the breechblock bolt and cocking the hammer. The upstroke inserts a fresh cartridge and returns the bolt, sealing the breech and leaving the hammer at full cock. As the rounds are discharged, a spring-loaded follower keeps pressure on the remaining cartridges, pushing them down the magazine and into the action. This follower has a small brass tab that projects from a slot running along the bottom of the magazine. (An experienced rifleman can determine how many rounds are left in a Henry by the location of the tab beneath the magazine.) The rifle is reloaded by pulling this tab to the end of the muzzle, where the leading five inches of the barrel are rotated aside to allow reloading.

Reloading a Henry repeater: (1) Follower tab full-forward and locked, (2) barrel tip twists open, (3) rounds inserted into magazine

When operated at maximum capacity, the Henry repeater can project a frightening amount of firepower. Rejected by the War Department because of its potential for "wastefulness," Henry rifles were often purchased as personal weapons by many Union soldiers early in the War. Confederates dreaded this "16 shooter," calling it "that damned Yankee rifle that they load on Sunday and shoot all week!" Unfortunately for the graybacks, Henry's .44 rimfire cartridge was difficult to obtain in the South, which made Henry rifles somewhat unreliable battlefield trophies.

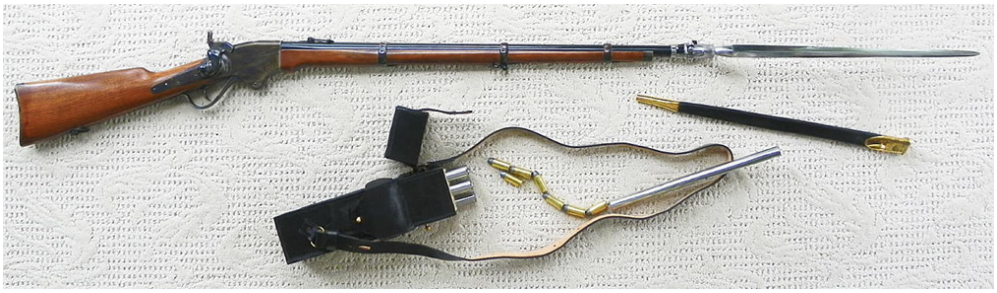
More expensive than Spencer repeaters, Henry rifles are also prized for their aesthetics, with select models featuring brass-capped crescent butts, polished brass or engraved iron frames, or even silver plating.

However misty-eyed some nostalgic Union veterans may be about the Henry repeater, it still has its share of problems. Although the automatic cocking of the hammer increases the rate of fire, it introduces a safety concern. A loaded Henry rifle with a cocked hammer is always in the firing position, while an uncocked hammer rests on the firing pin of a chambered cartridge. Both positions are subject to accidental discharge. Loading the magazine is also somewhat tricky. The user must exercise caution when sliding in the rounds, being sure to reload from a horizontal position. Rounds dropped too quickly onto settled rounds may discharge inside the magazine. Additionally, the user must take care when twisting the barrel closed and resetting the follower. Accidentally letting the tab slip on a partially-loaded magazine results in the follower slamming home on live rounds, which may also result in an accidental discharge! Additionally, because the follower slot is open to the elements, the rifle may become easily fouled, and without proper maintenance, the Henry is prone to jamming. Finally, because the magazine precludes a wooden forestock, the extra metal adds weight to the rifle. It heats up quite rapidly when put into continual use, so a shooter is liable to scald his hand when holding the rifle in any stable position.

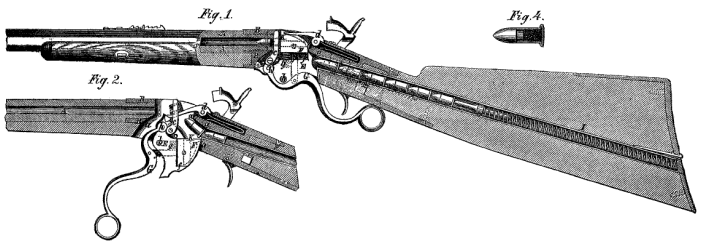
Spencer Repeater
1860–1869, USA, lever-action. Caliber .56-56 Spencer rimfire, Range 50/500/1000, Capacity 7, Rate of Fire 1, DAM 2d10, STR d6, Rare. Note: When firing a Spencer, the shooter adds a d4 die to his Shooting roll. This is *not* an extra wild die; a critical failure only occurs if the shooter rolls *three* ones (his Shooting die, his wild die, and the extra d4).

Connecticut machinist and former Colt employee Christopher Miner Spencer invented many things during his long life, from a steam-powered carriage to the automatic turret lathe, but he was most famous for inventing a rifle that earned him a personal audience with President Lincoln. Conceived in 1857, the Spencer repeater uses a rotating block mechanism operated by a trigger-guard lever. The rotating block draws cartridges from a spring-driven, seven-round tubular magazine located inside the buttstock. The rifle is loaded by removing the tubular magazine follower, feeding cartridges into the stock, and pushing back in the spring-loaded follower. When the hammer is placed at half-cock, the loading lever unlocks. Cycling the lever ejects a spent casing and chambers a new round from the magazine. To fire the rifle, the shooter places the hammer at full-cock and pulls the trigger. Rapid reloading may be obtained by using a "Blakeslee cartridge box." Invented by Erastus Blakeslee in 1864, the box contains pre-loaded metal tubes. The cartridges may be poured directly from the tubes into the magazine.

Spencer cartridges are named differently than other metallic cartridges, and are designated by two hyphenated numbers, such as the .56-56 Spencer. The first value is the width of the cartridge base in inches, followed by width of the cartridge mouth. The degree of taper may be seen in the difference between these values, with the actual bullet caliber being closer to the second number. For instance, the .56-56 contains a bullet that varies from .52 to .555 inches in caliber.



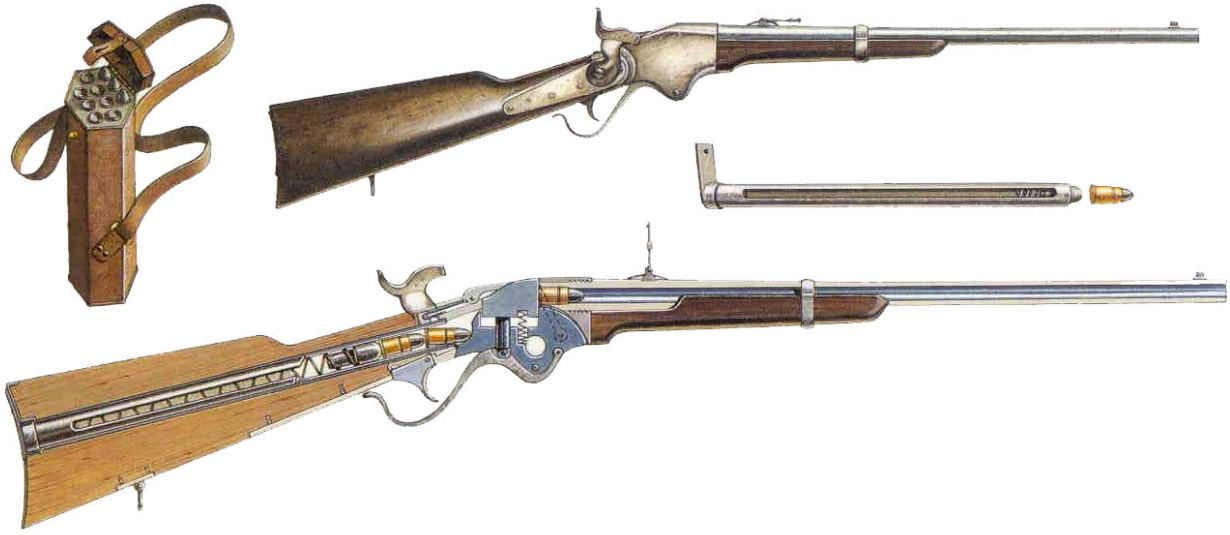
Engineered with durability in mind, the Spencer is remarkably resistant to jamming, and was produced in several lengths and calibers. However, despite its high rate of fire, some shooters find the Spencer throws up a distracting amount of smoke when operated at full capacity.



Spencer Carbine
1860–1869, USA, lever-action. Caliber .56-56, .56-52, .56-50 Spencer rimfire, Range 40/400/800, Capacity 7, Rate of Fire 1, DAM 2d10, STR d6, Uncommon. Note: When firing a Spencer, the shooter adds a d4 die to his Shooting roll. This is *not* an extra wild die; a critical failure only occurs if the shooter rolls *three* ones (his Shooting die, his wild die, and the extra d4).

Because it was significantly more common than the longer rifle, the Spencer carbine is worthy of its own entry. Weighing a little over eight pounds and sporting a 22" blued barrel, the Spencer carbine was particularly popular with the cavalry brigades of the mid-1860s, and was famously used by Wilder's "Lightning Brigade" at Chickamauga and Custer's "Wolverines" at Gettysburg. In 1865, an updated M1865 model was produced, chambered for the new .56-50 rimfire round and featuring a magazine cut-off attachment developed by Edward Stabler. This "Stabler cut-off" allowed the carbine to be fired as a single shot rifle, with the seven rounds in the magazine being held in reserve. The barrel was also shortened to 20 inches.

During its short lifespan, the Spencer repeater was produced at two places—the Spencer Repeating Rifle Company of Boston, and the Burnside Rifle Company of Providence. In 1869, Oliver Winchester bought the rights to the Spencer repeater and effectively ended its production, and Christopher Spencer went to work for Sylvester Roper at the Roper Repeating Arms Company. He developed an early pump-action shotgun with Roper, and eventually founded the Spencer Arms Company in 1882, mostly devoted to producing shotguns.



Triplett & Scott Repeater
1864–1865, USA, twist action. Caliber .56-50 Spencer rimfire (bullet .512), Range 40/400/800 Rifle, Range 20/200/400 Carbine, Capacity 7, Rate of Fire 1/2, DAM 2d10, STR d6, Uncommon.

This unique repeater was invented by Kentucky native Louis Triplett, who received a patent for a "magazine rifle" in 1864. Seeking to put his patent into production, he partnered with William T. Scott, a Louisville entrepreneur with business connections in the Kentucky state government. Fortunately for Triplett and Scott, loyalist Governor Thomas E. Bramlette was looking to arm the Kentucky Home Guard, a militia charged with defending Union interests against Confederate guerillas. Scott suggested Triplett's design, and contracted with the Parker Brothers' Meriden Manufacturing Company of Connecticut to make three thousand "Triplett & Scott" rifles and two thousand carbines.

The Triplett & Scott is one of the more novel firearm designs of the 1860s. The buttstock contains a seven-round tubular magazine. The rifle's receiver is split in half, with the chamber and barrel attached to the rest of the frame by a pivoting hinge. To load a round, the shooter half-cocks the hammer and thumbs a release catch located on the back of the receiver. The front receiver assembly is rotated clockwise. This action extracts a spent casing, and as the rotation is continued to 180°, it opens the door of the spring-loaded magazine, which pushes a new round into the receiver. The assembly is returned counter-clockwise to lock the receiver and close the breech. The hammer is fully cocked, and the Triplett & Scott is ready to be fired.

Unlike a lever-operated repeater, the Triplett & Scott cannot be reloaded from the firing position, a factor that drew negative comparisons to its contemporary rivals, the Spencer and the Henry. Triplett's design also suffers from a few structural flaws. The internal magazine is offset center-left in the stock, which sometimes causes the wood on the narrow side to crack, especially near the wrist joining the buttstock to the receiver. The pivoting system is less durable than a lever-action, and is more prone to breakage during repeated use.

Triplett & Scott Type II Repeater
1866–present, USA/CSA, twist-action. Caliber .54 rimfire, Range 40/400/800 Rifle, Range 20/200/400 Carbine, Capacity 7, Rate of Fire 1/2, DAM 2d10, STR d6, Uncommon.

Historically, the Civil War ended before the majority of Triplett & Scott repeaters could be placed into the hands of the Kentucky Home Guard. In *Deadlands*, the initial run was completed successfully, and in 1865 production was moved to the newly-established Scott Firearm Company in Louisville. One year later, the Triplett & Scott Mark II was introduced. Correcting the problem with the fragile wrist and making the tubular magazine removable, Triplett improved the durability and convenience of the rifle; but the same cumbersome reloading process still forces the shooter to reacquire his target every time the rifle is fired.

Note the "KENTUCKY" stamp.

Both models of Triplett & Scott saw action during the Battle of Leitchfield and the subsequent "Kentucky Push." After Cleburne's forces captured the Federal arsenal at Bowling Green, hundreds of these unusual repeaters fell into Confederate hands, and many are still being used by Kentucky rebel militias for various anti-Union activities. Despite the Connecticut provenance of the original rifle, Kentucky natives consider the Triplett & Scott as homegrown as bourbon whiskey and bluegrass clogging, and it's proudly carried by Kentuckians on both sides of the political divide—particularly those too poor or too stubborn to spring for a Winchester.

Winchester Model 1866 Repeating Rifle, "Yellow Boy"
1866–1899, USA, lever-action. Caliber .44 "Henry flat," Range 20/200/400, Capacity 17, Rate of Fire 1, DAM 2d8, STR d6, Common. Notes: A character keeping a loaded Model 1866 is prone to accidental discharges; as per Marshal discretion upon various precipitating events.

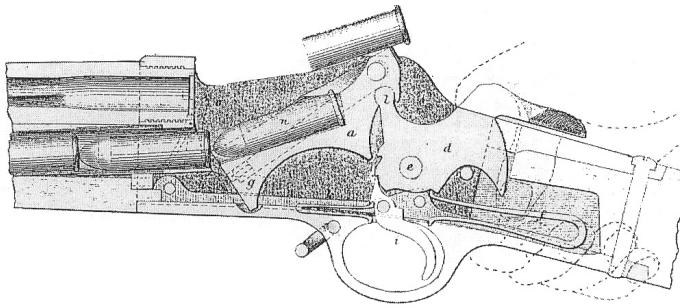
In 1866, Benjamin Tyler Henry finally had his fill of Oliver Winchester's predatory business practices. Believing himself to be inadequately rewarded for the runaway success of the Henry repeater, Henry attempted a hostile takeover of New Haven Arms Company while Winchester was on business in Europe. Rushing back to forestall legal action, Winchester used his superior assets to defeat his former comrade and reorganized New Haven Arms as the "Winchester Repeating Arms Company." The company introduced the iconic Winchester Model 1866 "Yellow Boy" Repeating Rifle later that year. A marked improvement over the Henry repeater, the Model 1866 incorporated an innovation developed by armorer Nelson King—the magazine was replenished using a "loading gate" located on the right side of the receiver, allowing the magazine to remain fully enclosed. This made reloading the rifle easier, safer, and solved the Henry's problem of an open follower slot. It also freed the rifle to sport a lightweight wooden forestock. Especially distinctive on account of its Henry-style gunmetal receiver, the "Yellow Boy" (sometimes "Golden Boy") was the first in a long line of famous Winchesters.

Palmetto Model 1869 Repeating Rifle, "Golden Boy"
1869–1877*, CSA, lever-action Caliber .44 "Rebel," Range 20/200/400, Capacity 17, Rate of Fire 1, DAM 2d8, STR d6, Common. Notes: A character keeping a loaded Palmetto repeater is prone to accidental discharges; as per Marshal discretion upon various precipitating events.

The product of Columbia's Palmetto Iron Works & Armory, to call this rifle a rough copy of the Winchester "Yellow Boy" is to do it a disservice—it is an *exact* copy of the Model 1866, lovingly crafted and made from the highest quality materials. The "Palmetto Winchester" differs from the Model 1866 in just two respects—its stamp reads "Palmetto Armory, S.C.," and the gunmetal alloy is more gold-colored than brassy, giving it the nickname "Golden Boy." Although one of the stipulations of the Armistice is for Palmetto to halt production of all "illegal copies" by 1877, this has yet to be enforced; and because authentic Winchesters are still not allowed to be sold in the CSA, it's unlikely that Palmetto will suspend production any time soon. The Palmetto can fire the standard .44 "Henry flat" cartridge, but is more frequently loaded with the "Rebel .44," an interchangeable copy of the Winchester round produced by Southern armories.

New Canaan Vision 1871, "Nauvoo Hammer"
1871–1878, Deseret, breech feeding. Caliber .45-60 "Mormon," Range 40/400/800, Capacity 9, Rate of Fire 1, DAM 2d8, STR d6, Rare.

The second rifle to be mass-produced at the Mormon armory of New Canaan, the Nauvoo Hammer was the first in a series of innovative firearms designed by Alan Loveless, a British convert to Mormonism who settled in Salt Lake City in 1864. Loveless claims that the rifle's unique "breech feeding" action was the product of a religious vision. In 1868, Loveless was a lieutenant in the Nauvoo Legion, which was armed at the time with New Canaan copies of the Springfield. During a skirmish with a group of hostile Indians, Loveless received a head wound and was left for dead. As he lay bleeding on the battlefield, he was seized by a vision of "a flaming angel with a drawn sword." The angel placed the sword upon Loveless' bleeding temple and issued a command: "Thou shalt forge an arsenal of long hammers; and thine foes shall be smitten by the might of your arms and the terrible fire of your words." That night, slipping in and out of consciousness on a rain-soaked battlefield, Loveless conceived the "Loveless Breech Feeder" action. Rescued in the morning, the expatriated Saint requested an audience with Brigham Young. He told the astonished president about his vision, who explained that the angel was Nephi, and the sword was the Sword of Laban. President Young granted Loveless an honorable discharge and placed him under the care of Jonathan Browning and Orator II Dibble at the New Canaan Armory.



Three years and four prototypes later, the Nauvoo Hammer was formally introduced in 1871 and immediately adopted for Legion use. With its forestock magazine and hammer-activated falling block, the V71 anticipated the historical Krag-Petersson by five years. When the user cocks the hammer, the breechblock slides down and back, ejecting the spent casing and accepting a new round from the magazine. The shooter then thumbs forward a small lever on the right side of the receiver, which snaps the breechblock into place and pushes the cartridge into position. (The Krag-Petersson requires the shooter to manually push the round into the breech.) Like all firearms manufactured at New Canaan, the V71 is elegantly designed, with its large hammer and side-lever giving it a unique profile. A nickel-plated receiver and patchbox adds to the character of the rifle, and every barrel is engraved with Jeremiah 23:29, "Is not my word like as a fire? Saith the LORD; and like a hammer that breaketh the rock in pieces?" Many variants of the V71 exist, including a 21½" carbine and an expensive "Malleus Excelsior" model with a polished black stock, silver patchbox, and nickel-plated barrel sporting the Jeremiah verse in Latin, "*Numquid non verba mea sunt quasi ignis ait Dominus et quasi malleus conterens petram*."

Winchester Model 1873 Repeating Rifle
1873–1919, USA, lever-action. Caliber .44-40 WCF, Range 20/200/400, Capacity 16, Rate of Fire 1, DAM 2d6, STR d6, Very common. Note: Because of the reduced power of the .44-40 WCF round, a Winchester firing this standard load only inflicts 2d6 DAM.

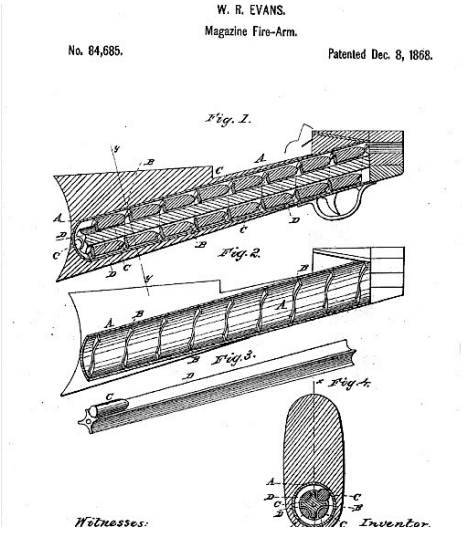
In 1873 the Winchester Repeating Arms Company introduced the "Gun That Won the West," a handsome repeater that made a few cosmetic and structural changes to the "Yellow Boy." Trading bright, iconic brass for a sleek frame of dark iron, the Model 1873 features distinctive raised sideplates that invite artistic embellishment. A new safety feature prevents the gun from firing when the lever is locked; however, the popular "set trigger" option removes this feature to accommodate a user-customizable trigger pull. One of the most prolific guns in the West, the Model 1873 comes in a multitude of variations. It can be fitted for calibers ranging from .22 rimfire to .44-40 Winchester Center Fire, and may sport round or octagonal barrels varying between 20" and 30" in length. There's even a carbine fitted for Colt Single Action Army "peacemaker" pistol rounds! Although the Model 1873 is incredibly popular with lawmen, criminals, and civilians, the .44-40 WCF lacks the power and range of the .45-70 Government round used in most breech-loaders. The repeater is also inaccurate compared to most single-shot rifles. These reasons caused the Union Ordinance Department to reject the Winchester for military use in favor of the 1873 Springfield. The .44-40 WCF round has also drawn some criticism from hunters who want more firepower for big game.

Palmetto Model 1874 Repeating Rifle
1874–1877*, CSA, lever-action. Caliber .44-40 PCF or .44-40 Loveless-Howell, Range 20/200/400, Capacity 17, Rate of Fire 1, DAM 2d6 or 2d8, STR d6, Common. Note: Because of the reduced power of the .44-40 PCF round, a Palmetto firing this standard load only inflicts 2d6 DAM.

In a move that surprised exactly no one, in 1874 the Palmetto Iron Works & Armory of Columbia, South Carolina began mass-producing faithful copies of the Model 1873 Winchester. Substituting the interchangeable "Palmetto Center Fire" for the WCF round, Palmetto offers two expensive variants not found in Connecticut: the .44-40 PCF "Black Ghost" carbine with a lightweight ghost-steel frame; and the "White Ghost" sportsman model of 1875, featuring a ghost-steel frame, a nickel-plated receiver, and chambered for the more powerful .44-40 Loveless-Howell blue powder round.

Evans Repeating Rifle, "Old Model"
1873–1876, USA, lever-action. Caliber .44-33-220 Evans "short" round, Range 20/200/400, Capacity 34, Rate of Fire 1, DAM 2d6, STR d8, Rare. Notes: Because of the reduced power of the Evans "short" round, the Evans repeater only inflicts 2d6 DAM. On a critical failure, the shooter must make an additional Shooting roll or the rifle jams, requiring either a Repair roll or 2d6 rounds to fix. Completely reloading an empty Evans repeater requires 10 rounds.

Designed by Maine dentist Dr. Warren R. Evans, the Evans repeater is something of a boutique firearm, limited in production and quite difficult to obtain. Nevertheless, with its extended magazine tube, partially-enclosed "underhammer," and distinctively curvaceous trigger-guard lever, the rifle is a handsome fusion of aesthetics and functionality, and remains one of the most distinctive firearms of the nineteenth century. Containing a 34-round "rotary" magazine enclosed within the buttstock, the rounds are delivered into the breech by a fluted carrier which functions as an Archimedes screw. Every time the lever is cycled, the screw makes a quarter turn and chambers another round. Spent casings are ejected from an open port at the top of the receiver. When the trigger is pulled, the underhammer strikes the firing pin on an upward sweep.


W. R. EVANS.
Magazine Fire-Arm.
No. 84,685. Patented Dec. 8, 1868.
Fig. 1.
Fig. 2.
Fig. 3.
Fig. 4.
Witnesses:
Inventor.

Although the Evans rotary system allows for an incredible 34 round capacity, the magazine takes a very long time to reload—each round must be inserted into the helical device through a trapdoor in the buttplate, requiring the action to be cycled for every cartridge loaded. The rifle is therefore impossible to "top off" before the magazine is empty, as each pull of the lever chambers a previously-loaded round. The rifle is unusually heavy, prone to fouling and misfires, and requires a unique cartridge—similar to the Winchester .45-40 WCF but harder to find. Despite these flaws, the Evan repeater is much in demand among Union collectors, and is considerably more expensive than a Winchester.

Historically, the Evans underwent three production models. The "Old Model" was Evan's first design, and is notable for having the magazine tube extending along the bottom of the butt stock. Produced from 1873–1876, there were about five hundred of these put into circulation. Evans then redesigned the rifle to feature a split two-piece walnut stock, and added a dust-cover to the ejection port. After producing a thousand of these "Transition Models" in 1876, Evans responded to criticism about the rifle's lack of firepower and introduced the "New Model" in 1877. All three models come in three variants as well: the "sporting rifle," which features a 26"/28"/30" octagon barrel and checkered walnut stock; the "military musket" with a 30" round barrel; and a 22" carbine with a swing swivel.

Transition Model "Sporting" Rifle, nickel-plated and engraved in "Nimschke" style

Evans Repeating Rifle, "New Model"
1877–1879, USA, lever-action. Caliber .44 "New Model," Range 20/200/400, Capacity 28, Rate of Fire 1, DAM 2d8, STR d8, Uncommon. Notes: On a critical failure, the shooter must make an additional Shooting roll or the rifle jams, requiring either a Repair roll or 2d6 rounds to fix. Completely reloading an empty New Model requires 8 rounds. The carbine is shown below.

Reducing the capacity of the magazine in order to hold larger cartridges, the Evans "New Model" is the most successful Evans repeater, reaching a production run of 10,000 before the company went bankrupt in late 1879. In *Deadlands 1876*, the New Model remains a prototype, but when it is released it will certainly be the height of steampunk fashion!

Winchester Model 1876 Repeating Rifle, "Centennial"
1876–1897, USA, lever-action. Caliber .45-75 WCF, Range 30/300/600, Capacity 16, Rate of Fire 1, DAM 2d8+2, STR d8, Uncommon.

Introduced at the Centennial Exposition, the Winchester Model 1876 is similar to the 1873, but has a slightly larger, more durable frame possessing more weight and heft. A response to criticism regarding the low firepower of the Model 1873, the Centennial is chambered for Winchester's version of the "Government" round, making it an instant favorite among buffalo and grizzly hunters. The standard model sports a 28" octagonal barrel, but variations include the 22" round-barrel carbine and the 32" "musket" version. Indeed, almost any variation can be ordered from the Winchester factory, including wood type, custom sights, and set triggers.

Sources & Notes

Books

To create this resource, I leaned heavily on Norm Flayderman's *Flayderman's Guide to Antique American Firearms*. Featuring photographs and detailed descriptions of thousands of antique firearms, this is an essential resource for any historical gaming campaign, and *Flayderman's Guide* introduced me to several of the more bizarre weapons described in the *Deadlands* Armory. To flesh out some of the statistical details, I turned to John Walter's *Rifles of the World*. I also recommend Dennis Adler's *Guns of the American West* and David Miller's *Illustrated Book of Guns*. Both feature historical notes and full-color illustrations of the West's most iconic firearms, many of which are museum pieces photographed especially for these books.

Internet

Of course, the Internet was crucial for my research. The Web is filled with antique firearm collectors, and much of the information in the Armory was gathered from gun-ownership forums, antique auction sites, and the homepages of Civil War reenactors. Anyone interested in the historical firearms described in the Armory can find a wealth of additional information online, including videos of many of these guns being loaded and fired—sometimes by authentically-costumed reenactors! But without a doubt, the most useful resource on obscure firearms is Ian McCollum's Forgotten Weapons. Perpetually cheerful and possessing a dry sense of humor, McCollum works in conjunction with auction houses to produce short videos spotlighting authentic antique firearms. McCollum explains their history, carefully reveals their inner workings, and sometimes takes them to the firing range. I also relied on Wikipedia, Antique Arms, and the Firearms History, Technology & Development blog.

Image Credits

Many of the photographs of firearms used in the Armory have been "borrowed" from online sources. Because most owners of vintage firearms are good-natured folk with a passion for promoting their hobby, I have no doubt they'll be happy to see their photographs used to promote a wider understanding of antique weaponry. Having said that, if anyone is offended that I'm using an image without proper authorization, please contact me and I'll remove it immediately. Many photographs depict modern reproductions, usually manufactured by Uberti, Pietta, Pedersoli, Cimarron, Taylor's, or Dixie Gun Works. I favor these photographs because they make the gun look contemporary, something a *Deadlands* character might purchase in a gun store or pry from the cold, dead fingers of his enemy. When I could not find a shiny new replica, I usually turned to vintage gun auctions. The four best resources for detailed images of antique firearms are the Rock Island Auction Company, James D. Julia Auctioneers, College Hill Arsenal, and the Collectors Archives from Collectors Firearms, Inc. Thank you!

Specific Online Sources

When developing the history of the repeater, several sites were very helpful in tracking the convoluted history from Walter Burns to Oliver Winchester: The Evolution of 'That Damn Yankee Rifle...' by Joel R. Kolander writing for the Rock Island Auction Company, Jimmy Stamp's The Inventive Mind of Walter Hunt, Yankee Mechanical Genius for *Smithsonian Magazine*, the Revivaler's entry on the Volcanic Carbine, and the entry on Walter Hunt on the Lost to Sight blog. Forgotten Weapons has excellent videos showing off the Volcanic repeater and the Evans repeater, while Hickock45 demonstrates the loading and shooting a Henry repeater on YouTube. Two Also of interest were Garry James' Henry's Classic Henry for *American Rifleman* and 7-Shot Wonder: The Spencer Repeating Rifle for *Guns & Ammo*,

the Spencer Repeating Rifle entry on Weapons of War, Matthew Lively's John T. Wilder and the Spencer Repeating Rifle for Civil War Profiles, Tony Beck's Spencer's Repeater page for Civil War Guns, John McAuley's Excels All Others: The Spencer Carbine for *American Rifleman*, College Hill Arsenal's piece on Triplett & Scott, Dave Campbell's A Look Back (and Forward) at the 1873 Winchester for *American Rifleman*, Stephen F. Blancard's Evans Repeating Rifle page for LeverGuns.com, and Christopher Eger's The Amazing Evans Repeating Rifle for FirearmsTalk.com.

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