

Deadlands Armory

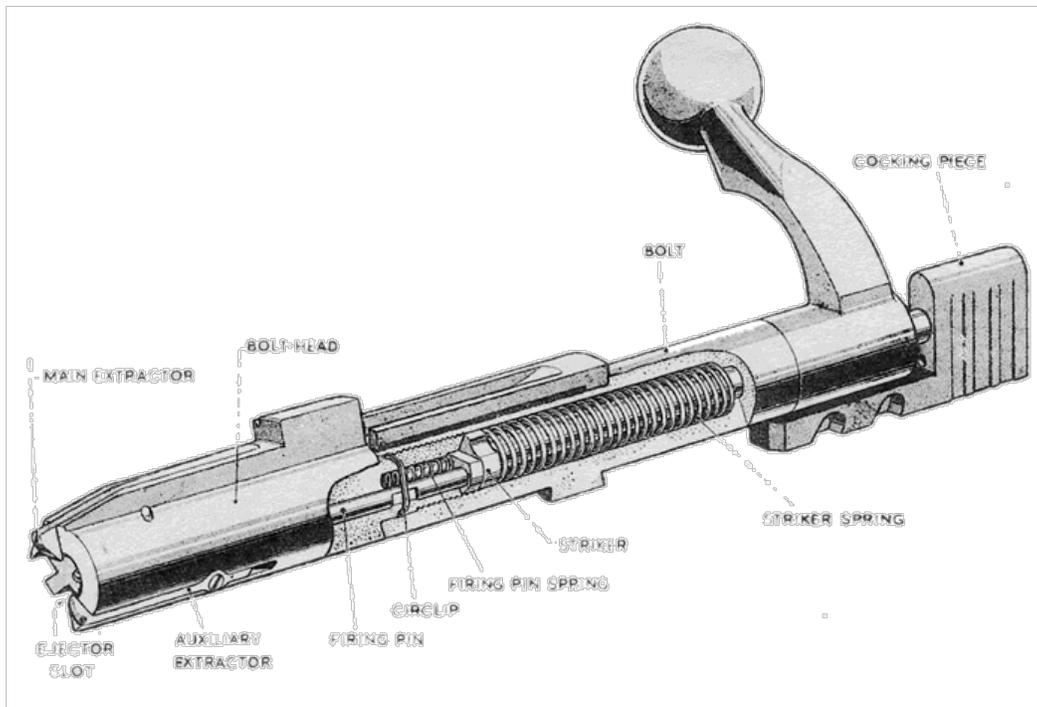


BOLT-ACTION

Rifles Part V. Birth of the Modern: Bolts & Box Magazines

Bolt-Action Rifles

A bolt-action rifle is loaded by pulling back a knob-tipped handle, which opens the breech by sliding back a bolt-shaped breechblock. This action usually cocks an internal firing pin, typically a spring-loaded striker contained within the bolt itself. A cartridge is loaded into the breech, whether inserted by hand, or loaded mechanically from a spring-powered magazine. When the shooter pushes forward on the bolt handle, the bolt seats the round into the chamber and seals the breech. After the rifle is fired, opening the bolt mechanically extracts the spent casing.



Advantages

Because single-shot bolt-action rifles are loaded from the breech, they can be easily reloaded from a sitting or prone position. While not as rapidly fired as lever-action repeaters, bolt-action repeaters may be chambered for larger rounds, and possess magazines that trade capacity for cartridge size. A bolt-action repeater may be fitted with a magazine “cut-off,” usually a sliding plate that prevents the magazine from feeding the next round into the action. This allows the repeater to be fired more leisurely as a single-shot rifle—until the shooter needs access to the full magazine.

Breech Blow-By

Early bolt-action rifles used paper cartridges, which meant there was no metal casing to help form a gas seal. This resulted in hot gas escaping the breech during discharge, which decreased the accuracy of the rifle and could scorch the shooter in the face. Such rifles struggled to find methods of “obturation,” or sealing the breech. The advent of metal cartridges solved this issue, with the copper or brass casing expanding upon heating to seal the breech, directing the expanding gas properly down the bore.

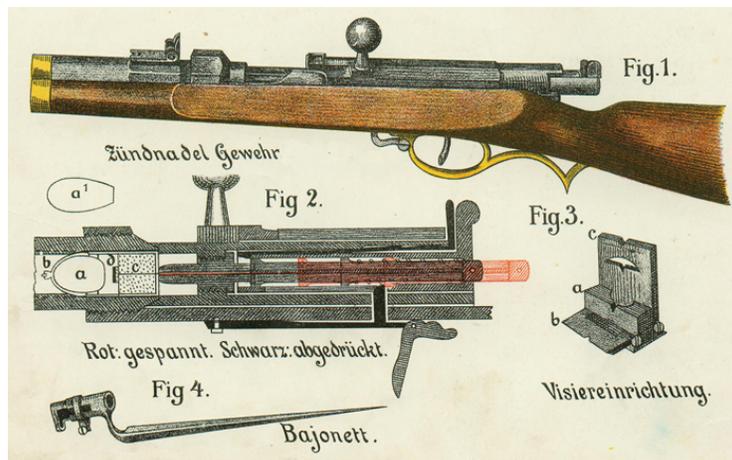
The Armory: Bolt-Action Rifles

Zündnadelgewehr, “Prussian Needle Rifle”

1841–1873, Prussia, bolt-action. Caliber 13.5 mm (.53 inches), Range 40/400/800, Capacity 1, Rate of Fire 1/2, DAM 2d10, STR d6, Rare. Note: On a critical failure, the needle breaks and must be replaced. This action takes three rounds.

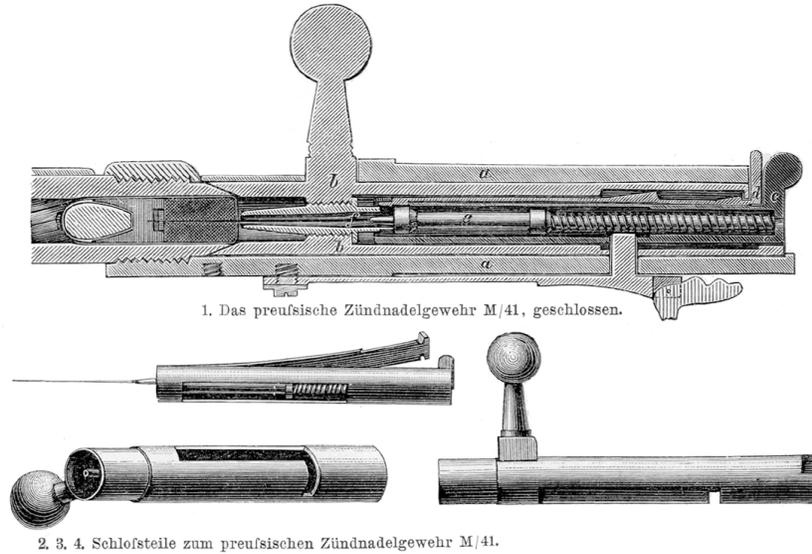


Designed by Johann Nikolaus von Dreyse in 1836, the revolutionary Zündnadelgewehr—or “needle-fired gun”—was the first breech-loaded bolt-action rifle. The rifle’s name is derived from Dreyse’s unique primer system. The .53 caliber round is encased in a .61 papier-mâché sabot, with a percussion cap located directly behind the bullet. This sabot is backed by a paper cartridge filled with 74 grains of black powder. When the trigger is pulled, a needle-like firing pin pierces the paper cartridge, passing through the gunpowder to strike the percussion cap mounted behind the bullet. Because the subsequent deflagration moves front-to-back, the gunpowder is burned more efficiently, directing its full energy into propelling the bullet. This also reduces energy lost through muzzle flash. The sabot grips the rifling of the .61 bore, spinning the bullet which departs the sabot upon exiting the muzzle.



Dreyse’s bolt assembly features a spring-activated firing pin carrier encased within the breech-bolt. To load the rifle, the user unlocks the breech-bolt by depressing a spring-catch located at the rear of the bolt assembly. This releases the tension on the carrier, which pops from the rear of the bolt assembly. The breech is exposed by pulling back the bolt assembly using a knob-tipped handle. The bore is accessed through a truncated conical opening at the front of the breech. The shooter brushes away the charred remains of the previous paper cartridge and inserts a new cartridge into the bore. The bolt is pushed forward and locked down using the knob. Because the leading end of the breech-bolt features a recessed ring, it slides over the conical lip of the bore, forming a rudimentary gas seal. Finally, the shooter manually sets the firing pin by pushing the protruding carrier back against the spring and locking it into place. When the trigger is pulled, the needle drives forward to pierce the cartridge and fire the round.

The Zündnadelgewehr was used to great effect during the Second Schleswig War in 1864 and during the Austro-Prussian War of 1866. Placed in the hands of special troops, Dreyse's needle rifle could fire four to five times the rate of the muzzle-loaders used by the Danes or Austrians. Unfortunately for the Germans, the French were watching, and during the Franco-Prussian War of 1870-71, the Zündnadelgewehr proved unable to match its Gallic imitator, the Chassepot rifle.



As revolutionary and as effective as it was in the 1860s, Dreyse's rifle suffered from several disadvantages. Its main weakness was the needle itself, which was surrounded by exploding gunpowder every time the trigger was pulled. After about two hundred firings, the needle simply broke, leaving the rifle without a firing pin. Fortunately, the needles were easy to replace. Encased within a thin brass sheath, the firing pin was unscrewed from the carrier, and a fresh needle was swapped for the damaged one. Less easily amended was the problem of breech blow-by, which resulted in troops failing to properly aim the rifle, often preferring to shoot from the hip rather than risk a scorched face. Finally, the rifle weighs over eleven pounds, which makes it tedious to carry and difficult to aim without support. After passing through several minor iterations, Dreyse's Zündnadelgewehr was replaced by the Mauser in 1871.

Calisher & Terry Door Bolt Breech-Loading Carbine, "Terry Carbine"

1858–1870?, UK, breech-loading caplock. Caliber 26-bore (.568), Range 25/250/500, Capacity 1, Rate of Fire 1/2, DAM 1d10+1d12, Very rare.



In 1856, William Terry of Birmingham's Calisher & Terry was granted a patent for a breech-loading mechanism that employs a primitive bolt-action method to open the breech. The chamber is accessed through a trapdoor in the right side of the breech. The cover of this trapdoor is connected to a knobbed handle, which itself is connected to the bolt-breechblock. The shooter pulls the handle out, rotates it upwards, then pull it backwards. This series of actions lifts the cover from the breech, disengages the breech lugs, and slides back the bolt to expose the chamber. A paper cartridge is loaded into the chamber, and the bolt is returned. The nipple is capped, and the carbine is ready to fire. Known as the Pattern No. 1, the first Terry carbine has three-groove rifling, a 19½" barrel, and a long-shank hammer. The elongated breech gives it a distinctive, if somewhat bulky, profile.



TERRY'S PATENT BREECH-LOADING RIFLES AND PISTOLS.

Submitted for British military testing, the Calisher & Terry carbine fared poorly, as continual use was found to degrade the obturating pad, and gas leakage became severe enough to blow the breech cover open during firing! Nevertheless, several hundred carbines were issued to the 18th Hussars, and interest was sufficient enough to bring about the Pattern No. 2 in 1860, which subtracted a barrel band, increased the rifling to five grooves, and reduced the bore to 30-gauge (.539 caliber). The final Pattern No. 3 was produced in 1862, but the only modification was addressing a "snag" issue on the barrel band. The Terry patent was also used by Calisher & Terry to manufacture sporting rifles during the 1860s.



Calisher & Terry sporting rifle

The No. 2 Terry carbine was largely intended for militia and police forces in Australia and New Zealand, where it saw some action encouraging the Māori to accept the enlightenment of British rule. The New Zealand Forest Rangers in particular preferred the carbines, which were more suited for “the bush” than the muzzle-loading P53 Enfield rifle, and could be loaded from a concealed position or while on the run.



A few Calisher & Terry carbines were sold to both sides of the conflict during the early days of the Civil War. Although Henry Calisher brought two hundred Terry patent carbines into New York—under the guise of “long Enfields!”—many more are believed to have entered the Confederacy as speculative cargo on blockade runners. Indeed, J.E.B. Stuart and Jefferson Davis both owned a Calisher & Terry carbine.

Greene Breechloading Rifle

1859–1862?, USA, bolt-action. Caliber .53, Range 50/500/1000, Capacity 1, Rate of Fire 1/3, DAM 2d10, STR d6, Very rare. Note: On a critical failure, the shooter has difficulty advancing the previous “gas seal” bullet into the firing position and loses two action rounds.



Invented by Lt. Colonel J. Durrell Greene in 1857, the Greene breechloading rifle was the first bolt-action rifle developed in the United States. Possessing an oval bore originally designed by the Englishman Charles Lancaster, the rifle was known for its remarkable accuracy. To load the rifle, the shooter opens the breech using a knob-shaped bolt handle. A Minié bullet is inserted, and the bolt is pushed fully forward to seat the round in the chamber. The bolt is then reopened, and a “Greene combustible cartridge” is inserted behind the loaded bullet. The reverse of a traditional round, the Green cartridge situates a gunpowder charge in *front* of a lead Minié bullet. The bolt is pushed to its firing position and locked into place. The shooter manually cocks the ring-shaped underhammer using his index finger, and a percussion cap is placed on a cone located beneath the rifle. When the trigger is pulled, the underhammer strikes the primer and sends its flash to the gunpowder charge located midway between the two bullets. The leading bullet is fired from the muzzle, while the rear bullet is thrust backwards to serve as a gas seal. To reload the rifle, the user cycles the bolt to push the “gas seal” bullet into the bore. A new cartridge is loaded behind it, and the process is repeated, with each “gas seal” bullet serving as the subsequent “projectile” bullet.



Manufactured by A.H. Waters in Millbury, Massachusetts, over 4500 Greene rifles were placed into production, but they suffered from the underhammer design, with percussion caps falling from the cone just prior to discharge. The rifles were also difficult to load, taking some degree of effort to push the previous “gas seal” bullet into the bore. The Greene never caught on in the U.S., but 3000 were sold to Russia, who used them during the Lithuanian uprising in 1864.

Palmer Bolt-Action Carbine

1865, USA, bolt-action. Caliber .56-50 Spencer, Range 25/250/500, Capacity 1, Rate of Fire 1/2, DAM 2d10, Rare.



Based on an 1863 patent licensed from New York inventor William Palmer, the Palmer carbine was the first bolt-action metal-cartridge firearm adopted by the U.S. government. Produced in Windsor, Vermont, by E.G. Lamson and Company, the Palmer carbine operates on a simple bolt-action principle. The shooter cocks the hammer and rotates a knob at the end of the breech a quarter-turn counterclockwise to unlock the bolt. The bolt is pulled backwards, which exposes the chamber. Pulling back the bolt also extracts a spent casing, which is automatically ejected using a spring-loaded mechanism—a cutting-edge innovation for its time! A .56-50 Spencer rimfire cartridge is inserted, and the bolt is pushed back into place. The angled hammer is tipped by a metal flange which strikes the cartridge base through a slanted aperture in the breech; unless the bolt is rotated into battery, the carbine cannot fire, a feature that functions as a built-in safety.



Ordered by the government in 1863 and delivered in 1865, a thousand Palmer carbines arrived just in time to miss the war, and were quickly unloaded by the government at auction. In *Deadlands 1876*, Palmer's carbine fared somewhat better, manufactured in higher numbers and used throughout the years 1865–1868, after which the Blue Plague killed off William Palmer and forced the shuttering of E.G. Lamson & Company in Vermont.

Fusil modèle 1866, “Chassepot”

1866–1875, France, bolt-action. Caliber 11mm (.433 inches), Range 60/600/1200, Capacity 1, Rate of Fire 1/2, DAM 1d6+1d8, STR d6, Uncommon. Note: On a critical failure, the needle breaks and must be replaced. This action takes five rounds and a Repair roll.



Invented by gunsmith Antoine Alphonse Chassepot, “le fusil modèle 1866” is the French answer to the Prussian Zündnadelgewehr. Designed to fire a small caliber high-velocity round, the Chassepot is lighter in weight and more accurate than the Zündnadelgewehr. The Chassepot cartridge is also different from its Dreyse counterpart, with the primer located in the traditional rear position. Although this results in more muzzle flash than the Dreyse, the Chassepot needle takes less abuse and has a longer effective life.

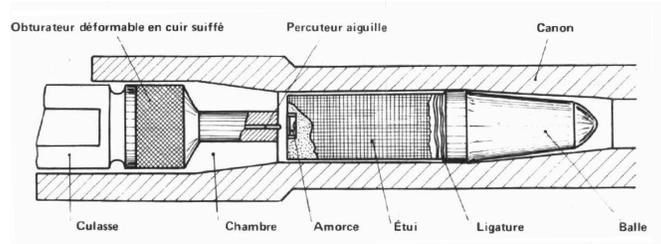


Bolt closed



Bolt open and firing pin set

To load the Chassepot rifle, the shooter unlocks the bolt by pulling back a thumb-shaped cocking spur located at the rear of the bolt assembly. This sets the spring and readies the firing pin. A knob-shaped bolt handle is pulled up and drawn backwards, exposing the breech in a single, fluid action familiar to modern shooters. The cartridge is inserted and the bolt is returned. Pulling the trigger trips the firing pin, which drives the needle into the primer and fires the round. In order to reduce the loss of accuracy from explosive gas escaping the breech, a pair of rubber “obturator” rings expand upon heating to form a gas seal. Naturally, these obturators degrade over time as the rifle is used. The firing needle and the obturators are easily replaced by a quick disassembly of the bolt mechanism.



First used against Giuseppe Garibaldi’s troops at Mentana, the small-caliber, easy-to-load Chassepot was more accurate than the Dreyse needle rifle, and outranged its Teutonic predecessor by a factor of two-to-one during the Franco-Prussian War of 1870–1871. As some historians have remarked, the first modern rifle had bested the last of the Napoleonic muskets.

Vetterli Repetiergewehr

1867–1890, Switzerland, bolt-action. Caliber 10.4x38mmR Swiss (.41 inches), Range 40/400/800, Capacity 12, Rate of Fire 1, DAM 1d6+1d8, STR d6, Rare.



Modell 1878 Vetterli Infantry Rifle

After working as a gunsmith in France and England, Johann-Friedrich Vetterli was appointed director of the Schweizerische Industrie-Gesellschaft in Neuhausen, Switzerland. While at SIG, Vetterli designed a rifle that combined the tubular magazine of the Winchester repeater with the bolt action of the Dreyse needle rifle. An inveterate tinkerer, Vetterli made continual improvements to his design, and almost every year from 1867 to 1881 saw a different “Modell” of Vetterli repeater, from a wide variety of Swiss rifles and carbines to centerfire variants manufactured in Italy. Although the initial Modell 1867 features a traditional external hammer, starting with the Modell 1868, all Vetterli repeaters use an internal, spring-driven firing pin in the shape of a two-pronged fork. Cartridges are loaded into the tubular magazine through a loading gate located on the right side of the receiver. When the bolt is pulled back, the spent casing is ejected and a carrier mechanism elevates the next round into the breech. Pushing the bolt forward seats the round, returns the carrier, and sets the firing pin. When the trigger is pulled, the twin prongs of the firing pin strike both sides of the rimfire cartridge, doubling the chance of ignition.



Modell 1871 Infantry Rifle

When the Swiss Federal Council adopted the Vetterli repeater to replace the M1842/59 Milbank-Amsler muzzle-loader and its cartridge conversions, they placed Europe’s most advanced rifle into the hands of the “neutral” Swiss Army and the Vatican’s Pontifical Guards. With a quarter million rifles in production, the Vetterli repeater served Switzerland until 1889, when it was replaced by the superior Schmidt-Rubin rifle. Even then, over a million cheaper versions of the Vetterli continued to be manufactured in Italy, and Vetterli rifles appeared in African colonial conflicts, Finnish uprisings, the Spanish Civil War, and both World Wars. Indeed, so many were brought back to the United States that U.S. catalogues sold “Swiss .41” rounds as “bear hunting ammunition” well into the 1960s.

Springfield Model 1871 Ward-Burton Bolt-Action Rifle

1870–1871, USA, bolt-action. Caliber .50, Range 50/500/1000, Capacity 1, Rate of Fire 1/2, DAM 2d10, STR d6, Very rare. Note: On a critical failure the bolt breaks, requiring a workshop and a Repair roll to fix.



In 1859, Brooklyn gunsmith Bethel Burton patented a breech-loaded, bolt-action percussion rifle. After failing to attract interest from the U.S. Ordinance board, in 1861 Burton turned to the Confederacy, and was promptly arrested by Federal Marshals after securing an order of 40,000 rifles from the Commonwealth of Virginia. After cooling his heels for a year in Warren Prison, Burton swore an oath of allegiance to the United States and was reinstated as a “good citizen.” In 1868, Burton modified his rifle to accept brass centerfire cartridges, and attempted to attract interest in the United States as well as abroad. While demonstrating his rifle for New York State, Bethel Burton met General William G. Ward. The two men became partners, and using the general’s military connections, they captured the attention of Springfield Armory. In 1871 the “Ward-Burton” became the first bolt-action rifle produced for U.S. military use.



The Ward-Burton features a simple bolt mechanism designed to chamber the standard Springfield .50 centerfire round. Much like the Palmer carbine of 1865, the shooter pulls up the bolt handle and draws the bolt backwards to eject a spent casing and expose the breech. A new cartridge is loaded, and pushing the bolt forward seats the round and cocks the internal firing pin. When the trigger is pulled, the pin strikes the centerfire cartridge and discharges the round.

Unfortunately, trial models of the Ward-Burton were not carefully manufactured, and the rifle was prone to breakage during firing. Additionally, troops issued with the unfamiliar bolt-action rifle had difficulty telling whether the rifle was unloaded or fully cocked. Despite the presence of a safety switch on the right side of the receiver, frequent incidents of accidental discharge were reported, and the Ward-Burton never left the field-trial stage. Only a thousand rifles and three-hundred carbines were put into production, and the US Army retained the Trapdoor Springfield as its official firearm.

Infanterie-Gewehr 71, “Mauser 1871”

1871–1888, Germany, bolt-action. Caliber 11x60mmR (0.43 inches), Range 60/600/1200, Capacity 1, Rate of Fire 1/2, DAM 1d6+1d8, STR d6, Common.



Once the Chassepot revealed the weaknesses of the Zündnadelgewehr, the Germans realized they had lost their technological superiority, and began looking for a replacement for Dreyse’s increasingly obsolete needle rifle. In 1871, they adopted a rimfire design created by the brothers Peter Paul and Wilhelm Mauser. It was the beginning of a beautiful relationship.



The grandfather of modern bolt-action rifles, the Gewehr 71 is a model of simplicity. The shooter grasps the knob-shaped bolt handle on the right side of the receiver and pulls up and backwards to expose the breech. This action ejects a spent casing and cocks the firing pin. A new cartridge is manually loaded, and the bolt is pushed forward to seat the round. When the trigger is pulled, the pin strikes the rimfire cartridge and discharges the round. A rotating “wing safety” at the rear of the bolt may be flipped from left to right to disable the trigger, an innovative feature that would appear on all subsequent Mausers.

The Gewehr 71 was produced at four locations in Germany—Spandau, Erfurt, Amberg, and Danzig—and one contract factory in Birmingham, England. Accurate, durable, and simple, the Mauser brothers’ first rifle quickly became one of the most popular guns in the world, and helped set the stage for the German superiority in firearms that would dominate Europe for the next seventy years.

Gewehr 71/84

In 1884, the Gewehr 71 was converted into a repeating rifle by the addition of an 8-round magazine located in the forestock. Designed by Alfred von Kropatschek of Steyr’s Josef und Franz Werndl & Comp. Waffenfabrik und Sägemühle, this tubular magazine was loaded from the receiver with the bolt open, and utilized a pivoting elevator system that brought each round into position when the bolt was pulled back. Over a million of these Gewehr 71/84 models were placed into production, and were used all the way through the First World War.

Gendarmerie Repetier Gewehr Früwirth M1872

1872–1875?, Austria-Hungary, bolt-action. Caliber 11.15x36mmR (0.43 inches), Range 25/250/500, Capacity 8, Rate of Fire 1/2, DAM 1d6+1d8, STR d6, Very rare.



Designed in 1869 by Viennese gunsmith Ferdinand Früwirth, this carbine uses a bolt system borrowed from the Chassepot 1866, a tubular magazine similar to the Swiss Vetterli, and fires the same 11mm cartridge as the Werndl carbine it was intended to replace. To operate the Früwirth, the shooter pulls back a cocking spur located at the back of the bolt assembly. This unlocks the bolt and sets the firing pin. When the bolt is pulled back, a carrier mechanism elevates the next round into position. Because the Früwirth lacks an automated extractor, the spent casing is simply nudged from the breech by the incoming round. Pushing the bolt forward seats the round and returns the carrier, and pulling the trigger releases the firing pin. Alternately, the shooter can depress the magazine using a simple cut-off, inserting rounds by hand and firing the Früwirth as a single-shot rifle. When operated in this manner, the shooter must remove spent casings manually.

Lacking in power and range, Früwirth's carbine proved to be an unpopular gun. The bolt mechanism was difficult to operate, and required the shooter to keep a firm hold of the carbine while cycling the bolt. The Früwirth went through two main variants during its production, and was generally issued to Gendarmes and border units before becoming a footnote in the history of bolt-action repeaters.

Fusil Gras modèle 1866-74, “Gras”

1874–1886, France, bolt-action. Caliber 11×59mmR (0.43 inches), Range 60/600/1200, Capacity 1, Rate of Fire 1/2, DAM 1d6+1d8, STR d6, Rare.



As the arms race between France and Germany heated up, the advent of brass cartridges made old Chassepot rifles seem increasingly outdated. In 1874, artillery Colonel Basile Gras adapted the fusil modèle 1866 to fire brass rimfire cartridges. Because of France’s urgent need for updated firearms, many of these “Gras” rifles were placed into production before existing Chassepots could be converted. The Gras was produced as an infantry rifle, a shorter cavalry carbine, and an even shorter “artillery musketoon.” In 1880, an additional modification was made to prevent primer rupture, resulting in the “Gras MLE. 1866-74 M.80” variant.



Gras cartridge next to Chassepot cartridge

Historical Note: French “Kropatschek” Rifles & The M86 Lebel

Historically, the Gras was replaced by the MLE. 1878 Kropatschek “Navy” rifle, a modification of the Gras that used a tubular magazine designed by the Austrian gunsmith Alfred von Kropatschek. This was followed by Kropatschek MLE. 1884 and MLE. 1885 infantry rifles. These “Austrian” Gras rifles were finally replaced by the homegrown fusil modèle 1886 “Lebel,” an advanced 8-round bolt-action repeater designed for the new “smokeless powder,” or nitrocellulose ammunition. In *Deadlands 1876*, all these post-Gras rifles will be preempted by the modèle 1878 “Poudre-Azul” rifle, the fictional version of the historical Lebel.

New Canaan Vision 1875, “Nauvoo Prophet,” “Loveless Prophet”

1875–present, Deseret, bolt-action. Caliber .32-40 Loveless-Howell, Range 80/800/1600, Capacity 5, Rate of Fire 1, DAM 2d6. Notes: Provides a +1 accuracy bonus to the Shooting roll. Reloading a fresh clip requires one action round.



The product of another “angelic vision” granted to Alan Loveless by the Angel Nephi, the bolt-action V75 is among the most innovative firearms in the world, anticipating the German Gewehr 88 by over a decade. Designed by Loveless after locking himself in Jonathan Browning’s original workshop and working tirelessly for five months, the “Prophet” is the first bolt-action rifle to use a detachable magazine.



Portrait of Alan Loveless



Browning's original workshop at the New Canaan Armory in Ogden

The Prophet is reloaded by pulling the bolt backwards to expose the breech. A steel carrier, or “clip” containing five rounds is pressed down into the receiver, pushing against a ghost-steel spring and locking into place with a satisfying “click.” In order to house this clip, a ghost-steel casing protrudes from the bottom of the receiver, decoratively incorporated into the trigger-guard in the form of a fin-like ornamentation. To fire the rifle, the bolt handle is pulled up and drawn back. This action extracts a spent casing, feeds a fresh round into the breech, and cocks the internal firing pin. Closing the bolt seats the round. After the fifth round is fired, the carrier is ejected from the bottom of the receiver with a distinctive metallic “ping” and may be retrieved for reloading. Most shooters carry several loaded magazines, with a new clip taking a single action round to insert.

The innovations of the V75 Nauvoo Prophet are not restricted to its revolutionary magazine system; it is also chambered for the new .32-40 Loveless-Howell blue powder round, known colloquially as the “Mormon .32.” A chemically stabilized mixture of azrucite and traditional gunpowder, Loveless-Howell blue powder provides twice the chemical energy of an equal amount of traditional gunpowder, and produces only a fraction of the smoke. Because the intense energy of blue powder tends to deform or melt traditional lead bullets, each Mormon .32 is tipped with a “ghost-hardened” bullet encased in a thin shell of ghost-steel. This outer shell

strengthens the bullet, allowing it to retain its aerodynamic shape when rocketing through the Prophet's barrel. Although Loveless' exact method of ghost-hardening lead remains secret, it is known to involve traditional case-hardening techniques using a pack of azrucite, iron, charcoal, lead, and bone. (Persistent rumors that Loveless uses *human* bones may certainly be attributed to the standard prejudices against Mormons!)



While its small caliber limits the amount of damage the Prophet can inflict, compared to a Springfield or New Macon rifle, the V75 has a higher muzzle velocity, a flatter trajectory, and a longer range. The Prophet's barrel and frame are made entirely from azrucite alloy, which allows a more accurate rifling pattern and significantly reduces the weight of the rifle. The ghost-steel barrel gives the Prophet an additional unintended property—it imparts a ghostly blue color to the muzzle flash, an effect known to terrify superstitious Paiute, who have nicknamed the rifle “Spirit Killer.”

There is only one model of the V75 in production, and it possesses a singular appearance. The azrucite finish gives the frame and barrel a subtle, iridescent speckling reminiscent of Damascus steel. The rifle's receiver is fully exposed, its sideplates inviting embellishment such as artistic etchings, detailed scrollwork, or Scriptural verses. The unusually high heat capacity of the alloy means that the barrel never grows uncomfortably warm, eliminating the need for a lengthy forestock or barrel shroud. This gives the heptagonal barrel a long, sleek appearance; and every Prophet has 1 Nephi 4:13 engraved into the top-right plane of the barrel: “Behold the Lord slayeth the wicked to bring forth his righteous purposes.” The rifle features only two wooden components—an elegantly curved, “split” shoulder-stock similar to an Evans repeater, and a grip positioned under the barrel just forward the trigger-guard. Desert ironwood or “Texas ebony” are the preferred choices of stock, darkened with lacquer and polished to a gleaming finish; however, some Saints prefer a rough, unfinished stock personally hacked from the trunk of a Joshua tree and brought to New Canaan as an offering.

Needless to say, the V75 is an extremely expensive firearm, and is found only in the hands of high-ranking Legion officers, Black Angels, or other such Mormon VIPs. It is never sold to Gentiles.

The Future of the Prophet

Alan Loveless has already begun work on a Mark II model, simplifying the bolt action and increasing the magazine size to six rounds. There's also talk of producing a shorter carbine variant for use on horseback. However, the most exciting development may come John Moses Browning, the son of New Canaan's founder Jonathan Browning. The young gunsmith has requested to serve as Alan Loveless' apprentice, and has proposed a radical new idea—what if the energy of the Prophet's recoil could somehow be harnessed to *automatically* cycle its bolt and chamber the next round?

Pattern 1876 Magazine Lee-Whitworth, “MLW,” “Engine Rifle”

1876–present, UK, bolt-action. Caliber .303 Abel-Loveless-Howell, Range 90/900/1800, Capacity 5, Rate of Fire 1, DAM 2d8. Notes: Provides a +1 accuracy bonus to the Shooting roll. Reloading a fresh magazine requires one action round.



One of the most accurate rifles in the world, the Pattern 1876 MLW combines Sir James Paris Lee’s shooter-friendly bolt-action design and detachable “box” magazine with Sir Joseph Whitworth’s new “Engine” rifling to produce a stunningly precise rifle. It is the world’s only firearm to be manufactured using Engine-enabled lathing techniques, assuring that each Lee-Whitworth is a perfect copy with interchangeable parts. Its new .303 rounds are backed by Loveless-Howell blue powder, and are tipped with Frederick Abel’s “ghost-hardened” bullets. The first rounds created using the Waltham Abbey Process, each bullet is encased in a thin shell of stable azrucite-lead alloy that strengthens the bullet and keeps the lead from melting during discharge. This keeps the bullet from deforming and prevents “leading” of the bore, resulting in a more accurate rifle and round.

Historically, the Pattern 1876 Magazine Lee-Whitworth prefigures the Lee-Netford rifle of 1884. The shooter loads the rifle by inserting the box magazine into the bottom of the receiver. He then cycles the bolt, which ejects a spent casing, loads the next round, and cocks the internal firing pin. A sliding magazine cutoff located on the right side of the receiver allows the MLW to be fired as single-shot rifle. Unlike other bolt-action rifles such as the Mauser or the Nauvoo Prophet, the Lee-Whitworth boasts three innovations which allow the shooter to cycle the bolt more smoothly and rapidly, adding to the overall accuracy of the rifle—the bolt handle is located directly above the trigger, it requires a mere 60° rotation to unlock, and the bolt slides only the length of the cartridge.



This “Volley Sight” adjusts for ranges up to 2800 yards!

Still undergoing field testing, the “Engine rifle” is currently limited to specialized sharpshooter units within the United Kingdom and Canada. To capitalize on its ferocious accuracy, the MLW features a long-range “volley sight” system. The user first dials in the extended range, from 1400 to 2800 yards, using a rotating pointer located on the left side of the forestock. A side-mounted aperture near the receiver is flipped up, and the pointer knob is aligned with the aperture by tilting the rifle upwards. Needless to say, such shots are optimistic at best, but British explorer Allan Quartermain is reported to have bagged a lion at 2200 yards using an MLW personally gifted to him by Sir Whitworth himself.

Fusil modèle 1878, “Vieille”

1878, France, bolt-action. Caliber 9x50mmR Abel-Vieille (.354 inches), Range 80/800/1600, Capacity 8, Rate of Fire 1, DAM 2d6.



Designed by a team of gunsmiths working at the Châtellerauld arsenal, the “fusil Vieille” will be introduced towards the end of 1878. A triumph of French engineering, it will be the first rifle to use ammunition propelled by Paul Vieille’s “poudre-azul,” a combination of stabilized nitrocellulose guncotton and azrucite-infused gelatins. Virtually smokeless and leaving no residue, poudre-azul contains four times the chemical energy of an equal weight of black powder, and double the energy of current “blue powders.” For the sake of readability, the remainder of this entry will drop the future tense and discuss the rifle as a finished product. It is up to individual Marshals if they wish to introduce poudre-azul early into their *Deadlands* timeline.

Historically, the MLE. 78 prefigures the fusil “Lebel” modèle 1886, which first introduced Paul Vieille’s smokeless nitrocellulose “Poudre-B” and Nicolas Lebel’s metal-jacketed rounds. Substituting ghost-rock technology for these historical innovations, the only other significant difference between the fictional rifle and its historical antecedent is its larger caliber—the Lebel was chambered for a smaller 8mm round. The MLE. 78 Vieille retains the Lebel’s Gras-like bolt action and its Kropatschek-style tubular magazine and carrier elevator.

To fire the MLE. 78, the bolt handle is pulled up and drawn back. This action extracts a spent casing, feeds a fresh round into the breech, and cocks the internal firing pin. Closing the bolt seats the round. A cut-off switch at the bottom of the receiver lets the shooter circumvent the magazine and operate the Vieille as a single-shot breechloader. To reload the rifle, the shooter must open the breech and insert each round one at a time into the magazine.

Historically, the Lebel was used all the way through the First World War; its *Deadlands* analogue will serve Napoleon IV as the rifle of the Belle Epoch. The MLE. 78 is slated to be introduced as a standard military rifle, a carbine, and a special “Napoleon IV” model with a ghost-hardened receiver and checkered grips. Also, the English will soon incorporate poudre-azul into their own firearms, introducing the “Abel-Enfield” in 1880, an improvement on the Pattern 76 Magazine Lee-Whitworth.

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

The following sites were invaluable in creating this resource: Ian McCollum's cheerful demonstrations of the [Dreyse Needle Gun](#), [Palmer Carbine](#), [Chassepot](#), [Ward-Burton](#), and [Gewehr 71](#) for *Forgotten Weapons*; also his demonstration of the [Lee-Speed Rifle](#) helped with the fictional Lee-Whitworth MLW, while his video of the [MLE. 86 Lebel](#) (“Oh shit! Here comes the Germans!”) helped with my fictional MLE. 78 Vielle. Useful articles include Paul Lockhart's [The Gun That Should Have Changed Everything](#) for History.net, Benjamin T. Christensen's [The Prussian Needle Gun Makes Its Debut](#), College Hill Arsenal's page on the [Calisher & Terry Carbine](#), C&Rrsenal's animation of the [Vetterli Repeater's action](#), the detailed page on the [Vetterli Repeater](#) from Swiss Rifles, the page on the [Früwirth Carbine](#) from Military

Guns of Europe, Garry James' [The French Model 1874 Gras Rifle](#) for *Guns & Ammo*, a YouTube video of the [Gras 1874](#) being fired by the folks behind Gun Life, the entry on the [Ward-Burton](#) from the Springfield Armory Museum, Craig Riesch's [A Rare Remington-Made Military Rifle](#) for the Remington Society of America, Chris Eger's [Mauser M71](#) for Guns.com and his now-deleted "Forgotten Import: Swiss/Italian Vetterli Rifle" posting for FirearmsTalk.com. Also, C&Rsenal's video of the [Gewehr 88](#) was helpful for the fictional V75 Nauvoo Prophet.

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Last Modified: 2018 June 27

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