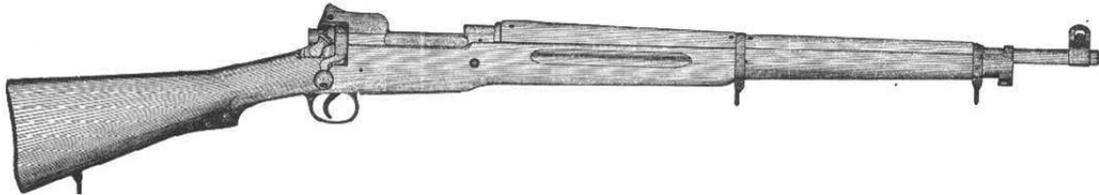


THE UK PATTERN 1913, PATTERN 1914, and THE US MODEL OF 1917; *A Short History of the “American Enfield”*

*By Marc Gorelick
Virginia Gun Collector’s Association*



U.S. Rifle, Caliber .30 M1917 (Enfield).

Source: US Army

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PART 1 INTRODUCTION



*WW I U.S. Infantry with M1917 Rifles in France during Assault Training
Photo: U.S. Army History & Education Center*

The following paper is a short overview of the history and use of the UK Pattern 1913, UK Pattern 1914, and the US Model of 1917. It is partly based on signage prepared for an award-winning display at the fall 2007 Virginia Gun Collectors Association Gun Show. The author wishes to thank Joe Salter who gave permission to use photographs from his website: www.joesalter.com. Many of the photographs in this article come from that site. Photographs of the P-13 are courtesy of Barry Bromley, www.classicfirearms.be. The author also wishes to thank Richard Jones, former Custodian of the UK Ministry of Defense Pattern Room for his advice and assistance.

The famous U.S. Model of 1917 Rifle, .30-06 caliber, was originally a British rifle, the .303 caliber Pattern 1914, which originated in the .276 caliber Pattern 1913. The P-13 was developed to replace the Short Magazine Lee-Enfield (SMLE) and its obsolete .303 rimmed cartridge. The P-14 was manufactured in the United States at three U.S. factories. Ironically, although the P-14 was accounted a better battle rifle than the SMLE and was supposed to replace it, the P-14 was never manufactured in Britain, never supplanted the SMLE in British service, and rarely used by British troops in combat (except for sniper variants). Although it was never a front line service rifle in British service, it still armed a number of British Empire troops during the Great War. The British used variants as very successful sniper rifles during both World War I and World War II. P-14s also served British Empire troops and allies between the wars, during World War II, and during the Cold War. General Julian Hatcher called it *"the best military rifle used in World War I."* However, in the words of Ian Skennerton, *"What was at first designed to be a high velocity "super" rifle ended up as a poor cousin to the SMLE, and was never given the chance to prove itself in action on any large scale."*

In United States service, although the Model of 1903 (Springfield '03) received more press than the Model of 1917, the Model of 1917 was produced in more numbers and armed more Doughboys during World War I than the more famous Springfield 03. It was arguably the most advanced regular issue combat rifle used during the war. Between 66% and 75% of the U.S. troops in the American Expeditionary Force in France were armed with the M1917 by the end of the war. The Pattern 1914 and the Model of 1917 were tough, rugged, accurate and reliable weapons that proved their worth on the battlefield and helped America and our allies win World War I. It also served with distinction between the wars, during World War II, and armed a number of western nations after World War II during the Cold War, and spawned a line of civilian hunting rifles. The Model of 1917's strong action has a well-earned reputation as being able to handle powerful cartridges and many were converted to civilian sporting arms.

According to Skennerton, *"The history of the Model 1917 production is a fine example of a design and manufacturing success that could only be achieved under wartime pressure. In 1917, the required modifications and redesign only took a little over four months, after which well over two million rifles were produced in not much more than a year. When the original British designers, Newton and Carnegie observed the limited production of the .276 Pattern 1913 rifle at Enfield, it would have seemed absurd to suggest what actually lay ahead. Their design was not to see future manufacture in England, but instead, mass production overseas in a virtually obsolete caliber to see service for Britain only as a reserve grade arm. In yet another caliber, it was to become a front line rifle of a major foreign power, and its production life in both calibers lasted but a few years with figures approaching a massive 4 million!"*

**The UK Pattern 1913, Pattern 1914, and the US Model of 1917;
A Short History of the “American Enfield”**

*By Marc Gorelick
Virginia Gun Collector's Association*

**PART 2
THE UK PATTERN 1913 (P-13)**



Pattern 13 Rifle. Photos Courtesy of Barry Bromley - www.classicfirearms.be

PATTERN 1913 SPECIFICATIONS	
<i>From British War Office official description</i>	
Caliber	.276"
Overall Length	3' 10.3"
Barrel Length	2' 2"
Weight	8lbs. 11oz.

As a result of the British Army's combat experiences during the Second Boer War (1899-1902) the British War Office created the Small Arms Committee in January 1900 to oversee the development of the service rifle and begin considering a modern replacement for the Lee-Enfield Mk III Cal .303. Boer marksmen armed with the Mauser Model 1895 in 7X57mm out-shot the British, who were armed with Lee-Enfield rifles. The concept for the new magazine rifle was established during a meeting of the Small Arms Committee on September 2, 1910. Subsequent to this meeting, and after trials with Mauser, Springfield Model 1903 and other rifles, several designs and prototype experimental models were examined. Engineers at the Royal Small Arms Factory (RSAF) at Enfield Lock, led by the Superintendent Lt. Col. C.J. Newton, Manager Mr. Carnegie and Chief Designer Mr. Reavill, designed the prototype **Rifle .276 inch Experimental Pattern** in 1911. RSAF presented the first of 11 experimental rifles to the Small Arms Committee for testing in August 1911. Additional design work and testing resulted in the **Cal. .276 Enfield Magazine Rifle, or the Pattern 1913 (P-13)**.

One of the salient features of the P-13 was its .276 caliber rimless high velocity cartridge and the rifle was designed in conjunction with the .276 cartridge. Initially the RSAF engineers considered two different calibers for the new rifle, the .256 and the .276. They eventually discarded the .256 even though the Japanese and Swedes were using it in 6.5mm metric measurement and settled on the .276 (or 7mm in metric measurement). This cartridge had a much higher velocity; 2,785 feet per second (fps), than the .303 caliber Mark VI cartridge (2,050 fps) or the rimmed .303 caliber Mark VII cartridge (2,450 fps) that was introduced in 1910. The .276 cartridge's 165-grain jacketed spitzer bullet had a much flatter trajectory giving better accuracy, and deeper penetration than the .303 caliber cartridge, 174-grain bullet. The powerful .276 cartridge had ballistics close to the modern 7mm Remington Magnum cartridge.



*Ammunition Comparison. .303 Cartridge on top, .276 on bottom
Photo Courtesy of Barry Bromley - www.classicfirearms.be*

Requirements that were incorporated into the P-13 design included: a heavy profile barrel, a folding aperture rear sight whose location on the receiver gave a longer sighting radius, a one-piece stock that was easier to manufacture than the Lee-Enfield's two-piece stock (but not as economical on rifle stock replacement and repairs), and protecting "ears" for the rear and front sights. The design featured a Mauser-type bolt action with Lee features. The bolt had a Mauser-type claw extractor, dual forward mounted bolt locking lugs, a rear lug that was formed by the base of the bolt handle sitting in a slot in the receiver when the bolt was closed. This feature has been copied in many civilian target and sporting rifles.



P-13 Action. Photo courtesy of Barry Bromley – www.classicfirearms.be

The bolt's "cock on closing" (technically half-cock on opening and full-cock on closing) feature, the same as the Lee-Enfield, was optimized for rapid fire. The half-cock on opening provided necessary 'primary extraction'. British arms engineers believed that the traditional "cock on opening" Mauser and M1903 Springfield designs became harder to operate as the heated up during rapid firing, with a progressively greater effort being required to open the bolt, cock the action and extract and eject the fired case from the chamber. The bolt appeared to have a faster and a smoother action than the Mauser Model 1898. The P-13s bolt was well supported throughout its travel and the camming action on opening and closing added to its speed. The location and shape of the bolt handle also added to its rapidity of firing. And finally, the strength and stiffness of the action, made from nickel-steel, and heavy barrel contributed to its accuracy.



*P-13 Action and rear sights top. Note the rear volley sight.
Photo courtesy of Barry Bromley – www.classicfirearms.be*

The Small Arms Committee and the RSAF claimed the following advantages for the new rifle over the current service rifle, the Lee-Enfield Mk III using Mk VII .303 caliber ammunition:

- Increased muzzle velocity and flatter trajectory.
- Bolt locking in front which gives greater rigidity to body and bolt.
- Greater strength, simplicity, and a reduction in the number of components.
- The action and bolt can be stripped without the use of tools.
- Different forms of stocking, which allows for a lighter noscap that improves the balance of the rifle as the weight is to a greater extent concentrated near the center of gravity.
- The stock being in one piece, the possibility of breakage is reduced (so it was claimed).
- The use of aperture sights and the increased length of sight radius.
- The provision of a fixed sight.
- The magazine is entirely contained within the stock, thus facilitating handling and avoiding damage.
- The magazine platform prevents the bolt from closing after the last cartridge has been fired, thus warning the shooter that the magazine is empty.
- Reduction of weight in other parts allows the provision of a stronger and heavier barrel. This allows the use of a simpler form of stocking.
- There are fewer projections in the rifle, which facilitates handling.

Regarding the design of the rear sight, the Committee believed that an aperture sight close to the eye was better in combat than an open sight placed forward of the bolt. Windage and fine elevation adjustment was discarded in the P-13 rear sight since the

British designers believed that it was impossible to design an aperture sight placed four inches from the eye with these capabilities while keeping it sufficiently strong and well protected to meet the demands of combat. It was the almost unanimous opinion of all the Commands that windage and fine elevation adjustment was of little or no value in a service rifle, although it might be of use during training. Also the need for fine adjustment was diminished by the flat trajectory of the .276 caliber bullet. In fact, all successive British service rifles used similar type aperture ladder (leaf) rear sights with a special aperture battle sight for when the ladder (leaf) was folded down. The Committee also stated that the magazine cut-off was omitted from the design because it was unnecessary and had many disadvantages for a soldier in combat.



*P-13 Rear sight. Leaf down on left. Leaf raised on right.
Photos courtesy of Barry Bromley – www.classicfirearms.be*



P-13 Front volley sight. Photo courtesy of Barry Bromley – www.classicfirearms.be

The RSAF manufactured 1,251 P-13 rifles during late 1912 and early 1913 for field-testing. The British Army conducted extended troop trials of the P-13 in the U.K., Ireland, South Africa and Egypt. The British Army School of Musketry at Hythe also received a batch for trials. Positive comments about the rifle included: the aperture sights were a great improvement over the Lee-Enfield, the rifle had good balance, and that it was more accurate than the Lee-Enfield. As a result of criticisms from the troops, mainly about excessive recoil, muzzle flash, barrel wear, overheating, and the grasping grooves, the Chief Inspector of Small Arms recommended several design changes. The RSAF changed the design and produced six additional “improved” rifles in March

and April 1914 that incorporated the changes. These changes in the “Improved” P-13 make it closely resemble the P-14.

These improvements were:

- The handguards were strengthened and fitted with steel ends.
- The lower barrel band was altered to fit the new handguard.
- The edges of the handguard ring were rounded and the ring was annealed.
- The finger grooves in the stock were deleted and the stock strengthened.
- The bolt knob was brought forward ¼”.
- The safety catch was altered to improve efficiency, assembly and economy.
- The flats of the bolt plug were altered and the positioning stops removed.
- The rear sight was altered.
- The magazine was widened to improve feeding and indents made to reduce friction.
- The magazine spring was altered to make it non-reversible.
- The extractor was altered to make it more efficient.
- The bolt stop and ejector stud was altered. Sharp edges in the metal of the action were rounded and clearance was increased at the back of the rear sight to make bolt manipulation easier.
- A separate hole was drilled in the butt stock to house a pull-through weight in the butt trap.

Many of the criticisms were about the .276 cartridge. The round’s intense pressure caused rapid chamber and barrel wear and very high chamber heat, a consequence in part of using the high-temperature and erosive ‘Cordite’ propellant, and also bullet envelope material according to Labbett & Mead (see Part 6, Sources). The high temperature in the chamber caused cartridges to “cook-off” or prematurely fire before the trigger was pulled. These problems were in the process of being fixed when World War I started and work on the new ammunition was stopped. The British War Office decided that despite the potentially better performance of the .276 cartridge, adopting new standard caliber ammunition at the start of a major war would be too disruptive to manufacturing and logistics and shelved the idea. Incidentally, the decision to drop the .276 cartridge in favor of the standard .303 rimmed cartridge ended serious British Army efforts to adopt a small caliber rimless cartridge until after World War II when the British tried to adopt the .280 cartridge in the EM-2 Bullpup Assault Rifle.

Very few of the 1,257 P-13 rifles exist today in intact condition. Most appear to have been sold as surplus and imported into the U.S. where many were converted to sporters or used as the basis for custom rifles. An intact P-13 is quite rare.



P-13 Right side. Photo courtesy of Barry Bromley – www.classicfirearms.be

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Virginia Gun Collector's Association

PART 3 UK PATTERN 1914 (P-14)



P-14 - Right side above, left side below. Photo: Swedish Army Museum (PD)

PATTERN 1914 SPECIFICATIONS	
<i>From British War Office official description</i>	
Caliber	.303"
Overall Length	3' 10.25"
Barrel Length	2' 2"
Weight	9lbs. 6oz.

Despite the decision to suspend development work on the .276 cartridge, with the outbreak of total global war, the British realized that they would need large numbers of small arms to equip the massive expansion of British Army and Empire troops. They would also need to build reserve supplies in order to replace arms that would be lost. The P-13 design had several advantages over the Short Magazine Lee-Enfield (SMLE) Mk III, not least of which was its great strength. It also had fewer parts than the Lee-Enfield, which would presumably help speed production. So the War Office decided to produce it in .303 caliber and approved it for production as the **Cal. .303 Pattern 1914 Mk I Magazine Rifle (P-14)** in October 1914. (See Table A for specifications.) Adoption of the new rifle was supposed to help equip the army, however, the influx of new recruits outstripped Britain's industrial capacity and by 1915 the U.K. found itself short of small arms.

The British Government first approached Birmingham Small Arms Company (BSA) to manufacture the Pattern 1914. However, BSA was working at capacity to produce the Lee-Enfield and declined to take orders for the P-14. In June 1915 the British government gave an initial contract to Vickers, Ltd. for 100,000 P-14 rifles and bayonets. However, Vickers' small arms facilities were devoted to manufacturing machine guns and machine gun components, as well as parts for the Lee-Enfield.

Vickers had trouble getting into production (the firm made only a few sample rifles and 1,500 bayonets) and they soon lost the contract. And like BSA, other British rifle factories were already devoted to producing Lee-Enfields, forcing the British government to consider other options.

In September 1914 the British Army Council of the War Department hired J.P. Morgan & Company of New York to arrange contracts with U.S. arms firms to produce P-14s. J.P. Morgan arranged contracts with two U.S. companies, Winchester Repeating Arms Co. in New Haven, CT, and Remington Arms/Union Metallic Cartridge Co. in Ilion, NY, to manufacture the P-14. Remington Arms Company of Delaware also undertook to produce the rifles at the Eddystone factory in Eddystone, PA. Vickers shipped tooling, machinery, gauges and “manufacturers patterns” to be used in the three U.S. factories.

The first contracts called for the production of 3,400,000 rifles and bayonets at the three factories at an average cost \$30.15 for each unit (rifle, bayonet and bayonet scabbard). The contracts were Winchester – 400,000 units, Remington – 1,000,000 units, Eddystone – 2,000,000 units. Although the contracts called for delivery to commence by September 1915, Winchester did not complete the first six rifles until January 14, 1916. And the first P-14s did not arrive in England until May 1916. (See Table B for production data.) The British officially approved the new rifles for service on June 21, 1916.

A number of factors caused delays in starting production. Conversion of the rifle from .276 to .303 was largely left up to the American companies and needed a number of design and dimension changes that the British had to approve. These in turn caused retooling delays. Although Vickers shipped gauges, tools and patterns to the American factories, the three companies had contracted with Pratt and Whitney Company of Hartford, CT for specialized machinery. Unfortunately, Pratt and Whitney was experiencing a series of wildcat strikes, which seriously delayed delivery of the machinery. Similar labor unrest in the steel industry disrupted delivery of steel to Remington and Winchester.



*P-14 Eddystone, Early “Fat Boy” with no finger grooves – right side.
Photo. www.joesalter.com*



*P-14 Eddystone. Early “Fat Boy” or “Fatso” stock with no finger grooves – left side
(note volley sight). Winchester and Remington stocks were slimmer with finger grooves.
Some Eddystone P-14 stocks lacked finger grooves and were thicker. Photo: www.joesalter.com*



P-14 Eddystone; Later stock with finger grooves.

Photo: www.joesalter.com

Another reason for delay was that the British inspectors, who had been sent to the U.S. to inspect and accept the rifles and bayonets, rejected a large number of the early rifles. Although the companies and inspectors were working to improve quality and bring the rifles and parts up to British standards, and the inspectors had even relaxed the standards in certain cases, were still failing a large percentage of the units.

Modifications in components were also introduced during production, which also caused delays. This, especially the production of substandard components, led to friction between the British and the three U.S. companies and the firms threatened to stop production. In October 1916 the U.K. sent two high level representatives to the U.S. to negotiate with the companies and get things back on track. An agreement was reached on December 31, 1916 that had the following terms:

- The UK Government would take over and assume ownership, at cost price, of all equipment (including tools, gauges, machinery, etc.), purchased in connection with the original P-14 contracts.
- The total number of contracted rifles was reduced to 1,235,293 with each company's production quota reduced to:
 - Winchester – 235,293
 - Remington – 400,000
 - Eddystone – 600,000
- The Winchester contract for 325,000 bayonets was reduced to 235,293 bayonets.
- The Remington contract was increased from 1,000,000 bayonets to 2,000,000 bayonets. (Eddystone had trouble making bayonets and was relieved of that responsibility.)
- The UK government would reimburse the three companies for all manufacturing expenses.

The British representatives remained in the U.S. to work with the companies to improve productivity and quality (and accountability) until the contracts were finished. One of the representatives, E.W. Philips, discovered that the companies' accounts were "disorganized" and many direct and indirect costs improperly charged to the UK government. According to Skennerton, Winchester in particular made improvements to its factories at British expense, some of which was not connected to the P-14 contracts. Phillips corrected these errors. He also found that many of the components manufactured at the start of the contracts, including stocks, were second class or defective and had to be scrapped.

Each factory, Winchester, Remington and Eddystone, operated independently, making their own design improvements, which led to some parts incompatibility. Because of parts incompatibility between the manufacturers, in June 1916 British approved three separate models, each with its own designation:

- **.303 Pattern 1914 Mk I E** – manufactured by Eddystone
- **.303 Pattern 1914 Mk I R** – manufactured by Remington
- **.303 Pattern 1914 Mk I W** – manufactured by Winchester

Rifles from each manufacturer will have their prime parts marked with “E,” “R,” or “W” depending on the manufacturer. (See Table C for parts markings.) Because parts were largely not compatible with parts of the other manufacturers, British armorers did not consider parts and assemblies interchangeable and parts from different manufacturers were not mixed during repair, reworks or refinishing at UK arsenals or during repairs in the field.



*P-14 Winchester bayonet stud with W stamp.
Photo: www.joesalter.com*

The problem of parts not being interchangeable cannot be overstated. Not only were many parts from one factory not interchangeable with parts from another factory, but even some parts from the same factory were not interchangeable, resulting from the need for hand fitting during the manufacturing process. A U.S. Army Ordnance School Course memorandum about the P-14 states, “*There had been a rather poor interchangeability of parts in the product of a single factory and practically no interchangeability between the products of the three factories.*” The British War Office, in the List of Changes in British War Material, listed the following parts as non-interchangeable between P-14 rifles manufactured by Winchester, Remington and Eddystone.

NON-INTERCHANGEABLE PATTERN 1914 RIFLE PARTS		
Barrel	Fore-end tie bolt	<i>Remington & Winchester interchangeable</i>
Breech bolt	Locking lug cover plate	<i>Eddystone & Remington interchangeable</i>
Breech bolt plug	Lower barrel band stop pin	<i>Eddystone & Remington interchangeable</i>
Rear sight slide	Magazine bottom plate	
Cocking piece	Magazine case	
Extractor ring	Magazine platform	<i>Eddystone & Remington interchangeable</i>
Firing pin	Trigger guard	
Front sight band		

*Sources: Pattern 1914 and U.S. Model 1917 Rifles, Charles R. Stratton
.303 Pattern 1914 Rifle & Sniping Variants, Ian Skennerton*

Despite the problem of non-interchangeability of parts between rifles produced at the three factories, some small parts were actually the same as used on the .303 caliber Short Magazine Lee-Enfield (SMLE) Mark III rifle. The table below lists those parts that are common to the P-14 and the SMLE Mk III and are fully interchangeable between them

PATTERN 1914 PARTS COMMON WITH THE LEE-ENFIELD MK III	
Band swivel	Volley (Dial) sight spring
Butt swivel bracket	Front sight blade
Butt marking disc	Handguard liner rivets
Butt marking disc screw	Piling swivel
Volley (Dial) sight fixing screw washer	Swivel screw
Volley (Dial) sight pivot screw	Swivel bracket screw
Volley (Dial) sight pointer bead	

*Sources: Pattern 1914 and U.S. Model 1917 Rifles, Charles R. Stratton
.303 Pattern 1914 Rifle & Sniping Variants, Ian Skennerton*

And while many parts of the P-14 are not interchangeable with those of the U.S. Model of 1917, other parts are interchangeable. The table below lists those parts that are common to the P-14 and M1917 and are fully interchangeable between them.

PATTERN 1914 PARTS INTERCHANGEABLE WITH THE MODEL OF 1917	
Buttplate	Safety locking bolt
Buttplate trap spring	Safety locking bolt spring
Butt swivel bracket	Sear
Butt swivel bracket screw	Sear pin
Foresight blade	Sear spring
Front handguard	Sling swivels
Lower barrel band	Stacking (Piling) swivel
Nose cap	Swivel screws
Nose cap screw	Trigger
Safety Catch	Trigger pin

*Sources: Pattern 1914 and U.S. Model 1917 Rifles, Charles R. Stratton
.303 Pattern 1914 Rifle & Sniping Variants, Ian Skennerton*

Some modifications were introduced during production of the P-14. For instance, the size of the stock was slightly increased and the ejector was lengthened. A new bolt with a longer locking lug was approved in December 1916, requiring a new barrel with a deeper recess for the lug. Rifles fitted with the new bolt and barrel were designated the **Mk I* E, Mk I* R and the Mk I* W**. The locking lug was lengthened by one tenth of an inch and these bolts are marked with a star (*) on the handle near the proof mark. The face of the rear of the barrel was recessed to receive the bolt's lengthened locking lug. Rifles fitted with these barrels were marked with a star (*) on the top of the receiver. These rifles were also marked with a star (*) on the right side of the butt stock. According to Skennerton, some transitional rifles with the new recessed Mk I* barrel were fitted with the old Mk I bolt. These were described as Mk I and were not marked with a star (*) on the butt. However, if Mk I* bolts were later fitted, the transitional rifles were redesignated as Mk I* and marked with a star (*) on the butt. It might be pointed

out that Winchester resisted adoption of the locking lug modifications and did not introduce them until well after Remington and Eddystone.



*Winchester P-14 Mk I bolt. Note the locking lug.
Photo courtesy of Barry Bromley – www.classicfirearms.be*

During the time of the British contracts it was reported that one man could assemble 50 P-14 rifles per day. This relatively low number was, in part, possibly due to the need for hand fitting non-standard and non-interchangeable parts. Another reason was possibly inefficient production procedures.

By the time production at the three plants ended in July 1917, Eddystone had produced 604,941 P-14s, Remington had produced 403,126 P-14s, and Winchester had produced 235,448 for a total of 1,243,515. There are discrepancies between British records of how many P-14s were received in the UK and production numbers in official U.S. publications. British contract records give a total of 1,243,515 rifles. However, some UK figures give a total of 1,233,075 being produced. The discrepancies appear to be in how Winchester production was counted and how the British defined “rifles” in some of their records. According to British records, the UK received 1,117,850 rifles in England and another 100,000 (mostly Remington) were sent directly to India. And a further 15,225 were probably lost to enemy action while being shipped across the Atlantic, making some British totals of rifles produced 1,233,075. However, according to Skennerton, Winchester produced 225,008 rifles or units (rifles, bayonet and scabbard) and 10,440 rifles without bayonet and scabbard. The author believes that when the British records state that 1,117,850 rifles were received that number refers to complete units of rifle, bayonet and scabbard. Because 10,440 Winchester rifles were not equipped with bayonets and scabbards, they were not counted as complete units (or “rifles”) when they were received in the UK. But if you add the 10,440 rifles to 225,008

complete units the total is 235,448, which agrees with Winchester and British contract production data. When that figure is added to the Remington and Eddystone figures, the total is 1,243,515. The following chart, taken from Skennerton breaks down each factory's production of rifles, bayonets and scabbards, and the unit average unit cost.

PATTERN 14 PRODUCTION IN THE UNITED STATES		
COMPANY/FACTORY	Rifle, Bayonet & Scabbard	Rifle Only
REMINGTON		
<i>Quantity</i>	403,126	
<i>Average Unit Cost</i>	\$28.38	
WINCHESTER		
<i>Quantity</i>	225,008	10,440
<i>Average Unit Cost</i>	\$36.82	\$33.07
EDDYSTONE		
<i>Quantity</i>	604,941	
<i>Average Unit Cost</i>	\$43.75	
TOTAL QUANTITY	1,233,075	10,440
TOTAL AVERAGE COST	\$37.46	\$33.07
TOTAL RIFLES	1,243,515	

But that is not the end of questions regarding production numbers and shipments. According to Winchester company records, 17,500 P-14 rifles made during December 1916 were shipped to the Romanian Ministry of War, presumably at the request of the British government. The author doesn't know if they were shipped first to England and then forwarded on, or if they were shipped directly to Romania.

The P-14 has typical British Broad Arrow property mark and proof marks. These include a crown/GR/crossed flags/P on the left side of the action. British inspection marks are found on many components. The makers logo is stamped on the receiver ring – “W” for Winchester, “ERA” for Eddystone, and “RE” in an oval for Remington. The butt stocks were also stamped with a Broad Arrow and letters in a circle denoting the manufacturer – “IW” for Winchester, “IE” for Eddystone, and “IR” for Remington.



P-14 Eddystone “ERA” and serial number on receiver ring. Photo: www.joesalter.com



*P-14 Winchester with British property and proof marks on left side of receiver.
Photo: www.joesalter.com*



*P-14 with British markings on butt stock. The letters "IE" in the circle identify it as an Eddystone. The (apparently hand-applied) 'EY' marking donates reclassification to 'Emergency Use' only [Appx E, page 216 – Major E G B Reynolds, 'The Lee Enfield Rifle' pub 1960]
Photo: www.joesalter.com*

The P-14's had volley sights, or what the British called a "Long Range Dial Sight" on the left side of the forend of the stock. It consisted of a round plate fitted top a recess in the stock. A pointer is pivoted on the plate with a bead on the outer end acting as a fore-sight. The dial is graduated from 1,500 to an ambitious 2,600 yards. There was an aperture sight as a part of the volley sights. This consisted of a metal arm with an aperture at the end that was pivoted at the rear of the bolt stop bracket on the left side of the rifle. Even at the beginning of WW I volley sights were still being fitted as integral parts of British service rifles even though their utility was questionable. Apparently, some still believed that extra-long range massed volley fire would be effective. However, practical experience in the new modern war soon showed the fallacy of that idea and many sights were removed as an expedient wartime practice. Many of the sights were also removed during subsequent arsenal rebuilds and reworks. It is rare to find a P-14 that still retains its original volley sights.



British P-14 Eddystone – Front volley sight.

Photo: www.joesalter.com

There were some criticism that the P-14 was awkward to handle in the close combat conditions of trench warfare and was ill balanced when a bayonet was fixed. There were also concerns that the mud of the Western front would play havoc with the fine tolerances of the P-14's action.

By the fall of 1917 it was apparent that the British needed an accurate sniper rifle. The SMLE was not accurate enough, even with a telescopic sight. However, because they were found to be more accurate and reliable than the SMLE sniper rifles, the British adopted the Winchester made P-14 as a sniper rifle. A new rear sight with a fine micrometer adjustment screw on the leaf or ladder for adjusting elevation was developed. In November 1917 this "Fine Adjustable Rear Sight" was approved for installation on Winchester-made P-14 rifles, the Winchesters having proven more accurate and dependable than the Remington and Eddystone-made rifles. The new sights were fitted by armorers and not at the factory. Rifles with the fine adjustment rear sight were designated as the **Pattern 1914 Mk I or I* W (F)**.



Pattern 1914 Mk I W (F) Winchester top showing Action & Fine Adjustable Sight.

Photo courtesy of Barry Bromley – www.classicfirearms.be



P-14 Mk I W (F) Winchester top showing Action & Fine Adjustable Rear Sight. Note the knob at the top of the leaf for fine adjustments and the archaic rear volley sight on the left side. Photo courtesy of Barry Bromley – www.classicfirearms.be

The British first used the P-14s with Fine Adjustment Rear Sights for training at the sniping schools. Some were also sent to the Western Front where 2-3 were issued per battalion, and where they reportedly proved to be more accurate and effective than SMLE rifles equipped with telescopic sights. After the war a number were sold to civilians for use as target match rifles. The (F) models are quite scarce today as only a few were made and many were converted to telescopic sniper rifles.



P-14 Mk I W (F) Winchester Left side with rear sight leaf raised. It still retains its front and rear volley sights. Neither the sling nor the sling swivel in front of the magazine floor plate are regulation and may have been added for use in target matches. Photo courtesy of Barry Bromley – www.classicfirearms.be

In April 1918 the Pattern 1918 scope was approved for adoption to the P-14 Mk I* W and again, only Winchester P-14s were fitted with the scopes. The Periscope Prism Company produced the Pattern 1918 scopes which were attached to the rifle using a "claw" type mounting system. P-14 sniper rifles equipped with these scopes were designated **Pattern 1914 Mk I* (T)**. About 2,001 of these sniping rifles were produced and gave good service.

In 1926, when the Pattern 1914 rifles were redesignated as the **Rifle No. 3 Mk I** or the **Rifle No. 3 Mk I***, both the **(F)** and **(T)** models also carried the Rifle No. 3 designation and were called the **Rifle No. 3 Mk I (or Mk I*) (P)** and the **Rifle No. 3 Mk I (or Mk I*) (T)**.

During World War II some P-14 (No. 3) rifles were fitted with World War I era Aldis scopes. The scopes were taken from World War I era SMLE sniper rifles and were marked "ALDIS BROTHERS BIRMINGHAM 1916." The used a new low mount that was offset $\frac{3}{4}$ " to the left of the bore. Because these sniper rifles used a low side mount, the protecting ears of the rear sight were milled off. A wood cheek rest was attached to the buttstock. These sniper rifles were designated **Rifle No. 3 Mk I* (T) A**, the "A" designating "Aldis." According to Harrison some of these sniper rifles also has World War II scopes that were produced by the Periscope Prism Co.



The British converted worn out rifles that were not worth rebuilding or reworking into drill rifles for training recruits. The purpose of "Drill Purpose" (DP) weapons until recently was to provide for training purposes a weapon that could be used with drill rounds, but was totally incapable of firing a live round, should a moronic recruit or soldier chamber a live round. According to Army Council Instruction (ACI) 1571 of 1940, they were marked DP on many parts and (depending if they were Class 1 or Class 3 arms) would have 2" wide red or green stripes painted on the stock to differentiate them from service

rifles. The caliber was stenciled in black on the band. Drill Purpose rifles were also drilled and plugged to make them non-workable.

The British decided not to use skeleton P-14s for demonstration and training. Instead, about 2,900 P-14s were withdrawn from service in 1917 and converted to "Stripping Rifles" for use in training. These non-firing demonstration specimens were converted by cutting the stock short, removing the trigger and sear, and trimming the firing pin.

Accessories for the P-14 included slings, bayonets and scabbards, oil bottles and pull-throughs for cleaning the bore, canvas breech covers and muzzle covers, magazine platform depressors and magazine chargers (stripper clips). The British used the Pattern 1913 Bayonet (P-13), which was nearly identical with the UK Pattern 1907 bayonet used with the Lee-Enfield. Remington and Winchester made all the P-13 bayonets for the P-14 rifle in the United States, except for about 1,500 bayonets that were made by Vickers in England. The British P-13 bayonets also fit the American M-1917 rifle. The P-14 also used the common British web sling, which was more of a carrying strap. They also used a leather "dress" sling. P-14 sniper variants used British-marked American M1907 leather slings, the same as used on the U.S. Model of 1917 and the Springfield M1903.



*British Pattern 13 (P-13) Remington manufactured bayonet for the P-14.
Photo: www.joesalter.com*

Other accessories included a cup discharger for launching rifle grenades and a rifle grenade sight. This was declared obsolete after World War I and during World War II a new rifle grenade cup discharger and adapter were developed. The British introduced the **Adaptors, Discharger, 2 ½-in. Grenade, No. 1** and the **Dischargers, Grenade, Rifle, 1 ½-in. No. 2, Mk 1** in August 1942. Wire breakers and wire cutters that were attached to the P-14 in the area of the nose cap were also developed and manufactured.

The UK no longer needed P-14 rifles for France by the end of 1916. Losses of rifles had gone down and British factories had substantially increased the production and supply of Lee-Enfield rifles. The P-14 never really got a chance to prove its worth with British troops in France as a front line service rifle. Perhaps in the battlefield conditions of the time, with its more closely toleranced components and its restricted 5 round magazine capacity, it would not have proven to be more of a 'handy' battlefield tool than the SMLE. However, as the U.S. M-1917 it did prove to be an excellent weapon. Those P-14s that Britain did not put into store, or sent to equip Empire troops, or used as sniper rifles, served as training rifles or were issued to reserves, or to rear echelon and second line troops.



*WW I British Soldier of Middlesex Regiment with P-14 rifle & gear
Source: Public Domain*



*WW I British Soldier of 2/1 Dorset Yeomanry with P-14 rifle in 1916. Regiment served in Ireland.
Source Imperial War Museum*

After World War I the British put most of their P-14 rifles into storage. A large number were sent to arm local troops in the colonies, such as India, and Empire countries: Australia, Canada, New Zealand, and South Africa. The British also destroyed, discarded or otherwise disposed of a large number of P-14s, until by 1937 only about 700,000 remained in storage.

In an example of British foreign military assistance after World War I, the UK sent P-14 rifles to the newly independent Baltic countries of Estonia, Latvia and Lithuania to equip their fledgling armies with modern arms. These rifles saw service, both by army troops and by partisans, against the Germans when Germany invaded those countries. The Polish police and other units were also equipped with former British P-14s. During the Russian Civil War between the Imperial or white Russians and the Bolsheviks, the UK provided large numbers of P-14s to various White Russian forces from British Army and Navy stocks. Some historians have been postulated that some of these P-14s fell into Bolshevik hands and may have been used against Poland during the Russo-Polish War.



*Estonian Conscripts of the Sakala Partisan Battalion with P-14 rifles, 1939-1940
Photo: GNU Free License - Author Unknown*

In May 1926 the British changed the designations of their service rifles and the Pattern 14 became the **Rifle No. 3 Mk I** and **Rifle No. 3 Mk I***. Sniper variants were called **Rifle No. 3 Mk I* (F)** or **Rifle No. 3 Mk I* (T)** depending on whether it had a “Fine Adjustable Rear Sight” or a telescopic sight. The chart below illustrates the change in nomenclature.

CHANGE IN NOMENCLATURE FOR PATTERN-14 RIFLES, 1926	
<i>Old Designation</i>	<i>New Designation</i>
Pattern 1914 Mk I	Rifle No. 3 Mk 1
Pattern 1914 Mk I*	Rifle No. 3 Mk 1*
Pattern 1914 Mk I (F)	Rifle No. 3 Mk 1 (F)
Pattern 1914 Mk I* (F)	Rifle No. 3 Mk 1* (F)
Pattern 1914 Mk I* (T)	Rifle No. 3 Mk 1* (T)

During the 1920s and 1930s the British used the P-14 as a basis for a number of experiments. These included the P-14 with an experimental muzzle brake, various designs of folding and sliding bayonets, and P-14s with shortened barrels. It was used in tests for a proposed new “light rifle” in 1935.

That year, the British National Rifle Association (NRA) approved the No. 3 (P-14) for use in all service rifle competitions. The P-14 could be either be purchased through the NRA or “rented” by the year. It scored well in competition when fitted with target

aperture sights. Until the advent of specialist match target rifles, a number of companies converted P-14s to target rifles, including using special stocks, special barrels, and sights. Besides the “full-bore” .303 caliber target rifles, conversions to single shot .22 caliber target rifles were offered to the public. A typical conversion by A.G. Parker included inserting a .22 caliber A.G. Parker barrel into the .303 caliber barrel, after the original barrel was bored out, and soft soldered in place. A Parker-Hale 5B rear sight with a variable aperture rotating disc was attached to the rifle at the back of the rear sight. The bolt head and receiver were modified and a new extractor fitted. These conversions are not to be confused with the .22RF Pattern '14, which is an official A.G. Parker conversion of the SMLE Mk II, Mk II* and Mk III into .22 caliber training rifles. P-14s converted into .22 caliber were meant as civilian target rifles and never as military trainers like the SMLE conversions.

Because of its extremely strong action, the British used the P-14 as a test bed for experimental and high velocity cartridges. The British also used P-13s and P-14s as a test bed for examination of a number of auto-loading designs.

Due to the deteriorating international situation, the British government started removing its P-14s from storage in 1939 and the RSAF and a number of private firms started bringing them up to service condition, or “Weedon Repair Standard.” As part of the process, the long-range volley sights were removed, the arm of the rear volley aperture sight was milled off, and a wooden plug replaced the brass disk on the buttstock. Records indicate that 677,324 P-14 rifles (or No. 3 Mk I and Mk I* as they were now known) went through the modernization process. During the process newly manufactured stocks that did not have inletting for the volley sights or for the buttstock disk were used to replace damaged stocks. About 11,000 new stocks and handguards were manufactured and P-14 rifles that were fitted with the new stocks were designated **Rifle No. 3 Mk II** and were stamped “**Mk II**” on the buttstock.



Weedon Repair Depot Refurbishing P-14s (Public Domain)

The use of P-14 sniper variants during World War II has been well documented. Although it was not a front line issue weapon for British troops during World War II many P-14s were put into service as a reserve arm and with coastal defense units and the Home Guard in England. After the British Expeditionary Force was evacuated from Dunkirk in June 1940, many landed in England minus their personal weapons. Many were temporarily armed with P-14 (or No.3 Mk I and Mk I*) rifles until they could be issued No. 1 and No. 4 Lee-Enfields. P-14s were also used to arm the Home Guard. Empire troops from Australia, Canada, New Zealand, South Africa, India and other countries did use P-14 rifles in combat during the war. The British supplied P-14 rifles to various resistance groups in occupied countries, as well as to Free French and Free Dutch and other allied forces. Apparently, some P-14s also went to Spain and were used in the Spanish Civil War.



British Army Sergeant using a P-14 to instruct Members of Home Guard on the rifle range during World War II. Photo: Imperial War Museum.

After World War II the British supplied large numbers of P-14's to the Greek Government for use against the communists during the Civil War. P-14 rifles were used by a number of other European countries after the war, including briefly by Italy, until more modern weapons could be built or obtained. Israel used P-14 rifles during the War for Independence. In the UK more rifles were sold to competition shooters. And a large number entered the surplus arms market or were scrapped.

The UK Pattern 1913, Pattern 1914, and the US Model of 1917;
A Short History of the "American Enfield"

By Marc Gorelick
Virginia Gun Collector's Association

PART 4
U.S. MODEL of 1917 (M1917)



U.S. WW I soldier with M1917 National Archives

MODEL OF 1917 SPECIFICATIONS	
<i>From U.S. Army Sources</i>	
Caliber	.30-06"
Overall Length	3' 10.3"
Barrel Length	2' 2"
Weight	9lbs. 3oz.

The U.S. Government realized by 1917 that the country might soon enter World War I and that the U.S. military was woefully short of all types of modern weapons. Although the M1903 Springfield was the standard U.S. service rifle, by the time the U.S. declared war on Germany on April 6, 1917, only 600,000 M1903s and 160,000 obsolete Models 1896 and 1898 Krag-Jorgensens were on hand. An additional problem was that Springfield Armory and Rock Island Arsenal had temporarily stopped production of

M1903s to fix heat treatment problems with the rifle's receiver. In fact, Rock Island had been closed due to budget cuts; staff had to be hired (most of the skilled workforce had scattered in search of jobs) and operations re-started. Although M1903 production was increased at Springfield (1,000 rifles a day) and restarted at Rock Island (400 rifles a day) it was clear that other sources of rifle production were needed. Production of M1903 rifles at Springfield and Rock Island was not expected to keep up with the expected rapid mobilization and expansion of the U.S. armed forces.

By April 1917 the production of Pattern 1914 (P-14) rifles for the British government was nearing completion (production ceased in July 1917 with 1,243,515 rifles manufactured). The three well-equipped plants of Remington, Eddystone and Winchester, with their highly skilled, well-trained work forces attracted the attention of the U.S. Ordnance Department.

The need for rifles to equip the expanding army was growing critical - new recruits were actually drilling with broomsticks instead of rifles. The Ordnance Department was faced with three options for equipping the troops:

- To produce the M1903 at the three factories.
- To adopt the .303 Pattern-14 as-is in .303 caliber.
- To adopt the Pattern-14 but to modify it to fire the standard U.S. caliber .30-06 cartridge.

The first option was rejected because it would have taken the three companies too long to retool and set up to manufacture the M1903. The second option was rejected because it was felt that the U.S. caliber .30-06 cartridge was superior to the British .303 cartridge. The third option offered the best choice since it was believed that it was simple to modify the P-14 to U.S. specifications and the three companies could start production in only a few months. The companies also had large numbers of parts on hand that were left over from the British contracts. The U.S. decided to go with option three and in early 1917 decided to convert the P-14 rifle to chamber the U.S. caliber .30-06 cartridge and manufacture the new rifle concurrently with the M1903.

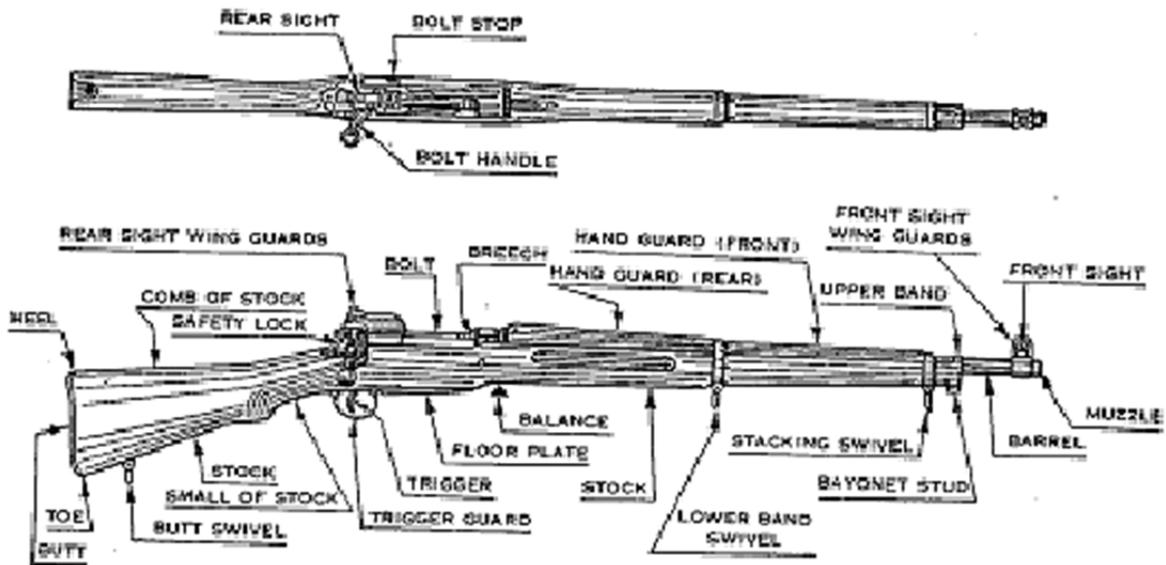
Technical aspects of conversion from .303 to .30-06 were not difficult. The strong nickel-steel action could easily handle the more powerful U.S. cartridge. Minor changes were made to the bolt face, sights, magazine, and rifling dimensions but otherwise the modified rifle, designated the **U.S. Rifle, Caliber .30, Model of 1917** or **Model 1917** (M1917), was essentially identical to its British parent. Even the bayonet was almost identical to the British P-14 type. The newly adopted Model of 1917 became unofficially known as "**The American Enfield.**" Prototype production started in April 1917 and Winchester produced its first Model 1917 on August 10, 1917.





Model of 1917 –Right side above. Left side below.

Photos: www.joesalter.com



M1917 Major parts from US Army Field Manual.

Source: US Army

The U.S. Model of 1917 initially suffered from the same problem of incompatible and non-interchangeable parts as the British P-14. When the three manufacturers sent sample modified P-14s to Springfield Armory in May 1917 for testing they were sent back, primarily because the rifles were not standardized and the parts were not interchangeable. To alleviate this problem, the Ordnance Department provided all three manufacturers with standardized production specifications and drawings and they eventually achieved a 95% parts interchangeability rate. Winchester had the most problems in meeting the interchangeability criteria and parts from early Winchester M1917s could not even be exchanged with parts from later Winchester M1917s, much less with Remington and Eddystone M1917s. Non-standardization of parts was a significant problem for the United States as it was for Britain because repair of damaged or worn rifles could not be accomplished without significant time consuming machining, which was often impossible during field repairs. As a result, in 1917, General John J. “Black Jack” Pershing, Commander of the American Expeditionary Force in Europe, requested that Winchester rifles not be sent to France until the parts issue was resolved, which it eventually was.

At the same time, as the last of the British contracts were nearing completion, ownership of the tools and machinery in the three plants was passing from Great Britain to the United States. The agreement that was signed between Britain and the U.S. included the following terms:

- Britain would sell the equipment, machinery, tools, dies, jigs, fixtures, cutters and gauges to the U.S. for \$900,000. This was a bargain basement price as Britain had spent about \$20,000,000 to acquire them.
- The U.S. would take over all raw materials and material that was in the manufacturing process.
- Britain would sell all new unused small tools to the U.S. at cost.
- The transfer of property would take place prior to completion of the British contracts so that U.S. rifle production could begin as soon as possible.
- Britain would sign a new contract with Remington's Ilion plant for bayonets at \$2.75 each.
- Britain would sell large quantities of components to the U.S. from the Remington and Eddystone factories so they could be used in M1917 production. Unneeded finished components and those not requiring machining would be shipped to England.



M1917 Right side of action showing deep wood around magazine, crooked bolt handle, safety, and "ears" protecting the rear sight. Photo: www.joesalter.com



M-1917 another view of crooked bolt handle, safety, rear sight and "ears" protecting the rear sight. Photo: www.joesalter.com

However, the practice of stamping parts with the manufacturer's letter continued and many prime parts, including stocks, are stamped with the maker's initials: "R" for Remington, "E" for Eddystone, and "W" for Winchester. (See Table C for manufacturers' marking on parts.) For the collector, a rifle with parts all from one manufacturer is much more desirable than one with mixed parts.



M1917 "E" marked stock.

M1917 "R" marked bolt.

M1917 "E" marked safety.

Source: Author

During the British contract the production rate for the P-14 was one man assembling 50 rifles per day. However, once the U.S. Ordnance Department required and implemented standardized parts with interchangeability, which eliminated most hand fitting, this number rose to 250 rifles per day. The unit price also supposedly dropped to \$26 for the U.S. Model of 1917. This was probably due to the facts that the tooling and machinery was already set up, the firms had gained considerable experience while manufacturing the P-14, and large numbers of finished components were on hand from the British contracts. Production was also simplified because there were fewer parts to be assembled. The dial volley sight, rear volley sight and their provision in the stock were eliminated. In addition, the U.S. Government insisted on introducing manufacturing improvements, which increased the efficiency and speed of production.

Despite this there were impediments to production. One impediment was the high turnover rate in the labor force at all three factories. As American industry ramped up for war, the three companies had trouble retaining skilled labor, who often went to work for whoever offered the highest wages. They were constantly hiring and training new workers to replace those who left for greener pastures. Shortages in raw materials, particularly steel and wood, also adversely affected production.

The primary marking on the M1917 rifle is located on the top of the receiver ring. The rifle ownership, model, manufacturer and serial number are located here, with the serial number being stamped on the right side of the ring. Markings on the top of the receiver ring read:

**U.S.
MODEL OF 1917
WINCHESTER or REMINGTON or EDDYSTONE
(SERIAL NUMBER)**



*M1917 Winchester manufacturer primed markings on top of receiver ring.
Photo: www.joesalter.com*



*M-1917 Eddystone manufacturer prime markings on top of receiver ring.
Photo: www.joesalter.com*



M-1917 Remington manufacturer prime markings on top of receiver ring.

Barrels were stamped on the top of the barrel just to the rear of the front sight in a manner similar to the barrel stamps on the M1903. First is the letter or initial of the manufacturer, either "W" for Winchester, "R" for Remington, or "E" for Eddystone.

Below that is the Ordnance bomb. Below that is the month and year of the barrel's manufacture.



*Drawing of typical stamps for a Winchester barrel manufactured October 1918.
Source: Author*

Many World War I “Doughboys” preferred the M1903, because the Model of 1917 was heavier and longer than the '03 and they were not used to its heavier weight, bulky appearance, and half-cock-on-open and full-cock-on-close bolt action. This was the same cocking action as the Lee-Enfield Mk III. The Springfield M1903 had a cock on open action and many Americans were used to this and not the cock on close action.

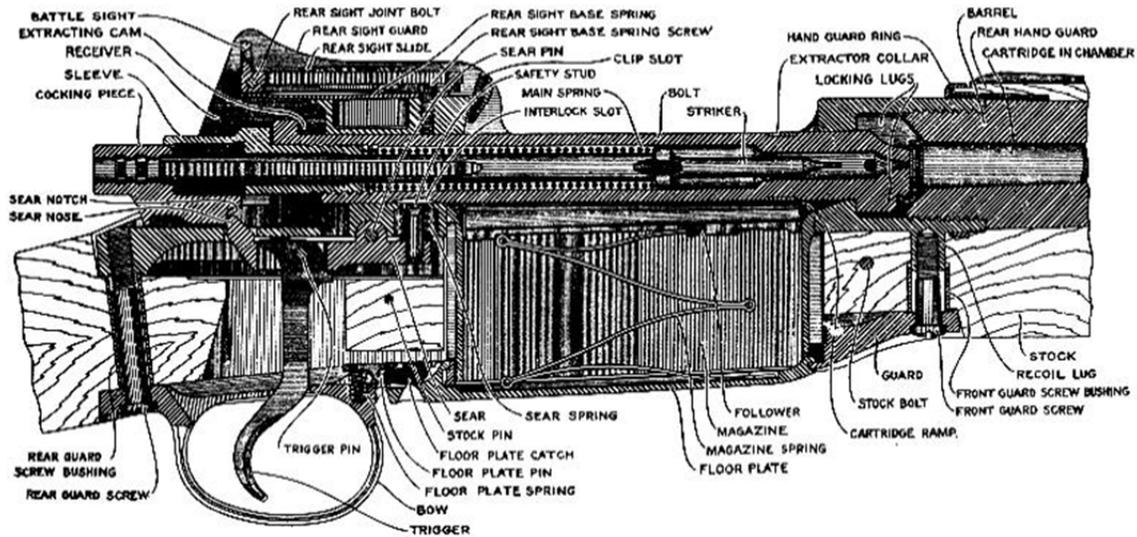


*US Doughboys in France during WW I with M1917s
Photos: Left – Springfield Armory Museum, NPS, Right – US Army Signal Corps*

According to some authors, the greater length of the M1917 was an advantage in bayonet fighting. However, some soldiers who favored the M1903 complained that the M1917's long length made it unwieldy in the tight confines of trench warfare, and especially when its bayonet was fixed lacked the M1903's balance and “handiness.” Many soldiers preferred the position of the M1917's safety over that of the '03. And, unlike the Model 1903, the Model of 1917 did not have a magazine cut-off. When designing the P-14 British armorers determined that the cutoff was more of a liability than an asset in combat.

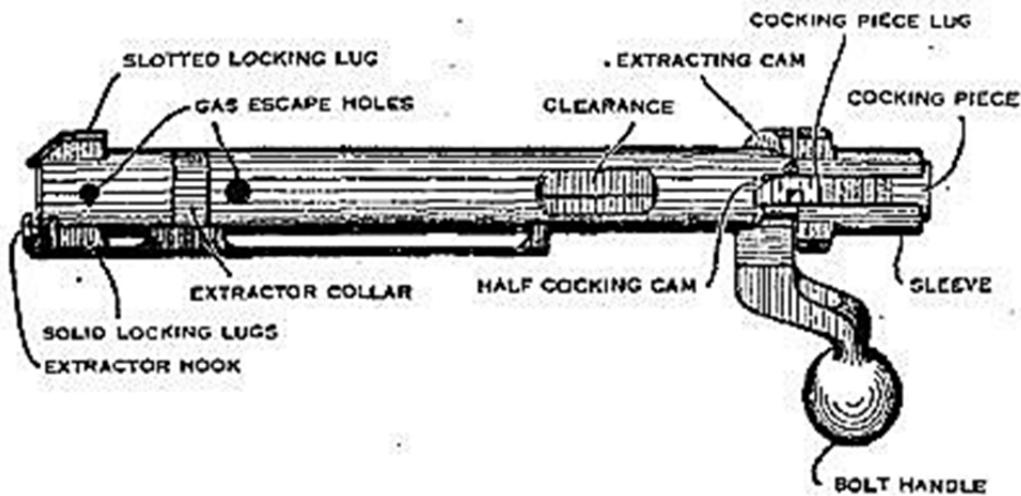
However, the Model of 1917 was an outstandingly strong, robust, reliable and accurate battle rifle that gave good service and had some advantages over the '03. It is widely recognized as one of the strongest military bolt action rifles ever made. The M1917's distinctively-shaped crooked bolt handle permitted the shooter's hand to be closer to the

trigger, which assisted in fast operation of the bolt. The U.S. Ordnance Department claimed that this feature to be fired twice as fast as the German Mauser, which had a straight bolt handle. Although the Model of 1917 and the M1903 both used the same 5-round stripper clip, the M1917 actually held six rounds in its magazine to the M1903's five rounds. The extra round could be loaded by hand. This was because the British .303 cartridge was thicker than the American .30-06 cartridge and six .30-06 cartridges could fit into the same magazine space that held five .303 cartridges.



M1917 Cross-section diagram of action.

Source: US Army



M1917 Bolt diagram.

Source: US Army

The Model of 1917 was generally just as accurate as the '03, if not more so in the hands of a skilled marksman. The barrel's five lands and deep grooves that were kept from the P-14's Enfield type of rifling enhanced its accuracy. The British had determined that this form of rifling was best for resisting severe erosion and barrel wear. The U.S. also changed the bore and groove dimensions in order to suit the .30-06 cartridge and bullet. This gave a tighter bore diameter than Model 1903 barrels of 1917-1918. According to Major General Hatcher, who was the Chief of Engineering and Design for Small Arms during much of World War I, the M1917 barrels would always outwear the M1903 barrels. The M1917's well protected rear mounted sight was much better for battle than the M1903's barrel mounted sight, being closer to the eye and producing a longer sight

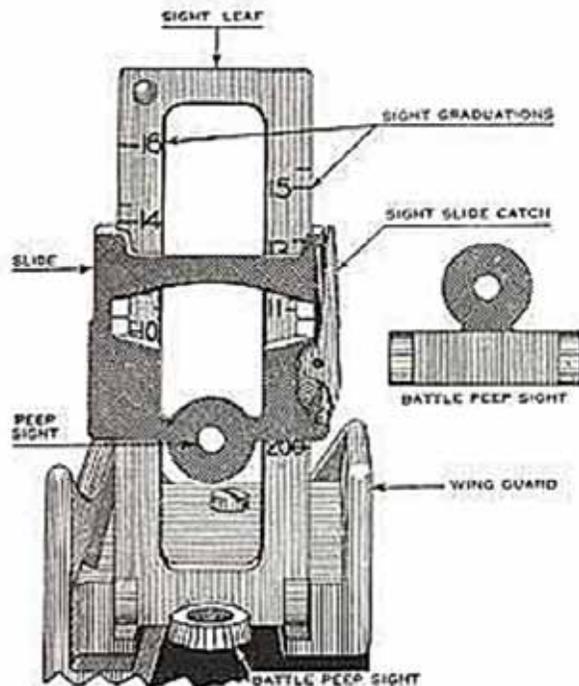
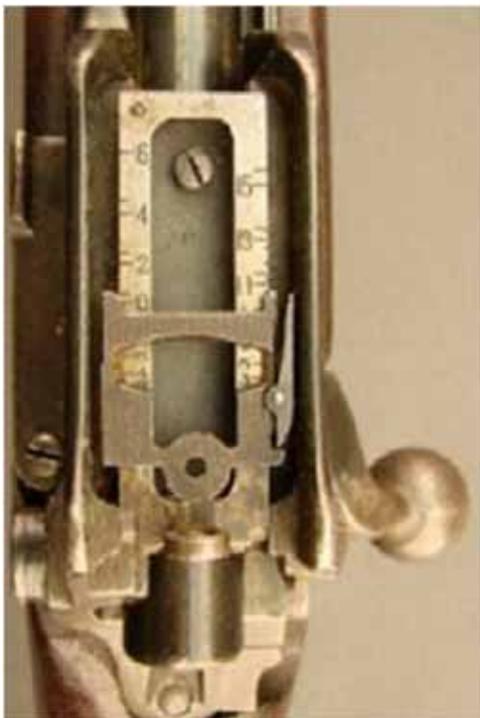
radius, which is better for quickly engaging the target and for long-range accuracy. The M1917's safety was also ideally positioned behind the bolt handle within natural reach of the thumb. It was easy to manipulate without removing the trigger finger from the trigger.

One weakness of the M1917 was the narrow flat leaf spring that was an integral part of the ejector. This spring was prone to breaking, which rendered the ejector inoperable. A wider and stronger replacement spring was issued for repairing the ejector. An alternative seen was a redesigned ejector that incorporated a small coil spring in place of the fragile leaf spring. However, according Stratton, it is not clear if this was an official repair or replacement part.



Line drawing of M1917 extractor. Source: Author

The M1917 and P-14 rear sights were almost identical. Both had protective ears, peep sights on slides that were attached to the leaves, and battle peep sights. Both M1917 and P-14 rear sight leaves were both graduated from 200 to 1600 yards except that the M1917 rear sight leaf is a little shorter and there is less space between graduation lines to account for the .30-06 ballistics.

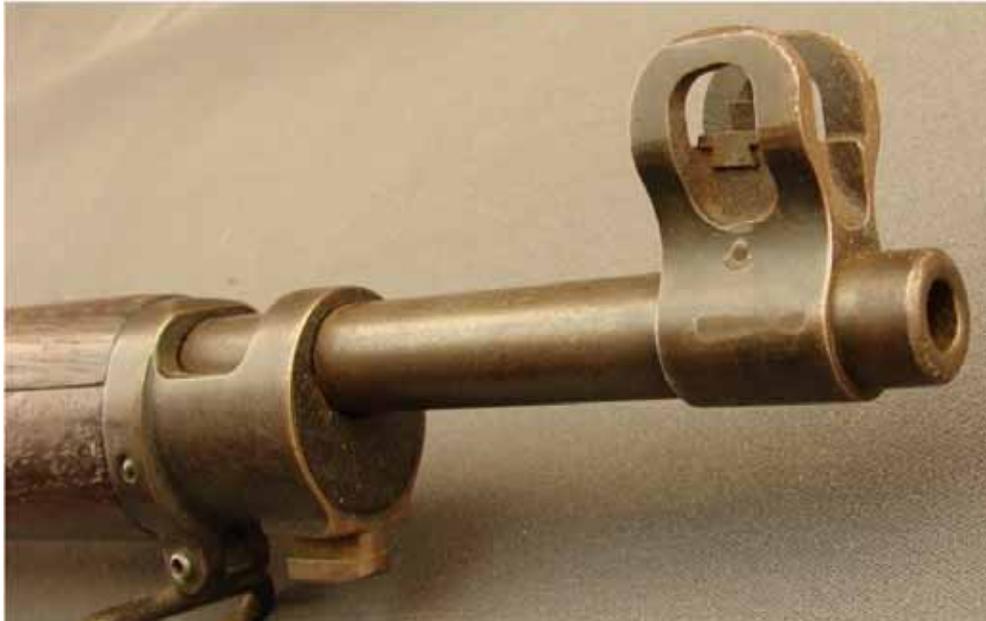


M1917 rear sight – photo left and line drawing diagram right.

Photo: www.joesalter.com. Model 1917 rear sight diagram - Source: U.S. Army

Model of 1917 rifles were targeted at the factory because the rear sight could not be adjusted for windage, as could the Model of 1903's rear sight. Factory targeting was accomplished adjusting the front sight and staking it in place. Different height blades for the front sight were used to establish baseline elevation during factory targeting. Unfortunately, many Model of 1917s lost their inherent accuracy when they underwent arsenal refinishing, reworks and rebuilds. This is because during these procedures the

targeted and staked front sights were stripped off the barrels and the rifles were usually not re-targeted after being reassembled. This led to erroneous claims that the M1917 was inaccurate. Rather, the opposite was true and both the British and Americans chose Winchester-made P-14s and M1917s as the basis for sniper rifles.



M-1917 front sight.

Photo: www.joesalter.com

Accessories and appendages for the M1917 included: slings, bayonets and scabbards, oiler and thong case, oil bottles and pull-through thong and brush bore cleaners, canvas rifle cases and muzzle covers, take down tools (combination screw driver tool), magazine follower or platform depressors, magazine chargers (stripper clips), Model of 1916 Cleaning Rod, and Model of 1916 Barracks Cleaning Rod. Many of the accessories were also used by the M1903. The Americans used the M1917 Bayonet, which was nearly identical with the British P-13 bayonet that was used with the P-14 rifle. In fact, these bayonets were interchangeable. Remington and Winchester made all the M1917 bayonets. These bayonets were also used on a variety of U.S. military combat shotguns as late as the first Persian Gulf War. In fact, new M1917 bayonets with plastic grips were being manufactured for use in Vietnam. The M1917 used the same M1907 leather sling that was used on the M1903. The M1917 (Kerr "NOBUCKL") was also commonly used on the M1917 rifle. The Kerr Adjustable Strap Company manufactured these two-piece khaki colored web slings.

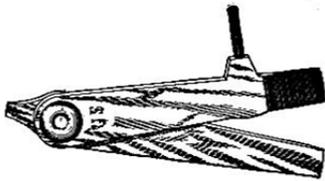


U.S. M1917 Bayonet and Scabbard.

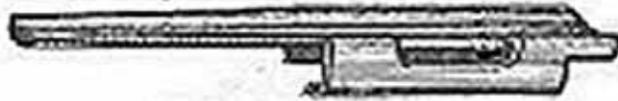
Photo: www.joesalter.com



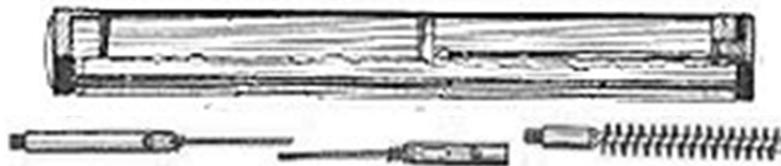
M1917 Kerr "NOBUCKL" sling for the M1917 rifle. Photo: www.joesalter.com



*Screw driver tool for M1917.
and M1903. Source: US Army*



*Magazine Follower Depressor for M1917.
Source: US Army*



*Oiler and Thong Case for M1917 and M1903
Thong Weight, Thong Tip and Thong Brush. Source: US Army*

Another accessory was the French designed and developed V-B rifle grenade launcher. The V-B Mk II and Mk IV rifle grenade launchers were manufactured for the M1917. The V-B launcher used a regular cartridge to propel a V-B grenade out to 200 yards. The U.S. Army withdrew the V-B rifle grenade launcher from service after World War I. The M2 rifle grenade launcher was developed for the M1917 just before World War II. This was a variant of the M1 launcher developed for the M1903.

By the end of WW I, more M1917's were made and issued than M1903's. It is estimated that between 66-75% of U.S. troops in France were armed with the Model of 1917. There is some question as to exactly how many M1917s were manufactured as there is some difference in reports and figures, depending on the document and source. The three commercial firms manufactured about 2,202,429 M1917s between August 1917 and the end of the war. By December 28, 1918 they had manufactured about 2,422,529 M1917s. The Remington plant in Ilion, NY shut down production on December 23, 1918, the Eddystone plant stopped production on January 9, 1919, and Winchester shut down production on April 5, 1919. The contracts were finally cancelled in April 1919. Springfield and Rock Island Arsenals produced only about 457,878 Model 1903s and Model 1903 Mark1s during the war. The U.S. Army Chief of Ordnance received orders on March 2, 1918 to replace M1903 rifles with M1917 rifles. About 1,123,259 M1917 rifles had been shipped to France by the time the war ended. Of those rifles shipped to France, some 800,967 were issued to troops and 322,292 held in reserve. The U.S. Marine Corps reportedly had 61,000 and 604 rifles were issued to the U.S. Navy. However, according to Colonel Robert Rankin, USMC (Ret), the Marines used the M1917 primarily for training and the M1903 for combat. U.S. troops in the United States had 127,000 M1917 rifles with another 70,940 held at various military facilities. (See Table B for M1917 production data.)



WWI Doughboy with full pack shouldering his M1917 U.S. Enfield rifle. (Source: National Archives)

US WWI Soldiers with M1917 Rifles.



National Archives

It is well documented that the famous Sgt. Alvin York used an Eddystone-manufactured M1917 when taking part in the combat actions that resulted in his being awarded the Congressional Medal of Honor. He did not have a Springfield '03 as erroneously shown in the Oscar-winning movie that starred Gary Cooper.

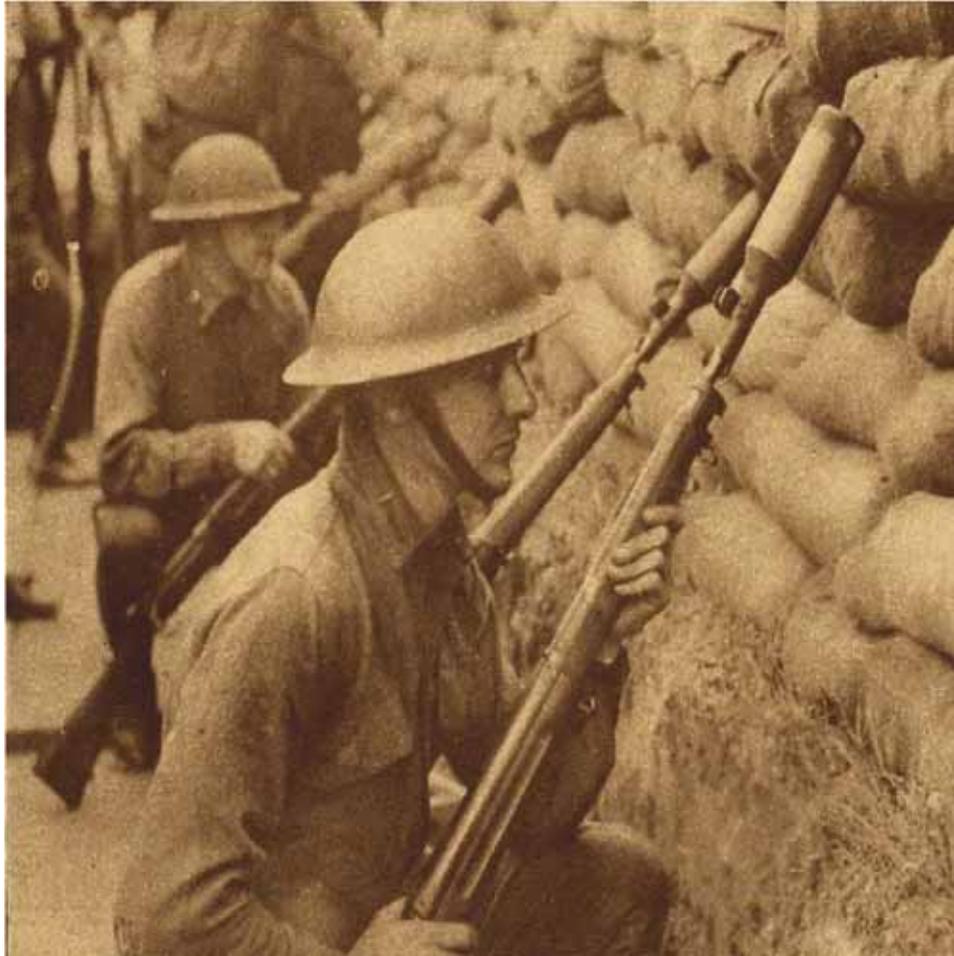
Logistics were not a problem as the Model of 1917 and the Model 1903 shared many of the same accessories and accoutrements, including slings, cleaning kits and tools, greatly simplifying logistics for the U.S. Army. In addition, the U.S. M1917 and British P-14s could also share a number of accessories. For instance, bayonets for the British P 14 could be used on the US Model of 1917, and vice versa.



Left - WWI US Soldier with M-1917, Right - US Marine with M-1917
Source: US Army

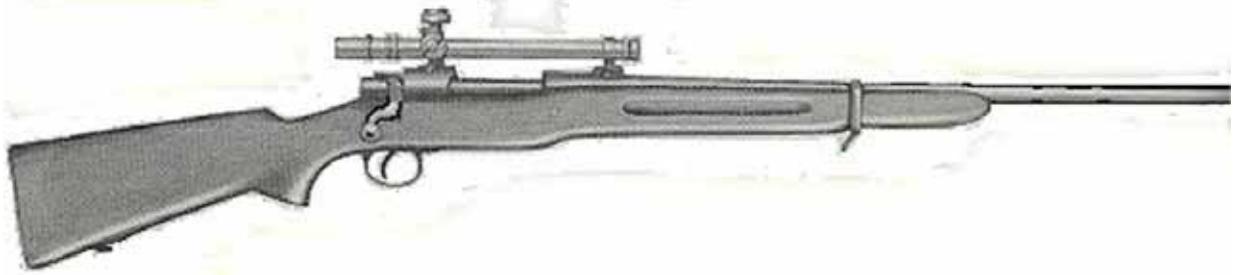


Source: USMC



*U.S. troops in France- M1917 rifles equipped with V-B rifle grenade launchers.
Photo: Great War Primary Document Archive: Photos of the Great War –
www.gwpda.org/photos*

Just as the British used the P-14 as the basis for a sniper rifle, so to did the United States try to develop the M1917 into a sniper rifle. Many of these experiments, using Warner and Swasey or commercial Winchester A5 scopes, came to nothing, not because of any failings in the rifle, but rather due to external factors. U.S. Government then contracted with Winchester for the development and production of 59,742 sniper rifles based on the Model of 1917. Winchester developed a new 2.6X telescopic sight (**Model 1918 Telescopic Sight**) that was an improvement on its Model A5 scope and the German Goertz Military Telescope. It used a two-base/ring mounting system with the rear ring having range and windage adjustments. The rear base/ring was mounted on the rear receiver ring, the original sights and protective ears having been removed. A special sporting style stock with a pistol grip, high comb and half-length forend was used. The barrels had 4-groove right hand twist rifling instead of the M1917's proven original 5-groove left hand twist rifling. The new sniper rifle was designated the **U.S. Telescopic Sight Rifle, Model of 1918**. The Winchester developed scope failed in trials and further development and production was curtailed when the war ended. With the end of hostilities, Congress instituted severe budget cuts on weapons research, development and production. Winchester manufactured only 189 examples of the sniper rifle before the Government cancelled its contract on January 10, 1919. It is not known how many, if any, survived.



Drawing of US Telescopic Sight Rifle, Model of 1918, with Model 1918 scope. Author.

Despite its love affair with the M1903, the U.S. Marine Corps was developing the **U.S.M.C. Telescopic Sight Rifle, Model of 1918** sniper rifle, which married the Model of 1917 and the Winchester A5 Scope when the war ended and all work stopped. For the collector, these U.S. sniper rifles are rare indeed, only about 17 prototypes being produced for testing. It is not known how many survived.

The M1917 was also used as the basis for a number of other experimental, prototype and limited production rifles. For instance, Remington made a small number of M1917s that had rear sight that were capable of fine adjustments for both elevation and windage. These M1917 with factory adjustable rear sights were made around mid-1918. The sights should be marked with the letter “R” for Remington, and they are quite desirable to a collector.

Another example of the M1917 being used as the basis for an experiment is the five pre-production modified M1917s that were fabricated to accept the Pederson Device. The Pederson Device was an ingenious mechanism that used 40-round magazines, and when inserted into the rifle in place of the bolt, turned the bolt action rifle into a semi-automatic assault rifle that fired pistol size cartridges. It was originally designed for the Model 1903 Springfield. These extremely rare M1917 rifles, designated Model of 1917, Mark 1, can be identified by an oval ejection port milled into the left side of the receiver. Only three Pederson devices, all tool room models, were made for the M1917.



US Infantry with M1917 rifles near Verdun. National Archives

In March, 1919 a Board of Officers met to determine which rifle, M1917 or M1903, would remain the "limited standard" service rifle and which would be put into storage as a war reserve. After much argument the Model of 1903 was chosen as the standard service rifle. Reportedly, the tiebreaker was M1903's rear sight that is adjustable for elevation and windage, while the M1917 rear sight adjusts for elevation only. Windage adjustments on the P-14 and M1917 were made by "drifting" front sight from side-to-side. The better suitability of the M1903's rear sight for competitive shooting was supposedly a factor in the decision. Labor problems in the three civilian plants that manufactured the M1917 may also have influenced the Board's decision.

The Model of 1917 was designated "Limited Standard" and made "war reserve." Large numbers were cleaned, repaired and refurbished between 1919 and 1932 before they were put into storage. The work was carried out primarily at Augusta, Raritan, and Rock Island Arsenals, and Springfield Armory. Between the wars some ROTC and state guard units used small numbers of M1917s. And the U.S. Government sold over 23,000 to Mexico in 1924 and 1929. Before World War II about 300,000 Model of 1917 rifles were shipped to the Philippines to arm the Philippine Army. After the fall of Corregidor, Japanese troops and police used some captured M1917s. Philippine resistance fighters used them against the Japanese.

During World War II large numbers of Model 1917s were recalled into service to arm U.S. and foreign allied militaries. Although the U.S. used the M1917 primarily for training, a small number were used in combat, mostly by combat support troops in the North African campaign. Most of the M1917s issued to U.S. troops were withdrawn as new M1903A3s, M-1 Garands, and other small arms became available.

When the M1917s were recalled into service after Pearl Harbor most had been in storage since the end of World War I and had to be refurbished. Rock Island Arsenal began refurbishing them in May 1942. The Arsenal received orders to build 50,000 rifles from spare parts. A number of spare components, particularly barrels had to be manufactured. These replacement barrels did not have the five-groove left-hand twist of the original barrels. Hi-Standard Manufacturing Co., of New Haven, CT produced 61,250 four-groove barrels with a right hand twist, and Johnson Automatics, Inc., of Providence, RI made 81,571 M1917 two-groove barrels with a right hand twist. Rock Island Arsenal also manufactured a small number of spare barrels. High Standard barrels were stamped with the letters "**HS**" above a flaming ordnance bomb, Johnson Automatics barrels were stamped "**JA**" above an ordnance bomb, and Rock Island barrels were stamped "**RIA**" above an ordnance bomb. Some M1917s were rebarreled with the new barrels.

The United States supplied over 300,000 M1917s to the UK and British Commonwealth countries, and other allies under the Lend Lease program. About 100,000 equipped the British Home Guard. Model of 1917 Lend Lease rifles that were sent to England were usually issued to Home Guard units or used for training. Because the identical looking British P-14 and Rifle No. 3 Mk I's and Mk I*s used the .303 cartridge, the Lend Lease Model of 1917s had a red band or stripe painted on the fore stock to indicate that they were chambered for the U.S. .30-06 cartridge and not the British .303. Although the .303 would not chamber in the P-14 and the .303 would not chamber in the M1917, the extra precaution of the painted red band or stripe was used because some Home Guard units had been issued both rifles. (See Table D – Excerpt of British Army Council Instruction (ACI) Number 1571 of 1940.)



British Home Guard in WWII with M1917. Note the red band painted on the fore stock and the caliber applied in black stenciling in accordance with Army Council Instructions (ACI's) issued in 1940. Number painted on the stock, if the calibre, was not in accordance with ACI's.

Many M1917s that were sent to British Commonwealth countries found their way back to the United States after the war and can be identified by their distinctive markings. British Lend Lease rifles were commonly marked with the British Property mark or "Broad Arrow." The "Broad Arrow" is also incorporated into Canadian and New Zealand markings. Most British and some Canadian and New Zealand M-1917 rifles will have the receiver serial number marked on the bolt and/or stock.



Lend Lease M-1917 Winchester sent to Canada and used by the Royal Canadian Air Force. Note the British sling. Source: www.joesalter.com.



Lend Lease M-1917 Winchester with a Royal Canadian Air Force stamp and the serial number on the butt. Photo: www.joesalter.com

The United States provided 152,000 M1917s to Nationalist China. The Communists captured many of them when they defeated the nationalist Chinese government after World War II. Those that came back to the United States towards the end of the 20th century were in poor condition.



ETO DEC 44 DUTCH SNIPERS CLEAN UP AT AACHEN GR

Dutch Volunteers firing M1917 rifles in fighting for Aachen, Germany in December 1944.

Source: US Army Signal Corps.

The Army Ordnance Department officially declared the Model of 1917 obsolete on October 3, 1945. The Director of Civilian Marksmanship (DCM) program sold large numbers to civilians. Some of those sold through the DCM had cracked receiver rings. Most of these were Eddystones that were rebarreled during World War II with new U.S. manufactured barrels. The M1917 was also a popular candidate to be “sporterized” because of its strong action and relatively low cost.

During the Cold War, the U.S. supplied numbers of M1917s to its allies, including Norway and Denmark. In 1953 the U.S. provided M1917s to Denmark in order to equip the Danish Home Guard. The U.S. also supplied M1917 rifles to the Republic of Vietnam.

Collector Note: *Once relatively plentiful and inexpensive, Model of 1917 rifles in excellent, unaltered condition have become highly sought after by collectors. These “original condition” rifles, where all parts are from the same manufacturer, are rare. This is because many of them went through arsenal reworks or rebuilds after the war and were reassembled with parts from different manufacturers. Such “original condition” specimens often bring a premium. Of the three manufacturers, Winchester has traditionally been the most sought after by collectors*

**The UK Pattern 1913, Pattern 1914, and the US Model of 1917;
A Short History of the "American Enfield"**

By Marc Gorelick

Virginia Gun Collector's Association

PART 5

REMINGTON VARIATIONS OF THE M1917

After World War I the U.S. Government cancelled its contracts for the Model of 1917. The Remington Arms Company found itself with a plentiful supply of M1917 parts. Remington was not about to let these parts go to waste and so Remington used them to manufacture and sell variations of the Model of 1917.

Remington Model 30

After World War I Remington designed, built and successfully marketed the Model 30 series, a commercial derivative of the U.S. Model of 1917 that used a number of M1917 parts and design elements. The Model 30 was manufactured between 1921 and 1940 in .30-06 and other popular calibers. Besides the standard Model 30A, with its European styling, Remington also made the Model 30R carbine and the Model 30S sporter with more "American" styling. These rifles, based on the Model of 1917 action, are handsome, well-crafted weapons and those in good condition bring a premium today.

Remington Model 1934 Honduran, Cal. 7mm

In 1934 Remington Contracted with Honduras to supply 3,000 rifles in 7mm. The result was a rifle that appears to be a Model of 1917 with Mauser-type front and rear sights and a cleaning rod under the barre3l. Most of these saw hard service in the Honduran Indian Wars of the 1930's and 1940's and in tropical border clashes with Honduras's neighbors. The few Model 1934s that survived the jungle warfare and were imported into the United States exhibit hard usage and were in poor condition.

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*By Marc Gorelick
Virginia Gun Collector's Association*

**PART 6
SOURCES and TABLES**

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TABLE A

PATTERN 14 and MODEL OF 1917 SPECIFICATIONS

Action	Manual bolt action
Weight (without bayonet)	9 pounds 3 ounces
Weight (with bayonet)	10 pounds 5 ounces
Length (standard model)	46.3 inches
Length (with bayonet)	62.3 inches
Barrel Length	26 inches
Caliber	
US M1917	US .30 M1906 (.30-06)
UK P-14	UK .303 Mk VII & Mk VIII
Bore diameter	.30 inches
Rifling (grooves)	5
Rifling (twist)	Left hand twist, one turn in 10 inches
Feeding Mechanism	Internal magazine loaded by 5-round charger or individual cartridges
Magazine Capacity	
US M1917 - .30-06 cal	6 rounds (Charger holds 5 rounds)
UK P-14 - .303 cal	5 rounds
Muzzle Velocity	
US M1917 - .30-06 cal	2,700 (M1Ball) - 2,930 f.p.s.
UK P-14 - .303 cal	2,450 f.p.s.
Trigger Pull (minimum)	3 pounds
Trigger Pull (maximum)	7 pounds
Rear Sight	Receiver mounted, adjustable for elevation to 1,600 yards, not adjustable for windage
Front Sight	Non-adjustable. Targeted at production facility and staked in place
Sight Radius (Standard Rifle)	
Leaf raised	31.76 inches
Battle sight (leaf down)	31.69 inches
TO&E Requirements	Same as M1903 Rifle
Manufacturers	Winchester, Remington, Eddystone

*Sources: Pattern 1914 and U.S. Model 1917 Rifles, Charles R. Stratton
P-17 The American Enfield, J.C. Harrison
U.S. Infantry Weapons of the First World War, Bruce N. Canfield
.303 Pattern 1914 Rifle & Sniping Variants, Ian Skennerton
Description and Rules for the Management of the United States Rifle Caliber .30,
Model of 1917*

TABLE B

**PATTERN 13, PATTERN 14 and MODEL OF 1917
ESTIMATED PRODUCTION**

UK PATTERN 1913 ESTIMATED PRODUCTION		
Manufacturer	Years	Est. Number
RSAF	1912	507
RSAF	1913	744
RSAF	1914	6
Total		1,257

UK PATTERN 1914 ESTIMATED PRODUCTION		
Manufacturer	Years	Est. Number
Vickers	1915	Unknown
Winchester	1916-1917	235,448
Eddystone	1916-1917	604,941
Remington	1916-1917	403,126
Total		1,243,515

U.S. MODEL OF 1917 ESTIMATED PRODUCTION		
Manufacturer	Years	Est. Number
Winchester	1917-1919	465,980-@545,511*
Eddystone	1917-1918	1,354,701
Remington	1917-1918	545,541-@585,936*
Total		2,366,222 – 2,486,148

* Based on highest serial number observed.

Remington Variations of Model of 1917

HONDURAN MODEL 1934, CAL. 7MM		
Manufacturer	Years	Est. Number
Remington	1934-1935	3,000

MODEL 30A, MODEL 30 EXPRESS (30S, 30R)		
Manufacturer	Years	Est. Number
Remington	1921-1940	25,800*

* Per Remington Website, www.remington.com/library/history/firearm-models

*Sources: Pattern 1914 and U.S. Model 1917 Rifles, Charles R. Stratton
P-17 The American Enfield, J.C. Harrison
U.S. Infantry Weapons of the First World War, Bruce N. Canfield
.303 Pattern 1914 Rifle & Sniping Variants, Ian Skennerton*

TABLE C

PATTERN 14 and MODEL of 1917, MANUFACTURER PARTS MARKING

PART	EDDYSTONE	REMINGTON	WINCHESTER
BARREL	E	R	W
BARREL BAND UPPER	E	R	W
BARREL BAND LOWER	E	R	W
BOLT	E	R	W
BOLT STOP	E	R	W
BOLT STOP SPRING	E	R	W
BOLT STOP REST	E	R	W
BOLT SLEEVE	E	R	W
BUTTPLATE	Not Marked	R	W
BUTTPLATE TRAP	E	Not Marked	W
COCKING PIECE	E or "EN"	R or "EN"	W
EJECTOR	E	R	W
EXTRACTOR	E	R	W
FIRING PIN	E or "EN"	R or "EN"	W
FLOOR PLATE	E	R	W
FLOOR PLATE RELEASE	E	R	W
FOLLOWER	E	R	W
SIGHT BASE FRONT	E	R	W
SIGHT INSERT FRONT	E or Blank	R	W
HANDGUARD LOWER (early only)	E	R	W
HANDGUARD UPPER (early only)	E	R	W
HANDGUARD RING	E	R or Blank	W
MAGAZINE BOX	E	R	W
MAGAZINE SPRING	E	R	W
SIGHT ELEVATOR REAR	E	R	W
SIGHT LEAF SPRING REAR	E	R	W
SIGHT SLIDE REAR	E	R	W
SIGHT SLIDE TAB REAR	E	Not Marked	W
SAFETY	E	R	W
SAFETY COVER	E	R	W
SEAR	E	R	W
STOCK (at the tip of the forearm)	E	R	W
SWIVEL REAR BASE	E	R	W
SWIVEL SLING FRONT	E	Not Marked	Not Marked
SWIVEL SLING REAR	E	R	W
SWIVEL STACKING	E	Not Marked	Not Marked
TRIGGER	E	R	W
TRIGGER GUARD	E	R	W

Sources: <http://m1903.com/m1917markings.htm>

Pattern 1914 and U.S. Model 1917 Rifles, Charles R. Stratton

P-17 The American Enfield, J.C. Harrison

TABLE D

EXCERPT FROM BRITISH ARMY COUNCIL INSTRUCTION (ACI) NUMBER 1571 OF 1940

1571. Distinctive Marking of Non-Service Pattern Small Arms.

1. Many small arms and machine guns of non-service pattern have recently been issued which are similar to approved service weapons, but differ from them in various respects.

It is essential that these weapons and also certain major components should be very easily distinguished from the approved service pattern and that there should be no confusion regarding the spares, accessories, or the particular S.A.A. required for them.

2. In order to distinguish these arms from service weapons and to prevent confusion regarding spares, accessories and ammunition, the weapons and certain major components will be specially marked. The general principles which govern such markings are set out in para. 3 below, while details of weapons, components and position of marking are enumerated in para. 4 below.

3. Marking, governing principles.

Class I. Arms which do NOT fire a .303-inch, .38-inch, or .455-inch British Service ammunition will be marked with a 2-inch band of RED paint. On this band will be stenciled in BLACK the caliber of the weapon.

Class II. Arms which will fire .303-inch British Service ammunition and which have certain sub-assemblies interchangeable with the similar service arm will be marked with a 2-inch yellow band.

Class III. Arms which will fire .303-inch British Service ammunition and which have no sub-assemblies interchangeable with service arms of the same type will be marked with a 2-inch green band.