

The Search for the Best. The Other 'Enfield' Rifle of 1913

by
Graham Priest



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As you are hunkered down behind a *sangar* in Afghanistan or sandbags in Iraq, training in Norway and UK, or, if lucky, in a cosy billet, the chances are that your SA 80 is somewhere within easy reach.

Despite satellite surveillance, aircraft transport & cover, armoured vehicles and rocket propelled munitions this weapon and its 'cold steel' still remains your ultimate defence. It is good then to know that it works!

From 1900 onwards the 'Small Arms Committee' of the War Department tried to discover the ultimate firearm for the use of British troops. The records of the meetings they held, the trials they set up and the rifles that resulted remain a testament to their efforts. The Weapons Collection of the Land Warfare Centre at Warminster retains many interesting items that reflect this work. One selection well represented is the 'Enfield' Rifle built to improve the performance of the .303" calibre *Rifle, Short, Magazine, Lee-Enfield* (SMLE) adopted in 1902. These longarms ultimately failed to replace the latter but saw service in two World Wars and often provided a 'test bed' for other developments. They also saw action with the United States Army from 1917 onwards.

The concept for a new magazine rifle was established at a meeting of 2nd September 1910. [1] After nearly a year of work, particularly with the design of Major P.T.Godsall, a prototype *Rifle, .276" Experimental Pattern* was evolved by April 1911. More tests and adaptations created the *Rifle, Magazine, Enfield, .276-inch* after 15th March 1913. [2]



Fig.1. *Rifle, Magazine, Enfield, .276-inch, Pattern 1913.* (SAS 968- Courtesy of the Trustees of the Weapons Collection, Warminster)

As can be inferred the committee was already aware that a smaller calibre might improve accuracy, and would certainly allow more rounds to be carried for the same load-weight per person. The .276" (7mm) calibre was closer to the current .223" (5.56mm) of today than the .303" (7.69mm) of the SMLE.

The rifle was based on the German Mauser action that had been a worthy opponent in the Second Boer War (1899-1902). It reintroduced the one-piece wooden stock and was largely the same weight and length as the SMLE. It had a receiver mounted aperture sight and some details from the American *Rifle, Caliber .30, Model 1903* (Springfield). The .276" calibre rimless cartridge, consisted of a 165-grain jacketed spitzer bullet with a potential muzzle velocity of 2,785 feet per second. This was loaded in five-round clips. Overall the weapon was 46.3ins. long and weighed in at 8lbs. 11ozs.

One major departure was the removal of Henry Watkin's nose-cap & bayonet bar patented on 11th July 1901 for use on the SMLE. [3] This provided a boss beneath the barrel for the muzzle-ring and was intended to prevent damage to, or adverse harmonic distortions from, the fixed bayonet. Instead the firearm was given a steel *cap,nose*, with integral stud, at the front of the stock. A sufficient length of barrel protruded so that *block, band, foresight & foresight protector* could be supported. When attached the cross-guard of the bayonet was rested in front of the latter and a coil-spring catch on the pommel locked over the bar. As the *Sword-bayonet, pattern 1907* of the SMLE now had an incorrect cross-guard, so would not mate, new 'cold steel' was adopted.

(See Fig.4 in next column.)



Fig.4. The experimental bayonet for a shortened P.1914 rifle circa.1924 (SAS 556) compared with the Pattern 1907 of *Rifle, Short, Magazine, Lee-Enfield*. The latter originally had a forward curved quill on. (Courtesy John Humphries)

The *Sword-bayonet, pattern 1913* had the same blade shape, hilt construction and fixing system, but the muzzle-ring was set into a longer cross-guard to encompass the barrel. When fixed the back of the handle no longer fitted snugly below the nose-cap. As the original scabbard was also utilised initial confusion in the stores was possible, so twin grooves were incised into the slabs on each side as a distinguishing feature. The specification stated, *the wood grips are ribbed to enable the sword-bayonet to be readily identified from the Pattern 1907, which is very similar in appearance, both bayonets having the same pattern of blade.* [4]

The Royal Small Arms Factory (RSAF) Enfield Lock began production of 1,000 rifles for troop trials in 1912. Eventually 1,251 were tested in UK, Egypt & South Africa. One batch ran through the School of Musketry at Hythe. Some problems with stocks & magazine platforms caused revisions but at this stage it seemed certain that Great Britain would soon have a Mauser-action rifle chambered for a rimless cartridge to end the .303" cartridge's dominance. However as the trials developed a significant problem surfaced with the .276" round. Intense pressures caused rapid chamber and barrel wear, and 'cook-off's' (internal breech explosions) where chamber heat caused cartridges to ignite before the trigger was pulled. Before these issues could be remedied the Great War (1914-1918) started and the development of the ammunition was suspended.

As the inexorable events of a global conflict unfolded and the War Office realised that rifle production would have to be rapidly expanded, the surmise was that this project would aid the 'war effort' if the .303" cartridge could be employed. A modified version was fairly successfully trialled and the *Rifle, magazine, .303-inch, pattern 1914* (P.1914) was created. [5] (Fig.2.)



Fig.2. *Rifle, magazine, .303-inch, pattern 1914.* (SAS 649- Courtesy of the Trustees of the Weapons Collection, Warminster)

The *List of Changes* from 21st June 1916 finally specified the details. [6] The revised weapon had less components than the SMLE so was easier to manufacture. The *Sword-bayonet, pattern 1913* was retained.

Birmingham Small Arms Company (BSA), busy with the SMLE, declined orders for the new rifle but Vickers Ltd. contracted to produce them at £5-4s. (£5.20) per unit from 3rd June 1915. [7] The order for 100,000 weapons never got off the ground as the sample prototypes were faulty and plans to adapt the Serbian plant from a previous run never materialised. Plagued with production problems, and only having produced samples (and a few bayonets) Vickers lost the order and alternative options were considered.

As all the other rifle plants in England were committed to SMLE manufacture the firms of Winchester Repeating Arms Co., New Haven, Connecticut (W) and Remington Arms Union Metallic Cartridge Co., New York (RA) in the U.S.A. were contacted in early

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1916. They were available to produce the rifle so gauges, tools & plant from Vickers was shipped to them. Remington Arms Co. of Delaware also purchased a second factory at Eddystone (E) Pennsylvania to assist production. After the first delivery of May 1916 the number created was eventually to total 604,941 (RA); 235,448 (W) and 403,126 (E) rifles. When production ceased in July 1917, and although the original orders had been for 3,400,000 units, they had produced 1,235,298 P.1914s. [8] The reason for the shortfall was America's entry into the war in 1917. Most rifles were delivered to England, but 15,225 may have been lost during the Atlantic crossing and 100,000 were diverted to India. Eddystone did not manufacture the bayonets. These came from Remington suppliers at Bridgeport. Winchester also received 10,440 from the same source.

The United States was unprepared for the scale of the war. Springfield Armory in Massachusetts and Rock Island Arsenal, Illinois were at full stretch with *Rifle, Caliber .30, Model 1903*. Winchester and Remington realised they could make a similar model to the P.1914 for American forces. By 10th May the concept of a U.S. calibre version was accepted. General production of the *Rifle, Caliber .30", Model 1917* (M.1917) was started on 18th August. (Fig.3.)



Fig.3. *Rifle, Caliber .30", Model 1917*. (SAS 562- Courtesy of the Trustees of the Weapons Collection, Warminster)

Major-General Hatcher commented: *The rifle that was being produced for the British was of a highly advanced design, making it the best military rifle used during World War I. Though it was basically a typical Mauser, it was improved in several respects, and had a bolt and receiver of high grade nickel steel that gave it a superbly strong action. The well protected peep sight, mounted on the receiver, close to the shooter's eye, with a front sight likewise protected by strong steel ears, gave a sighting combination that was far superior to that on the Springfield, and by a considerable margin the best and most practical of any seen in that war.* [9]

Although American companies had charged Britain an average of \$42 (inclusive of tooling costs) the U.S. contracts dropped to \$26 per arm! Rate of manufacture also increased from 50 to 280 per man day as experience was gained. [10] Eventually 2,202,429 P.1917s came off the assembly line before they closed between December 1918 and April 1919. The breakdown was:- 545,541 (RA); 465,980 (W) & 1,181,908 (E). [11] More U.S. troops carried the weapon than the Springfield by the end of hostilities in November 1918. (Fig.6.)

The P.1914 & M.1917 rifles proved to be accurate but not as successful as the 'standard' weapons of each country. Some were equipped with telescopes in a sniper role. Balance in bayonet situations was criticised and the robust action was found to be sensitive to the mud of the trenches. A modification to the bolt with a longer locking lug was designated the P.1914 Mk I*.

Post war the rifles were withdrawn into storage or use in a training role. In America many were sold to civilian members of the National Rifle Association but substantial quantities were mothballed for future use. A modernisation of the nomenclature system by the War Office on 31st May



Fig.6. An American Marine with *Rifle, Caliber .30", Model 1917* and fixed bayonet in 1919. Notice the space between the hilt and barrel. (United States Marine Corps)

1926 re-titled the *Rifle, Pattern 1914 Mk I* as *Rifle, No.3 Mk I* and other marks similarly. [12] By 24th April 1937 at least 535,298 of the rifles had been destroyed or otherwise discarded as some 700,000 remained in emergency storage. [13]

With extensive field experience, but sensitivity about 'the war to end all wars' the Small Arms Committee began a protracted study for the 'New Design of Rifle' from 10th August 1921 onwards. [14] (Fig.7.)



Fig.7. Four experimental P.1914 rifles on display in the Weapons Collection. Top to bottom. SAS 565-BSA experimental muzzle brake; SAS 582-Light Type of Rifle for Infantry & folding bayonet; SAS 556-shortened circa.1924 for experimental bayonet & SAS 558-shortened. (Courtesy of the Trustees of the Weapons Collection, Warminster)

The intention was to create a small calibre automatic weapon within the constraints set by idealistic politicians who thought the world peace might be a reality. In fact the *Rifle, No.4* was the end result and the bore diameter remained as .303".

As part of the experimentation No.3 rifles were often compared with SMLEs (No.1) and the embryonic No.4s. One particular development was the 'Light Type of Rifle for Infantry' and its bayonet. [15] It was suggested that, ...a spike bayonet built into the fore-end, either hinged or after the manner of the Italian carbine, or sliding in a tube might serve. [16] Two prototypes for trials on 27th March 1935 were converted by the Soley Arms Company and one still remained in the collection (SAS 582). These have a version of the No.4 Mk I quadrangular blade pivoted beneath the front sight on the shortened firearm. (Fig.8.)

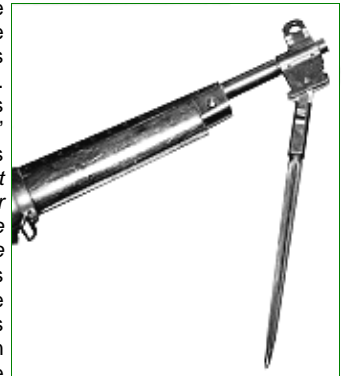


Fig.8. The folding bayonet on 'Light Type of Rifle for Infantry' from 1935. (SAS 583- Courtesy of the Trustees of the Weapons Collection, Warminster)

Also explored was an alternative hinged bayonet created by BSA. Two examples existed at Warminster (SAS 581 & 583). The truncated barrels were given the Watkin nose-cap but a four sided blade pivoted from the bar. A spring loaded cross-guard allowed attachment to the bayonet boss. (Fig.9.) In both systems the blades were stored, reversed, beneath the forestock. It is interesting to

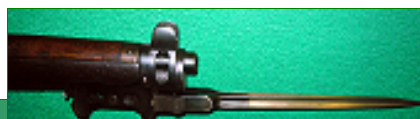


Fig.9. The folding bayonet on 'Experimental No.1' rifle from 1935. (SAS 582- Courtesy of the Trustees of the Weapons Collection, Warminster)

speculate that British troops might have carried bayonets similar to the Chinese *Type 56 Rifle* or *Carbine*, so often encountered in the field, as early as 1935! [17]

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Another attempt also used a style of Watkin fitting, but this time the spike blade was detachable. The tang of the bayonet was spring-loaded to fit inside the boss, and when not in use it fitted into a slot above the butt. [18] The 'Experimental No.4' marked rifle was also converted by Soley in 1936 and is housed in the National Firearms Centre, Leeds (PR # 13/4 Rec. 5999).



Fig.10. The muzzle of a shortened P.1914 rifle with *Sword-bayonet, pattern 1913* to show mismatch of fixing. (SAS 556- Courtesy of the Trustees of the Weapons Collection, Warminster)



Fig.11. Experimental P.1914 bayonet and a sword-bayonet, pattern 1907 to show different spacing of the muzzle-rings. (Courtesy John Humphries)



Fig.12. The experimental P.1914 bayonet with No.1 Mk II and No.4 Mk I bayonets. (Courtesy John Humphries)

A separate attempt to shorten the No.3 had a most intriguing 'stiletto' type bayonet. (Figs.10 to 12.) One rifle remained on display at Warminster but the bayonets were in Leeds or private collections. [19] The diminutive 'spike' had an all steel ergonomically shaped hilt and the cross-guard system of the *Sword-bayonet, pattern 1913*. The conventional No.4 Mk I scabbard was an adequate fit. The precise trial for these weapons has yet to be located but a drawing was made in 1924.

As the No.3 action was so strong many were used to evaluate high velocity cartridges. [20] An experimental muzzle-brake on one example (SAS 565) was fitted to a BSA conversion. This was also intended to support a No.4 style bayonet now missing. [21]

As Fascist movements spread across Europe and a civil war broke out in Spain the Government finally noticed that the constant delay of the 'New Design of Rifle' project had left the British forces with an out-of-date weapon. No mass-production of an automatic rifle had begun, and even the final versions of the No.4 Mk I were only available in troop trial quantities from RSAF. A Second World War against the Axis Powers commenced in August 1939. The .303" was the design adopted in October 1939 and commercial companies had to scabble to provide enough.

As a stop-gap from April 1937 700,000 No.3s were dusted off, inspected, some had their volley sights removed and others were re-stocked without them. This was fortunate as when demoralised members of the British Expeditionary Force emerged from the Dunkirk evacuation of 4th June 1940 their No.1 rifles were mainly left behind.

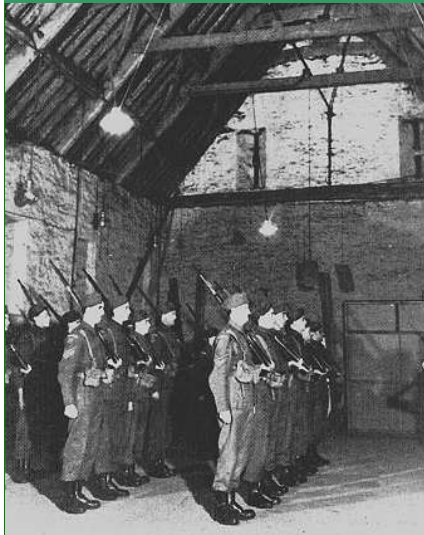
Some coastal defence units were issued with the No.3 rifles and civilian Local Defence Volunteers had to make do with sporting weapons or obsolete military arms. (Fig.5.) Even the spare *Sword-bayonets, No.3 Mk I* were utilised when thousands were welded to steel pipes as pikes after July 1941! [22] America rapidly shipped 785,000 P.1917s to Britain and 34,000 (with 50,001 bayonets) more to the Empire. [23] Lend-Lease also supplied 152,241 (154,336 bayonets) to Nationalist China and 40,000 complete to smaller countries. France gained 31,017 of the bayonets.



Fig.5. A member of the Royal Household Home Guard in June 1941. Notice the twin grooves on the grips of his fixed *Sword-bayonet, No.3 Mk I*. (Courtesy Brian Davis)

As 1942 arrived with No.4 Mk I production well under way many of the No.3 & P.1917 rifles became standard issue for the Home Guard. The thrifty Chief Inspector of Small Arms at RSAF even arranged with the Wilkinson Sword Company to repair 8-10,000 of the obsolete 'pike' bayonets returned to Weedon in November 1942! [24] Those who have seen *Dad's Army* on television will know that this is the weapon that, "they don't like... up'em!" (Fig.13.)

Fig.13. The Wells Home Guard with Rifle, Caliber .30", Model 1917 & bayonets in 1942.



Some spare parts were required during the war but the weapons in Britain saw no action (luckily) as an invasion never materialised. For rifles in China and elsewhere it was a different story. When peace finally came in August 1945 the firearms returned to stores.

Many rifles were sold to competition shooters at locations such as Bisleigh after conflict ended, others briefly equipped European troops (e.g. Italy) until modern weapons could be built. Others entered the surplus arms trade or were scrapped. Luckily those in the Infantry and SASC Weapons Collection were saved and serve to remind us all that in this uncertain age the words of Flavius Vegetius, *let him who desires peace prepare for war* still apply. [25] (Fig.14.)



Fig.14. Home Guard unit with *Sword-bayonet, No.3 Mk I* welded to steel tubes as pikes circa.1941. Could Britain ever be reduced to these dire straights again? (Source unknown)

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**FLY FISHING?
AN OFFER**

Endnotes

- [1] Skennerton, I., *The U.S. Enfield*, Margate, Australia, 1983, p.1.
 [2] *Ibid.*, p. 11.
 [3] Evans, R.D.C., *British Bayonet Letters Patent 1721-1961*, Baildon, England, 1991, pp. 201-203.
 [4] Skennerton, I., *Op. cit.*, p. 40.
 [5] *Ibid.*, p. 28.
 [6] War Office, *List of Changes in War Matériel and of Patterns of Military Stores which have been Approved and Sealed*, HMSO, London, para 17798, 21st June 1916, pp. 644-655.
 [7] Skennerton, I., *Op. cit.*, p. 27.
 [8] *Ibid.*, pp. 62-63.
 [9] Hatcher, J.S., *Hatcher's Notebook*, Stackpole Co., Harrisburg, USA, 1962, pp. 12-18.
 [10] Skennerton, I., *Op. cit.*, p. 65.
 [11] *Ibid.*, p. 67.
 [12] War Office, *Op. cit.*, paras. A1635 to A1690, 31st May 1926, pp. 232-283.
 [13] Priest, G., *The Spirit of the Pike. British Socket Bayonets of the Twentieth Century*, Uppem Publications, Wiltshire, 2003, p. 36.
 [14] *Ibid.*, p. 12.
 [15] *Ibid.*, p. 33.
 [16] Ordnance Board, *Proceedings*, Minute 1425, 'Proposed Light Type of Rifle for Infantry', 13th March 1935, p. 18.
 [17] *Man-at-Arms*, Journal SASC, Priest, G., 'China's Kalashnikov Automatic Rifles & Bayonets', 2008, pp. 47-50.
 [18] Priest, G., *Op. cit.*, p.35.
 [19] *Ibid.*, p. 21. (SAS 558 & PR # 36/2)
 [20] Skennerton, I., *Op. cit.*, p. 135.
 [21] Priest, G., *Op. cit.*, p.43.
 [22] Skennerton, I.D. & Richardson, R., *British & Commonwealth Bayonets*, Margate, Australia, 1986, pp. 232-233.
 [23] Skennerton, I., *Op. cit.*, p. 148.
 [24] Wilkinson-Latham, *Pers. Comm.*, Wilkinson Sword Co. letters 8th & 10th November 1942.
 [25] Vegetius, F., *De Re Militari*. 3, Prologue, 390AD.

Acknowledgements

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Ed-

We are pleased to have a continuing association with Graham and grateful for the four articles he has written specifically for The Man At Arms, copies of which are published in .pdf file format in the Infantry and SASC Weapons Collection Website

<http://www.infantry-weapons.org/links.htm>

Simonov's Automatic Rifles & Bayonets

by Graham Priest (.pdf file 840Kb)

The History of the Bayonet

by Graham Priest (.pdf file 234Kb)

China's Kalashnikov Rifles & Bayonets

by Graham Priest (.pdf file 593Kb)

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To his great credit Graham completed a booklet on 'The Bayonets of the Grand Master's Palace, Malta' in 2008 after cataloguing all the bayonets there since the late 1600s used by the Knights of St John.

There is a copy in the Weapons Collection library.

Graham's obsession with those 'toys' continues!! The article has a 'scoop'. The first time in print that the bayonet for the short P.1914 has ever been identified correctly for its rifle!

Devon Fly Fishing School

Hello,

I would like to do my part to support those that put their lives on the line to defend my country.

With this in mind I run The Devon Fly Fishing School which already fund and operate courses in conjunction with the Royal British Legion, (See free courses on my website) and I would now like to offer my services to the Armed Forces.

As you can appreciate I still have to make a living so I cannot do everything for free but I would like to offer the following to all the Armed Forces personnel and their close family.

1/ Free advice on any aspects of fly fishing in Devon from what fly to use, where's fishing well, to contacts for day tickets (Phone only not e-mail details on website).

2/ Two for the price of One on fly fishing tuition and guiding.

My normal prices are as follows

1 Day tuition/guiding £150.00 for 1 person

1 Day tuition/guiding £230.00 for 2 people (£150.00 for Armed Forces) (these prices do not appear on my website)

3/ Introduction to Fly Fishing (carp on the fly) This includes a day fly fishing tuition, Fly rod, reel and line which you take away (normal retail £155.00) the prices for this are

Introduction to Fly Fishing (carp on the fly) £210.00 for 1 person (Normal Price £305.00)

Introduction to Fly Fishing (carp on the fly) £300.00 for 2 people (Normal Price £540.00)

I will provide everything needed totally **free of charge** for the duration of the tuition. This includes quality rods, reels, fly lines, Sunglasses, flies, breathable waders up to size XXL, boots up to size 11, environmental agency licence, and day tickets for the waters to be fished the list goes on..... all you provide is appropriate and comfortable clothing to suit the location and weather.

I hope this will be of interest to you and would be grateful if you can forward it on to any other relevant people.

Kind regards

Tom Hill

WEBSITE: <http://www.flyfishing-uk.co.uk>

