

The influence of the Anglo-Boer War on early 20TH century warfare

By Ron Bester

Abstract

In warfare it is usual that the vanquished, in retrospect, realise that they had learned many lessons leading to their downfall. In the case of the Anglo-Boer War it is the opposite. The British learned many lessons from the Boers as identified by the Royal Commission on the war in South Africa. Shortcomings regarding camouflage, concealment, the use of trenches, and musketry were identified, amongst other aspects. Britain and her colonies reacted immediately with drastic changes to their training manuals. Musketry received special attention, not only by the armed forces but also by civilians. Furthermore, in December 1902 the Short Magazine Lee-Enfield (S.M.L.E.) was adopted, which had as many Boer Mauser features as the basic Lee rifle would allow. However, the British wanted their own "Mauser" with the result that in 1910 a Small Arms Committee was tasked to develop a completely new rifle. This led to the development of the Pattern 13 rifle, the Pattern 14 and the American Model 17, all of which were essentially Boer Mauser clones. It is with these Model 17s that 75% of American troops entered the First World War, swinging the tide to an Allied victory. There is thus a case to be made that the Boer War and especially the Boer Mauser had a major effect on early 20th century history.

Paper / notes

The main thrust of this article is to consider the question: Did the Boer War, and the Boer's mainstay weapon the Mauser, have an influence on early 20th century warfare, and on history for that matter?

Soon after the cessation of hostilities the British established the Royal Commission on the War in South Africa and I quote: "to consider British officers' answers to questions put to them after the war to enquire about the state of military preparedness of British soldiers during that War". Rather quaintly put, to find out what went wrong. I guess it could have been said a lot simpler – but that's the British.

The British could not understand how it could be that it took what was then the mightiest empire in the world, employing almost 450 000 white soldiers, plus more than 100 000 black and coloured men in uniform, almost three years finally to defeat two of the world's tiniest agrarian states having a total force of no more than 79 000 – including rebels and foreign volunteers.

Those that had hoped the British troops would be home by Christmas 1899 were badly mistaken. It would be a few more Christmases' before this materialised.

During the abovementioned Royal Commission's enquiries many shortcomings of the British forces were identified, too many to deal with here. Therefore, only some of the major ones will be mentioned:

1. Musketry: The average Tommy was lucky if he fired as many as 20 practice shots a year, and this would be at a stationary bulls-eye target, from a known range and a prone position.

On the other hand, many a Boer grew up with a rifle in his hands. Thomas F. Carter, who wrote the definitive history on the Transvaal War of Independence (1880-1881), *A narrative of the Boer War*, stated: "All the Boers seem to do all day is shoot and drink coffee."

2. Unlike the British the Boers made use of natural cover as well as camouflage and concealment. In this regard, the Earl de la Warr recounted: "The Boers are never seen by us; none of the officers and men to whom I have spoken since, saw a Boer. It is certainly marvellous how they always manage to hide themselves."

However, of great importance was the fact that many officers highlighted the shortcomings of the British Lee at the time, compared to the Boer Mauser.

For the purposes of this article, and for the sake of simplicity, the generic term Lee will be used to include especially the Long Lee-Metford and Long Lee-Enfield rifles which were the mainstay British firearms.

BACKGROUND OF THE MAUSER AND LEE RIFLES

Before comparing the Mauser with the Lee let us briefly consider the origins of the Boer Mauser and that of the British Lee. The Boer Mauser was the brainchild of the famous firearms designer Paul Mauser. His first successful design was the bolt action Model 1871 for the German government. Many upgrades followed. The Boer Mauser is based on his Model 1893 Spanish Mauser firing the 7X57mm round. After the Jamison Raid, which ended early 1896, both Boer republics, realizing that war with Britain was a serious threat, embarked on a period of rapid rearmament. The Boer Mauser, manufactured by the Mauser factory in Berlin was the principal firearm acquired by these two states, the Z.A.R. purchasing 30 000 long rifles and 7 000 carbines from 1896 up to the latter half of 1899. During the same period the O.V.S. received 7 850 Mauser long rifles. The O.V.S. purchased no Mauser carbines.

Britain, in keeping with other major European powers, such as Germany, adopted a magazine rifle for the first time in 1888. This rifle was a combination of an action designed by James Paris Lee and a barrel with rifling developed by William Ellis Metford, resulting in the Lee-Metford in .303-inch calibre. The rifle initially fired a black powder round for which the shallow, seven-groove Metford rifling had been developed. However, with the arrival of smokeless cordite powder it was found that the Metford rifling wore out too fast. This resulted in the acceptance of barrel with angular five-groove Enfield rifling leading to the Lee-Enfield in 1895. Lees were manufactured by

British factories such as Enfield, Sparkbrook, Birmingham Small Arms (B.S.A.) and London Small Arms (L.S.A.). Various improvements to the Lee followed, of which most, if not all of these rifles and carbines, saw service during the Anglo-Boer War.

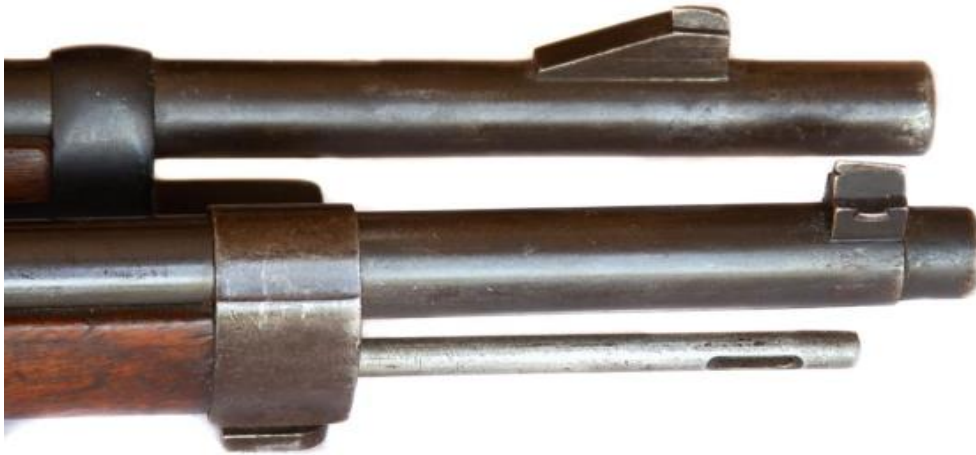
WHAT THEN WAS SO WRONG WITH THE LEE

Let us now compare the British Long Lee, to its principal adversary in the Anglo-Boer War, the Mauser .



Boer Mauser with clips holding five Mauser cartridges (top) and Lee-Enfield (bottom) with paper wrapped package holding ten loose rounds.

1. The Mauser has a one-piece stock, while that of the Lee is in two pieces –which would gradually work loose as the wood dried out in the harsh South African climate, thus causing instability and inaccuracy.
2. The Mauser has a fixed five-round magazine. The Long Lees mostly had 10-shot magazines. One could argue that 10-shot magazines are better, however this is not the case. Once the ten rounds of the magazine have been expended, the Lee is rendered a single-shot, as subsequent rounds had to be loaded one at a time. Mauser rounds in contrast are stripped from a clip five at a time, into the magazine in one downward movement. Furthermore, Mauser cartridges already came in clips holding five rounds. The Lee rounds came in paper wrapped packages holding 10 loose rounds. The Mauser thus could sustain a far higher rate of fire.
4. The Mauser has a top handguard covering most of the barrel, which protects the hands of the soldier when the barrel becomes hot after rapid firing. The Lee does not have this protection. Unlike the Mauser, the Lee's barrel is exposed on top at the point where a soldier would hold it. Furthermore, the open top of the Lee's barrel, when hot, causes a rippling haze which makes accurate aiming very difficult.
5. Unlike the Mauser, the Lees all have detachable magazines, and although they were fixed to the action by means of a link, this did not always prevent them from falling off, rendering the rifle a single shot.
6. The Mauser has a better set of sights than the Lee. The front sight is drift-adjustable, as opposed to the fixed one of the Lee.



Foresights of Lee-Enfield (top) and Mauser (bottom)

On the Mauser, the slide on the rear-sight ladder clicks into notches and cannot move unless a spring-loaded clip is pressed. The Lee's slide is held in place on the ladder by friction only. As a result, especially if worn, it is prone to slide up or down of its own accord if the rear-sight brushes against something, or if the rifle is bumped in the heat of battle. Even the rifle's recoil could cause the slide to shift. The consequences of this fault are obvious.



Rear-sights of Lee-Enfield (left) and Mauser (right)

7. The .303 British rounds have rimmed cases, in contrast to the Mauser's rimless case which as can be seen, although it does have an extractor groove, there is no protruding rim or flange. When loading a magazine with rimmed cases, great care must be taken to load each subsequent cartridge with its rim in front of the one below it. Should this not be done, both the top round and the one immediately beneath it are stripped from the magazine on working the bolt, leading to a jam which can be difficult to clear. This cannot happen with the Mauser's 7x57mm rimless round.



7X57mm Mauser round (top) and .303 Lee-Enfield round (bottom)

8. The Mauser has a softer two-stage trigger-pull, which aids discharge, without jerking the rifle and thereby disrupting precise aim on firing. The Lee has a very heavy single-stage trigger-pull, which renders it more likely to disturb the aim upon pull-off.
9. The Mauser's bolt can be disassembled easily for cleaning without any implement. The Lee's, in contrast, needs special tools to perform this task.
10. The Mauser's bolt has a long, controlled feed extractor with a large strong "claw" to hold the cartridge to the bolt face. The Lee has a short spring-loaded extractor attached to the bolt head. The Mauser extractor is generally regarded as superior.
11. Although more than sufficient for its intended military use, the action of the Lee is not as strong as that of the Mauser.
12. Finally, from a more technical point of view: The Mauser fires the 7x57mm round at a muzzle velocity of 2 296 feet per second. The Lee's .303 round has a muzzle velocity of under 2 000 feet per second: 1970fps to be exact. The Mauser is thus a flatter-shooting rifle. Or in other words the Lee has a higher mid-range trajectory. This advantage of the Mauser is clear. The Mauser also has a greater muzzle energy: 1850 ft/lbs vs. 2055ft/lbs of the Lee.

The British government to their credit reacted to these lessons identified by the Royal Commission by, for instance, changing their training manuals, providing more ammunition for practice, encouraging rifle clubs and shooting in towns and villages.

REACTION BY THE BRITISH TO THE SHORTCOMINGS OF THE LEE

The British also turned their attention to rectifying the shortcomings of the Lee. Thus, on 23 December 1902, the Short Magazine Lee-Enfield (mostly just referred to as the SMLE), which was inspired by the Boer Mauser, was introduced. The SMLE was for use by all personnel and of intermediate length; the British doing away with the Long Lee for Infantry and Mounted Infantry and the Carbine for Cavalry and Artillery. Of importance: The new SMLE incorporated as many standard Boer Mauser features as the basic Lee action would allow, namely:

1. Clip-loading facility

2. Lightened cocking-piece
3. Entire upper barrel surface covered by two handguards
4. The foresight was drift adjustable and the rear sight was a folding leaf type having fine adjustments for elevation and windage which were secure and not friction held.
5. Trigger-pull was converted from single-stage to two-stage, like that of the Mauser.



Boer Mauser (top) SMLE (middle) and Lee-Enfield (bottom)

Furthermore, many Long Lees that were on hand were re-barreled, having better sights, and fitted with a charger bridge to allow for clip loading resulting in the CLLE.

However, apart from modifying the Long Lee to become the SMLE, the British still wanted a Mauser-actioned rifle. While further development of the SMLE was taking place, the idea of replacing it with a Mauser pattern rifle was conceived. In August 1910, the British Small Arms Committee was tasked with developing a new bolt-action magazine rifle for the British service, and the following Mauser features, amongst others, were mentioned and agreed upon for this new rifle:

1. It should have a one-piece stock
2. A fixed magazine.
3. The handguard was to run the full length of the barrel
4. It should have a clip-loading facility and no magazine cut-off
5. The bolt-action and extractor should be of the Mauser pattern
6. The rifle should fire rimless (non-flanged) cartridges

All these being Mauser features

Subsequently, three years later the Royal Small Arms Factory (RSAF) in 1913 came up with the Pattern 1913 (mostly just referred to as the P.13) rifle having these Mauser features as instructed by the Small Arms Committee. The committee decided to have 1 000 Pattern 13 rifles manufactured for troop trials, firing the .276inch rimless round. As .276" in Imperial measurements equals 7mm in metric the P.13 basically fired a 7mm rimless round very similar to that of the Boer Mauser.

With the outbreak of World War I, in 1914, wisely and for logistical reasons the British War Office decided to modify the Pattern 13 to shoot the standard British .303 cartridge and approved the altered rifle for production as the "Cal .303 Pattern 14 Magazine Rifle" (or just P.14) in October 1914. They

realised that apart for logistical reasons it would be confusing going to war with two different rifles firing different cartridges. However, with World War I raging, and as all British arms manufacturers were working to capacity making SMLEs, the British were forced to look elsewhere for the production of P.14s. Consequently, they signed contracts with the American firms of Winchester and Remington for this purpose.

The initial contracts entailed the production of 3 400 000 Pattern 14 rifles. Eventually however, when production of the P.14 for the British government ceased in July 1917, the order had been reduced to 1 235 293 rifles. Ironically the British were again caught with their pants down during WWII having insufficient SMLEs with the result that Long Branch of Canada and Savage/Stevens in the USA, had to produce SMLEs for Britain.

When examining the P. 14, the same features mentioned before were incorporated in this rifle namely:

1. One-piece stock
2. Fixed magazine
3. Top handguard
4. Clip loading facility
5. Mauser bolt with long Mauser extractor

As can be seen, the P.14 was basically an uglier version of the Boer Mauser. Why the British did not just take the Boer Mauser and modify it slightly defies logic. However, national pride, as so often happens, most probably played a big role here.



Pattern 14 (P.14) rifle

It should be mentioned that by the end of 1916 the British forces no longer needed P.14 rifles, as their arms factories had increased SMLE production to keep up with demand. As a result, the P.14 never really came into its own as a frontline British service rifle other than for sniper purposes, due to its superior accuracy.

By early 1917, the USA realized that they, too, might soon be involved in the Great War, and at the time, inexplicably that country was short of all types of modern weapons. Thus, when the USA joined the war on 6 April 1917, they were desperately short of rifles. To compound this problem, their Government owned arms factories, namely Springfield Armory and Rock Island Arsenal, had stopped production of their M1903 rifles. Furthermore, the Springfield Armory had been laid low by strikes and other issues and Rock Island Arsenal had closed down as result of budget cuts.

The well-equipped local commercial factories of Winchester and Remington having highly trained and skilled workforces, attracted the attention of the US Ordinance Department as they were already

tooled up to manufacture British P.14 rifles. Furthermore, these factories had numerous left-over P.14 parts that could be used.

As a matter of expediency, the USA government therefore approached these factories and decided to modify the British P.14 which used a .303 cartridge to fire the American Military 30-06 round, enabling production of such rifles to start within a few weeks. After the necessary small changes had been made to the barrel, bolt face, sights and magazine of the P.14, the “United States Rifle Calibre .30 Model 1917” (Model 17, American Enfield, or M17), was adopted, which (apart from its cartridge) was virtually identical to the British P.14. on outward appearances.

Let us pause here for a moment and have a quick look at the American M.17’s ancestry. It has a direct lineage traceable back to the Boer Mauser via the British P.13 and P.14. These three (P.13, P.14 and M.17) all being Boer Mauser clones.

By the end of WWI, 1 123 259 M17s had been shipped to Europe by the USA. Of these, at least 800 967 were sent to France. To recap: The British, in World War I, armed with their Boer Mauser-inspired SMLEs and having learned Anglo-Boer War musketry lessons, held back the Germans for nearly three years. Perhaps the SMLE’s major contribution to final victory was in the very early days of the war when the greatly outnumbered British Expeditionary Force, (B.E.F.) held back the Germans under General von Kluck with devastatingly SMLE fire.

Furthermore, it is estimated that 66-75% of American troops that went to France were armed with their M.17 rifles. Eventually, it was the intervention of the American soldiers, armed with their Boer Mauser progeny, the Model 17s, which in a very considerable way brought the First World War to its conclusion.

Did the Boer War, and in particular the Boer Mauser have any influence on early 20th century warfare and history? I leave it up to you to answer this question for yourselves.

1. Bester, R. *The firearms of the Boer republics: their acquisition, use and influence 1880-1918*. Ph.D., University of the Free State, 2016, pp. 353-376. Photographs courtesy Sonja Myburgh.