INFANTRY WEAPONS IN SA, 1652-1881

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Introduction

Lt Genl C. L. Viljoen, present Chief of the South African Army, describes the South African soldier in his forword to the book 'Our South African Army Today' as follows: 'Throughout history, soldiering has always come naturally to South Africans. In many wars and battles the South African soldier has proved himself to be brave, determined and willing to sacrifice all for the cause.'[1] It is a well established fact that the infantry was and still is the nucleus of any army and was aptly described by Sir William Napier as the 'Queen of the Battlefield.'

Due to the stormy and uncertain nature of South Africa's history from 1652 — 1881 the soldier, especially the infantryman played a significant role in securing this country's heritage. His weapons ranged from rifle, carbine and musket to pistol, dagger, sword and machine gun. It is primarily with these weapons that the Southern African sub-continent was explored and opened up for Western civilisation.

Furthermore as a result of the isolation and vastness of the South African interior and the great distance between SA and Europe, it is to be expected that as a rule the infantry weapons used in South Africa during this period were outdated models compared to other countries in Europe. However, the primary consideration when measuring the effectiveness of any infantryman, is not his weapon but his ability to use his weapon effectively and his mettle. The infantry weapons used during this period will be discussed according to the following general categories :-

a. Firearms (muskets, rifles and carbines).
b. Pistols and revolvers.
c. Swords, pikes and halberts.
d. Machine guns.

Aim

The aim of this article is to identify and discuss briefly those infantry weapons used in South Africa between 1652 and 1881.

The Matchlock Musket

When Jan van Riebeeck arrived at the Cape in 1652 the DEIC soldiers were armed with long matchlock muskets.[2] It was so heavy that the musketeer rested the weapon's barrel on a forked stick when firing.[3] The weapon was between 1,3 and 1,5 metres long, weighed 6,5 Kg and its range was up to 300 metres.[4]

Accessories to this weapon were the bandoleer, the fuse, a powder measure and a bag of bullets. A bandoleer holding 12 powder charges was hung around the body. The fuse was used to ignite the powder or charge. The small powder container contained gunpowder with which the pan of the musket was primed.[5]

It was quickly established that this weapon was unsuited to South African conditions as the fuses were difficult to keep alight in the wind and they were ineffective in wet weather. Further disadvantages were the weight, clumsiness and difficult and lengthy process of loading.

The Flintlock Musket

This weapon replaced the matchlock musket and was better suited to the conditions. It was more certain than its predecessor, less affected by weather and needed no rest.[6] It is stated that the Hottentots had a much healthier respect for this weapon than the matchlock musket.

The Dutch flintlock musket had a simple, cheap and strong mechanism based on the principle of a 'tonteldoos' and was very popular in Europe in the latter part of the 17th century.[7] This musket was replaced in the beginning of the 18th century in the Cape by the French flintlock musket. They were used with much success against the Xhosa forces on the Eastern frontier.

The Brown Bess

With the first British annexation of the Cape, the 'Brown Bess' flintlock rifle arrived in SA and was used until the middle of the 1850's.[8] This rifle became the standard weapon for the Cape colony. The military version of the Brown Bess was 1,1 metres long, weighed 5,04 Kg and was muzzle loaded.[9] Between 1840 and 1850 many of these rifles were modified to percussion muskets by replacing the flintlock with a percussion lock.[10]

Very few Brown Bess rifles had a back sight and those that had, were added after manufacture.[11]

The Brown Bess was easy to load, even when fouled and was equipped with a handy bayonet.

The requirements of a rifle for the South African conditions especially on the Eastern frontier were somewhat different to those of Europe. A rifle was required to have a high rate of fire and stopping power and had to be able to be utilised in hand-to-hand combat. Accuracy was of lesser importance. To supplement for this the Boer Commandos and later the British forces evolved a system whereby the mounted infantryman remained on his horse, fired his rifle and retreated to a safe distance to reload.[12]

The Double Barrelled Carbine

This rifle is significant as it was the first firearm developed specifically for South African conditions. The rifle was conceived in 1825 by Lord Charles Somerset and his son, Henry. the carbine was double barrelled with a barrel length of 0,66 metres and a bore of 18,6 mm. The shortened barrel enhanced handling but reduced accuracy.[13] One barrel had a smooth bore for the 35,4 gram buckshot and the other was rifled for ball.[14]

Although only about 250 of these weapons were built, this was the forerunner of many double barrelled weapons used in increasing numbers by the Trekkers as well as the Cape farmers. It was recorded that Andries Pretorius used a double barrelled flintlock carbine at the Battle of Blood River in December 1838.

The later similiar models had a range of between 455 and 546 metres and also incorporated the percussion lock.[15] The only disadvantage of this weapon was that, '. . . it had a powerful recoil which must almost have kicked the slightly built Hottentots from the saddle.'[16]

The 'Ou Sanna'

The 'Ou Sanna' is of much significance as it was primarily with this type of weapon that the Trekkers opened up the interior of SA. It was a flintlock, muzzle-loading rifle, often with a hair trigger and a stouter stock than those used in Europe. The barrel was up to 1,21 metres long and the bore varied from 17,8 mm to 24,6 mm.[17] The rifle fired ball or shot (lopers). The shot consisted of 70 to 90 'lopers' sown into a bag. The effective range of a ball round was up to 455 metres.[18]

The most popular of these rifles was the 'Sterloop' named because of the star in front of the backsight. Most of the barrels were rifled and the rifle had a substantive recoil.[19] Accessories consisted of the powderhorn, bandoleer, ball and 'lopers' and ramrod, carried under the barrel.

The Trekkers used this weapon as a general purpose weapon. In the defence, especially in the Laagers at Vegkop and Blood River, the superiority of the flintlock weapon over massed attacks of infantry armed with spears, knobkierie and shield was well illustrated.

The disadvantages of this weapon however were the great amounts of smoke discharged in the area surrounding the rifle, and the fact that an overheated barrel could result in a dangerous cook-off. The weapon also took a long time to reload.

The Snider Carbine

The change from a muzzle-load rifle to a rear-load action rifle was slow in SA. Many models of rifles and carbines were modified to suit the latter action. The Snider was one that fell into this category. The Snider was a result of the development of a gas-sealing metal-cartridge round, which combined the projectile, percussion cap and charge in one.

It was accepted by the British government as its military rifle in 1865 and was seen in SA shortly afterwards. It was known among Boer circles as the 'Snyter'.[20] The bore was 14,65 mm and it made use of the boxer cartridge. Its range was about 1183 metres but it was effective up to 728 metres. The breech mechanism was well adapted to military purposes.

Its defects, however were the bad workmanship in respect of its bore rifling.[21] The Cape Mounted Riflemen were armed with this rifle during the Basuto rising in 1880.[22] The Snider was also standard issue of the Duke of Edinborough's Own Rifle (Dukes) at this time.[23] It was replaced in 1871 by the British Martini-Henry rifle.

The Wesley Richards Rifle

This rifle is similiar to the Martini-Henry but has fewer and stronger parts.[24] This was the first cartridge breech-loading rifle in South Africa and was imported by the British military forces during 1858. It was known by the Boer forces as the 'Wessel Rykaard'.[25] The rifle had a calibre of

11,43 mm and fired a paper cartridge or it could be muzzle loaded. It was regarded by the British as the best cartridge breech loader that was ever made.[26] The rifle was well known in SA and was used with phenomenal success by the Boer forces at the Battles of Majuba, Laings Nek and Ingogo in 1881.

The Wesley Richards Percussion Breech Loading Rifle. This was the first cartridge breech loading rifle in South Africa and was imported by the British Military forces during 1858.

The Martini — Henry Rifle

This rifle, adopted by the British forces in 1871 had a breech-loading centre fire mechanism. The barrel had seven grooves and was designed by Alexander Henry, a Scotsman. The breech mechanism was designed by Frederick von

The Martini Henry Rifle and Ammunition. This rifle adopted by the British forces in 1871 was designed by Alexander Henry and the breech mechanism was designed by Frederich von Martini. Hence the name: Martini Henry.

Martini, an Austrian. This gives rise to the name Martini-Henry.[27]

The rifle weighed 4,08 Kg and was 1,21 metres long. It had a 11,43 mm calibre and a 0,55 metre barrel.[28] This rifle was more accurate than the Snider and its range was up to 16,38 metres although it was accurate up to 728 metres.[29] It had a powerful recoil and after a few rounds, bruised shoulders and nosebleeds were not uncommon.

The barrel, despite the protection of a wooden forestock would after prolonged firing become too hot to touch and wet cowhide covers were sown onto the rifle to remedy this.[30] After having fired several hundred rounds, some rifles would cook-off or the metal of the cartridge stuck to the chamber.[31]

The weapon was used against the Boers at the Battle of Majuba, Laings Nek and Ingogo in 1881, and also saw service in the Zulu War of 1879. The Boer forces acquired this weapon after 1881.[32]

Pistols and Revolvers

When Jan van Riebeeck arrived at the Cape, his officers carried wheel-lock pistols.[33] It is known that during the Hottentot wars, the DEIC soldiers carried pistols and this practise was continued until 1865.[34] Because of the high cost of German wheel lock pistols, flintlock pistols were imported. This hand weapon was a self defence weapon at short range and was never intended to take the place of the rifle.

The use of the pistol or revolver enhanced the mounted infantryman's effectiveness in that he could control his horse with one hand and the pistol with the other. Pistols accompanied the Trekkers on the Great Trek but were carried only by officers or those who could afford them. These pistols were of the flintlock type.[35]

The pistol and later the revolver were used during the frontier wars as an extra defence weapon. It has been established that the 'Navy' Colt revolver of 1851 was used in the 8th Frontier War as well as some types of Adams and Deane revolvers. These revolvers, fired by a good shot could compete with a rifle up to 546 metres.

The 'Navy' Colt had a 9,14 mm calibre, fired six shots and the barrel was 19 cm long.[36] The Adams and Deane revolver has a calibre of 12,7 mm.[37] At the time of the Zulu wars, many British officers carried their own privately purchased revolvers which were of 0,450 calibre. They were mostly of the Webley and Adams types.[38]

Swords

During the period of 1652 to 1662, the officers and sergeants employed by the DEIC carried swords. Besides the short sword, the sergeants carried a clumsy halbert.[39] The musketeers were generally armed with a rapier as a reserve weapon.[40]

The two British occupations saw the arrival of the Officer's sword. The introduction of British type rifles also re-established the bayonet and sword bayonet in SA. The British brought various models of the sword to SA. Of importance to this study is the 1822 Pattern Infantry Officer's Sword. The slightly curved 0,83 metre long blade was housed in various types of scabbards. The guard was of the half-basket type and the wooden grip was covered with black fishskin.[41]

The Gatling Gun

The Gatling Gun was considered by many as an artillery piece, and hence was under control of the artillery during the Zulu war. These guns, the forerunners of the machine-gun were used successfully in combination with infantry.

Two calibres were in use, the 11,43 mm Army gun and the 16,51 mm Navy gun.[42] The barrel assembly and water jacket was 1,67 metres long and was mounted on a light carriage. The six barrels fired at a rate of 300 rounds per minute.[43] The gun was subject to stoppages resulting from the cartridge sticking to the chamber and the extracter tearing through the rim.[44]

The nature of the war in Zululand meant that the Gatlings could be used against massed Zulu charges at close ranges with great success. Their part in the Battle of Ulundi illustrates this fact.[45]

Conclusion

The infantry weapons used in South Africa from 1652 to 1881 can be regarded as a reflection of those weapons used in Europe at this time. They progressed, in the short space of 229 years, from the primitive pike and matchlock musket to the Martini-Henry rifle and Gatling Gun, the forerunners of the modern rifle and machine gun of the 20th century. As shown during the course of

this study, the mechanisms, range, ammunition and safety of the weapons improved considerably.

The conditions and situations in SA, however, were unique and therefore set certain tactical requirements as regards infantry weapons. A disregard for these essential requirements by the British Army led to their defeats by the Zulu and the Boers in the later part of the 19th century. This serves to accentuate in fact that the infantry weapon by virtue of its characteristics alone will never win a war.

The ability, mettle and the optimal use of terrain by the infantryman are of primary importance. If these requirements had not been met at battles such as Mosega and Blood River, the path of Western civilisation in the South African interior would have been significantly altered.

APPENDIX A TO
INFANTRY WEAPONS IN
SA, 1652 — 1881

TECHNICAL DATA

	CALIBRE (mm)	WEIGHT (Kg)	LENGTH (M)	EFFECTIVE RANGE (M)	MAX RANGE (M)	AMMUNITION	REMARKS
	a	b	c	d	e	f	g
1. FIREARMS							
a. Matchlock Musket	various	6,5	1,3 — 1,5	100	300	weight 36 grams	
b. Brown Bess Musket	various	5,04	1,1			-ball -shot	
c. Double barrel Carbine	18,6		barrel 0,66	455 — 600		-ball -shot	
d. 'Ou Sanna'	17,8 — 24,6		up to 1,21	ball 455		-ball -shot	
e. Snider Carbine	14,65			728	1 183	Boxer Cartridge	

	a	b	c	d	e	f	g
f. Martini-Henry Rifle	11,43	4,08	-1,21 -barrel 0,55	728	1 638	Boxer Cartridge	rifled barrel
g. Wesley Richards Rifle	11,43			546	1 183	Cartridge or ball	muzzle-load or breech-load
2. PISTOLS & REVOLVERS							
a. 'Navy' Colt	9,14		barrel 19 cm		546		6 shots
b. Adams Revolver	12,7						
3. THE GATLING GUN							
a. Army version	11,43	485		1 500	2 500		-rate of fire -300-400 r.p.m. -10 barrels
b. Navy version	16,51	775					-rate of fire -300-400 r.p.m. -10 barrels

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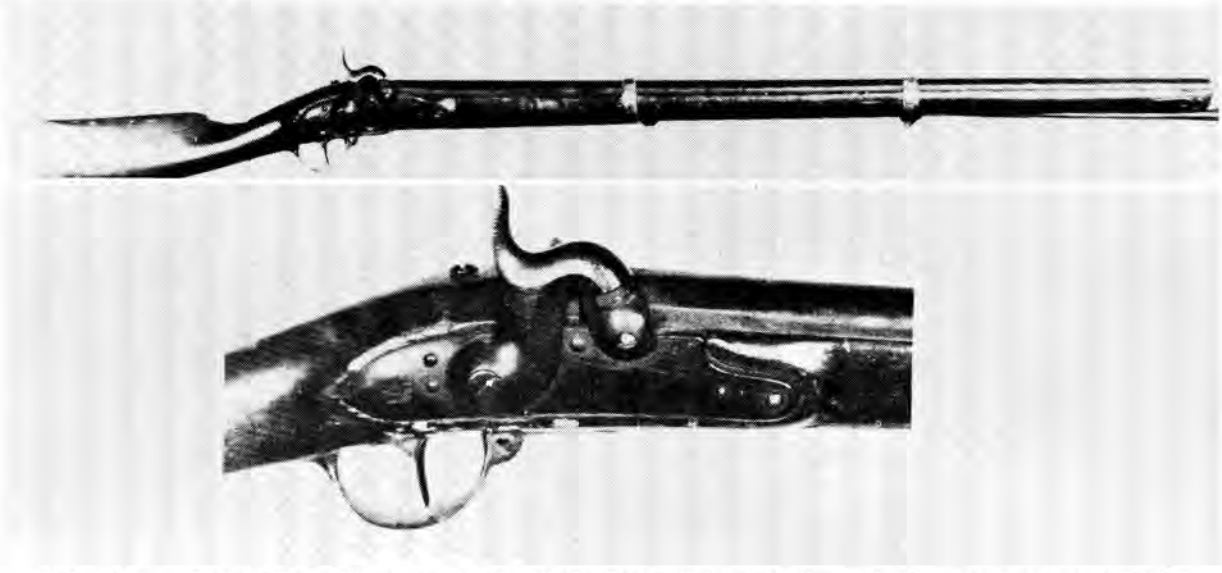
Footnotes

1. B. Marx: *Our South African Army Today*, p 7.
2. G. Tylden: Arms and Equipment of Cavalry and Infantry, Cape Town, 1652 — 1662 (*Africana Notes and News*, nd. p. 125).
3. Dr F. Lategan: *Die Boer se Roer*, p 13.
4. *Ibid*, p 16.
5. *Ibid*, p 15.
6. G. Tylden: Arms and Equipment ..... p 125.
7. F. Lategan: *Op cit*, p 23.
8. *Ibid*, p 27.
9. Loc cit.
10. W.W. Greener: *The Gun and its Development*, p 122.
11. G. Tylden: Identification and Classification of Firearms in SA (*Africana Notes and News*, nd, p 6). Short title: Identification and Classification .....
12. Capt R.J. Bouch: *Infantry in South Africa 1652 — 1976*, p 5.
13. R.J. Bouch: *Op cit*, p 6.
14. F. Lategan: *Op cit*, p 99.
15. Ibid, p 101.
16. Bouch: *Op cit*, p 7.
17. Tylden: Identification and Classification ..... p 5.
18. Lategan: *Op cit*, p 112.
19. Ibid, p 102.
20. F. Lategan: *Op cit*, p 53.
21. W.W. Greener: *Op cit*, p 131.
22. F. Lategan: *Op cit*, p 55.
23. A.G. McKenzie: *The Dukes*, p 7.
24. W.W. Greener: *Op cit*, p 148.
25. F. Lategan: *Op cit*, p 47.
26. *Ibid*, p 48.
27. C. Wilkinson-Latham: *Uniforms and Weapons of the Zulu War*, p 56.
28. *Loc cit*
29. W.W. Greener: *Op cit*, p 132.
30. D.R. Morris: *The Washing of the Spears*, p 300.
31. *Ibid*, p 414.
32. F. Lategan: *Op cit*, p 57.
33. G. Tylden: Identification and Classification ..... p 5.
34. G. Tylden: Arms and Equipment ..... p 125.
35. F. Lategan: *Op cit*, pp 73 — 75.
36. *Ibid*, p 77.
37. *Loc cit*
38. C. Wilkinson-Latham: *Op cit*, p 56.
39. G. Tylden: Arms and Equipment ..... p 125.
40. F. Lategan: *Op cit*, p 14.
41. C. Wilkinson-Latham: *Op cit*, p 54.
42. Maj D.D. Hall: Artillery in the Zulu War (*Military History Journal*, January 1979, p 57).
43. C. Wilkinson-Latham: *Op cit*, p 57.
44. Maj D.D. Hall: *Op cit*, p 159.
45. *Loc cit*



3. The Brown Bess flintlock rifle arrived in SA with the first British annexation of the Cape and was used until the middle of the 1850's.