

# ‘Shooting Power’: A Study of the Effectiveness of Boer and British Rifle Fire, 1899–1914

SPENCER JONES

*University of Wolverhampton*

*Email: [spencer.jones@wlv.ac.uk](mailto:spencer.jones@wlv.ac.uk)*

## ABSTRACT

*The effectiveness of Boer rifle fire had a significant legacy on the development of British musketry standards. This would prompt improvements in training which would allow the infantry of the BEF to cause disproportionate casualties to their German adversaries in 1914. This paper charts the success of the Boer methods and explains how the British adapted to the increase in infantry rifle fire.*

I  
The growing effectiveness of infantry small arms from the mid-19<sup>th</sup> century onwards was a recognised influence upon military tactics.<sup>1</sup> Although the technical limitations of early generation rifles reduced their overall effect, by the latter part of the century the greatly increased lethality of modern weaponry was becoming apparent.<sup>2</sup> In large European armies reliant upon a conscript system that limited the available time for training and largely precluded the creation of marksmen, sheer weight of fire was more important than accuracy. For example, Prussian victory over Austria in 1866 had, in part, been influenced by the tactical advantages conferred by the rapid fire of the Dreyse Needle Gun.<sup>3</sup>

However, the unique colonial duties of the British Army meant that this emphasis on rapidity was less appropriate. Warfare fought in the proximity of undeveloped imperial frontiers made the movement of supplies a herculean challenge. The army could not afford to be wasteful with its ammunition. In these conditions, rapid

---

<sup>1</sup> For example, see Perry D. Jamieson, *Crossing the Deadly Ground: United States Army Tactics, 1865-1899* (Tuscaloosa, University of Alabama Press, 1994).

<sup>2</sup> For criticism of the technical capabilities of rifles, see Earl Hess, *The Rifle Musket in Civil War Combat: Reality and Myth* (Lawrence, University of Kansas Press, 2008). For recognition of the lethality of modern firepower, see Ian Hamilton, *The Fighting of the Future* (London, K.Paul Trench & Co., 1885), p. 14.

<sup>3</sup> For example, see Geoffrey Wawro, *The Austro-Prussian War: Austria's War with Prussia and Italy in 1866* (Cambridge, Cambridge University Press, 1996), p.25, footnote 65.

shooting was discouraged and iron fire discipline was enforced. This approach served the British Army well in a variety of colonial conflicts and, despite a handful of officers who questioned its validity against a similarly armed opponent, close control remained the linchpin of British fire tactics for much of the 19<sup>th</sup> century.<sup>4</sup>

The limitations of this tactic would be ruthlessly exposed by the unusual conditions of the Second Anglo-Boer War (1899 – 1902). The Boers possessed a unique military culture that had no parallels with any of Britain's other colonial foes. In Colonel Charles Callwell's famous treatise on colonial warfare, *Small Wars*, it was noted that, as a military force, the Boers defied easy classification.<sup>5</sup> The Boers lacked a formally constituted army and instead relied upon a voluntary militia system, with volunteers being formed into units known as commandos.<sup>6</sup> Boer citizens responding to the rallying call were expected to bring their own firearm and horse, thus ensuring that the force was both well-armed and highly mobile.<sup>7</sup> This combination of firepower and mobility was the defining feature of the Boer military system. The effectiveness of the Boers in combat had been demonstrated in regular conflicts with local Africans, where small numbers of burghers had often been able to triumph over far larger opposition forces.<sup>8</sup>

Boer firepower would prove to be an important battlefield factor, and the magnitude of the Second Anglo-Boer War ensured the experience left a deep and lasting impression upon the British Army. This article will study British impressions of Boer marksmanship during this major conflict. Although the popular press were quick to attribute success to natural Boer skills, thoughtful military commentators identified a variety of factors that contributed to the effectiveness of Boer rifle fire. This study will examine three key elements that contributed to Boer marksmanship, namely terrain, culture, and equipment, demonstrating how they combined to produce unusually effective rifle fire. The chapter will also consider the British impression of Boer musketry in the aftermath of the war, showing how overall opinion was one of considerable admiration. This admiration would play an important role in the British

---

<sup>4</sup> Concerns were raised following the poor performance of British soldiers in the First Boer War 1880-1881 but this had little influence on the army as a whole.

<sup>5</sup> Charles Callwell, *Small Wars: Their Principles and Practice* (London, H.M.S.O, 1906), p.31. Callwell felt that the Boers had more in common with a European guerrilla movement than a typical colonial foe. F.H.E. Cunliffe, *The History of the Boer War* (London, Methuen & Co.1901), Vol.1, pp.4-5 argued that the Boer fighting style was adopted from the autochthonous 'Hottentots', albeit with the benefit of modern weapons.

<sup>6</sup> For a thorough study of the Boer commando system, see Fransjohan Pretorius, *Life on Commando during the Anglo-Boer War 1899 – 1902* (Cape Town, Human and Rosseau, 1999).

<sup>7</sup> *Ibid.*, pp. 80-83. The Afrikaner governments provided rifles to those who did not possess their own.

<sup>8</sup> Frederick Maurice, *History of the War in South Africa 1899 – 1902* (London, Hurst and Blackett Ltd., 1906), Vol.1, pp.68 – 71; Bill Nasson, *The South African War* (London, Hodder Arnold, 1999), p.64.

## SHOOTING POWER

Army's musketry reforms in the years 1902–1914, which, in turn, contributed to the famous rifle skills of the British Expeditionary Force (BEF) in the opening battles of the First World War. The article will close with a discussion of British rifle fire in the opening of this great conflict, demonstrating certain parallels between the experience of the South African War and the war in Europe.

### II

An immediate problem faced by British troops in the Second Anglo-Boer War was the nature of the terrain and climate. The sheer scale of the geography could be intimidating to inexperienced troops. Sweeping grass veldt in the east and scrub desert in the west stretched for miles, occasionally being broken by huge kopjes and wide rivers. Yet, despite the vastness of the country, effective cover on the veldt was spartan. Boulders, scrub vegetation and anthills offered some concealment for troops, but in many battles the attackers were forced to advance over disturbingly open terrain.<sup>9</sup>

The incredibly clear atmosphere of the country exacerbated the difficulties posed by the terrain. Troops who were unaccustomed to the conditions faced particular difficulty in estimating ranges correctly, but even veteran troops were known to make serious errors when judging distances.<sup>10</sup> This had dangerous implications when advancing to the attack, as it was easy to misinterpret the range to the enemy position. For example, confusion over the exact range to the Boer lines played a role in the destruction of Colonel Long's battery at the Battle of Colenso on 15 December 1899. On the other hand, the clear atmosphere could offer a great advantage for the defenders, especially if they occupied a kopje, as they could observe advancing foes at remarkable distances. Howard Hillegas, an American journalist attached to the Boer forces, expressed his amazement at the distance at which advancing British forces could be seen, noting that at long range they resembled 'huge ants more than human beings.'<sup>11</sup>

Afrikaner riflemen took full advantage of these conditions. Well adapted to the clear atmosphere, the quality of Boer eyesight was a source of much admiration amongst British troops. One officer commented that the average Boer had 'magnifying eyes', while General Sir Redvers Buller was said to have stated that 'if a European and Boer

---

<sup>9</sup> For an evocative discussion of the terrain in South Africa, see Count Adalbert Sternberg, *My Experiences of the Boer War* (London, Longmans, 1901), pp.204-206.

<sup>10</sup> "Jack the Sniper" [Charles James O'Mahony] *A Peep Over the Barleycorn: In the Firing Line with the P.W.O. 2<sup>nd</sup> West Yorkshire Regiment, Through the Relief of Ladysmith* (Dublin, John Drought, 1911), pp.135 – 136; G. Forbes, 'Experiences in South Africa with a New Range Finder', *Journal of the Royal United Services Institute*, 46/2, (1902), p.1389.

<sup>11</sup> Howard Hillegas, *The Boers in War* (New York, D. Appleton and Company, 1900), p.146

were walking towards each other in an open country, the Boer would see the other two miles in advance.<sup>12</sup> Making use of this natural advantage, the Boers often opened fire at ranges of well over a mile.<sup>13</sup> This long range rifle fire came as an unpleasant surprise to British troops, who were not trained to fire at ranges above 800 yards.<sup>14</sup> Furthermore, pre-war British tactics had assumed that it would be possible for infantry to advance to within approximately half a mile of the enemy's position before it became necessary to shake out into extended order, and did not anticipate receiving anything but desultory enemy fire beyond 1,500 yards range.<sup>15</sup> This was not the case in South Africa, where British formations were often engaged at ranges of 2,000 yards or more.<sup>16</sup> Officers recorded their alarm at this tactical development, with one noting:

War is not what it was when armies manoeuvred in sight of each other, and when 600 yards was the limit of artillery fire ... That was old-time fighting, and some sport about it too. Now Bill is killed at 2,400 yards, and Bill's pal hasn't an idea where the shot was fired. That is modern warfare.<sup>17</sup>

Such long range fire could be especially problematic for cavalry, who were initially armed with carbines that had a maximum range of 1,200 yards. Lieutenant-General Sir Charles Warren complained that the 'Boers had only to keep at 2,000 yards from our cavalry in the hills and could shoot them down with impunity'.<sup>18</sup>

However, even in the clear atmosphere of South Africa, it took an exceptional marksman to hit the target reliably at long range. Observers noted that Boer long-distance fire tended to be erratic unless the range to the target had been established in some fashion. This could take the form of crack shots firing ranging shots and communicating the distance to their comrades. Artillery was also used to establish the range, and so were nearby geographical features.<sup>19</sup> Once the range had been

---

<sup>12</sup> Quoted in Jack, *Peep over the Barleycorn*, p. 192.

<sup>13</sup> The Boers were also capable of holding their fire until close range. See Pretorius, *Life on Commando*, pp. 139-140.

<sup>14</sup> H.R. Mead, 'Notes on Musketry Training of Troops', *Journal of the Royal United Services Institute*, 43/1 (1899), pp. 250-251.

<sup>15</sup> War Office, *Infantry Drill Book 1896* (London, H.M.S.O., 1896), p.131.

<sup>16</sup> *The Official Records of the Guards' Brigade in South Africa* (London, J.J. Keliher, 1904), p.18; William Balck, 'Lessons of the Boer War and Battle Workings of the Three Arms', *Journal of the Royal United Services Institute*, 48/2, (1904), pp.1273-1274.

<sup>17</sup> 'Not by a Staff Officer', 'Some Remarks on Recent Changes', *United Service Magazine*, October 1904, p.47.

<sup>18</sup> *Report of His Majesty's Commissioners Appointed to Inquire into the Military Preparations and Other Matters Connected with the War in South Africa* (London, H.M.S.O., 1903), Cmd No.1789 – 1792, Vol.2, Q15850, p.233 (Hereafter referred to as the *Elgin Commission*).

<sup>19</sup> *Elgin Commission*, vol.1, Q 6860, p. 294.

## SHOOTING POWER

established, the fire was considerably more effective. For example, at the Battle of Willow Grange on 22 November 1899, the West Yorkshire Regiment reported:

for about one and a-half hours the Boers kept up an ineffective fire on our position, only one man being hit. The Boers then brought up a Vickers-Maxim at about 1,800 yards range, and very quickly found our range, and after that their musketry became very effective ... The position under this fire quickly became untenable.<sup>20</sup>

Long range Boer shooting was particularly dangerous to dense formations. When Lord Roberts took command of British forces in South Africa, his tactical 'Notes for Guidance' urged infantry to adopt extended formations between 1,500 and 1,800 yards from Boer positions, effectively doubling the distance set down in the pre-war regulations.<sup>21</sup> In practice a number of units chose to abandon close order at even greater distances. For example, Major-General Henry Colville, commanding Guards' Brigade, favoured shaking into extended order at 2,500 yards.<sup>22</sup>

However, despite its capacity to cause losses at huge ranges, Boer long range fire was rarely decisive on its own. Casualties at such range were often more a matter of luck than judgement. For example, Lieutenant-General Sir Archibald Hunter commented that he believed the effectiveness of long range fire was 'mythical' and related that he had regularly patrolled the Ladysmith perimeter in full general's uniform, secure in the knowledge that none of the besieging Boers would be capable of hitting him!<sup>23</sup>

The main battlefield function of Boer long range fire was to slow down the pace of the British advance by forcing them to adopt extended formations at great distances from the Boer position.<sup>24</sup> Once under fire, battlefield manoeuvre became considerably more difficult and any element of surprise was lost. A journalist attached to Lord Methuen's force described this kind of action, writing that the series of attacks during the attempt to relieve Kimberly in November 1899 consisted of 'no beastly strategy, or tactics, or outlandish tricks of any sort; nothing but an honest, straightforward British march up to a row of waiting rifles.'<sup>25</sup> This could be a

---

<sup>20</sup> Extract from the *Digest of Service of the 2<sup>nd</sup> Battalion The Prince of Wales's Own (West Yorkshire Regt.) in South Africa* (York, Yorkshire Herald Newspaper, 1903), p. 4. The Vickers-Maxim was an autocannon that fired small explosive shells. It was commonly referred to as a 'pom pom gun' due to its distinctive sound when firing.

<sup>21</sup> National Archives of the UK (NAUK), Kew, London, WO 105/40, Lord Roberts Papers, 'Notes for Guidance in South African Warfare', 26 January 1900.

<sup>22</sup> *Records of Guards' Brigade*, p. 19.

<sup>23</sup> *Elgin Commission*, vol. 2, Q 14587, Q 14588, p. 138.

<sup>24</sup> *Ibid.*, vol. 2, Q 19200, p. 397.

<sup>25</sup> L.M. Phillips, *With Rimington*, (London, E. Arnold, 1902), p. 10.

trying experience for British troops, and it was worsened by the fact that the source of the fire was usually invisible. Part of the reason for this was the use of smokeless powder, which will be discussed in detail below, but it was also due in large part to the military culture of the Boers.

The commandos were essentially a force of individual riflemen, many of whom wielded their own personal weapons. Although officers were a key part of the commando, there was no drill or training to inculcate obedience to orders or the use of particular formations.<sup>26</sup> The Boers had neither the discipline nor the inclination to adopt formal European formations for either attack or defence. Instead, commandos tended to fight as a loose group of skirmishers, with individual burghers choosing their own cover and frequently picking their own targets.<sup>27</sup> The lack of formal organization in the Boer fighting line allowed it to take advantage of available cover and thus blend into the countryside with remarkable skill. Ruminating on his combat experiences, Major-General Geoffrey Barton commented that the Boers were 'extraordinarily well trained by nature and habit to lie still.'<sup>28</sup>

The individualistic military culture of the Boers stood in stark contrast to the traditional British approach. Although attitudes differed from unit to unit, much of the British Army favoured close control, volley fire and strict discipline.<sup>29</sup> Although these ideas had proved useful in previous colonial wars, they required adaptation to make them effective in South Africa. Henry Colville commented on his wartime experiences of conservative attitudes in Guards' Brigade:

At first officers and men were very stupid about taking cover. I have seen men halted on a rise in full view of the enemy when a few paces forward or backward would have placed them in shelter, the reason being that to have taken this step would have broken the dressing of the line.<sup>30</sup>

A combination of British inexperience in taking cover and the relative invisibility of Boer positions magnified the effectiveness of Boer fire. The Boers were able to observe and engage the British forces without revealing themselves; for the British coming under fire from an unknown source was a disturbing experience and often

---

<sup>26</sup> Maurice, *History of the War*, vol.1, p. 86.

<sup>27</sup> Balck, 'Lessons of the War', pp. 1272 – 1273.

<sup>28</sup> *Elgin Commission*, vol.2, Q 16215, p. 256.

<sup>29</sup> For a discussion of this issue, see Edward Spiers, *The Late Victorian Army, 1868–1902* (Manchester, University of Manchester Press 1992), pp. 313-315. Reactionary pre-war attitudes were mercilessly lampooned in 'George D'Ordel' [Mark Sykes & Edmund Sandars] *Tactics and Military Training* (London, Bickers and Son, 1904).

<sup>30</sup> *Elgin Commission*, vol. 2, Q 16974, p. 286.

## SHOOTING POWER

necessitated a delay in the attack until its location could be pinpointed.<sup>31</sup> Furthermore, the British were troubled by the inability to gauge the effect of their own fire against relatively invisible opposition, especially as the evidence of the Boer's shooting was plain to see. Major-General Neville Lyttleton contrasted previous colonial experience with the new conditions, writing of the Battle of Colenso:

Few people have seen two battles in succession in such startling contrast as Omdurman and Colenso. In the first 50,000 fanatics streamed across the open regardless of cover to a certain death, while at Colenso I never saw a Boer all day till the battle was over, and it was our men who were the victims.<sup>32</sup>

Colonel E.E. Carr echoed similar sentiments, noting that during most fire fights his troops were forced to shoot purely at geographic features to try and suppress enemy fire, whereas the Boer usually had a clear target:

They do not fire unless they are pretty certain you are there; I do not say they always see you; although the difficulty is that we cannot see them and they can see us, they can see us for miles; but we seldom see them.<sup>33</sup>

A private soldier, Charles James O'Mahony, expressed his frustrations with such fighting after the defeat at the Battle of Willow Grange, writing:

We were much handicapped for the Boers take cover in a manner never to be equalled ... we sprayed every nook, crevice, donga, spruit etc. on and surrounding the Boer position with lead as if from a watering can, rocks being splintered two miles in the kopjes rear.<sup>34</sup>

In stark contrast, Izak Meyer, a Boer veteran, described his experience of combat at the Battle of Modder River 28 November 1899 in the following terms:

Now I am deadly calm, and with deadly calm I pick my man, pick them one by one. I pick him, my Mauser drops, my left eye closes, I get him in my sights and my Mauser cracks. The Englishman totters, drops his rifle, grabs his chest ... I shoot them down, one after another, one after another.<sup>35</sup>

---

<sup>31</sup> Jay Stone and Erwin Schmidl, *The Boer War and Military Reforms* (Lanham, University Press of America, 1988), p. 80.

<sup>32</sup> Neville Lyttleton, *Eighty Years: Soldiering, Politics, Games* (London, Hodder & Stoughton, 1927), p. 212.

<sup>33</sup> *Elgin Commission*, vol.2, Q 19200, p. 397.

<sup>34</sup> Jack, *Peep over the Barleycorn*, pp. 74-75.

<sup>35</sup> Quoted in Pretorius, *Life on Commando*, p. 141.

The ability of the Boers to fight from behind cover was especially useful during extended fire fights at close range.<sup>36</sup> In the early stages of the war, some British units attempted to use volleys during fire fights, but it was soon found that the slow, static nature of volley firing proved ineffective against dispersed and concealed enemies.<sup>37</sup> By contrast the Boers proved especially adept at 'snap shooting', leaning out from behind cover only long enough to acquire a target and fire, and then ducking out of sight once more. J.B. Atkins, a British journalist, witnessed snap shooting at the Battle of Hart's Hill, 23 February 1900, writing: 'Boer heads and elbows shot up and down; the defenders were aiming, firing, ducking'.<sup>38</sup> Faced with these conditions, the British were forced to adopt a far greater degree of independent firing themselves.<sup>39</sup> Unfortunately, pre-war training had done little to prepare the average soldier for this type of action, and, combined with the difficulties of atmosphere and the relative invisibility of many of the Boer positions, this made fire fights a difficult proposition. Major-General Sir William Gatacre noted the difference in fighting style:

[The average British soldier] was rather slow in getting his aim, and he found he was unaccustomed to use his rifle without exposing himself, which at once brought a Mauser bullet in his direction ... The Boer, on the contrary, was particularly good at getting his bead on to the enemy's hat or mess tin quickly, and in getting covered again before men could aim and fire.<sup>40</sup>

It was within fire fight range that the majority of British officers felt the Boers had truly demonstrated their marksmanship skills. Major-General J.P. Brabazon argued 'where they beat us so completely was that when we got onto kopjes at close quarters, say, a few hundred yards, a man could not put a finger up over a rock or ridge without being shot.'<sup>41</sup> Major-General A.H. Paget related his front line experience at the Battle of Modder River, noting that '[i]n these early fights [the Boers'] shooting was very accurate; every bullet had some mark, and there was no wild shooting at all, and when we got to the closer ranges, in places which were fire swept, everybody was hit.'<sup>42</sup> E.E. Carr recalled the difficulty of assaulting Boers in strong defensive positions, stating 'I have seen men rolled over like rabbits and

---

<sup>36</sup> Opinions differed as to what exactly constituted 'close range' in the Anglo-Boer War. In the aftermath of the war, British regulations codified a range 600 yards or less as 'decisive' range for fire fights. See War Office, *Combined Training 1905* (London, H.M.S.O. 1905), p. 100.

<sup>37</sup> For a graphic description of the difficulties of engaging concealed Boers with volleys, see Jack, *Peep over the Barelycorn*, pp. 71-72.

<sup>38</sup> J.B. Atkins, *The Relief of Ladysmith* (London, Methuen, 1900), p. 295.

<sup>39</sup> Jack, *Peep over the Barelycorn*, p. 73.

<sup>40</sup> *Elgin Commission*, vol. 2, Q 16772, p. 272.

<sup>41</sup> *Ibid.*, vol. 1, Q 6859, p. 294.

<sup>42</sup> *Ibid.*, vol. 2, Q 16441, p. 259.

## SHOOTING POWER

slaughtered, as the Inniskillings Fusiliers were at Pieter's Hill on the first attempt just before the relief of Ladysmith'.<sup>43</sup>

In intense fire fights, the skill of individual Boer marksmen could be striking. Colonel Forbes MacBean noted the presence of 'a certain percentage of men who are uncommonly good shots' in the average Boer firing line.<sup>44</sup> These elite marksmen were capable of causing disproportionate casualties. Henry Colvile noted 'the Boers had a certain number of picked shots who did great damage', while A.H. Paget echoed the view, commenting that 'some of the shooting of the Boers was extraordinary.'<sup>45</sup> Even Archibald Hunter acknowledged the presence of crack shots amongst Boer forces, relating that '[t]here are certain shots who have earned their living as professional hunters, and from 200 yards to 300 yards [range] they are undoubtedly marvellous shots.'<sup>46</sup>

The skills of these marksmen were often attributed to frontier life and the popularity of game hunting.<sup>47</sup> However, game had been in decline throughout the 1880s and 1890s.<sup>48</sup> Furthermore, the growth of urban centres in the Transvaal and Orange Free State during the 1880s and 1890s meant that Boer forces contained a proportion of city-based volunteers who were unlikely to be natural riflemen.<sup>49</sup> Nevertheless, rifle culture remained a source of fascination in the Boer republics in the years prior to the war.<sup>50</sup> Howard Hillegas felt that rifle shooting was the 'chief amusement' in the Transvaal in the 1890s, writing that the 'demand for rifle ammunition was constant, and firing at marks may almost be said to have taken the place occupied by billiards in Europe.'<sup>51</sup> Furthermore, beginning in the early 1890s and intensifying in the aftermath of the botched Jameson Raid of 1895, the governments of the Boer republics put renewed emphasis on promoting rifle culture. Major-General Sir Frederick Maurice noted of this policy that '[e]very effort, in short, was made to preserve the old skill and interest in rifle-shooting, which it was feared would vanish with the vanishing elands and gemsbok. If the skill had diminished, the interest had not.'<sup>52</sup>

---

<sup>43</sup> Ibid., vol. 2, Q 19198, p. 397. Colonel Carr appears to have confused the attacks at Hart's Hill (23 February 1900) and Pieter's Hill (27 February 1900). The Inniskillings Fusiliers suffered severe casualties at Hart's Hill but were not involved at Pieter's Hill. I am grateful to Ken Gillings for supplying this information.

<sup>44</sup> *Elgin Commission*, vol. 2, Q 19593, p. 415.

<sup>45</sup> Ibid., vol. 2, Q 16440, p. 259; Q 16989, p. 292.

<sup>46</sup> Ibid., vol. 2, Q 14585, p. 138.

<sup>47</sup> Ibid., vol. 2, Q 21950, p. 564.

<sup>48</sup> NAUK, WO 33/154, Military Notes on the Dutch Republics of South Africa, p. 49.

<sup>49</sup> Hillegas, *Boers in War*, pp. 19-20.

<sup>50</sup> Maurice, *History of the War*, vol. 1, p. 80.

<sup>51</sup> Hillegas, *Boers in War*, pp. 19-20.

<sup>52</sup> Maurice, *History of the War*, p. 80.

Nevertheless, not all Boers were gifted marksmen and their shooting could sometimes be wild. However, the fact that the majority of burghers were equipped with modern magazine loading Mauser rifles helped to offset any disadvantages due to lack of individual accuracy. Less talented riflemen could make up for this deficiency through sheer volume of fire. As J.P. Brabazon noted, '[i]f you pump lead in a certain direction at a proper distance you must hit somebody.'<sup>53</sup> Charles Callwell saw the magazine rifle as the key element of Boer War tactics, noting that, due to its rate of fire,

a mere handful of men, lying down under shelter, can bring such a hail of bullets to bear upon ground extending for a considerable distance to their front that hostile troops attempting to cross this will suffer appalling losses in doing so, even if they succeed in the venture.<sup>54</sup>

Facing such rapid fire could be a harrowing experience for soldiers in the front line. An officer of the 60<sup>th</sup> Rifles recorded his experience at the Battle of Talana Hill:

I don't suppose I am ever likely to go through a more awful fire than broke out from the Boer line as we dashed forward. The ground in front of me was literally rising in dust from the bullets, and the din echoing between the hill and the wood below and among the rocks from the incessant fire of the Mausers seemed to blend with every other sound into a long drawn-out hideous roar ... the whole ground we had already covered was strewn with bodies.<sup>55</sup>

The modern rifles of the Boers offered additional advantages beyond rate of fire. The flat trajectory of the weapons made them more accurate and allowed the Boers to create deadly fire swept zones at battles such as Modder River and Magersfontein.<sup>56</sup> Indeed, at Magersfontein, the Boers had sited their main position at the base of a kopje, partially as means of taking advantage of the sweeping effect of flat trajectory fire.<sup>57</sup> In addition, the Mauser rifle benefited from the use of smokeless powder, meaning that there was no tell-tale puff of smoke to reveal a firer's location. This was a critical advantage and greatly enhanced the ability of the Boers to fight from behind cover. Charles Callwell considered it the decisive element of Boer marksmanship, arguing:

---

<sup>53</sup> *Elgin Commission*, vol.1, Q 6860, p. 294.

<sup>54</sup> Charles Callwell, *The Tactics of Today* (Edinburgh, William Blackwood 1903), pp. 31-32.

<sup>55</sup> Quoted in Leo Amery, *The Times History of the War in South Africa* (London, Sampson, Lowe Marston & Company, 1902), vol. 2, p. 164.

<sup>56</sup> The Battle of Magersfontein was fought on 11 December 1899.

<sup>57</sup> G.R. Duxbury, *The Battle of Magersfontein 11<sup>th</sup> December 1899* (Johannesburg, S.A. National Museum of Military History 1995), p. 2.

## SHOOTING POWER

The disappearance of black powder has exerted a far more potent influence in moulding tactics into a new shape than the increased power and accuracy or the rapid fire of the modern rifle and gun. Concealment has been so greatly facilitated by this that it has gained a new and commanding importance. It was a standing grievance in South Africa that the Boers could only be heard and not seen.<sup>58</sup>

There had been some consideration of the effects of modern rifles within the British Army prior to the outbreak of the war, but such discussions had produced few tactical changes.<sup>59</sup> Interestingly, Sir John Ardagh, Director of Military Intelligence, argued prior to the conflict that the fact that the British were armed with smokeless, flat trajectory rifles would help to offset the dangers posed by natural Boer marksmanship, stating that modern weapons had 'much diminished the advantage offered by accuracy in judging distances.'<sup>60</sup> In fact, the advantages of modern rifles had the effect of greatly magnifying Boer strengths. Long range, flat trajectory rifles allowed the Boers to engage at great distances; the use of smokeless powder vastly enhanced the Boer's capacity for fighting from behind cover and improved individual accuracy; and the use of magazine loading allowed a far greater rate of fire to be maintained. Expert marksmen could benefit from the range and accuracy of their rifles, while less talented Boers could make up for lack of individual skill with sheer weight of fire. Despite wielding a weapon of similar quality, the British Army enjoyed few advantages by comparison. Lord Methuen offered a bleak assessment of the issue:

The shooting of the Regular troops was conducted under exceptional difficulties on account of the clearness of the atmosphere and because the enemy offered no good target, but my opinion gained during my experience of the Tirah and the South African campaigns is that the shooting of our infantry is not worthy of the accuracy and the long range powers possessed by the present rifle.<sup>61</sup>

The combination of Boer rifle culture and modern magazine rifles lay at the core of many British tactical problems in the Second Anglo-Boer War. Frontal attacks against Boer positions frequently suffered heavy losses, and it took a considerable degree of in-theatre learning before the British Army was able to gain the upper hand on the

---

<sup>58</sup> Callwell, *Tactics of Today*, p. 7.

<sup>59</sup> Spiers, *Late Victorian Army*, p. 315.

<sup>60</sup> NAUK, WO 33/154, Military Notes on the Dutch Republics of South Africa, p. 50.

<sup>61</sup> *Elgin Commission*, Q 14188, p. 121.

battlefield.<sup>62</sup> The effectiveness of Boer firepower necessitated a profound reconsideration of assault tactics, with a fresh emphasis on dispersed attack formations, prolonged artillery support and flanking movements.

### III

In the aftermath of the conflict, the topic of Boer shooting was much discussed at the Royal Commission on the South African War. Twenty-one witnesses were questioned directly about Boer marksmanship and others spoke on the topic in general terms. Interestingly, several officers cast aspersions on the quality of Boer marksmanship. Colonel A.W. Thorneycroft and Major-General Sir H.M.L. Rundle both considered that Boer shooting had much declined from the First Anglo-Boer War, although both acknowledged that it still remained superior to that of their own soldiers.<sup>63</sup> Redvers Buller actually considered that British shooting was superior to that of the Boers.<sup>64</sup> Major-General Sir H.J.T. Hildyard thought that the marksmanship of his troops was comparable to that of the Boers, a view echoed by Forbes MacBean and Henry Colvile.<sup>65</sup> However, all but one critical witness qualified their statements on the topic.<sup>66</sup> For example, Buller only considered British shooting to be superior if the British knew the range to the enemy position, a comparatively rare experience for much of the war.<sup>67</sup> Hildyard acknowledged his view was only an impression and 'was a very difficult thing to prove'.<sup>68</sup> MacBean admitted that he considered Boer fire to be of 'a fairly high average' and recognised the presence of dangerous sharpshooters amongst the commandos.<sup>69</sup> Colvile attempted to argue that the British *shooting* was as good as the Boers, but that the *hitting* was worse, due to the Boers' ubiquitous use of cover!<sup>70</sup>

However, the majority of witnesses praised Boer marksmanship, albeit sometimes grudgingly. Major-General Sir Bruce Hamilton directly refuted Henry Colvile's evidence, arguing that Boer shooting was considerably superior.<sup>71</sup> When questioned by the commissioners as to the reason for the divergent views on the quality of Boer

---

<sup>62</sup> For discussion of this aspect of the campaign, see Thomas Pakenham, *The Boer War* (London, Wiedenfeld and Nicolson, 1979) and Stephen M. Miller, *Lord Methuen and the British Army: Failure and Redemption in South Africa* (London, Frank Cass, 1999).

<sup>63</sup> *Elgin Commission*, vol. 2, Q 12440, p. 19; Q 17879, p. 331.

<sup>64</sup> *Ibid.*, Q 14383, p. 212.

<sup>65</sup> *Ibid.*, Q 15982, p. 241; Q 16988, p. 292; Q 19593, p. 415.

<sup>66</sup> The only witness who was unequivocal in his criticism of Boer marksmanship was Colonel Alexander Thorneycroft.

<sup>67</sup> *Ibid.*, Q 15483, p. 212.

<sup>68</sup> *Ibid.*, Q 15982, p. 241.

<sup>69</sup> *Ibid.*, Q 19593, p. 415.

<sup>70</sup> *Ibid.*, Q 16988, p. 202.

<sup>71</sup> *Ibid.*, Q 17482, p. 314.

## SHOOTING POWER

shooting, Hamilton responded perceptively: 'I think British officers are very anxious to stick up for the shooting of their men.'<sup>72</sup> A.H. Paget had much praise for Boer shooting, noting 'I am going more not by what I saw when I had a higher command, but what I saw when I was in the fighting line myself ... I was in the fighting line and saw everything that was going on, and certainly the Boer shooting was very good indeed.'<sup>73</sup> However, senior officers often had praise for Boer marksmanship; Charles Warren and William Gatacre both considered it to have been superior to that of the British.<sup>74</sup> Lord Kitchener saw Boer rifle culture as the key element in Boer success:

Our men were not as quick and accurate as their opponents in shooting rapidly, but they had not been trained for this during peace time, and could not, therefore be expected to excel in what the Boers had learned to practice from childhood.<sup>75</sup>

Lord Roberts was highly critical of British musketry in comparison to that of the Boers, arguing that the average British soldier:

was the exact opposite of the Boer, especially in his want of knowledge of the ground and how to utilise it, and in his defective powers of observation. His shooting cannot be described as good ... there was no real marksmanship ... The shooting at short ranges ... was ineffective, and at long ranges the distance was seldom accurately estimated.<sup>76</sup>

The final report of the Royal Commission concluded that Boer marksmanship had been superior to that of the British, identifying the capacity of the Boers to fight from behind cover, their superior skill in judging distances and ability to hit fleeting targets as critical factors.<sup>77</sup>

The value of skilful marksmen wielding modern weaponry was clear to many veterans of the conflict. Alexander Thorneycroft considered it an 'essential point' from the war, arguing that '[w]hen you get to a decisive range, say 300 yards, if your men are first-class shots with good fire sights on their rifles for close shooting, you are at an enormous advantage.'<sup>78</sup> Ian Hamilton went even further, arguing that Britain should take inspiration from the Boer military system and adapt it to her own needs:

---

<sup>72</sup> Ibid., Q 17479, p. 314.

<sup>73</sup> Ibid., Q 16445, 16446, p. 259.

<sup>74</sup> Ibid., Q 15660, p. 224; Q 16772, p. 272.

<sup>75</sup> Ibid., vol. 1, Q 173, p. 7.

<sup>76</sup> Ibid., vol. 2, Q 10442, p. 440.

<sup>77</sup> Ibid., vol. 4, p. 48.

<sup>78</sup> Ibid., vol. 2, Q 12435, p. 19.

I believe that an army composed of individuals each so highly trained as to be able to take full advantage of the terrain, and of his wonderful modern weapon, and each animated with a morale and trained to an efficiency which will make him capable of acting in battle on his own initiative, will break through, scatter, and demolish less efficient opposing forces, even if greatly superior in numbers.<sup>79</sup>

The British Army underwent considerable tactical reform in the aftermath of the conflict, with a particular focus on improving marksmanship.<sup>80</sup> In 1902, Lord Roberts stated that the first object in the training of a soldier was 'to make him a good shot.'<sup>81</sup> To this end, the old system of volley firing was abandoned and was replaced with training that aimed to make each soldier an effective individual rifleman. Between 1902 and 1906 each man was assigned 300 rounds per annum for training. Although this figure fell to 250 rounds per year from 1906 onwards, it was still well in advance of continental armies.<sup>82</sup> For example, a German infantryman was assigned between 60 and 100 rounds in their first year and 42 rounds in their second year.<sup>83</sup>

British musketry training was heavily based on the experience of the Second Anglo-Boer War. There was a concerted effort to mimic the skills of the Boers, with an emphasis on 'snap shooting', firing from behind cover and engaging fleeting targets at unknown distances.<sup>84</sup> The culmination of British marksmanship training was the 'Mad Minute', in which a soldier was required to fire fifteen aimed rounds at a target at least three hundred yards distant within sixty seconds. This famous exercise was directly inspired by the effectiveness of sudden, intense bursts of fire in South Africa.<sup>85</sup>

Admiration of the rifle culture of the Boers prompted some authors to urge that attempts be made to inculcate a similar attitude towards guns within the British Empire.<sup>86</sup> Although this was impractical for the bulk of British civilian society, there was a marked change towards rifle training within the British Army. Writing in 1904, an anonymous officer noted with satisfaction: '[g]reater interest is now shown by

---

<sup>79</sup> Ibid., Q 13941, p. 107.

<sup>80</sup> For a fuller discussion of the reforms of this period, see Spencer Jones, *From Boer War to World War: Tactical Reform in the British Army 1902–1914* (Norman, University of Oklahoma Press, 2012).

<sup>81</sup> Quoted in 'K.', 'Suggestions for the Improvement of the Annual Course of Musketry', *United Service Magazine*, June 1904, p. 300.

<sup>82</sup> Jones, *Boer War to World War*, pp.92-93.

<sup>83</sup> Frank Buchholz, Joe Robinson & Janet Robinson, *The Great War Dawning: Germany and its Army at the Start of World War I* (Vienna, Verlag Militaria, 2013), p.204.

<sup>84</sup> War Office, *Musketry Regulations Part 1, 1909* (London, H.M.S.O. 1909), pp. 258 – 261.

<sup>85</sup> Joint Services Command and Staff College Library, Report on a Conference of General Staff Officers at the Staff College, 2-11 January 1906, p. 118.

<sup>86</sup> J. Peters, 'Teach the Boys to Shoot', *United Service Magazine*, March 1904, pp. 598 – 601.

## SHOOTING POWER

everybody, especially by the private soldier, and the keenness displayed by all ranks is as great as could be desired.<sup>87</sup> Particular pride was attached to the completion of the 'Mad Minute' exercise, which was generally considered to be the true test of a marksman.<sup>88</sup> The award of coveted marksmanship badges and extra pay for soldiers who had reached the required standard further encouraged training and development. Individual training was supplemented by a wide variety of rifle competitions, many of which attracted considerable participation.<sup>89</sup> Indeed, by 1913, some of the competitions were attracting so many entrants that they were in danger of becoming unmanageable.<sup>90</sup>

On the eve of war in 1914 the British Army had established a well-deserved reputation for the quality of its marksmanship. On hearing news of the outbreak of the conflict, Captain Richard Meinertzhagen noted in his diary: 'Our Expeditionary Force is terribly small, but a mighty weapon, for every soldier can shoot and every man is determined to fight. The Germans will soon find that out. We are not the solders of the South African War.'<sup>91</sup> This bullish assessment would be put to the test during the battles that marked the opening of the First World War.

### IV

The conditions of warfare in Europe in 1914 were markedly different from those that the British had faced in South Africa. The most obvious difference was the terrain. Whereas the open country and clear atmosphere of southern Africa had been ideal for long range sniping, the fighting in Europe took place amongst towns, villages, farms and woodland that drastically reduced visible range. The initial British battle of the campaign, Mons (23 August), marked the first time that the army had fought a major engagement in an industrial urban environment.<sup>92</sup> Similarly, the intense combat at the Battle of Ypres (19 October – 22 November) took place amidst dense terrain characterised by thick woodland dotted with villages and farmsteads. Even during battles where the terrain was comparatively open, such as Le Cateau (26 August), the rolling fields created dead ground that reduced the ability of the British to engage at long range.

---

<sup>87</sup> 'K.', 'Annual Course of Musketry', p. 300.

<sup>88</sup> Richard Van Emden (ed.), *Tickled to Death to Go: Memories of a Cavalryman in the First World War* (Staplehurst, Spellmount, 1996), p. 24.

<sup>89</sup> The Smith-Dorrien Cup and the Evelyn Wood Cup were two particularly popular events.

<sup>90</sup> NAUK, WO 279/32, Aldershot Command Papers, Comments on the Training Season 1913, p.11.

<sup>91</sup> Richard Meinertzhagen, *Army Diary 1899 - 1926* (Edinburgh, Oliver & Boyd, 1960) p.80.

<sup>92</sup> James Edmonds, *Military Operations: France and Belgium 1914*, vol.1, (London, Macmillan & Co., 1933) p.72. (Hereafter *Official History*).

British pre-war regulations considered rifle fire to be 'decisive' within 600 yards, and 'effective' between 600 and 1400 yards.<sup>93</sup> At the opening of the war, infantry frequently opened fire at this latter range when the opportunity presented itself. Some officers recorded their disappointment at the lack of casualties this long range shooting caused, but others perceived that, as in the Boer War, its principal value was to delay and disrupt the advance of the enemy rather than kill or wound individuals. For example, Malcolm Hay of the Gordon Highlanders recorded that his company opened fire at a German column at 1200 yards at the Battle of Mons:

It was impossible to resist the temptation to open fire with the hope of breaking up the column formation and thus delaying the reinforcement operations....All our shots seemed to have gone too high and none found a billet, but the enemy made no further attempt to leave the wood in close formation.<sup>94</sup>

Hay also recorded his men engaging Germans at a range of 900 yards at the Battle of Le Cateau, noting 'the shooting of the battalion was good enough to delay the enemy's advance'.<sup>95</sup>

Whilst the openness of the terrain in South Africa had assisted the Boers, in France and Flanders the British took advantage of the opportunities for concealment provided by the plentiful cover. A sergeant of the Lincolnshires recalled his men occupying swiftly constructed slit trenches at Mons, noting that these were 'a trick we learned from the Boers, I believe', adding:

We lay in our trenches with not a sound or sign to tell them [the Germans] what was before them. They crept nearer and nearer, and then our officers gave the word. Under the storm of bullets they seemed to stagger like drunken men.<sup>96</sup>

A German *jaeger* officer recalled of the British at Le Cateau: 'They were wily soldiers, tough and tenacious fellows, with iron nerves, even when wounded. They shot well and understood how to use terrain with such skill that it was difficult even for *jaeger* to detect them.'<sup>97</sup> British ability to remain concealed meant that it was possible to hold fire until German troops had reached close range before surprising them with a

---

<sup>93</sup> War Office, *Combined Training 1905* (London, H.M.S.O. 1905), p. 100.

<sup>94</sup> 'An Exchanged Officer', [Malcolm Hay] *Wounded and a Prisoner of War*, (London, Blackwood & Sons, 1916), p.37.

<sup>95</sup> *Ibid*, p.63.

<sup>96</sup> Arthur St. John Adcock, *In The Firing Line* (London, Hodder & Stoughton, 1914), p.24.

<sup>97</sup> Quoted in Zuber, *The Mons Myth: A Reassessment of the Battle* (Stroud, History Press, 2010), p.229.

## SHOOTING POWER

fusillade. Indeed, it was sudden bursts of fire within 600 yards - the 'decisive' range – that would prove most effective in 1914. This was especially apparent during the ferocious fighting at the Battle of Ypres, when inexperienced German infantry was exposed to harrowing musketry from concealed British veterans. John Lucy of the Royal Irish Rifles wrote a graphic account:

Their [The Germans'] whole attack was aslant...badly directed, and their men not yet extended in lines. What tactics! We let them have it. We blasted and blew them to death. They fell in scores, in hundreds, the marching column wilting away under our rapid fire... Crowds of Germans at close range were plugged easily and rapidly by every one of us. The riflemen shouted as they fired 'Come on boys. Let 'em have it,' and the attack spluttered out, leaving lines and circles of corpses and wounded...<sup>98</sup>

One German survivor complained: 'Unthinking, section after section ran into the well-directed fire of experienced troops. Every effort had been put into our training, but it was completely inadequate preparation for such a serious assault on battle-hardened, long service colonial soldiers.'<sup>99</sup> A German semi-official account of the battle published in 1917 attributed British success to large numbers of machine guns, giving evidence to the famous claim in the *Official History* that the Germans mistook British rapid rifle fire for that of machine guns.<sup>100</sup>

As in South Africa, the effectiveness of British rifle fire owed as much to weight and rapidity as it did to individual accuracy. However, the BEF did possess its share of expert shots who, much like the Boer marksmen of the earlier war, could have a disproportionate effect. At the Battle of Mons, the Lincolnshire sergeant recalled that: 'a few of the crack shots were told off to indulge in independent firing for the benefit of the Germans. That is another trick taught us by Brother Boer, and our Germans did not like it at all.' The *Official History* recorded that a single subaltern of the Royal Scots claimed to have 'hit thirty to forty' Germans at the Battle of Le Cateau.<sup>101</sup> At the same engagement an officer of the Hampshire Regiment related 'The best marksmen of D Company were able to pick off some of the machine gun crews and occasional officers who marked themselves out by carrying drawn swords.'<sup>102</sup> During an attack in early November during the Battle of Ypres, an officer of the German 136<sup>th</sup> Infantry Regiment recalled:

---

<sup>98</sup> John Lucy, *There's a Devil in the Drum* (London, Faber & Faber, 1938), pp.224-225.

<sup>99</sup> Jack Sheldon, *The Germany Army at Ypres 1914* (Barnsley, Pen & Sword, 2010) p.105.

<sup>100</sup> G.C.W. [translator] *Ypres 1914: An Official Account Published by Order of the German General Staff* (London, Constable & Company Ltd, 1919) p.11; Edmonds, *Official History 1914*, pp.462-463.

<sup>101</sup> Edmonds, *Official History 1914*, vol.1, p.184.

<sup>102</sup> Nigel Cave & Jack Sheldon, *Le Cateau: 26 August 1914* (Barnsley, Pen & Sword, 2008), p.151.

Schweinberg, joining in, was just about to fire when, a British soldier swung round in a standing position suddenly and shot at him. He immediately felt a burning sensation in his head, but luckily the bullet had only creased him. This accuracy shown by the long service British soldiers with colonial experience who were deployed opposite the company, verged on the miraculous.<sup>103</sup>

Overall, the British benefited from a similar combination of factors to those which had influenced the Boer marksmen of the earlier war. The British took advantage of the terrain of Europe, which allowed them to remain concealed and achieve surprise when they opened fire; they possessed a culture of marksmanship that emphasised both accuracy and rapidity which had been codified by thorough pre-war training; and they were equipped with reliable weapons, namely the efficient Short Magazine Lee Enfield rifle, which allowed British fire tactics to be implemented. Taken as a whole, these factors contributed to highly effective British rifle fire throughout the battles of 1914. The importance of this battlefield asset should not be underestimated. The BEF was a small, relatively fragile instrument, with comparatively light artillery support and a distinct absence of mortars, grenades and other weapons suitable for positional warfare.<sup>104</sup> Lacking these assets, the British Army placed much reliance upon the tactical effectiveness of its infantry fire. The confidence was not misplaced and the impressive battlefield performance of the BEF in 1914 owes a great deal to, in the words of General Sir Horace Smith-Dorrien, 'the shooting power of our infantry'.<sup>105</sup>

The origins of this 'shooting power' lay in the Boer War. The experience of facing Boer firepower left a deep and lasting impression on the British Army. The grudging respect that had developed during the war evolved into admiration in the aftermath of the conflict. As has been demonstrated, the British came to recognise that a variety of factors were responsible for the skills of the average Boer marksman, some of which, such as the clear atmosphere, were unique to the theatre of war. Nevertheless, the value of modern magazine rifles in the hands of skilled marksmen was a lesson that was taken to heart. Universal skills, such as firing from behind cover, snap shooting and rapid target acquisition went on to become the cornerstones of British musketry training in the aftermath of the conflict. Inspired by these changes, the British Army developed its own unique rifle culture during the pre-First World War period, with marksmen being recognised and rewarded for their skills. The effectiveness of BEF rifle fire in 1914 is well attested and played a crucial and arguably decisive role in battlefield victory.

---

<sup>103</sup> Sheldon, *German Army at Ypres*, p.262.

<sup>104</sup> Edmonds, *Official History 1914*, Vol.1, pp.10-11.

<sup>105</sup> Quoted in Ian F.W. Beckett, *The Judgement of History: Sir Horace Smith-Dorrien, Lord French and 1914* (London, Tom Donovan, 1993), p.34.

## SHOOTING POWER

In 1902 a British officer had judged Boer marksmanship as 'extraordinary' and the army as a whole had sought to imitate it. An impression of the success of this process is gained by the fact that a German veteran of 1914 dubbed British shooting as 'miraculous'. If imitation is the sincerest form of flattery, then the British Army paid a handsome compliment to the marksmanship of Boers.