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How the British Army adapted to the changes in technology from 1775-1902

by

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A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

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This is to certify that the master's thesis of

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has met the thesis requirements of Iowa State University

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CHAPTER 1 INTRODUCTION

By 1763, the small nation of Great Britain had conquered a vast empire which stretched from North America to India. From 1775 to 1902, the British would fight many wars to expand and protect their empire. During this span of time, new weapons were invented, from the rifled musket to the Maxim machine gun. These new weapons would undoubtedly cause a change in the British Army's tactics. It was for these reasons that I decided to examine the period from 1775 to 1902. Within this time frame great changes in weapons occur, which could have influenced tactics. Much fighting also takes place against a variety of opponents armed with a varying collection of weapons. This allows one to gain a general idea of how quickly the British Army employed new weapons and which tactics worked against which opponents.

The changes in technology and the amount and nature of the fighting that takes place from 1775 to 1902 allows for the close examination of the evolution of land warfare. It is for this reason that I chose to examine this time period. 1902 is also a turning point in warfare for Britain; the Boer War represented the beginning of the end for the British Empire. By the 1960s the Empire no longer existed and the British began to take second place to the United States in terms of military power after the Second World War.

The British fought more than sixty wars from 1837 to 1902, in Queen Victoria's name. Since not all of the wars featured real advances in strategy,

tactics, or technology, this paper seeks to study those that had great significance on one of these bases.

The British could not have expanded or held onto their empire without fighting many different opponents. For the most part, these opponents possessed weapons that were inferior to the British weapons. When the British did fight enemies that had weapons equal to their own, they ran into difficulties defeating their enemies. Each war presented new challenges to the British. They had to adapt to these challenges and use new and more deadly weapons in order to remain victorious.

CHAPTER 2 KING GEORGE THE III'S WARS

Tactics: Britain's way of war before the colonies rebelled

To understand how the British Army fought during the reign of Queen Victoria, first one must examine the American Revolution and the Napoleonic wars. The reason is that battles that occurring after 1815 are very much like the battles that happened when the British fought the Americans and the French. Both of these wars were fought using ideas that had come about during the Seven Years War.

The British military establishment prepared to fight European enemies that resembled the British army in most respects. The tactics came from the Seven Years War against Austria, France, and Russia. A legacy of Fredrick the Great of Prussia, Britain's military had not seen the need to change its tactics during the twelve-year interval between the end of the Seven Years War and the beginning of the American Revolution. These tactics consisted of infantry arranged in linear formations. The infantry would march to a range of fifty to one hundred yards distance and then engage in a musketry exchange. When one side weakened to the point where it was losing cohesion, the other side would make a bayonet charge. These bayonet charges rarely resulted in a general melee since the weakened infantry unit would generally break and run before any contact could be made.

As established by Fredrick the Great, commanders generally posted the cavalry arm of the army on the flanks. The British cavalry, often described as the

best trained and worst led arm of the British army, would often occupy the flanks but remained in reserve to exploit any breakthrough the infantry could achieve. Cavalry had other uses on the battlefield though; the British light cavalry was also there in case a disaster occurred. In the event that the army lost the battle, the light cavalry would make a suicidal charge to check the enemy cavalry forces. This would give the British infantry and artillery time to escape.

Armies used artillery very differently during the eighteenth century than its use today. Since a cannon was unable to fire much farther than the gun crew could see, artillery did not dominate a battlefield as it can today. Nor were artillery shells as effective, during the late eighteenth century, since round shot, the main form of ordnance for cannons, did not explode. Instead, round shot would bounce a few times then roll to a stop. Howitzers and mortars were able to fire ordnance that would explode, however if the fuse was not cut perfectly, the 'shells' would either explode too soon or hit the ground which would allow someone to pull out the fuse. Artillery pieces were also much heavier than those of even the Napoleonic period. This meant that artillery pieces could not keep up with an advance and could be obscured by their own forces. Thus artillery pieces were often spread out across the entire line supported by infantry and cavalry. There was no massing of guns in grand batteries or corps artillery formations before Napoleon. Cannons did have devastating short-range ordnance round, known as canister shot. Canister was a tin case that was filled with musket balls, and which when fired would spread out and have an effect

similar to a shotgun. Unfortunately, canister's had to be used at short range to be effective and so it was usually used to break up enemy assaults.

Military discipline has to be discussed since there are those who have the popular belief that the British soldier was nothing but a simple brute. Discipline in the British army was quite severe. It was not uncommon to flog a soldier for a minor infraction while most major infractions, cowardice, and desertion for example carried the death sentence. Modern writers criticize the British army for this fact saying it was a factor of the loss of the American Revolution. In truth, discipline was harsh because it had to be. When being shot at, the natural reaction for most people is to either run or to take cover. To maintain discipline the British army like other armies had to punish the men so that they would act against a natural instinct.

The American Revolution:

In 1775, the British Army found itself embroiled in a war against the American Colonies. The British military had not seen many significant changes since the Seven Years War, and the main firearm the British Army used was of the type used during the Seven Years war. All infantry battalions in the British Army used the Brown Bess musket during the Revolutionary War.¹ The Brown Bess was highly inaccurate at more than one hundred yards so it was only suitable for use against tightly packed formations of men at close range. The American colonists, however, did not have a standing army accustomed to fighting an enemy on an open battlefield with regular infantry battalions. Instead,

the colonists were experienced in fighting the Native Americans who fought under cover in heavily forested areas. To shoot an individual reliably, a rifle was indeed the weapon to use in this period.

Though the British used rifles for hunting purposes in Great Britain, these weapons were deemed unsuitable for the line battalions. The reasoning for not adopting the rifles was that rifles were expensive, difficult to manufacture, and it hard to load. Rifles also gave too much independence and control to individual soldiers. Therefore, the British Army found it to be unnecessary to train marksmen prior to the American War of Independence.

The most notable change to occur was the formation of the light company within the regiments of the army. The light company was an elite body of men who would guard the vulnerable left flank of the regiment during battle.

Advocates included prominent soldiers as, General William Howe. Howe believed in using light companies in assaulting enemy strong points. The logic of the time stated that these lightly encumbered men would be able to bypass fortifications and scale obstacles easier than the line infantrymen or a grenadier².

The light companies were not yet trained to fight as skirmishers in front of the main bodies of troops. Instead, these elite soldiers still fought within the regiment main body. General Howe used his light troops at the Battle of Breeds

¹ Warren Moore, *Weapons of the American Revolution and Accoutrements* p 61

² Grenadiers were the tallest, and bravest men within the regiment and were placed on the right flank of all British regiments. Formed in the 1700s, the name grenadier comes from the men carrying hand grenades into battle and hurling them at the enemy. These grenades weighed around two pounds thus the tallest men were required. The belief was that one's height was related to how strong one was, and they were considered the bravest in the regiment, for similar reasons.

Hill, more commonly known as the Battle of Bunker Hill. Owing largely to an uncooperative navy, General Howe had to order several frontal assaults on the colonial fortifications that had sprung up overnight. Massed grenadier companies and the massed light companies of several British regiments carried out these attacks. Convinced that the American militia would turn and run at the sight of the best troops he could muster, General Howe was dismayed when his troops were bloodily repulsed. The men occupying American fortifications on Breeds Hill fired as fast as they could load their muskets rather than organized steady volleys like European troops.³ Neither the grenadier's, who fought with full kits, nor the light infantrymen were able to breach American defenses.

General Howe reformed his men and attacked the American positions again. For a second time the best troops under General Howe's command had attacked and again they were thrown back. In all, the British would need four assaults to dislodge the American militia from the fortifications. The fourth assault likely succeeded because the American troops ran out of powder, and the British grenadiers were allowed to finally drop their packs. While the act of taking off a pack seems like a small thing, carrying fifty-five pounds of equipment did fatigue the British soldiers in the hot humid weather of June 1775, faster than the American soldiers were becoming fatigued. These battles forever changed General Howe's fight against General George Washington. Howe became the

³ Robert Leckie. George Washington's War p 160

cautious commander that historians criticize because of the losses his men took at the Battle of Breeds Hill.

General Howe changed how he fought battles. Rather than risking his army in frontal attacks, Howe found ways to attack the American army's flanks. Howe earned an impressive number of victories against Washington; however, once Howe had defeated Washington's army, he did not pursue it. Howe has often been accused of being indecisive when he had opportunities to destroy Washington's army. This view is overly critical of Howe since he was only keeping his army intact. General Howe had a very small army in a hostile area where he could not be sure of the populace's loyalties. Rather than pursuing and risking his army in an ambush, Howe erred on the side of caution, which allowed Howe to maintain a sizable force in the field for years. Moreover, Howe, and his brother Admiral Richard Howe, had appointments to help negotiate a peace once they won the fighting, and this may have affected their tactics, to keep an American leadership intact so that it could negotiate surrender and a return to the British Empire.

General John Burgoyne also commanded an expedition against Americans, but he invaded the colonies from Canada with the idea of splitting the colonies in two. From the beginning Burgoyne made mistakes which slowed down his advance. Burgoyne wished to take heavy cannons with him, and since cannons must be taken along a road of some sort, the British soldiers had to cut one out of the wilderness as they marched because taking the artillery overland was faster than by sea. The British soldiers accomplished this remarkable feat,

and Burgoyne was able to bring up his guns. To make matters worse, as the British moved south along the lakes separating present day New York and Vermont, American militia felled trees across the roads. This slowed the armies' advance even more; had Burgoyne left his heavy guns in Canada, the army could have advanced much more quickly.

The entire campaign led to the Battle of Saratoga. One of the worst defeats that the British army ever suffered at the hands of an American army, Burgoyne would be forced to surrender his army. Burgoyne fought the battle very well but had to surrender not because General Horatio Gage outfought him, but because he had no hope of support and was desperately outnumbered.⁴

The American forces commanded by Gage occupied the hills of the area, which in warfare is an immense advantage. Burgoyne was not deterred though, knowing if he could defeat this army, Howe would arrive soon with support. Burgoyne attempted two separate attacks against the American left flank at Saratoga. This was a very sensible move since the American commander left his left flank somewhat exposed to higher hills farther to the left. Burgoyne was only stopped by General Benedict Arnold's troops' actions; Arnold led his men in an attack against the flanking movements without Gage's consent. Burgoyne just had too few men to make the attacks work, while Gage's command was continually strengthened by the arrival of reinforcements.

⁴ Robert Leckie, George Washington's War p 414-416

How General Lord Charles Cornwallis fought in the south was much different from way the British fought in the north. Instead of facing Washington who fought as European's did, Cornwallis eventually faced General Nathaniel Greene and General Daniel Morgan who fought with primarily a militia army. Cornwallis campaign in the south was filled with obstacles that were unique to the southern United States. First, Cornwallis opponents, Greene and Morgan, did not fight him in the European style of battle. Instead Greene and Morgan fighting on ground of their choosing, hit Cornwallis supply lines and his communications.

Cornwallis tactics were not very inventive; they were, in fact, the same he had seen and used during the Seven Years War. Cornwallis went straight at his opponent, but considering the quality of most of the American troops in the South, Cornwallis did not have to use anything but frontal assaults. That is, soon after the taking of Savannah late in 1779, Cornwallis surrounded Charleston and, with the help of the British Navy, compelled the surrender of General Benjamin Lincoln and some 5,000 American troops. Thereafter, at the Battle of Camden, the British troops routed the Americans with no problem. Then the Continental Congress appointed a new Southern Commander and Cornwallis had to contend with new problems.

Cornwallis first problem was identifying the enemy when one day they were farmers and the next soldiers. Cornwallis was not always able to identify those citizens who were loyal to the king, those who were not, and those who did not care. So Cornwallis loyalists were given a somewhat free reign in attacking

those sympathetic to the rebel's cause. This was a mistake on Cornwallis part. The loyalists and the rebels in the south fought with a great savagery which was only equaled by the American Civil War. Cornwallis strategy to pacify the countryside with the Loyalist troops under his command only added to the growing resentment of the British.

Moreover, Morgan and Greene learned how best to use ill-trained militia and irregular forces. After the Battle of King's Mountain, Morgan arranged his men in successive lines, the least trained in the front, and progressively asked more of them. This buffer strategy worked to perfection at the Battle of Cowpens in January 1781. Greene expanded this battle strategy to a campaign and gradually retreated across the Dan River into Virginia drawing Cornwallis even farther from his source of supplies and then fought a battle on a field of his choosing at Guilford Court House. As a consequence, Cornwallis retreated to Hillsboro, North Carolina and later Wilmington and then advanced into Virginia largely forsaking the outposts across South Carolina he worked so hard to establish.

Cornwallis had to deal with Morgan and Greene attacking his supply lines as well. So Cornwallis decided to build forts along his supply lines. These forts were to be built within a day's march of each other so that the supply trains could be protected at night, and in the event of an attack, reinforcements could arrive very quickly from one of two forts. Cornwallis forts ultimately were a hindrance to him and not a benefit. Since Cornwallis was forced to leave troops behind to guard the forts, his army quickly became ineffective, forcing him to abandon this

idea. Greene learned to leverage his limited Continental soldiers and cavalry with local irregulars to overwhelm these now isolated outposts as Cornwallis moved to his fate at Yorktown in September 1781.

The Napoleonic Wars:

When the French overthrew their king and set up a republic, England and France began to fight a war that lasted for more than twenty years. During this time England adapted some new tactics, weapons, and ideas for fighting the French. England watched as France's conscript armies defeated each of the Continental powers. When Napoleon Bonaparte came into power, England watched as Napoleon conquered most of Europe. For the most part, England fought Napoleon at sea while the army waited.

During this long wait, the army began a great experiment with the use of rifles and skirmishers. Advocated by General Sir John Moore and with the Duke of York as a patron, the experiment began small as experiments do. One regiment that would become known as the 95th Rifle regiment would be armed with the Baker Rifle. This regiment would serve in the Peninsula Campaign against the French and become well known for its discipline and sharpshooters. An example of the skill the 95th possessed for shooting would be when Rifleman Thomas Plunkett killed General de Brigade Auguste-Marie-Francois Colbert at a distance of three hundred yards.⁵ The baker rifle had a thirty-inch barrel, and fired a varying caliber round of .615 to .70 calibers.⁶ The baker rifle could also

⁵ Eric Niderost "Military History" August 2002, pg 16

⁶ Philip J. Haythornthwaite Weapons and Equipment of the Napoleonic Wars pg 25

have a sword bayonet attached to it, which allowed the riflemen to defend themselves against cavalry and a determined infantry charge. Due to the small barrel the Baker rifle allowed a soldier to fire and reload from the prone position which meant that a rifleman could make himself as small a target as possible.

This experimental rifle unit not only used a rifle but fought in a new way as well. The riflemen would deploy as skirmishers in front of the main line of infantry, as a screen against the French voltiguers.⁷ The riflemen fought in two men teams, one firing while the other reloaded. The riflemen were also taught to target officers and sergeants. This was a new idea for the British army, before the British had always fought as gentlemen; they did not accord officers any undue amount of fire. During the Revolutionary War though, they had learned the lesson that the loss of officers and sergeants could disrupt a regiment's operations as the chain of command was destroyed.

The tactics of the rifles were not the only adaptation made during the wars. When Sir Arthur Wellesley, later the first Duke of Wellington, took command of the Peninsular Campaign, he brought new ideas. Sir Arthur's army was small compared to the French armies in Spain. Since he was outnumbered in virtually every battle he fought, Sir Arthur came up with a revolutionary defensive tactic. Wellington fought battles on ground of his own choosing and positioned his men on the reverse sides of ridges and hills while ordering them to lie down. This innovative idea protected Wellington's troops from the devastating pre-assault bombardment of French artillery; it also protected the British soldiers

from the French skirmishers. Only at the battles of Salamanca and Vittoria did Wellington not use this tactic, since Wellington was attacking the French and not defending against them.

This reverse slope tactic had several additional benefits; it kept Wellington's artillery from being blocked by the British infantry and the French from knowing the exact position of the British forces. Wellington's infantry were so well hidden from view that when the French did attack, they often believed they were attacking Wellington's flank when they were attacking his center. This allowed Wellington to bring enfilading fire upon the French columns.

The infantry had changed very little from the American Revolutionary war. Though the light companies now screened the regiment's advance, holding off French skirmishers, the battalion still fought in lines of two ranks deep. Fighting in a two rank line was an advantage against the French attack column, because the line was longer than the column was wide. Thus the British infantry was able to fire more muskets than the French could and part of the British line, usually the right and left flanks could turn slightly and fire at an enfilading⁸ angle. French columns soon became a disorganized mass after one or two volleys. Then the British infantry advanced with fixed bayonets and the French columns retreated before a general melee could ensue.

Infantry tactics against cavalry had changed after the American Revolution as well. Before this, generally speaking, infantry was able to stop any charge by

⁷ The Voltiguers were the French light infantry, but they were armed with muskets and not rifles.

⁸ Enfilading fire is when one is firing into the side of an enemy formation. The shot fired have more of a target, while the formation being fired into cannot respond with any shots of its own.

cavalry with a well placed volley. During the Napoleonic wars this was not the case. The only defense for infantry against cavalry was the open square formation. Presented with a virtual immovable wall of bayonets, which horses would not charge, cavalry charges often failed when infantry formed square. On the rare instances when a square was “broken” by a cavalry charge, a horse was killed in a volley and slide into the wall of men. This created an opening that allowed other cavalry men to ride through and exploit; but for the most part, the rule was cavalry did not charge infantry in square.

Wellington never had as many artillery pieces at his disposal that the French marshals. So Wellington did not concentrate his guns into a ‘grand battery’ rather he deployed his cannons along his entire front. One would think that this would have put Wellington at a disadvantage because he did not have any overwhelming firepower at one point and since the largest British artillery piece was a nine-pound cannon, compared to a French twelve-pound gun. Instead, spreading out his guns allowed Wellington’s artillery to cover any point of advance the French columns would conceivably take. British artillery also had a secret weapon in the form of spherical case shot.

Henry Shrapnel invented case shot which came into use in 1804. Case shot had a thinner casing than normal shell so that it could burst. Filled with musket balls, and if fuse was cut correctly, the shell could shower its target with musket-balls. The British had also developed rockets into a new artillery arm. Developed by Sir William Congreve and fully supported by the Prince of Wales, the Congreve rockets saw use on the Peninsula, in Germany, and at the Battle of

Waterloo. The rocket consisted of a warhead attached to a pole and was fired from the ground or a tripod mount. Though terrifying to horses and men because the rockets made a terribly frightening screaming sound as they descended, rockets were very inaccurate. In fact the rockets, on occasion, came back at those who launched them. So rockets were not used very often and did not enjoy much success against the enemy. Though outgunned and smaller than the French guns, the British artillery performed quite well throughout the Napoleonic Wars and helped the Duke of Wellington win all his battles.

Compared to the infantry and artillery performances, Wellington's cavalry did not perform very well on the battlefield. Cavalry tactics had changed greatly since the American Revolutionary War. New tactics had emerged after the French Revolution. Instead of charging in long lines, the cavalry had adopted charging with squadron's supporting each other. Due to this change, a cavalry charge became much more devastating; before this an infantry line could halt a cavalry charge with a volley at close range. So the standard infantry tactic was to form square which presented a wall of bayonets that the horses would not charge. Lancers⁹ were believed to be able to break squares since they could in theory stab at the square until it was weak enough to destroy it. However, French lancers never broke a British square during the Peninsula campaign.

British cavalry were not present in sufficient number to be used in an offensive role. Instead the cavalry was employed to stop French cavalry

⁹ Lancers were a cavalry troop armed with long spears called lances. The British army did not outfit any regiments with lances till after the Peninsula war.

advances and flanking maneuvers except for a few rare instances. One of the rare occurrences was at the Battle of Salamanca where the British cavalry crushed French infantry columns, then reformed and charged again. This was an example of what could happen to infantry not in square. Though many French soldiers survived, they did so because they ran for British lines and found refuge within British formations. At Salamanca the British cavalry was effective throughout the entire course of the battle. Normally the British cavalry charged once and then was completely useless for the rest of the battle.

The King's German Legion¹⁰ cavalry was a different matter entirely. Considered by Wellington to be the only reliable cavalry at his disposal, the KGL was given the task of reconnaissance and protecting the frontier. The discipline of the KGL cavalry arm was much better than that of the British cavalry. That being the case, the KGL was able to execute its mission with a great deal more success than their British counterparts could. The KGL protected the frontier so well that the French never managed to penetrate it during the entire Peninsula campaign. This helped lead to the ultimate triumph of British forces in Spain by keeping the French intelligence officer's blind. Without military intelligence the French marshal's in Spain had to wait until Wellington acted. The French were, therefore, on the defensive while Wellington's army was able to seize the initiative.

¹⁰ The King's German Legion was formed when a Hanoverian army fled to England to escape French occupation of their homeland. Owing allegiance to King George the III as the Elector of Hanover this was not a mercenary band, but a highly trained and motivated force that was the equal of the British army. It was composed of infantry, cavalry, and artillery.

After Napoleon was exiled to the island of Elba, the British began the process of downsizing the army. Thus, when Napoleon escaped and gathered an army to oppose the allies, the British did not have many veterans to send to Wellington. The entire campaign was decided by the Battle of Waterloo. The Battle of Waterloo was one of the most desperately fought battles in history. How the battle itself was fought is unimportant; the outcome, however, is crucial. The Duke of Wellington defeated Napoleon, not with superior tactics nor with any secret weapons. Quite simply, the British infantry soldiers refused to accept defeat; they held on when other armies would have broken. The British soldiers held on long enough for a Prussian army under Field Marshal Blucher to arrive and save them from disaster. British officers saw it as Wellington's doing however, with most of them refusing to give the Prussians their due. For decades, the generals of Great Britain that commanded armies after 1815 stuck to what Wellington did because of the Battle of Waterloo.

CHAPTER 3 THE WARS IN ASIA

Queen Victoria's Little Wars:

England experienced an unprecedented period of peace from 1815 until the accession of Queen Victoria in 1837. From 1837 until 1901, Great Britain experienced continual warfare. These wars were small and rarely threatened the British Empire, but each war in its own way was important. In almost every war, the British soldier had an advantage, the advantage of superior technology. The generals rarely used new tactics however instead relying on the tactics Wellington used at Waterloo. This inability to adapt led to great disasters for the British army towards the end of the period.

Wars in China 1840-1854:

The first conflict between the Qing Dynasty that ruled China and the British Empire was called the Opium War. The war began when the Chinese government sent war junks to stop Chinese merchants from trading with British subjects at Hong Kong. Out of a fleet of twenty-nine war junks, four were sunk, while the two British frigates protecting Hong Kong suffered no damage.¹¹ An army composed of four thousand men was sent from India. The war did not last long, and the Chinese lost due to their inadequate weaponry. Equipped with ancient muskets and sometimes bows and arrows, the Chinese, even with superior numbers, were unable to stop the superbly equipped British.

¹¹ Byron Farwell Queen Victoria's Little Wars pg 16

The British regulars and marines carried the newly issued Brunswick musket, which was a percussion cap musket, and not a flintlock. The percussion cap musket uses a brass cap that contains the powder charge which ignites the powder in the barrel of the weapon. The greatest advantage of this system is that the percussion cap is waterproof. So the British regulars, but not the Indian Sepoys who still carried flintlocks, were able to fight in any weather. The sepoy's even had an advantage, as the flintlock musket was still more reliable than Chinese muskets.

Since the Chinese outnumbered them the British generals in charge took the defensive when a battle was fought. The British, while conducting offensive campaigns, only attacked when facing forts and cities. The Opium War ended in August 1842, with the Chinese signing the Treaty of Nanjing. For the next twelve years the British government skirmished with pirates and occasionally with the Chinese government.

The Sikh War:

The Sikh's¹² army crossed the Sutlej on December 3, 1845. The estimated size of the Sikh army differs but a force of twelve thousand to twenty thousand soldiers is probably correct.¹³ Why the war started is a complicated affair, but most likely, when the British began massing troops on the border, the Sikhs interpreted this as hostile intentions and attacked first. The Sikh army was

¹² The term Sikh describes members of a Hindu sect that had created their own nation bordering British territory in India.

¹³ Byron Farwell Queen Victoria's Little Wars pg 38

a well-trained army that fought with modern equipment and had been trained on the French army model by European officers.

General Hugh Gough, a Peninsula veteran, commanded the British army. Having fought under the Duke of Wellington, Gough used primarily the same tactics. At the Battle of Mudki, on December 18, 1845, ten thousand British soldiers faced the Sikh army. The terrain around Mudki was mostly flat, but there were some areas of thick jungle where the Sikhs concealed their troops. The Sikhs opened fire at four o'clock in the morning and engaged in an artillery duel with the British. The British cavalry turned the Sikh's left flank forcing the Sikh army to withdraw.¹⁴ Then on December 21, the two sides faced each other again.

The Sikh army had entrenched itself at Ferozeshah. Gough deployed his army directly in front of the Sikh positions instead of attempting to flank the enemy positions. This proved to be a costly mistake for Gough's army. The first assault was bloodily repulsed, and it was only when Gough launched the entire army that the Sikhs were thrown back. General Gough, having served in the Peninsula, should have known that attacking a well-equipped entrenched enemy would be very costly. He had the same opinion of a native opponent that most British generals shared during the times. The general consensus was that no native army could ever defeat a European army. The battle of Ferozeshah

¹⁴ Byron Farwell Queen Victoria's Little Wars pg 41

eliminated that perception for many British soldiers, as the fighting here was particularly fierce.

There was one more battle left to fight before the war would end. A fresh Sikh army advanced on the exhausted British. The British won the battle when the Sikh commander interpreted the withdrawal of the cavalry as some form of deception. The First Sikh war to date had cost the British two thousand four hundred and fifteen men out of an army of around 18,000.¹⁵ The Sikhs retreated to their own territory but two weeks after the last battle ended, the Sikhs began raiding into Ludhiana. Once again British troops were dispatched to stop the Sikhs. The final battle occurred at Sobraon on February 10, 1846. The Sikhs had entrenched themselves on a bend of the river Sutlej. The battle began with a two hour-long artillery duel, but the British guns ran out of ammunition. So Gough launched his infantry in a frontal assault. The infantry charged, were repulsed, reformed and charged again. Eventually the Sikh artillery positions were taken, and then Gough released his cavalry. The Sikhs, with their back to the river, fought bravely and refused to surrender, but they were slaughtered. Estimates of Sikh casualties are around ten thousand; there is no accurate count since the British did not take one. British casualties were greater than any previous battle in the war, two thousand two hundred and eighty three men, including one major general, two brigadiers, and four colonels.

¹⁵ Byron Farwell Queen Victoria's Little Wars pg 44

That was it for the Sikhs; Gough marched on the capital of Lahore and ended the war. It took Gough just fifty-four days to defeat the Sikhs and the peace terms were heavily favorable for the British. The price in lives is generally not considered in the final analysis. There the Gough could have done better. Had he not attacked directly at the Sikhs entrenched positions not as many British soldiers would not have died.

Crimean War: 1854-55:

The British Empire dispatched five infantry divisions and a cavalry division to fight with French, Turkish, and Sardinian allies against the Russians. Equipped with the best arms the empire could buy with the best training possible, these troops were not veterans from India. Most of the troops had never seen a battlefield or fired their weapons while taking fire. The Crimean War would become one of the worst run campaigns in military history. The British army composed the best troops the empire had to offer, and some of the senior officers had served Wellington himself.

The British soldier carried the Brunswick percussion cap musket, which had been adopted by the army a few years earlier. The cavalry was still saved for massed charges, and the artillery was composed of smooth bore guns. Lieutenant General Lord Raglan, who had been at the Battle of Waterloo and who had never previously commanded troops in the field, commanded the army. This was an ominous beginning for the British army. The entire campaign centered around the port city of Sebastopol; every move the British and their allies undertook was made to take Sebastopol.

The wars in the east however had not influenced military doctrine. Lord Raglan had a very low opinion of any 'Sepoy'¹⁶ officers so there were very few experienced officers within Lord Raglan's staff or throughout the army. The army could have benefited from the lessons those officers had learned against the Sikhs, and Chinese, but unfortunately the army would have to make due with inexperience throughout the officer corp. Owing to this, Lord Raglan stayed true to the British mentality of driving straight up the middle.

When the British army landed, it began the long trek to Sebastopol. This was quickly reported to the Russian commander who moved his thirty-eight thousand troops to intercept them at a place called Alma.¹⁷ Thus the Battle of Alma was fought between the British, French and Turks, against the Russians on September 20, 1854. The battle quickly became a confused affair, with the British infantry advancing too quickly and having to stop and wait for the French to catch up. All the while, the infantry was under heavy bombardment from Russian artillery positioned on hills, which the British heaviest gun, the nine pound smooth bore cannon, was unable to target due to the range and elevation. Even though the French turned the Russian left flank, and the British Light division stormed the Russian Great Redoubt in a frontal assault, the Russians were able to remove all but one cannon before the British took the fortification.

The Russians counterattacked and retook the redoubt, driving off the British light division and checking the French and the British Highland and

¹⁶ 'Sepoy' Officer was a term used for any officers that had commanded or fought native troops.

¹⁷ Alan Palmer The Banner of Battle p 97

Guards divisions. The battle had now swung in favor of the Russians, but the British artillery on another part of the battlefield decided the Battle of Alma. Lord Ragland and his staff stumbled upon a promontory that overlooked the Great Redoubt and telegraph hill. A few members of Ragland's staff left and came back with a couple of nine pound guns but no artillerists to run them.¹⁸ The staff officers operated the guns themselves, until a full battery complete with crews was able to scale the heights and begin firing on Russian positions. It was this battery that scored a lucky hit on an ammunition wagon, which of course exploded and convinced the Russian commander to begin pulling back his troops.

The British and their allies did not follow up on the victory, and the Russian army escaped. After a few days, the allies began to march on Sebastopol and to set up a forward base at Balaclava. It was from this base that supplies and most importantly, siege guns were put ashore for the siege of Sebastopol. The siege guns the British used were mostly naval guns from the ships of the line¹⁹ offshore. All massive guns, the largest being sixty-eight pounders, these guns were supposed to reduce Sebastopol's defenses to dust. The siege was not a short affair, and the Russians were able to keep the British and their allies at bay with some effort.

With Sevastopol under siege, the Russian field army attempted to relieve the city by attacking British positions east of the harbor on October 25, 1854.

¹⁸ Alan Palmer [The Banner of Battle](#) p 101

¹⁹ Ship of the Line: term used to describe a battleship in the age of sail. British ships of the line had from sixty four to one hundred and twenty guns a side.

General Sir Colin Campbell commanded the British positions which, consisted of Turkish militia, Royal Marines, and the 93rd Highlanders. The Turkish militia fled before the Russian troops after a heroic defense, while the 93rd Highlanders made a stand against Russian cavalry. Unable to form square, the 93rd simply formed a two rank deep line, and stood back to back. The Russian cavalry was unable to drive past the 93rd, which gave Lord Raglan time to move his troops. The 1st and 4th divisions left their trenches and moved to the plain to protect Balaclava. At this point the Russian army, which had captured the redoubts the Turkish troops had been protecting, went on the defensive. The British heavy brigade of cavalry now charged, catching the Russian cavalry that were checked by the 93rd off guard. The British cavalry won the engagement but were too disorganized to pursue the fleeing Russians.

The battle then quieted and the Russians began to remove British naval guns that had been captured earlier in the day. Lord Raglan ordered the cavalry to try to recover the guns. The cavalry commander was not able to see the entire battlefield as Lord Raglan could so he did not follow the first order. So a second order was sent. However, the staff officer who delivered the order pointed towards Russian entrenched artillery batteries when asked where the guns were. The light brigade charged the Russian guns and managed to reach the Russian positions. The charge destroyed the battery but the light brigade suffered heavy casualties. The battle ended with the Russians holding the redoubts they had captured in the morning and achieving the weakening of the British siege lines around Sevastopol.

The last major battle to be fought in the war was the Battle of Inkerman. Victory in this particular battle did not rest with any great tactics or superior weapons, but rather on the fighting spirit of the common soldier. On November 5, the Russians launched an early morning assault. In all, sixty thousand Russian troops and two hundred and thirty four guns were involved in the assault.²⁰ The Russian plan was to attack British positions on Cossack Mountain and from Chorgun another hilltop, while the Sebastopol garrison occupied the British forward trenches. Unfortunately, the weather made the plan impossible to carry out from the beginning.

The British troops were taken by surprise at this early morning assault and the response to the attack was sluggish. A small part of General Sir George Brown's light division arrived as quickly as possible and engaged the Russian Ekaterinburgsky regiment. The British troops quickly fixed bayonets, charged, and checked the Ekaterinburgsky regiment in a general melee. The fog cleared some time later, and British sharpshooters quickly killed the Russian general leading the assault. The Russian regiment fell back, but counterattacks by small numbers of British troops would happen throughout the day.

The British brought up the guards²¹ regiments with the belief that they could stop the Russian troops. The guardsmen suffered heavy casualties from

²⁰ Alan Palmer The Banner of Battle p 151

²¹ The guard's regiments consisted of the Coldstream Guards, Grenadier Guards, Scots Guards, and Scot Fusiliers. The term 'guard' generally refers to the best troops an army has. This is true for the British army as well. The Guard Regiments are the best of the best, incredibly loyal, fierce fighters, with discipline and bravery that few soldiers ever show. When the British army wanted something accomplished at all cost the guardsmen usually got the job.

several charges, and the Duke of Cambridge was soon seeking reinforcements to hold back the Russian troops. A gap some seven hundred yards across had been created in the British lines near the Sandbag Battery²². The gap had to be filled but by whom? General Sir George Cathcart decided to accomplish this feat with six hundred men. General Cathcart made a terrible mistake, though his initial charge was very successful. He ordered the Scot Fusiliers to charge but Cathcart and his men were quickly surrounded because the Russian commanders had eight thousand men intent on punching through this gap.

The Grenadier Guards still held the Sandbag Battery, but they were desperately outnumbered. Victory seemed within the Russian armies hands, until two French regiments charged the leading Russian columns in the flank, forcing the Russians to break off the engagement against the Grenadier Guards. Still, the weight of numbers forced the French, and British troops around the Sandbag Battery back, and the Russians captured three guns. With that, the Russian troops hesitated long enough for two thousand French reinforcements to arrive and check the Russian assault. There would still be fighting as the Russians attempted to hold onto what they had captured, but ultimately, the allies retook all the ground the Russian had gained that day. The battle had lasted eight hours, with the British suffering two thousand five hundred men dead or

²² The Sandbag Battery was aptly named by the British because it was a fortified area consisting only of sandbags, that was about ten feet high, and able to hold two guns. It was also the scene of the fiercest hand-to-hand fighting seen in the entire war.

wounded. The Brigade of the Guards suffered very heavy casualties, with only two hundred men fit for duty out of one thousand three hundred men.

This battle made it clear that the Russians could not relieve the city, nor could the allies assault the city. Neither side had the numbers to accomplish their respective tasks. Sevastopol would hold out for many more months, but the Russian army never attempted to lift the siege around the city again. Sevastopol fell on September 9, 1855; the main objective of the Allies was accomplished. Fighting would continue till April 2, 1856, when news reached the Crimea that the Treaty of Paris had been signed.

This war was quite possibly the worst run campaign in British military history, and not one officer saw anything wrong with the tactics. After all, the British had won every battle that they fought with the Russians. Medical conditions did become a particular concern for the Queen Victoria after the war, which may explain why the British army attempted reform the medical services in the coming years.

The Sepoy Mutiny of 1857

In 1857, the sepoy troops in India mutinied over the use of new ammunition. With this new ammunition, a soldier had to tear the end of the cartridge for use. The new cartridges were supposed to be greased with mutton fat, but suppliers used either beef or pork grease to cut costs. While not of great importance to Europeans, to those of the Hindu or Muslim faiths, this posed a religious dilemma. Hindus will not eat the fat of a cow, and Muslims cannot eat the fat of the pig. The officers in India took immediate steps to placate the native

troops by removing the ammunition and instigating a new musket drill where the cartridge was ripped open with one's fingers. The measures were too little, and too late, to stop the mutiny of already disgruntled troops.

The technology used in the Sepoy Mutiny had vastly improved since the Crimean War. Instead of the Brunswick musket, the European troops used the newly issued Enfield rifle. The Enfield rifle had a rifled barrel instead of a smooth bore barrel and was a .557 caliber rifle. This meant that the Enfield rifle could fire farther than the firearms used by the mutineers.²³ The Enfield used the percussion cap system of setting for firing the weapon, which meant that the British troops' chance of a misfire was greatly reduced. To load the weapon, the paper cartridge still had to be torn open and the powder and bullet inside, along with the paper rammed down the barrel. The Enfield was also light, only weighing one hundred and thirty eight ounces. Combined with how easy it was to handle, the British soldier quickly became fond of the weapon.²⁴

In the matter of artillery, the British did not possess such an advantage. The mutineers often had larger cannons and more of them than the besieged British troops. The mutineers were also able to repair old cannons that were believed unusable by the British and use them to great effect. The British artillery had one advantage over the native artillery, as some of the British guns were rifled. Rifled artillery was a new weapon to the British army, and the rifled guns were small with three-pound guns being typical. These rifled cannons were able

²³ The mutineers were armed with the Brunswick musket, also a percussion capped weapon and many British regiments had not received their new weapons when the mutiny started.

²⁴ Graham Smith Military Small Arms p124

to deliver fire much more accurately than guns of the same size. British artillerymen were also better trained and possessed superior morale over their mutineer counterparts. British gunners did not abandon their guns, but instead if the guns could not be destroyed or removed, the gunners died at their positions attempting to save their guns

The native troops also had superior swords, called tulwars, in their possession. The tulwar was a razor sharp sword that without much effort could cleave a human skull or the breastplate worn by some native mutineers. British swords often bent when they hit a breastplate and could not maintain a cutting edge like the tulwar.²⁵ The tulwar sword caused the majority of melee wounds received by British soldiers during the conflict. Loyal native troops, most notably the Sikhs, carried the tulwar as well, using it to great effect against the mutineers.

The fighting during the mutiny centered around the cities of Delhi, Lucknow, and Cawnpore, this area being the location of the majority of Bengal troops who were the main instigators of the mutiny. The mutiny began on May 10, 1857, in Meerut and quickly spread from there. The siege of Cawnpore by the mutineers and what happened there would cause the British government to send overwhelming force to deal with the situation.

Cawnpore had very few European troops under the command of Brigadier General Sir Hugh Massy Wheeler. Wheeler's command of European troops consisted of about three hundred and fifty soldiers as well as a twenty-four pound

²⁵ Indian metallurgy was superior to that of the British practices of the time. British iron and steel at this time was considered of a poor quality.

howitzer, five nine pound guns, and three rifled three pound guns.²⁶ Opposing this small force were almost three thousand mutineers.²⁷ General Wheeler had not anticipated the mutineers to attack him at Cawnpore, but rather he expected the mutineers would march to Delhi. When the attack commenced on June 6, 1857, the British troops had not brought in much food, and the only water supply was a well that the mutineers were able to fire on with musket and canister shot.

Wheeler placed his artillery in exposed positions, since there had not been time to entrench the guns.²⁸ These positions were under fire all day from artillery, and at night the mutineers would attempt to get troops close enough to fire muskets into the positions. Due to this, the British had to sleep during the day and prepare for assaults at night. The British troops managed to hold out till June 26, when the mutineer's commander sent a party to discuss terms of surrender. The mutineers offered Wheeler very favorable terms, and it was decided to surrender on June 27, 1857.

The British dully marched out that morning and proceeded to boats that the mutineers had supplied to carry the British to Allahabad. The mutineers had tricked Wheeler though and as soon as the British troops and European civilians reached the boats, the mutineers opened fire at point blank range. Very few

²⁶ Byron Farwell Queen Victoria's Little Wars, pg 101, Thomson Captain Mowbray The Story of Cawnpore pp 63

²⁷ Byron Farwell Queen Victoria's Little Wars, pg 101

²⁸ There was no time since General Wheeler did not believe reports that the Sepoys were mutinying elsewhere.

soldiers survived the treachery and reached British lines. The mutineers took about one hundred and twenty five European women and children as hostages.²⁹

When a British relief column retook Cawnpore in July 1857, they found remains of all the hostages buried in the well. Upon knowledge of this massacre, the British troops under siege at Lucknow decided that there would be no surrender. One thousand seven hundred and twenty European and loyal sepoy troops defended Lucknow against thirty thousand mutineers.³⁰ The European troops defended the British Residency in Lucknow which they had stocked with food, thirty artillery pieces, and a plentiful supply of ammunition, after quickly building improvised fortifications. The defenders of the Residency were under continuous fire from the mutineers barely fifty yards away. The British tactics at this particular siege were not inventive; sorties were made to destroy houses opposite the defenses and do as much harm as possible, while still providing an adequate defense for the residency and awaiting rescue.

Brigadier General Henry Havelock led a rescue operation consisting of fewer than two thousand troops. Havelock first had to fight his way through Maharaja Dhoondoo Punth's force that had betrayed the garrison of Cawnpore. Punth's force was estimated around twelve thousand and they were strongly entrenched along the Grand Turk, Cawnpore road junction. Havelock studied the mutineer positions and launched a flank attack, as attacking the 'front' would be devastating to Havelock's small force. The British skirmishers were able to keep

²⁹ Byron Farwell, Queen Victoria's Little Wars, pg 101

³⁰ D.A. Kinsley, They fight like devils p 21, the British defenders were eventually reduced to around 980 men.

the mutineer cavalry at bay, at a range of a thousand yards with the Enfield rifle, while the British artillery attempted to take out the four twenty-four pound guns that protected the weak point in the mutineer lines.

The British guns were too small to accomplish this task so an infantry attack was ordered to take the guns. The 78th Highlanders led this infantry assault and their, bagpipe music apparently terrified the mutineers. The assault succeeded and the guns were taken.³¹ The next obstacle was a fortified village that the 78th Highlanders captured in a bayonet charge.³² The flank attack wore on and the mutineers were defeated, with the British suffering one hundred and fifty dead or wounded, while the mutineers lost around two hundred and fifty men, with the number wounded unknown, and twenty-four guns were taken.³³

Havelock drove towards Lucknow but was stopped due to casualties, mostly from disease, until reinforcements could be sent to him. When General Havelock received the reinforcements, for which he was waiting, Havelock fought his way into the Residency in Lucknow on September 26, 1847.³⁴ The Residency's occupants were not saved; they were merely reinforced, by the arrival of Havelock's troops.

The reinforcements allowed the besieged British troops to strengthen and extend their defensive lines. Certain problems were created by the arrival of

³¹ The regiment in question was the 78th Highlanders; also known as the Queens Own Highlanders. The mutineers mistook the kilts worn by the 78th for petticoats and thought the regiment was composed of eunuchs.

³² D.A. Kinsley. They fight like devils p39

³³ D.A. Kinsley. They fight like devils p 43

General Havelock's troops. The most critical of these problems was food for the besieged Europeans. General Havelock had brought troops, artillery and ammunition, but little food, and Lucknow's defenders were running low on food after eighty-seven days.

The British artillery was still found wanting during the siege. There were not enough heavy guns to silence enemy batteries, which were maintained at some distance to take advantage of the British lack of heavy guns. General Havelock had left behind all the heavy guns his army had captured, so his advance could move more quickly. To bring some relief from the mutineers' artillery, raids were stepped up against the enemy artillery positions. These raids did destroy several enemy guns.

The Residency garrison had to wait until Lieutenant General Sir Colin Campbell arrived with a second relief force before they could evacuate Lucknow. After evacuating the Lucknow garrison and all European noncombatants, Campbell withdrew to prepare a force sufficient enough to retake Lucknow. General Campbell gathered a force of thirty one thousand Indo-European troops and one hundred and sixty-four guns to face one hundred and thirty thousand rebel troops and sixty four guns garrisoned within the most fortified city in India.³⁵ To accomplish the task of capturing Lucknow, Campbell divided his forces in half and attacked in a pincer movement, attacking the flanking defenses of the city while not allowing the rebels to outmaneuver him. The battle for the city began

³⁴ D.A. Kinsley, They fight like devils p 43

³⁵ D.A. Kinsley, They Fight Like Devils p 214

on March 6, 1858, and ended on March 16, 1858.³⁶ Campbell moved very methodically during the attack so that casualties on the British side would not be very heavy. When the rebels abandoned Lucknow, the Indian mutiny was for the most part over. With the end of the rebellion in India, the British Army turned to fighting in the Orient. The most notable conflict was the Third China war of 1860. There was a great innovation in technology for this war, as it was the first time that the British Army used breech loading rifled artillery pieces.³⁷ Later politicians decided that the breechloaders were too expensive to make so they discontinued production of these fine weapons.

Weapons technology continued to improve during the late 1850s and early 1860s, especially within the United States. The British government watched the innovations that occurred before and during the American Civil War with great interest. The breech loading rifle and the machine gun were introduced during this time. The first breech loading weapons were introduced as experimental weapons in 1857 to the cavalry. There were four types of these breech-loading carbines being experimented with. Two of these were British, the Terry carbine and the Westley Richards, and two were American designs, the Sharps, and Greene carbines.

The Sharps carbine, which was a percussion cap firearm, had an easily operated loading mechanism. The trigger guard was pushed down which

³⁶ D.A. Kinsley, They Fight Like Devils p 214: The battle for the city of Lucknow lasted till March 16, 1858.

³⁷ Byron Farwell, Queen Victoria's Little Wars p 141 These guns were named Armstrong guns after their creator, and received high marks from officers in the field.

opened the breech, then a paper cartridge was inserted into the chamber, and the breech was closed by pushing up on the trigger guard, which tore open the cartridge at one end.³⁸ Once fired, there was nothing to remove as the paper and powder had been burned away but residue would build up after prolonged firing of the weapon, sometimes causing the weapon to jam. This mechanism allowed a fast rate of fire. The Greene carbine used a fixed breech, with the barrel rotating and moving forward for loading.³⁹ It was not a popular weapon and was never even issued to troops.

The Westley Richards capping breech-loading carbine had a complicated loading mechanism. The breech was opened and closed by a hinged long arm. Raising the arm vertically opened the breech and moved a plunger with a breech plug attached to the front. The army Westley Richards for cavalry use in 1861.⁴⁰ While this armed the cavalry with breech loading weapons the infantry still fought with muzzle loading rifles. After the Prussian wars with Denmark and Austria in the middle of the 1860s, during which the Prussians used the bolt-action needle gun it was apparent to the British Army that the muzzleloader was obsolete.

A committee was formed to study designs for equipping the entire army with breech-loaders.⁴¹ The committee approved the Snider rifle for one important reason, the army's current Enfield rifles could be converted to the breech loading system at little cost. The Snider-Enfield was used until the adaptation of a true

³⁸ Ivan Hogg, Weapons of the Civil War p 13

³⁹ H.C.B. Rogers Weapons of the British Soldier p236

⁴⁰ H.C.B. Rogers Weapons of the British Soldier p 237

breech-loading rifle in 1871. The rifle selected was the Martini-Henry rifle, which sported a lever that when pushed down opened the breech, ejected the spent cartridge, and a new cartridge was inserted by hand. The major flaw of the Martini-Henry rifle was that it was not equipped with a magazine. Against a numerically superior enemy this could become a fatal flaw for the troops carrying the Martini-Henry. The Martini-Henry rifle also had the tendency to overheat which fouled the gun, making it useless for firing.

⁴¹ The committee looked for a system that could convert all the existing Enfield rifles to breechloaders thus saving the government money.

CHAPTER 4 THE WARS IN AFRICA

The wars that took place in Africa are of particular interest for several reasons. First of all, there is the change in weapons technology. The British begin the fighting in Africa using single shot breech loading weapons and by the end are using magazine feed rifles and water-cooled machine guns. Second, there is the challenge that each opponent gave the British, even though for the most part the British had an overwhelming technological superiority. Third there is what the British Army learns from each experience and how it applies this knowledge to each subsequent war.

The Zulu War:

The British army had a tremendous technological advantage over the Zulus during the Zulu War of 1879. Armed with the Martini Henry breech-loading rifle, the typical British infantryman was more than a match for a Zulu warrior with his spear and shield. The British army also had cannons and a new weapon that had only been used in combat on a limited, the Gatling gun. The Gatling gun was an early form of a machine gun developed in the United States during the American Civil War. Though it would see combat during that conflict it was not used on a grand scale, the Gatling gun was a leap ahead in weapon technology.⁴² The Gatling gun, designed by Richard J Gatling, consisted of six barrels that were turned with a hand crank with the rotation allowing the barrel to

⁴² Dick, Nolan. Benjamin Franklin Bulter The Damnedest Yankee p. 280

cool when it was not being fired.⁴³ The weapon used metallic cartridges; a helical cam drove the bolts forward when the barrel reached the top position. As a barrel moved to the six o'clock position, the firing pin was cocked and the bolt closed, preparing it for firing. After firing, the spent cartridge was ejected and the barrel was ready to be reloaded.⁴⁴

With such weapons the British could not believe they could lose a battle to the Zulus, but British tactics led to one of the worst defeats ever suffered by the British army. General Lord Frederick Augustus Thesiger Chelmsford commanded the British army that invaded Zululand. Chelmsford divided his force into three columns for the invasion. The right flank column, commanded by Colonel Charles Knight Pearson consisted of the second battalion, 3rd regiment of foot, and six companies of the 99th regiment of the foot. These troops were the backbone of the column. The right column also had two seven-pound cannons, engineers, mounted infantry and two battalions of native infantry. Chelmsford commanded the center column, consisting of two battalions of the 20th regiment of the foot, six artillery pieces, mounted infantry, engineers, and two battalions of native infantry, for a total strength of 4,709 men. The left column, commanded by Colonel Evelyn Wood, VC, consisted of the 90th regiment of the foot and a battalion of the 13th regiment of the foot, six cannons, and cavalry for a total force of 2,278 men.

⁴³ Ivan, Hogg Weapons of the Civil War p. 53

⁴⁴ Ivan Hogg Weapons of the Civil War p 53-55, Fast firing weapons such as the Gatling gun have the flaw of overheating on the rotating barrel system solved that problem. The Gatling gun could fire up to 800 rounds a minute.

The invasion occurred on January 11, 1879, with British troops crossing the border into Zululand. The Zulus could oppose the British forces with 50,000 warriors, armed with a short stabbing spear called the iKlwa and a large ox hide shield. These warriors ran barefooted and could cover fifty miles a day, which was much farther than British Imperial troops could travel.⁴⁵ The Zulus wanted peace and marched to meet the British army very slowly, hoping that the British would leave Zulu territory.

The center column had marched to a place called Isandhlwana, where on January 21, 1879, it made camp. Chelmsford made the decision not to laager the camp.⁴⁶ This decision went against the advice of the Boer advisors that accompanied the center column; it would prove to be a fatal decision for many of the general's men. On January 22, 1879, a force of 20,000 Zulu warriors attacked the British camp at Isandhlwana. Chelmsford had taken half his force from the camp marching to support some of his native troops that he had detached the previous day. Lieutenant Colonel Anthony W. Dunford had ridden into the camp and as the senior ranking officer had taken command. Dunford received a report that Zulus had been seen marching against Chelmsford's flank. In fact, this was the left horn of the Zulu army beginning to encircle the British troops.⁴⁷ Dunford marched out of camp with his native troops to support

⁴⁵ David, Clammer *The Zulu War* p 20-21

⁴⁶ Laagering the camp was simply circling the supply wagons and creating a fortified camp of sorts.

⁴⁷ The Zulus standard tactic was to have a diversionary force known as the chest attack the enemy from the front while two horns flanked the enemy formation and cut off any escape route. Only a laager could protect against this form of attack. Since there were no flanks to turn, the Zulu forces would not be able to attack their enemies from the rear and flanks

Chelmsford while Brevet Lieutenant Colonel Henry B. Pulleine stayed to defend the camp with the first battalion of the 24th regiment of the foot. When the Zulu 'chest' came into sight, Pulleine still had time to form a tight defensive position within the camp. The Colonel marched towards the Zulus instead, leaving a gap between his line and that of Colonel Dunford. The Zulus advanced and began firing some rifles at the British troops who quickly returned fire. The Zulu fire was for the most part ineffective while the British fire was devastating. So devastating was the British fire that the frontal attack by the Zulus stopped, and the British ceased fire. Then, after about fifteen minutes had passed, the Zulu horns attacked the undefended camp. Dunford's native troops were now running low on ammunition, and the British quartermasters would not re-supply them on the grounds that the ammunition belonged to the 24th Regiment. The Natal natives wavered and broke as the Zulus charged. The British officers of the 24th Regiment sounded the retreat, but it was too late. The Royal Artillery crews attempted to save their two cannons and managed to retreat past the camp, where they encountered more Zulus and died defending their guns. The British regulars fought to the last but of the British officers and enlisted personnel that began the battle, 858 died, along with an estimated 500 native troops. What exactly happened after the Zulus got within the camp is not known, as no one who did not try to escape as soon as it happened was left alive to relate their tale.

A day later, at a mission known as Rorke's Drift another battle was fought. This time the battle was between 4,000 Zulus and 104 effective British soldiers and officers, with the British troops deployed in a defensive position.⁴⁸ The commanding officer of the troops at Rorke's Drift was not Lieutenant Gonville Bromhead who was in command of the detachment of regulars left at the mission, but rather Lieutenant John R. M. Chard of the Royal Engineers who was senior to Bromhead. That being the case, upon learning that the Zulus were on their way and what had happened to the central column Lieutenant Chard began to fortify the camp.⁴⁹ The defenses went up as quickly as possible and though mistakes were made, Rorke's Drift became a virtual fortress.⁵⁰ Sometime after 5:00 p.m. on January 21, 1879, the Zulus attacked Rorke's Drift.

The Zulus had surrounded the mission and outnumbered the British nearly forty to one. The Zulu tactic was simply to charge the British time and again while those few Zulus who had rifles fired on the British from the Oscarberg

⁴⁸ David Clammer The Zulu War Appendix E p 225

⁴⁹ At this point Lt. Chard and Lt. Bromhead had discussed abandoning the mission and attempting to escape the Zulu attack with the number of sick and wounded as well as necessary supplies that would have had to be taken with them. Both Lt. Chard and Lt. Bromhead with a little help from the sergeant major in the camp realized that it was not possible to out run the Zulu troops and that the British would have to make a stand within the mission. There is evidence that the defense was not organized by the two officers at all but by Commissary Officer James Dalton, the before mentioned sergeant major.

⁵⁰ Most notably the water wagon was apparently left outside of the defensive perimeter and that night the British had to retrieve it with a bayonet charge.

heights. The Zulus numbers began to overwhelm the British who had to fall back to the interior defensive line, and then the hospital was lost. The hospital caught fire, illuminating the area, and giving a significant advantage to the British. The Zulu warriors stopped attacking sometime after 2:00 a.m., but when day broke, the British soldiers saw just how many Zulu warriors were opposing them.⁵¹ The battle ended in the morning with General Chelmsford arriving with the survivors of the central column. It is estimated that the British within Rorke's Drift fired twenty thousand rounds of ammunition, and for the many acts of heroism eleven Victoria Crosses were awarded for this one battle alone.

When news reached England about the disaster at Isandlwana and the amazing victory at Rorke's Drift, the British government responded with typical Victorian manners. It sent overwhelming reinforcements to Chelmsford, while Lt. Chard, and Lt. Bromhead became national heroes.⁵² Chelmsford fortified Rorke's Drift, Colonel Pearson entrenched himself at Eshowe, and Colonel Wood laagered his troops where they were.

General Chelmsford began to build up supplies and troops for his next push in Zululand proper, while Colonels Pearson and Wood were continuing to be a thorn in the Zulus sides. The first move by the Zulus did not come until late

⁵¹ At day break the surviving Zulu warriors stood up out of rifle range showing the British their true numbers. Most of the British troops thought that they were done for but the Zulus simply turned and walked away. They left an estimated 1,000 dead warriors on the field; no official count was ever taken, while the British only suffered fifteen dead with almost the entire force having some form of a wound.

⁵² Queen Victoria promoted them by royal decree two full grades, so they both became Majors within the army. The overwhelming reinforcements amounted to 10,500 men, which included three batteries of artillery, two cavalry regiments and six battalions of British regulars.

March, and it came against Wood. The Zulus had roughly the same numbers they did at Isandlwana, however, they were now armed with close to one thousand Martini-Henry rifles and carried plenty of ammunition. The newly promoted Brigadier General Wood attacked a Zulu chief at Hlobane on March 29, 1879, under orders from Chelmsford, but the attack did not go well. To make matters worse, the Zulu army that King Cetshwayo had sent out to attack Wood arrived during Wood's attack on Hlobane. Seeing that his way back to his fortified base was about to be cut off, Wood ordered a withdrawal. It became a race to see who was faster, the Zulu army or the British raiding force. Most of Wood's force made it back to the fortified camp at Kambula.

Woods' camp was situated upon a ridge top. There were four fortified positions. The main camp was almost two hundred yards across, the secondary camp was close to forty yards across, and between these positions was an entrenched battery of artillery. A large cattle kraal was in close proximity to the artillery position.⁵³ Wood had under his command two thousand and eighty six men. The attack from the main Zulu army came on March 30, 1879, around 12:45 p.m. The Zulus quickly surrounded the British camp on three sides, setting up a deadly crossfire. The British troops positioned within the cattle kraal were taking heavy losses and began to withdraw, when Wood ordered a bayonet charge. Many of the British soldiers who charged were shot, but they drove off

⁵³ Each area consisted of chained heavy wagons, earthen walls, trenches, and wooden palisades.

the Zulus for a short time.⁵⁴ Still the Zulus took the cattle kraal, but when two British companies charged them, the Zulu broke and ran. The fighting had lasted over four hours before the British horsemen charged and the Zulus were driven off.⁵⁵

The next battle against the Zulu army, at a place called Gingindhlovu, was fought by Chelmsford's force of five thousand six hundred and seventy on its way to relieve Pearson at Eshowe facing a Zulu army of ten thousand.⁵⁶ This was the first battle in the campaign when Gatling guns would be used. On April 1, the Zulu commander ordered an attack on the fortified British camp. The Zulus charged, and when they were within three hundred yards, the British camp opened fire.⁵⁷ Only a handful of Zulus got within twenty yards of the British camp, and only a ten-year-old boy managed to get within the laager. After an hour and twenty minutes of fighting, the Zulus were routed.⁵⁸ Chelmsford relieved the force at Eshowe and escorted them back to Natal. With the end of that battle there remained but one objective, the Zulu capital of Ulundi. The Battle of Ulundi differed from other battles fought in the Zulu war in two ways. The first was that the British revisited an old tactic, the square, and secondly the battle was fought in the open. It would take months for the last battle to be fought as Chelmsford built up troops and supplies. The British Parliament grew

⁵⁴ At this point Brigadier General Wood believed that had the Zulus charged from all three sides the British would have been overrun.

⁵⁵ Robert, Edgerton, Like Lions They Fought p128

⁵⁶ Robert, Edgerton Like Lions They Fought p 131

⁵⁷ The majority of the British regulars were newly recruited troops who had never seen battle before. Due to this fact, many of them forgot to lower their sights, which were set for 1,000 yards.

⁵⁸ Robert, Edgerton Like Lions They Fought p 134

impatient with General Chelmsford's delays and so replaced him with General Sir Garnet Wolseley, but Chelmsford decided to attack the Zulu capital before General Wolseley could arrive from England to take command.⁵⁹

Chelmsford divided his force into three columns of advance and proceeded to the capital city of Ulundi with the intention of fighting a large battle in the open to restore his reputation. The force that Chelmsford personally led consisted of five thousand three hundred and seventeen soldiers, twelve cannons, and two Gatling guns. The British troops formed into a massive square in the morning and marched to a spot that General Chelmsford had chosen. The Zulu army, which numbered 20,000, was very confident that they could defeat the British in the open.⁶⁰ This was wishful thinking for the Zulus. The British square was not broken, and at the right moment General Chelmsford loosed his lancers upon the retreating Zulus, thereby completing his victory. The city of Ulundi was burned to the ground; the Zulu army had been destroyed and would never again reassemble. The war was over.

The British Army should have learned an important lesson during this war about the benefits of defensive firepower. At the Battle of Rorke's Drift, the fortifications that the British had hastily made allowed the one hundred fit soldiers to hold off the much larger Zulu force. In every battle after Rorke's Drift, the British fixed defensive positions and along with rapid firing weapons, they stopped the Zulu forces from overrunning the British defenses. The lesson was

⁵⁹ General Wolseley would eventually rise to the rank of Field Marshall and Commander in Chief of the British Army.

⁶⁰ Robert Edgerton Like Lions They Fought p 151

not learned though because the Zulus were so technologically inferior the British did not consider the devastation that could be wrought on their own troops if they attacked defensive positions of a well-equipped enemy. The fighting in Africa was far from over, and the next opponents that the British would fight were Europeans who did not fight in a conventional way but with guerrilla tactics.

The South African War

The South African War was both short and humiliating for the British Army. The enemy this time, the Boers, were of European descent and though they were inadequately equipped with Westly-Ricard rifles and had no artillery, they fought in a much different way than the British did. They fought a guerrilla war. Except for surrounding isolated British outposts, the Boers would make hit and run attacks against British relief columns. The British commanders were unable to adjust to these tactics.

The South African war began on December 16, 1880, and ended on March 22, 1881. The Boers began the conflict by surrounding British forts. Then using their best troops, they took up a defensive position along the route the British would have to take to relieve the besieged outposts. The first action came about on December 20, 1880, at a place called Bronkhorstpruit.⁶¹ The British forces numbered 263 officers and soldiers while the Boers had nearly 1,000 men. The Boers, who were well concealed, ambushed the British; the action lasted only half an hour and was a massacre.

⁶¹ Brian Bond, Victorian Military Campaigns p210

By January, the Boers had given the initiative to the British and only reacted to British advances. General George Pomeroy-Colley, the commander-in-chief of British forces in Transvaal, began to gather a force to relieve the surrounded British outposts. In January, Colley gathered around 1,000 men and marched to Laing's Nek where approximately 2,000 Boers troops were strongly positioned. On January 28, 1880, Colley attacked a weak point in the Boer line which allowed him to outflank the rest of the defenses the Boers had created. The plan of attack was simple. Colley's artillery would pin down the majority of the Boers, while his infantry and cavalry attacked a lightly defended spur. The cavalry attacked too soon and was halted by very accurate rifle fire, and when the British infantry reached the top of their assigned slope, they were not only attacked from the front but on their unguarded flank as well. The attack failed miserably and Colley retired to his camp at Mount Prospect only a few miles away to await reinforcements. The final battle of the war took place on February 27, 1881, on the summit of Majuba. The British had scaled the slope of Majuba during the night with only three companies of soldiers, which consisted of only 350 men, no artillery, and no cavalry.⁶² The Boers, upon learning that the summit was so lightly defended, immediately called for volunteers to storm the position. Around 180 marksmen, climbed up the slope while the rest of the Boer troops provided covering fire. The covering fire was so intense and the cover at the top of Majuba so sparse that the British troops holding the summit were

⁶² Brian, Bond Victorian Military Campaigns p 225

forced to keep their heads down while the Boer storming party came within of few yards of the summit.

The sudden appearance of Boers on the summit took the British by surprise, and with no defenses prepared inside the rim, the British were lost. Colley, who had personally led the troops, was killed along with ninety-two others.⁶³ This defeat convinced the British government to teach the Boers a lesson, and it sent vast reinforcements to Transvaal. Before these forces could arrive, however, an armistice was signed and the war ended.

The Boers had defeated the most powerful military in the world, and they had done so on their terms. The British had failed to adjust their tactics to the Boers' way of war, which was to attack British supply and communication lines with hit and run tactics while maintaining a large defensively deployed body of troops between the British supply bases and the besieged outposts. Such tactics went completely against how the British were trained to fight, and these tactics would give the British problems again in 1899 when they fought the Boers for a second time. The next time British troops would fight and die in Africa, it would be in Egypt and not South Africa.

The Egyptian campaign of 1882

The war with Egypt in 1882 came about because of the threat that the British Empire would lose control of the Suez Canal. General Sir Garnet Wolesely was placed in command of an expedition of 16,416 men to put down a

⁶³ Brian Bond Victorian Military Campaigns p 229

nationalist movement that threatened the security of the Suez Canal. Wolseley had complete autonomy to plan the military campaign.

The British troops were still armed with the Martini-Henry rifle. The army also carried Gatling guns and breech-loading artillery. The only major battle was fought at Tel-el-Kebir, where the Egyptians were making a stand. The Egyptian forces numbered around 25,000 troops, and they had seventy artillery pieces including breech-loading Krupp guns.⁶⁴ Wolseley made a careful reconnaissance of the fortifications and discovered that at the fortifications were not defended during the night. Wolseley decided that a night march was in order so that the army could attack in the early morning before the Egyptians could prepare for the attack.

Wolseley deployed his troops with his British infantry in front of the defenses, the cavalry on the right flank and the Indian troops on the left flank.⁶⁵ By dawn on September 13, 1882, the Highland Brigade had marched within a few hundred yards of the fortifications before Egyptian sentries spotted them and fired a few warning shots. The Highlanders charged the defenses, encountering the best Egyptian troops, and a fierce melee began. The Highlanders were at first unsupported as they had advanced faster than the rest of the troops, and they were thrown back for a time. The second line was brought forward though and the Highlanders, now supported by artillery fire, broke through the Egyptian

⁶⁴ Byron, Farwell Queen Victoria's Little Wars p 266

⁶⁵ The Indian troops still carried the Snider-Enfield rifle. This was a repercussion of the Sepoy Mutiny in the 1850s, the British government had decided that never again would the Sepoys have the technological equivalent of the British regulars.

defenses.⁶⁶ The British cavalry by this time, had worked their way around the city, and when the Egyptian army attempted to escape, the cavalry either captured them or ran them down.

The entire campaign took about two months to accomplish, and now the British Empire controlled Egypt. Wolesely did not use any new tactics when he launched his assault at Tel-el-Kebir. However, he did march his troops into battle at night so that he could launch a dawn assault. This was due to the fact that Wolesely believed that launching a frontal assault during the day would be very costly. This night march was not a new idea, but the British military establishment did not often use such actions.

War in the Sudan:

When Great Britain finally dispatched troops to deal with Mohammed Ahmad ibn al-Sayyid Abdullah, who called himself the Mahdi or proclaimed one, many Sudanese tribes had revolted against the Egyptians. The British army had changed very little from either the Zulu War or the conflict in Egypt. The infantry was still armed with the Martini-Henry rifle though the faults of the rifle had been noted during the Zulu War. This new war caused the British Army to start looking for a new rifle.

The artillery that the army used was by now outdated when compared to Britain's European rivals who had switched to breech-loaders long ago. Britain now decided that rifled muzzle loading artillery was no longer useful and a search

⁶⁶ Byron, Farwell Queen Victoria's Little Wars p 267

for rifled breech loading artillery was started. By 1885, the Royal Artillery and the Royal Horse Artillery had been issued new 12 pound breech-loaders that were able to hit targets 5,000 yards away.⁶⁷ British tactics for this conflict were also changed from the norm. The British fought this war in squares and not in the famous 'thin red line'.

The squares offered a variety of advantages over line formation against the vast numbers that the Mahdi could muster. A major advantage of the square was that it has no flanks that can be turned, so the British soldiers did not have to worry about being attacked from behind. Another advantage of the square was that it allowed the infantry to better protect any Gatling guns that were attached to the unit. Since Gatling guns had the tendency to jam and the chances of these weapons jamming increased due to the sand and heat of the Sudan, the square allowed the infantry soldiers to fight off any natives while the Gatling crews cleared the weapon. The practice worked as long as the troops held fast and did not allow any gaps to be created. The British government placed Wolesely in command of the expedition.

Wolesely's command was to relieve Charles 'Chinese' Gordon at Khartoum in August, 1884.⁶⁸ Wolesely recieved ample troops to accomplish the task, and he proceeded up the Nile River with his entire force in October 1884. It had taken a month to assemble the troops, supplies, and transports. The

⁶⁷ Ian, Knight Go to Your God Like a Soldier p165

⁶⁸ Charles Gordon had been sent to the city of Khartoum as a special representative of the British Parliament. Gordon refused to abandon Khartoum to the Mahdi. The British public demanded that Gordon be saved and this lead to the use of British troops even though the Parliament did not wish to send and troops.

progress towards Khartoum was very slow, and by January 1885, the British were still two hundred miles from Khartoum.⁶⁹ Wolesely decided to dispatch 1800 men under the command Brigadier-General Donald Stewart in an effort to reach Khartoum before the Madhi's forces overwhelmed the defenders. On January 17, 1885, Stewart's force was nearing the well at Abu Klea when Mahdist forces attacked. The British force had been marching in two large square formations, and when the Mahdist forces attacked, both forces opened fire with their rifles and Gatling guns. The day's march had disrupted the first square and the rear of the square had lagged behind. The Mahdist veered towards the left rear of that square and overwhelmed the Gatling gun crew and fought their way inside. The baggage animals stopped the Mahdist troops long enough to give the front face of the square the time to have the second line about face and fire into the Mahdists, soon driving them off.

Disaster was barely avoided, and the column continued on the next day. From then on, the column suffered from continued sniping by the enemy and Stewart was mortally wounded by such an occurrence. Command of the column passed to Sir Charles Wilson who continued to Metemmeh where the Mahdist forces were gathering.⁷⁰ On January 19, 1885, Wilson fought a battle at Abu Kru, marching out in square, and supported by troops left in a protected zareba, his

⁶⁹ Ian Knight Go to Your God Like a Soldier p 105

⁷⁰ Metemmeh is located close to the Nile River and is on the way to Khartoum.

column met a force of Mahdist troops. The Mahdists charged the square on three sides but were not able to close within fifty yards of the square.⁷¹

The battle won, Wilson marched to the Nile where four armored steamers were waiting to transport his force the rest of the way to Khartoum.⁷² Wilson rested his force for one day and then proceeded up the Nile. The journey took three days, but by the time the British, arrived Khartoum had already been overrun by the Mahdi two days before, Gordon had been killed, and the relief expedition was a complete failure. The British government decided to withdraw, even though the British public demanded that Gordon's death be avenged.

The British did not get involved with the Sudan again until 1896, when the Egyptian Army was ordered to occupy a northern Sudanese province. Under the command of General Sir Herbert Kitchener, the Egyptian troops did just that, but it was decided that Kitchener would need British regulars to confront the Khalifa in 1897.⁷³ The British Army had some new weapons at its disposal for this conflict. The most revolutionary of these weapons, the Maxim machine gun, was invented in 1891 by Hiram Maxim. This machine gun had only one barrel and was water-cooled, belt fed ammunition, and fired by depressing the trigger. The recoil of the Maxim ejected spent casings and loaded a new bullet into the breech. The Maxim could fire at a rate of 600 rounds a minute out to 2,000 yards.⁷⁴

⁷¹ The square maintained cohesion during the entire engagement and with well directed rifle fire and shellfire from the troops in the zareba the Madists were thrown back.

⁷² Ian, Knight Go to Your God Like a Soldier p 106

⁷³ The Khalifa was the successor of the Mahdi and had set up an Islamic state in the Sudan.

⁷⁴ Ian, Knight Go to Your God Like a Soldier p 171

The British Army had by now also abandoned the Martini-Henry Rifle and gone through several magazine feed rifles. The current rifle the British used was the Lee-Enfield rifle. The .303 caliber Lee-Enfield had a ten shot capacity, a bolt action, and its cartridges were smokeless. Since the Lee-Enfield used smokeless cartridges the British soldiers could fire at the enemy without leaving a visible sign of their locations.

These new weapons would prove to be a tremendous advantage during the conquest of the Sudan. Kitchener built up supplies and then advanced on the Atbara River, with a powerful force consisting of 14,000 men, twelve machine guns, and twenty-four cannons.⁷⁵ The Khalifa had sent a force of 12,000 Mahdists under the command of Mahmud wad Ahmad. Ahmad had entrenched his force on the Atbara River. On April 8, 1898, Kitchener attacked the entrenched Mahdists, starting with an artillery barrage. The artillery shelled the Mahdists for several hours after which Kitchener sent in the infantry in line. The Mahdist troops fought fiercely, but they were forced to retreat leaving 3,000 dead troops behind them.⁷⁶ Kitchener did not continue his advance until August, marching for the Omdurman and reaching the city in about a month.

The Khalifa let Kitchener advance unmolested as he gathered his army of 40,000 men at Omdurman. British gunboats had sailed up the Nile and reached the city of Omdurman just before Kitchener's army did and the gunboats protected the British army's rear. Kitchener formed his troops into a large half

⁷⁵ Knight, Ian Go to Your God Like a Soldier p 109

⁷⁶ Knight Ian, Go to Your God Like a Soldier p 109

circle around Omdurman and then waited for the Khalifa to attack him. The Dervish army launched their attack by day instead of at night when they would have had an advantage. The Dervishes made their main assault out in the open straight at the British lines. Machine gun, rifle, and artillery fire annihilated an estimated 10,000 Dervishes, and none of them closed to a range greater than 500 yards.⁷⁷ The Dervish cavalry, which was opposite the British right flank, was led away by the British cavalry, until it was right under the guns of the steamers posted on the river. Once the Dervish infantry had been slaughtered in the initial attack Kitchener ordered the advance on Omdurman. By doing so, the British army marched along the front of the main Dervish army, which had not attacked. Kitchener had exposed the army's entire flank to the enemy. Colonel Hector Macdonald saved the day when his brigade consisting of Egyptian and Sudanese troops, turned to face the 20,000 Dervishes charging him led by the Khalifa's brother.

Colonel Macdonald's brigade bravely faced the horde of Dervishes that attacked them and held them off till Kitchener could form the army back into fighting formations to support Macdonald.⁷⁸ The Khalifa was defeated and the war ended. Gordon had been avenged, and Egypt was safe. No lessons were learned though. The firepower of the Maxim machine gun had killed thousands of Dervishes as they attacked across open ground. The idea that European infantry would succeed in such an attack because they had better discipline and morale

⁷⁷ Farwell Byron Queen Victoria's Little Wars p 336

⁷⁸ At the end of the day, Macdonald's brigade had about two rounds of ammunition per man.

was a major belief held by the British high command.⁷⁹ This belief still held true when the British Army fought the Boers in the 1899-1902 Boer War.

The Boer War 1899-1902:

The Boer War was different from all the other wars that Britain had fought during Queen Victoria's reign for several reasons. First, it lasted longer than any of the previous conflicts of Victoria's reign. Second, it involved large armies including many volunteers who were ill trained. Britain was ill prepared for the conflict with only 14,750 regulars were stationed in South Africa when the war started on October 11, 1899.⁸⁰ An army of 47,000 men under the command of General Sir Redvers Buller, VC, was on the way but those troops would not arrive until after the conflict started.⁸¹

The Boers were a well-equipped fighting force though there was no regular army. The primary weapon of the Boers was the 1896 pattern Mauser rifle. They also had modern Krupp artillery pieces and Maxim machine guns. Combining these weapons with knowledge of the terrain and an unconventional style of warfare meant that the Boers would have a major advantage in fighting the British.

The British, on the other hand, had the Lee-Enfield Mark I rifle which Kitchener's army had just used in the Sudan. Even though the artillery had modern breech loading guns, a major flaw was that the Royal Artillery still fought

⁷⁹ Racism was also a major factor in this idea. The British officer corps believing that whites just made better soldiers can also be factored into the equation. WWI would show that charging straight at entrenched machine gun nests it did not matter which ethnic background troops came from, no army could charge machine guns in such a manner without suffering massive casualties.

⁸⁰Byron Farwell Queen Victoria's Little Wars p 340

as it had during the Napoleonic wars. This meant that it used direct fire the majority of the time. There was no reliable way of firing artillery indirectly which was not a problem when fighting opponents primarily armed with spears, but against the Boers who had modern rifles, the artillerists were exposed to accurate rifle fire. The British also suffered from a lack of mobility. Since early in the war, the Boers shelled the railroads, the infantry was forced to march on foot. Although cavalry and mounted infantry were present, they were not used effectively until after several military disasters had occurred.

The Boers began the war by invading Natal, and the first battle was joined on October 20, 1899, at the town of Dundee by Talana Hill. The British had camped in the valley and had left Talana Hill and nearby Mount Impati unoccupied. The British troops consisted of 4,000 British regulars including eighteen cannons and were commanded by Major General Sir William Penn Symons, awoke on October 20 to discover Boers on Talan Hill with three field guns.⁸² The Boers opened fire at 5:40 a.m., and the British artillery responded quickly with all three batteries firing by 6:30 a.m., and by 6:40 had silenced the Boer guns.⁸³ Symons decided to attack the entrenched Boers on Talana Hill with his artillery, infantry and cavalry.⁸⁴ He ordered the infantry to make a frontal assault, which succeeded with heavy casualties. The rapid fire of the Boers Mausers combined with the fact that most of the Boers were marksmen had

⁸¹ Byron Farwell *Queen Victoria's Little Wars* p 340

⁸² Thomas Pakenham, *The Boer War* pp 127-128

⁸³ Thomas Pakenham, *The Boer War* p 128-130

caused 254 casualties among the British infantry including Symons. Casualties rise to over 500 with the British cavalry added in, while the entire Boer force escaped.⁸⁵ Also the British infantry had hesitated during the assault. They had not wanted to leave cover due to the accurate Mauser fire.

The Boers then began to bottle up British forces at the towns of Ladysmith, Kimberly, and Mafeking. The British towns were not in any real danger of falling since they were not totally cut off which siege warfare requires.⁸⁶ Politics required that the British invasion force under General Buller's command relieve the cities. The city of Kimberly was politically the most important due to the presence of Cecil Rhodes.⁸⁷ Some 8,000 men under the command of Lt. General Lord Methuen, a staff officer who was commanding troops for the first time, were dispatched to relieve Kimberly. The force met the Boers for the first time on November 23, 1899, at Belmont Hill. The Boers were fortified on Belmont Hill, and Methuen decided on a frontal assault led by the Brigade of the Guards.⁸⁸ When the Guards charged the Boer positions, the Boers calmly shot

⁸⁴ This tactic was the same all regular European armies were trained to do. First an artillery bombardment, then the infantry would make an all out attack, and the cavalry would cut off the enemy retreat.

⁸⁵ Thomas Pakenham, The Boer War p 134, 154

⁸⁶ To effectively besiege a city the attacking force must completely surround the city. If this cannot be accomplished the defenders will be able to be re-supplied with greater ease, and the defenders could escape from the city. Nor were the Boers keen on launching assaults against the fortified British regulars.

⁸⁷ Byron Farwell Queen Victoria's Little Wars p 342

⁸⁸ Byron Farwell Queen Victoria's Little Wars p 342

the Guards as they advanced, then mounted their horses and rode away. The British suffered 297 casualties, while the Boers suffered fewer than 150.⁸⁹

Methuen did not learn from his mistake, and when he met the Boers again he repeated it. On November 25, 1899, Methuen began the Battle of Graspan, with a frontal assault led by the Naval Brigade. The Naval Brigade suffered fifty percent casualties while the Boer losses were light, and still General Methuen did not learn that frontal attacks against entrenched enemies were fool hardy.⁹⁰ Methuen marched to the Modder River next where 3,000 Boers were entrenched and waiting for him.⁹¹

The Boers at Modder River were entrenched in natural earthworks and had barbed wire strung in front of their position. They had six or seven Krupp field guns, and three or four Maxim one pounder cannons supporting them. General Koos De la Rey and General Piet Cronje led the Boers. Rey placed his men not on the tops of the hills but in trenches on the banks of the Modder River, limiting effectiveness of the fire. This way British field guns would not be as effective.

On November 28, 1899, the attack on Modder River began. It was a hot day, and though they had orders to hold their fire as long as possible, the Boers under Cronje's command opened fire at a distance of about 1,000 yards.⁹² Methuen proceeded to launch a frontal assault even though the Boers flanks were not protected. The assault force was soon pinned down and Methuen led

⁸⁹ Thomas Pakenham, The Boer War p 194

⁹⁰ Byron Farwell Queen Victoria's Little Wars p342-343

⁹¹ Thomas Pakenham The Boer War p 196

some Highlanders in a charge towards the river. This achieved nothing. The British were pinned down in the midday sun with the temperature reaching between 90-110 degrees Fahrenheit, and they soon began to get thirsty, as one would expect. The British soldiers could do little, but the artillery soon began to engage the Boers. The 24 British guns were out in the open while the Boer guns fired from concealed emplacements. The two sides engaged in an artillery duel, with the British failing to take out a single Boer cannon. The British were unable to force their way across the river though several attempts were made. The Boers withdrew under the cover of darkness after causing 460 casualties.⁹³

The British were technically the victors since the Boers retreated, and there was still one more battle to be fought by Methuen. The Battle of Magerfontein was a disaster for Methuen's command and particularly the Highland Brigade. On December 10, 1899, the Highland Brigade advanced toward Magerfontein Hill. At four hundred yards, the Boers in their trenches at the foot of the hill opened fire. The Highland Brigade became pinned down just as the Guards Brigade had been at Modder River. The Highlanders held for nine hours, under constant fire with only the Royal Artillery able to support them. Finally the Highland Brigade, who had nearly broken thorough once during the day, could stand no more and ran. The British suffered 902 casualties, including Major-General Andrew Wauchope the commander of the Highland Brigade, compared to the Boers 236.⁹⁴ The Boers did not retreat during the night as they

⁹² Thomas Pakenham The Boer War p 202

⁹³ Thomas Pakenham The Boer War p 205

⁹⁴ Thomas Pakenham, The Boer War p 214

had at Modder River, instead dawn found them still in their trenches ready to repel another attack. On December 11, 1899, General Methuen began to retreat to the Modder River. Elsewhere the British Army was suffering similar defeats to the Boers. General William Forbes Gatacre lost at Stormberg, and Buller lost at Conseno. Each of these defeats occurred within the same week, and the news of which was not received well at home.

Field Marshal Lord Roberts whose son had been killed at Conseno replaced Buller. Roberts arrived in Cape Town on January 10, 1900, and he began the British offensive one month later. Roberts immediately set about creating mobile columns of mounted infantry which ended the Boers advantage of greater mobility. Roberts joined Methuen's force on the Modder River intent on relieving Kimberly, while Buller, now Roberts subordinate, still trying to relieve Ladysmith. Roberts had an entire Army Corps at his command, forty thousand men organized in five divisions. This number included 100 guns and a division of cavalry.⁹⁵ The cavalry division, under Lieutenant General John French's command, was given the task of out flanking the Boers and relieving Kimberly.

The cavalry's march did not go smoothly because they ran into supply problems from the outset. This slowed the cavalry's march several hours each day as they waited for the supply trains to catch up. On February 15, 1900, the cavalry was able to move freely and speed toward Kimberly.⁹⁶ Although

⁹⁵Thomas Pakenham, The Boer War p 326

⁹⁶ Thomas Pakenham, The Boer War p 342

Kimberly was relieved, the move effectively destroyed the cavalry division, because of many of the horses being ridden to death.

With the relief of Kimberly, Roberts began to bring Conje and his 4,000 men to bay. Conje had taken up new positions at Paardeberg River. The British encircled General Conje with some 15,000 men under the command of Lieutenant General Thomas Kelly-Kenny.⁹⁷ Kelly-Kenny was in command for only a short while because Field Marshall Roberts ordered him to take commands from Kitchener. Kelly-Kenny had a sound plan started. Simply put, he was going to surround Conje with his infantry and then use his artillery to pound the Boer laager to dust. This was a sound plan since Conje had entrenched himself in trenches and rifle pits. The ground was unsuitable to any infantry assault, but Kitchener disagreed. He ordered all the infantry to assault the Boer position immediately so an attack was launched on February 18, 1900. Kelly-Kenny's Sixth Division was delegated to launch a frontal assault; the Ninth Division attacked from the south bank, the right hook, and the north bank, which was the left hook.

The frontal attack occurred just like the Battle of Modder River. The British advanced, and became pinned down from relentless rifle fire. The Highland Brigade, which had been delegated to make the 'right hook' attack, made a frontal attack with the Sixth Division. The Boers pinned down the Highlanders as they had pinned the Sixth Division. Kitchener ordered a final

⁹⁷ Thomas Pakenham, The Boer War p 349

effort by the mounted infantry. They were to charge the laager while the rest of Kitchener's force renewed attacks.⁹⁸

This renewed attack failed as well, and at the end of the day, the British had accomplished nothing except to allow a Boer guerrilla force to capture a key hill that became known as Kitchener's Kopje. Roberts arrived to take charge of the situation on February 19. Roberts did not renew the attack, as Kitchener wanted; he really did not do anything. Instead, Cronje surrendered on February 27, 1900, after the guerrilla force abandoned Kitchener's Kopje and all hope of escape was lost. More good news followed. On February 28, Buller relieved Ladysmith. Then on May 17, Mafeking was relieved, and on June 5, 1900, British forces took Pretoria, the capital of Transvaal. Normally this would have ended a conflict.⁹⁹ However, the Boers refused to give up, instead they turned to guerrilla warfare.

The British forces, now under the command of Kitchener, since Roberts had gone home a hero of the British Empire, were forced to change tactics to deal with the new Boer tactic. By forming his mobile columns, Roberts had accomplished part of adapting to the guerrilla warfare the Boers were carrying out. The second task was learning how to deal with farmers turned soldiers, who could fade into the background again as a farmer anytime they wished and who could gain food at any number of native farms. The British found a way to deny the Boers of their supplies. They burned the farms and fields and slaughtered

⁹⁸ Thomas Pakenham, *The Boer War* p 354-355

⁹⁹ Byron Farwell *Queen Victoria's Little Wars* p 352

the stock, effectively destroying the Boers' ability to stay in the field as a fighting force.¹⁰⁰ That is what Kitchener hoped at least, but plan failed. The Boers were able to conduct military operations living off captured British supplies and what civilians gave them. So Kitchener decided the civilians had to be prevented from helping the guerrillas. To accomplish this, he ordered them placed into camps.¹⁰¹ Many women and children died in the camps due to inadequate supplies, poor sanitation, and lack of medical care. Without the civilians help or the ability to live off the land, the Boers were slowly defeated. The war did not end until May 31, 1902, when Boer peace delegates signed a treaty with the British. By this time Queen Victoria was dead, and Britain would know relative peace until 1914.

¹⁰⁰ Thomas Pakenham The Boer War p 502

¹⁰¹ Thomas Pakenham, The Boer War p 522-524

CHAPTER 5 CONCLUSIONS

The British Army fought numerous wars from 1775 to 1902. During that time, weapons technology improved from muzzle loading weapons to magazine fed rifles and breech loading cannons. However British tactics almost never changed during this span of one hundred and twenty seven years to adapt to the new technology. When tactics changed due to new weapons, it was innovative.

The most innovative changes occurred during the reign of King George III. During the American Revolution, the British Army began to experiment with rifles to fight American troops, some of whom were already armed with these deadly accurate weapons. When the war ended, the British Army did stop experimenting with rifles. However, when the Napoleonic wars, began the French began using large numbers of skirmishers to soften up their enemies before a main attack by the regular infantry was launched. This caused the British Army to raise an experimental Rifle Corp. The Rifle Corp, armed with a more accurate weapon than the musket and given special training in how to combat French skirmishers, was a major leap in combat tactics. This experiment was so successful that the French were not able to attack the main British lines during the battles in the Peninsula. Those regiments armed with the rifle became a permanent force in the British Army after the Napoleonic wars ended.

Then the Duke of Wellington used a tactic that the British Army had not used during previous wars. Wellington deployed his army on the reverse slopes of hills. This gave Wellington an advantage, as it protected his small army from

French firepower, and the French were never able to ascertain exactly where his army was. Wellington's development of the 'reverse slope' allowed the British to protect Portugal and eventually drive into southern France, freeing Spain in the process. Wellington then faced Napoleon Bonaparte at the Battle of Waterloo. Using the same tactics he had mastered fighting in Spain, Wellington was able to hold out long enough for the Prussians to arrive to tip the scales in the Allies favor. After this victory, the British Army had a period of stagnation when it came to new tactics. Part of this was due to Europe being at peace until 1854. The other reason was Wellington's legacy among the officer corp.

Many officers who served Wellington during the Peninsula war and then at the Battle of Waterloo would lead the troops in battle during the first two decades of Queen Victoria's reign. These officers all seemed to have the belief that Wellington's tactics were perfect since he had defeated Napoleon with them. Wellington was primarily a defensive general; in the battles where he attacked his enemy, he basically went straight at the enemy. He attacked from out in the open; the regular line troops were not trained to fight from cover, since this would reduce the effectiveness of a musket.

Many of the generals who came after Wellington adopted this form of fighting. For example, General Hugh Gough, during the 'Sikh War, launched frontal assaults at an entrenched enemy. These attacks caused heavy casualties among British soldiers that could have been avoided if Gough had simply chosen to outflank his enemy. Why did the tactics work against the Sikhs? It all comes down to the British soldier and his Brunswick musket. The

Brunswick musket used the percussion cap, instead of flint, to detonate the powder charge; this reduced the amount of misfires among British weapons. Then there is the fact that the British soldier simply refused to acknowledge that he was beaten. That is why Gough won his battles.

During the Crimean War, the British had the problem of not learning from conflicts in India and Asia. The weapons the British used were the same as those used in the Sikh War, but the enemy was the Russians. The British Army scorned the Russian Army; they thought the Russians simply were not as good as British troops. In fact, the Russian were a very tough opponent. The Russians had plenty of excellent artillery and bigger guns than the British. The British had still used cannons that were the same size as those used during the Napoleonic Wars. Raglan's infantry was under artillery fire for some time therefore, before the Royal Artillery could respond. That fact should have prompted Raglan to attack in some way other than by frontal assaults. Instead, Raglan, who had never before commanded troops in battle before, attacked in a way consistent with what Wellington would have done against the French. The only reason Raglan won his battles was because of the French support and a lot of luck.

The Sepoy Mutiny was a period of new weapons and tactics. The British Army had finally adopted a rifled musket, the Enfield. The Royal Artillery had also begun experimenting with rifled artillery which gave the British some advantages. There were two kinds of tactics during the Sepoy Mutiny, the defensive tactics used by besieged British garrisons, and the offensive tactics of

the relief expeditions. The defensive tactics were nothing new; the only hope for besieged troops is to hold out long enough to be relieved. There were new ideas to the offensive operations though. General Havelock launched flank attacks to conserve his small attack force. While flank attacks were not new in war, it was an adaptation to the Sepoy's defensive tactics. Certainly Havelock's tactics were more sensible than frontal attacks. Then, during the fighting in cities, the British tried some different things. They tried to flow around 'hard points,' sometimes leaving a force to tie down the enemy and bypassing it completely. The British won the war, of course, and after that there was a period of Wellington's tactics seeing reuse.

The next war that saw new weapons and tactics was the Zulu War. The British had issued a new breech-loading rifle, the Westley-Richards rifle, and the Gatling gun. The British had not learned anything from the American Civil War even though they had sent observers. The major lesson of that war was about defensive firepower at the point of attack. Fredericksburg and Gettysburg showed that attacking a well-entrenched enemy was very costly in terms of men. That lesson seemed to go right out the window. Then the Zulu war occurred. The British fought one battle against the Zulus in the open, and the Zulus slaughtered the British to a man. That defeat drove home the importance of defensive firepower. After that Chelmsford fought either from laagers or very large 'square' formations when he encountered the Zulus. These new ideas were reused in the Sudan when the British became involved in Egypt.

Britain became involved in Egypt when an Egyptian national movement threatened security of the Suez Canal. The British fought one battle with the nationalists and defeated them soundly, but this involved the British when the Mahdi came to power in the Sudan. Fighting the Mahdi forces was much like fighting the Zulus, so the British used square formations to prevent themselves from being flanked. This eliminated the high risk they would have faced in fighting in a linear formation. During this conflict in 1885, the British were still using Gatling guns and Martini Henry rifles.

When the war with Sudan in 1896 came along the British had the new magazine fed Enfield rifle and Maxim machine guns. The square formations were no longer needed. These weapons had tremendous offensive and defensive capabilities, but the Maxim was never used as an offensive weapon. That was a missed opportunity by the British. One Maxim was a force that could halt attacks before the enemy got close to British lines. Had the British organized entire companies of Maxims, their firepower could have stopped the Dervishes charges with little effort. The advantage of such an organization went unnoticed until after the Boer War of 1899.

Up to this point, the British had not had a problem defeating their opponents in battle. All that would change when they began to fight the Boers. The first major British conflict with the Boers was the South Africa War. The war in South Africa was very short, however, and the British did not have the opportunity to change tactics due to the duration of the war. That factor does not account for all that happened during the conflict. The Boers were able to strike at

the British, seemingly at will because of their greater mobility. The Boers were also very good at fighting defensive battles; they knew that by being entrenched, an attacker would have a difficult time defeating them in battle.

In the two major battles of the war, the British commanding officers made terrible mistakes. At Lanig Nek, the British infantry attacked across open ground against the dug in Boers. The result of the battle was that the British frontal attack was bloodily repulsed, and for the first time, British valor failed to carry the day. So during the South African War, the British were not a very mobile force, and without a clear technological advantage, the British tactics simply did not work. When the British fought the Boers again beginning in 1899, the tactics used by the British Army still would not work.

During the Boer War of 1899, the Boers and British both possessed modern weapons. The Boers first attacked the British directly, taking the offensive when the British were relatively weak in South Africa. These attacks were well within the British ability to handle, albeit badly. The Boers were highly mobile, and their attacks usually took the British by surprise. Using the same methods they had always used, the British won the majority of the battles that they fought, during the Boer offensive. The British simply went up the middle as they usually did. The results of these actions were much different from previous wars. The Boers inflicted heavy casualties on the British, and even though the British managed to reach their defensive positions, the Boers rode away, leaving British soldiers powerless to stop them. It was evident that the British had to do

something else to stop the Boers. The government replaced General Buller, and appointed General Roberts in his stead.

General Roberts quickly decided that to defeat the Boers his troops needed to be as mobile as the Boers. Roberts organized special mounted infantry companies, which along with his cavalry division, gave Roberts the mobility he needed to relieve several besieged cities. When Roberts encountered the entrenched Boers, he simply outflanked them with his cavalry and then used his numbers to drive the Boers away. The British then launched an offensive and captured the Boer capital cities. At this point most European nations would have ended resistance, which is what the British expected. The Boers refused to acknowledge that defeat and began to fight as guerrillas instead.

The British did not have great success in fighting the Boers when they switched tactics. The Boers simply faded into the general population. After all, the Boer soldiers were simply farmers, and the people did what they could to protect them. General Kitchener had to decide how to deal with this. His solution was to arrest all suspected Boer sympathizers and place them in camps. The Boers still fought on, so Kitchener tried to deprive the Boers of supplies. The British used a scorched earth policy, which ended the Boer ability to live off the land. These two tactics, while somewhat brutal, were accomplishing what a force of arms was not. Against the Boers, the British had learned and adapted the tactic of total war.

The British used one other tactic against the Boers, as well. That tactic was overwhelming numbers. This allowed the British to hunt the guerrillas relentlessly. The Boers could not escape, because the British would not stop hunting them. It worked, and the Boers were finally defeated. That being said, the British never used their weapons technology very well.

The knowledge of weapons technology was not used because the majority of British officers never had any formal schooling in the art of war. There was no required attendance of a military academy for many years in England, save for those those members of the Royal Artillery and Royal Engineers. Therefore, because officers were not required to learn military tactics from previous wars, many did not do so. Many British generals never had experience leading troops in battle until they were given armies to command. The most famous example of this occurred during the Crimean War, when General Raglan was given command of the army because it was his turn. Common sense would dictate that military commanders should be chosen because of their abilities, not due to political influence or length of service.

The British government also contributed to the problem by not paying for new weapons systems until absolutely necessary. This went against what the rest of Europe was doing at the time. France, the United States, and Germany were continually experimenting with new weapons and ideas. Since England always had the notion that there would be a war with France, this lack of utilizing the technology that their enemy was starting to use is peculiar.

Except for rare cases, the British government was more than happy to wait until other governments had spent the money and effort developing new weapons, before they would approve spending the money to upgrade their armies' weapons. Certainly there were some advantages to waiting for a new weapon to be perfected, for example, when breech-loading artillery was decided to be too expensive and untried. Those advantages did not outweigh the costs of waiting. It is far better to spend the money to develop new weapons and learn what those weapons can do to an enemy rather than learn for oneself on the battlefield with heavy casualties. The reluctance to spend the money for new weapons had one other effect. The army came to accept the status quo in tactics since they worked to defeat native soldiers armed primarily with muskets, spears, and shields.

Another contributing factor to the misuse of weapons technology was the failing of the British Army to learn from conflict that did not occur between Europeans. Principal among these conflicts was the American Civil War. The British Army sent observers to that war to learn about American tactics and weapons. Those observers did not see the war for what it was. They saw it as unprofessional soldiers fighting unprofessional soldiers, instead of learning that attacking an entrenched enemy over open ground was virtual suicide. The observers saw these attacks as wonderful gallant charges, which might have succeeded had the British been doing it. So bad was the British inability to learn, that they did not even learn from their own conflicts. The South African War should have given them an idea what fighting the Boers would be like in 1899. In

the next war with Europeans, British soldiers would pay the price for the failing of their officers to learn how to adapt tactics to the current technology.

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