

In the summer of 1864, a battle took place at Ft. Stevens¹ on a small plot of land just five miles south of the White House.² Confederate forces used skirmishing probes to test the defenses, and then the fort came under fire from Confederate Sharpshooters wielding Whitworth rifled muskets.³ President Lincoln and his wife Mary Todd Lincoln, along with a few Union officers, rode out to observe the battle.⁴ The president stood atop a parapet⁵ to gain a better vantage point of the battle. Unfortunately, Lincoln did not remove his top hat, making him an easy target for Confederate snipers. A Union surgeon standing next to the President was wounded by sniper fire.⁶ An anecdote claims that a young officer named Oliver Wendell Holmes Jr.⁷ shouted at the president to “*get down, you damn fool!*”⁸ As the battle continued, Union artillery would counterattack the Confederate advances pushing back the skirmishing on the fort, along with destroying many of the houses the Confederate snipers used for protection.⁹ This marks the only time in United States history that a sitting president came under fire in combat. Fort Stevens is also the only battle in United States history that two former presidential opponents¹⁰ faced one another on the battlefield.

¹ Led by Major General John C. Breckinridge, (1821-1875) former Vice President and one of Lincoln's opponents in the 1860 presidential election

² Leah Binkovitz, “The Battle in Our Backyard: Remembering Fort Stevens” last modified July 11, 2012, www.smithsonianmag.com/smithsonian-institution/the-battle-in-our-backyard-remembering-fort-stevens-1693525/

³ “Battle of Fort Stevens Facts & Summary.” *American Battlefield Trust*, 12 July 2018, www.battlefields.org/learn/civil-war/battles/fort-stevens

⁴ “Battle of Fort Stevens” *World History Project*, worldhistoryproject.org/1864/7/11/battle-of-fort-stevens

⁵ A parapet is a barrier which is an extension of the wall at the edge of a roof, terrace, balcony, walkway or other structure.

⁶ “Battle of Fort Stevens” *World History Project*, worldhistoryproject.org/1864/7/11/battle-of-fort-stevens

⁷ Holmes Jr. (1841-1935) would later serve as a justice on the U.S. Supreme Court (1902-1932)

⁸ “Fort Stevens (U.S. National Park Service).” *National Parks Service*, U.S. Department of the Interior, www.nps.gov/places/fort-stevens.htm

⁹ “Battle of Fort Stevens” *World History Project*, worldhistoryproject.org/1864/7/11/battle-of-fort-stevens

¹⁰ John Breckinridge and Abraham Lincoln

Designated marksmen were known for their ability to shoot accurately and achieve a high successful kill rate. This method was first used in the medieval times by archers. Then, with the invention of artillery, more soldiers could be targeted at one time. Designated marksmen were used to engage one target at a time without collateral damage of property. These men would become known as snipers¹¹ during and after the American Civil War. This title might have been short-lived without the development of the Whitworth rifle. The capability of these marksmen, along with the capabilities of this rifle, to target someone a mile away led to the ability to cover and conceal where the shot was fired from. These soldiers were known as sharpshooters. These men became the forefathers of elite men that became the modern sniper. The creation of the Whitworth rifle changed the way that everyone looked at what a rifled musket could do and be. With this modified firearm, Joseph Whitworth changed the landscape of the battle field and changed how wars were fought, and viewed, forever.

In this paper, I connect Civil War scholarship with scholarship on the development of the Whitworth rifle. I explore the early conception of the rifle, its testing, and how the rifled muskets came into the United States. Previous historians have written on the various distinct parts of this story but none have connected them. The five sections of this study will provide a road map for understanding the Whitworth rifle from its conception in England to its use on the Civil War battlefields in America. The outcome will reveal why this rifled musket was made, its trials, the pros and cons of the musket, and ultimately how it landed in the hands of the Confederates, changing the landscape of the battlefield and creating a position in the military that became one of the most feared even to this day.

¹¹ The term sniper was coined during the 19th century for the practice of shooting small birds at long distances with rifles

Joseph Whitworth's "Best Possible Rifle"

To better understand the importance of this rifle we need to look at where it came from and how it was conceived. Joseph Whitworth¹² was educated in the art of blacksmithing at the Vint's Academy where he was able to develop a business plan for creating his own shop.¹³ He ultimately became a very successful manufacturer and businessman. He went on to perfect tool and die-making at the age of 30 years old. At this time, all machinist used a common system of measurement, the inch. Joseph Whitworth perfected measuring accurately down to one thirtieth of an inch.¹⁴ In 1834, he took out his first patent for a screw cutting machine, which manufactured the standard screw, which has been adopted all the way through modern times.¹⁵ The screw can be found in any hardware store with a v-pitch and in tripods and pipe thread still used today. Whitworth, who was also very concerned about the poor, donated large portions of his income to educational organizations.¹⁶ He even founded an engineering scholarship for technical colleges. He developed a great working relationship through-out the industry and his opinion was valued at every level.

In 1853, the British government sought manufacturing experts to attend the world's fair in the United States in order to assess technological developments. Joseph Whitworth and George Wallis were commissioned by the British Government to attend the Crystal Palace¹⁷ exhibition in New York.¹⁸ Interest in military hardware was at an all-time high with westward

¹² 1803-1887

¹³ "Sir Joseph Whitworth." *The Whitworth Society - History*, www.whitworthsociety.org/history.php?page=2

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ John Simkin, "Joseph Whitworth," *Spartacus Educational*, Spartacus Educational, spartacus-educational.com/SCwhitworth.htm (hereafter Joseph Whitworth).

¹⁷ The exhibition was the world fair that show cased technology from all over the world in 1853

¹⁸ "The American System of Manufactures: The Report of the Committee on the Machinery of the United States 1855 and the Special Reports of George Wallis and Joseph Whitworth 1854. Edited with an Introduction by Nathan

expansion and recent conflicts in the East. This was easily measured by the large influx in patent requests during and after the show.¹⁹ The British government was aware of a pressing war, and ordered 23,000 Minié²⁰ rifles on the opening day of the Exhibition. During the exhibition, the men became aware of the British problem in regards to military supplies, especially in regards to concerns about the European balance with Russia. With the findings from the committee, the British government established the Enfield firearms factory.²¹ Whitworth and Wallis were very amazed by the education and manufacturing systems in the United States when compared to those in Europe with the exception of Denmark.²² The United States had taken a more innovative approach to manufacturing than England. The US was using a more technology-based approach to building than that found in Britain at that time. The committee engaged in factory visits which aided their views on educated workers and modern machinery.

Mr. Whitworth and Colonel Colt²³ traveled to many factories²⁴ throughout America to study different machinery processes in 1853.²⁵ Whitworth saw machinery applied to objects he had not yet seen prior. This included objects like clocks, pins, locks, ploughs,²⁶ nails, and furniture.²⁷ While touring, he gained an education on how interchangeable parts could be used in firearm production. The British government granted the committee 15,000 pounds to outfit the

Rosenberg *Edited with an Introduction by Nathan Rosenberg*, by Nathan Rosenberg et al., University Press, 1969, pg. 20 (hereafter *The American System*).

¹⁹ *The American system*, pg. 20

²⁰ The minié rifle was adopted in 1849 following the invention of the .577 Minié ball paper cartridge in 1847 by the French Army captains Claude-Étienne Minié of the Chasseurs d'Orléans and Henri-Gustave Delvigne.

²¹ *The American system*, pg. 40

²² *The American system*, pg. 28

²³ Colonel Sam Colt(1814-1862) Founder of Colt Patent Fire-Arms Manufacturing Company

²⁴ Including Remington, Colt,

²⁵ *The American system*, pg. 98

²⁶ An agricultural implement with sharp blades and attached to a horse or tractor. Also known as a plow

²⁷ K. R. Gilbert "Artifacts." *Technology and Culture* , 2nd ed., vol. 4, The Johns Hopkins University Press and the Society for the History of Technology, 1963, Pg. 207–211

Enfield factory with American machinery. With the newly acquired machinery at the Enfield plant in 1856, they were able to supply the military with 1,200 rifles per week. The machinery²⁸ aided in the production of these rifles by reducing both the manufacturing time and cost. The Enfield rifle pattern 1853 was an improvement on the pattern 1851. The 1851 used a .753 paper ball cartridge,²⁹ and the 39-inch barrel's max range was 900 yards and only 35,000 were made. With the newly-acquired knowledge from Mr. Whitworth's American tour, Enfield modified their rifle with updated equipment. Up to this point, soldiers had fought "gentleman's wars" with drilling and fighting in lines when engaging the enemy on the battlefield. This military formation allowed the artillery to take some soldiers out of the fight prior to being within rifle range. With these newer rifles, the lines could be separated or engaged sooner and at greater distances.³⁰ To aid Enfield with the manufacturing of this rifle, the Ordnance Department turned to Whitworth for support in 1854,³¹ as the government was already wanting to replace this rifle.³²

Mr. Whitworth was working on developing his rifled cannon at the time, but he made time to help Enfield at the request of the government. He was more than happy to help because he believed he knew the problems with the rifle. The long-range accuracy of the Enfield rifle was lacking due to the insufficient rotation the rifle placed on the bullet. Mr. Whitworth thought that the bullet was too heavy, cumbersome, and short. He concluded that a smaller, longer bullet would provide a better surface to follow a deeper cut guide on the lands and grooves.³³ In

²⁸ These machines ran at 5,000 RPM's and produced 5 operations could be carried out in less than one minute

²⁹ A paper ball cartridge is a round ball of usually lead small than the bore of the musket wrapped in paper or fabric allowing little gas to pass when the rifle is shot

³⁰ "Enfield Pattern 1853 Rifle-Musket Long Gun - United Kingdom." *Military Weapons*, 12 Sept. 2016, www.militaryfactory.com/smallarms/detail.asp?smallarms_id=154

³¹ British military p-1862 Whitworth Rifle, <http://www.collegehillarsenal.com/shop/product.php?printable=Yproductid=1442>

³² Sure Shot

³³ The grooves are the spaces that are cut out, and the resulting ridges are called lands. These lands and grooves can vary in number, depth, shape, direction of twist (right or left), and twist rate

addition, the gradual rotation the current rifles followed was too slow of a rotation. Steeper lands and grooves would be necessary to provide enough surface to rotate the bullet properly, which would allow the bullet to gain accuracy and distance.³⁴

In 1854, Mr. Whitworth set out to produce his Whitworth Rifle³⁵, which could replace the Enfield 1853, at the request of the Ordnance Board.³⁶ He employed the lessons learned from the trip to the US, as well as a valuable lesson that he gained from other committee members who visited the Remington factory, to make the decision to use solid bar steel from Britain, instead of hand forged and welded barrels, because it was stronger and resulted in a much lower rate of rejected products.³⁷ The knowledge gained from the trip to the United States gave Mr. Whitworth both an advantage and the knowledge to progress with his idea of making a rifle that would replace the Enfield. Yet, it was too early to see that this rifle would change the way that the wars could and would be fought in the future.

The Whitworth rifle changed the way that government officials thought about what a rifle could do and went above and beyond expectations of the inventor himself. At the time, Whitworth merely observed that he was working with “Lord Hardinge endeavoring to obtain the best possible rifle with which to arm the British troops.”³⁸ Work on the new rifled musket began in 1854. Whitworth started with the idea of getting past the weak points of the standard infantry musket. Up to this point, the most advanced rifled muskets had a smooth barrel with slight rifling inside of the barrel which placed slight cuts into the bullet placing a spin on the bullet as it

³⁴ Sure Shot

³⁵ Whitworth Rifle, <http://www.americancivilwarstory.com/whitworth-rifle.html>

³⁶ British military p-1862 Whitworth Rifle, <http://www.collegehillarsenal.com/shop/product.php?printable=Yproductid=1442>

³⁷ The American system, pg. 110

³⁸ Joseph Whitworth, *Miscellaneous Papers on Mechanical Subjects: Guns and Steel*. George Falkner and Son, Imperial Buildings, Deansgate, Manchester, 1873, pg. 19

traveled down the barrel. The other piece of well-known knowledge was that the Enfield rifle made one complete rotation of the bullet every 78 inches. This greatly increased friction with the rotation of the bullet slowing it down as it traveled. However, the rifling did improve the accuracy of the bullet. After careful examination, the fault with the Enfield was in the design rather than the process of making the rifle.³⁹ Mr. Whitworth wanted to increase the rifled musket's accuracy as well as improve the energy lost from the rifling inside of the barrel. To accomplish this goal, he took a step back and reimagined the rifled musket's barrel.⁴⁰

With the conclusion of the visual inspection he knew that he would have to test the rifle in a controlled environment. Whitworth agreed to the terms to create a new rifle suitable for the Queen's Army, with the condition that a suitable gallery be constructed for proper testing of the rifled muskets. The gallery was 500 yards in length, 20 feet high, and 16 feet wide. It was erected on Mr. Whitworth's property at Rusholme. The gallery served a dual purpose as it also protected the testing from wind changes and atmosphere changes. There were openings to the south side of the gallery to allow light in and to ventilate the smoke after the shots were fired. To determine the flight of the bullet after firing, Whitworth hung sheets of tissue paper up to see the path of the bullet. This allowed him to analyze the short comings of the Enfield rifled musket. He could map out the trajectory of the bullet with the sheets of paper and the yardage where the bullet lost its flight path.⁴¹

The first rounds of the Whitworth rifle were tested in this gallery using the same methods. In 1855, Mr. Whitworth conducted a series of tests in the new gallery at the request of

³⁹ Rifling: Polygonal Bore and the Whitworth Rifle, <http://firearmshistory.blogspot.com/2010/05/rifling-polygonal-boe-and-whitworth.html>

⁴⁰ Whitworth Rifle, <http://www.americancivilwarstory.com/whitworth-rifle.html>

⁴¹ Joseph Whitworth, *Miscellaneous Papers on Mechanical Subjects: Guns and Steel*. George Falkner and Son, Imperial Buildings, Deans gate, Manchester, 1873, pg. 19

Lord Hardinge to adhere to the standard service charge for the Enfield, which was 70 grains of powder and the service bullet of 530 grains. Those were the only two stipulations that Mr. Whitworth was asked to follow. Everything else was unrestricted. The exit of the bullet was half of a rotation.⁴² The bullet was classified as cylindro-conoidal⁴³ wrapped in cloth or paper with a wooden plug in the base of the bullet. When the powder was struck, it created an explosion that expanded the cone of the bullet and molded the base to the grooves inside of the barrel and the gas from the burnt powder would push the bullet out of the rifle. This could have only been achieved from a soft, pure metal like lead.⁴⁴

The Whitworth rifle, like the Enfield, was 39 inches in length, however, this is the only similarity these two rifles shared. The Whitworth rifle was a hexagonal shape inside of the barrel, which created a completely useful rifling surface and allowed the bullet to travel at a much tighter turning ratio of 1 rotation to 20 inches.⁴⁵ The bullet could be hexagonal or a cylindrical shape that would expand and adapt itself to the shape of the barrel. The length of the bullet was 3 diameters of the bore.⁴⁶ During the testing phase, he found out that he had to use quick burning powder on all expanding bullets to create the desired expansion. He also discovered that if there is a mechanical fit between the bullet and the bore of the rifle the expansion is no longer necessary.⁴⁷ This allowed for different types of bullets to be cast with alloy metal combinations of tin and lead in the combination of any level of hardening. The most

⁴² The length of the bullet was 1.81 diameters of the bore.

⁴³ Joseph Whitworth, *Miscellaneous Papers on Mechanical Subjects: Guns and Steel*. George Falkner and Son, Imperial Buildings, Deansgate, Manchester, 1873. Pg. 20

⁴⁴ Ibid

⁴⁵ The max bore diameter is .490 of an inch and the min. was a diameter of .451 of an inch.

⁴⁶ Joseph Whitworth, *Miscellaneous Papers on Mechanical Subjects: Guns and Steel*. George Falkner and Son, Imperial Buildings, Deansgate, Manchester, 1873. Pg. 21

⁴⁷ Joseph Whitworth, *Miscellaneous Papers on Mechanical Subjects: Guns and Steel*. George Falkner and Son, Imperial Buildings, Deansgate, Manchester, 1873. Pg. 22

significant bullet created for the rifle was made out of steel.⁴⁸ This was important because it was the first armor piercing round that could penetrate a forts walls and continue to cause damage.

The Whitworth rifled musket was ready for field testing against the Enfield rifled musket in 1857. The head to head test took place at College Hill Arsenal with the British Minister of War in attendance. Top marksmen in the British Army took the shots. The target distance started at 500 yards and increased out to 1800 yards -- just over one mile.⁴⁹ A variety of distances were used for testing. Eventually, testing of the Enfield was discontinued due to poor performance at the 1100-yard line. The Whitworth was tested to the 1800-yard line.⁵⁰

The testing did not stop for the Whitworth rifled musket. In 1858, two army officers shot the two rifled muskets for a second round of testing. They tested the rifle in various weather conditions, plus the committee tested non-standard ammunition for the Whitworth rifled musket. The Whitworth still beat the Enfield. The officers shot up to 2000 yards with the Whitworth rifled musket and scored six hits out of 20 rounds fired. It was believed that Enfield could not make that distance, so it was not tested. The next test determined penetration ability by testing which bullet would have greater stopping power. The Enfield was shot 300 yards against half-inch thick Elm boards and pierced through 12 boards stopping in the 13th. The Whitworth pierced through 35 planks using steel bullets. The Whitworth rifle was far superior to the competition but it was not without its short comings. With the tighter barrel to bullet, the longer

⁴⁸ Ibid

⁴⁹ There are currently 5 rounds today that can shoot past 1800 yards

⁵⁰ Whitworth Rifle, <http://www.americancivilwarstory.com/whitworth-rifle.html>

design made the rifled musket more susceptible to fouling⁵¹ in the barrel. In addition, the cost of one Whitworth rifled musket was equal to the price of four Enfield rifled muskets.⁵²

When the arms committee came to an agreement, it deemed that the Whitworth rifle was the better of the two choices; however, the rifle was not suitable for the front line due to the maintenance the rifled musket required. There was not an option of ramming the new bullet down a dirty barrel. It would cost time and possibly the lives of the men on the ground. The Whitworth was handicapped due to high need of consistent maintenance.⁵³ The committee also expressed its concern about manufacturing the hexagonal bullets in bulk and also worried that the rifle could not be mass produced with the same mechanical perfection.⁵⁴ With these findings, the Whitworth rifled musket was ultimately rejected by the British government as not suitable for battle.⁵⁵ The committee determined that the rifled muskets bore was too small for military service.⁵⁶ The committee agreed that to meet the needs of the army, and due to the issues with the Whitworth rifled musket, the Enfield was adequate for service and should be the official rifled musket of the British army.⁵⁷ Mr. Whitworth was not daunted by the committee's decision, however, he continued his work to improve his design to replace the Enfield. He hoped to prove the superiority of the design by focusing on making the rifle for hunters and competitions. With

⁵¹ Fouling is the accumulation of unwanted material on solid surfaces to the detriment of function.

⁵² Doug Wicklund, and Michael Williams. "Sure Shot Confederate Sharpshooters Left No Doubt the Whitworth Was Their Weapon of Choice - When Available." *UMKC.edu*, Nov. 2017, content.ebscohost.com/ContentServer.asp?EbscoContent=dGJyMNLr40Seqa44zdnyOLCmr1Cepq5SsKy4S7SWxWX S&ContentCustomer=dGJyMK6ttkW2qK5T69fnhrnt8Xnu3wAA&T=P&P=AN&S=R&D=f5h&K=124965953 hereafter Sure Shot

⁵³ During this time the British Government relied on tactics of mass-rapid fire and less on accuracy

⁵⁴ Rifling: Polygonal Bore and the Whitworth Rifle, <http://firearmshistory.blogspot.com/2010/05/rifling-polygonal-boe-and-whitworth.html>

⁵⁵ Ibid

⁵⁶ Joseph Whitworth, *Miscellaneous Papers on Mechanical Subjects: Guns and Steel*. George Falkner and Son, Imperial Buildings, Deans gate, Manchester, 1873, p 24

⁵⁷ "Sure Shot: Confederate Sharpshooters Left No Doubt the Whitworth Was Their Weapon of Choice-When Available." *HistoryNet*, 4 Oct. 2017, www.historynet.com/sure-shot-confederate-sharpshooters-whitworth.htm

the British army out, Whitworth's rifled musket started to land in the hands of hunters and civilians who appreciated its accuracy and distance. These sportsmen could take the time to clean the rifled musket more routinely.

New Markets for the Whitworth Rifle

The British government, fearful of a French invasion, authorized the formation of the Volunteer Rifle Corps in 1859. The government did not expect the overwhelming support of citizens nor did it think the high volume of men volunteering would last so long. In late 1859, looking to the future, the British government encouraged volunteers to promote rifle shooting. The British National Rifle Association was established in 1859.⁵⁸ In essence, the government created a civil defense organization. The men would gain training and marksmanship skills in case they were called up to defend Britain. In July 1860, the NRA held its first annual meeting on Wimbledon Common. For rifle makers, this presented a new market for new developments in rifle innovation.⁵⁹ The knowledge of Mr. Whitworth's innovations spread throughout the competition, gunsmithing, and shooters world, and a special class of rifle was established using his small-bore designs.

The NRA meeting was very meaningful to Queen Victoria, who was an avid sportsman and firearms enthusiast. Because of this, she intended to inaugurate the match in person. Mr. Whitworth designed a mechanical rest for his rifle that would be able to take the recoil and not disturb the accuracy of the shot. By use of fixed balanced springs on tripods and weights, he was able to fire a shot without disturbing the line of sight at the moment of the shot. With a fixed target set at 400 yards, a silken cord was handed to the queen by Mr. Whitworth. With a slight

⁵⁸ Referred to as the NRA from this point on.

⁵⁹ The Muzzle Loading Match Rifle in Great Britain, <http://www.lrmf.org/reference/matchriflehistory/>

pull of the cord, the rifled musket shot, starting the first match. The round was fired accurately and scored a bulls-eye one and a quarter inch from center mass.⁶⁰

Meanwhile, the tide was changing in the United States. War was soon on the horizon and Great Britain did not know what role it would play or just how meaningful this rifled musket would be to the war effort. As war loomed between the United States and the newly founded Confederate States of America, the South needed supplies to maintain a fight against the North. The South was very rich in agricultural products such as cotton, tobacco, and sugar cane. In 1860, if the South was listed as an independent nation, they would have been the fourth richest in the world. The South could not boast of much manufacturing, however. The South had a long-standing trade alliance with Great Britain to provide manufactured goods. They also, had trade connections with Mexico to acquire niter, copper, powder, and sulfur.⁶¹ Although it was well off as a nation, the South still needed trading alliances with other nations. This posed a problem as no one wanted to get drawn into the war and possibly cut off from trade with the North. The British engaged in talks with both the North and the South and also traded with both in the early days of the war.

The strategy that was utilized by the North was to place a naval embargo, trying to cut off supplies to the south for a quicker resolution to the wars end. With the North's strong naval presence, and the South lacking any resemblance of a navy, the South found it difficult to acquire foreign aid and supplies, of particular concern was military supplies. With aims to gain new advanced weaponry Major Edward Anderson⁶² on July 2, 1861, traveled to Britain to acquire 2

⁶⁰ Joseph Whitworth, *Miscellaneous Papers on Mechanical Subjects: Guns and Steel*. George Falkner and Son, Imperial Buildings, Deansgate, Manchester, 1873, pg. 30

⁶¹ Craig L. Barry & David C. Burt, *SUPPLIERS TO THE CONFEDERACY, VOLUME THREE*, (BookLocker.com, Inc., St. Petersburg, Florida 2017-2018) pg. 1-3

⁶² 1815-1883

sample Whitworth rifles for evaluation.⁶³ The first ordnance supplies reached the Confederacy aboard a steamer called the Bermuda. The slow steamer sailed from Britain directly to Savannah and made dock around September 1861. With this knowledge, the Union started to ramp up heavier patrols to the south and captured the ship Stephen Hart.⁶⁴ James Murry Mason⁶⁵ met with Confederate President Jefferson Davis shortly after being appointed as a special Confederate commissioner to the United Kingdom in late 1861. Mr. Mason was under orders to depart with as little delay as possible. He carried a letter written by President Davis to gain an audience with Queen Victoria in which he would not ask for material aid or any alliances offensive or defensive, but rather to ask the British to recognize the Confederacy as a nation.⁶⁶ The North used their own diplomats to block any chance of the South being recognized as an independent country. Not one single country would declare the South as a recognized nation, partly due to concerns about their relationship with the United States but also partly due to the fact that the South still embraced slavery.⁶⁷ However, the Confederacy remained hopeful if it was recognized as a free and independent nation, “the sooner the strife be ended the better for the cause of peace and the interest of mankind.”⁶⁸

The Confederates actively worked throughout the blockades. They used small blockade running paddle ships to bypass the union ships of war. They also used places like Havana as a mid-point since the Union could not stop ships from Britain going to a country under Spanish control. The Confederates would load supplies from the British ships and fill them back up with

⁶³ Joseph Whitworth's Dearly Rifle, <http://www.historynet.com/joseph-whitworths-deadly-rifle.htm>

⁶⁴ Jac. Weller, "Imported Confederate Shoulder Weapons." *Civil War History*, vol. 5, no. 2, June 1959, pg. 164.

⁶⁵ Former United States Senator from Virginia for fourteen years

⁶⁶ Norman B. Ferris, *The Trent Affair: a Diplomatic Crisis*. University of Tennessee Press, 1997, pg.3

⁶⁷ Preventing Diplomatic Recognition of the Confederacy, 1861-1865, <https://history.state.gov/milestones/1861-1865/confederacy>

⁶⁸ Confederate President Jefferson Davis

cotton and other agricultural goods.⁶⁹ Those ships would paddle past the Union blockades and enter the southern ports. Fifty percent of the Confederate purchases from Europe were small arms. The second most purchased item was cannons, which were also very important to the army. The Confederates relied heavily on Britain as the source of their supplies, due to the fact that initially they could not successfully produce enough of their own rifles and carbines.⁷⁰ Even with the blockades, armaments and supplies made it into the hands of Southerners. The South received a large number of Enfield rifled muskets to aid their war cause, for example.

In 1863, the South also gained an advantage by receiving the Whitworth rifled musket. These men took a competition rifle and used it to its full capacity from the range at Wimbledon to the battlefield in the US. With the aid of the blockade runners these rifles made it in the hands of southern soldiers. These rifles meant that the southerners could engage the enemy at twice the distance of the opposing army's rifles. The rifle ultimately created a change in the landscape of the battlefield. There was an immediate impact when Confederate sharpshooters started putting these rifled muskets to use.

How the Whitworth Rifle Changed Warfare

Major General Pat Cleburne⁷¹ was very well known for his attention to detail -- so much so that he drilled this quest for perfection into his men in order for them to have an advantage on the battlefield. His major emphasis was on proper cleanliness of the soldier's rifles and bayonets. The man who took the best care of his rifle would be exempt from guard duty for one round of

⁶⁹ In 1862 Britain was in need of cotton they were in a depression Lancashire had fired 27,000 and 160,000 people barely were holding selling their furniture to put food on the table without cotton coming in there would be no jobs and factories would be shut down for good. For more information see ***A World On Fire***

⁷⁰ Jac Weller, "Imported Confederate Shoulder Weapons." *Civil War History*, vol. 5, no. 2, June 1959, pg. 164

⁷¹ 1828-1864

duty. This was used as a reward for having the cleanest rifle, which was not an easy task while in the middle of combat. Mr. Cleburne also held marksmanship games. He was looking for the best marksmen from each of the companies. Once he knew the men that he assigned to the sharpshooting unit, he began to make improvements within the unit. Cleburne's unit was one of the first to get Whitworth rifles. He started training the men in how to use these rifled muskets. He was only given five Whitworth rifled muskets due to the high cost of the package the Confederate Army was purchasing at the time.⁷² The price for a bare rifled musket was \$100.00 compared to the Enfield, which cost between \$12 and \$25 each. Only 200 bare rifled muskets and 50 of the specialty packaged rifled muskets were smuggled into the South during the war. The specialized rifled muskets were cased with many accessories such as a Davidson four powered scope with a specialty glass, 1,000 rounds of Whitworth ammunition, and a bullet mold. The cost for this specialty package was \$1,000 per rifled musket.⁷³ Cleburne's advanced skills training and forward thinking was rewarded later during the war. Prior to the Atlantic campaign, he received 20 additional Whitworth rifles.⁷⁴

Mr. Cleburne had very specific rules of engagement for the use of the sharpshooters under his command. The sharpshooters only engaged targets of high value, which included artillery positions, cavalry scouts, exposed officers, and any enemy sharpshooters.⁷⁵ The sharpshooters were free to operate independently from the regular army. The other unit gaining the Whitworth rifled muskets in 1863 was a sharpshooting corps in Bragg's army located near Chattanooga and another under Johnston's command near Meridian. During the Battle of

⁷² Bruce H. Stewart, and Patrick Ronayne Cleburne. *Invisible Hero: Patrick R. Cleburne*, Mercer University Press, 2009, pg. 128

⁷³ Fred L. Ray, "Joseph Whitworth's Deadly Rifle." *Civil War Times*, vol. 49, no. 6, p 42-49

⁷⁴ Bruce H Stewart, and Patrick Ronayne Cleburne. *Invisible Hero: Patrick R. Cleburne*, Mercer University Press, 2009, pg. 128

⁷⁵ Sure shot

Chickamauga on September 20, 1863, the Whitworth rifle squad provided harassing fire. Major General John M. Palmer reported the sharpshooters were very busy killing and wounding officers during the battle. Some of the brave men under Palmer's command got close enough to counter the sharpshooters by shooting them out of trees and from behind cover.

John M. Minnich was a soldier who fancied the Whitworth rifle after his encounter with one of these select sharpshooters. The sharpshooter told Minnich how he was exempt from a daily soldier's routine. The sharpshooters were also only subject to the Division Commander. The sharpshooters did not have to stand guard, and were also given special privileges of extra food during chow call. The sharpshooters were easily recognized around camp. They usually had a black eye or eyes due to the massive recoil from the rifled musket. Minnich wanted to trade his Enfield for the Whitworth rifled musket. The sharpshooters reply was "Good Lord, boy! I wouldn't dare go back to camp without my gun. I'd be court-martialed and shot if I lost it that way."⁷⁶

The sharpshooters were also responsible for killing Brigadier General Reynolds during the beginning of the battle at Gettysburg. He knew that he must be with his men, to try to keep the Confederates to the northwest away long enough for the bulk of the regular army to arrive.⁷⁷ He chose to ride with them in an advance charge during the start of the battle. It was believed that during the advancement through the woods, a Southern ambush jumped up from the brush and started shooting at the Union soldiers. A Confederate sharpshooter raised up his rifle, drew a

⁷⁶ Earl J. Hess, *Rifle Musket in Civil War Combat: Reality and Myth*, (Lawrence: University Press of Kansas, 2016), pg. 184.

⁷⁷ Mark. "The Death of General John Reynolds at Gettysburg." *Iron Brigader*, 25 Apr. 2012, ironbrigader.com/2012/04/25/death-general-john-reynolds-gettysburg

head, and shot Brigadier General Reynolds in the back of the neck.⁷⁸ The shot severed his spine from a 200-yard shot mounted atop a horse.⁷⁹ During the battle of Gettysburg, a sharpshooter in Lee's army, named Ben Powell, remembered that Major General Cleburne used the sharpshooters for the retreat from Wallace in late 1863.⁸⁰ It was said that 15 sharpshooters were used to keep the advancing Union army at bay during a storm, giving the Southern army a week's head start during its retreat. The battlefield was typically a horrible place, but in the summer of 1863 at Fort Wagner, in Charleston, South Carolina, it was miserable. Soldiers had to worry about the hot climate and things like sand fleas. Those might have been dangerous enough, however, the Northern troops had to worry about the Whitworth rifled musket bearing down on them as well. The slightest exposure above the crest of the fort's parapet would draw fire from a Whitworth rifled musket. Several men were injured at a distance of 1,300 yards.⁸¹

By this time in the war, many officers had fallen to the hands of the sharpshooters. These marksmen had become very well-known and feared on the battlefield. Major General John Sedgwick⁸² was no stranger to being shot at or shot. He had been wounded several times prior to Spotsylvania. On May 8, 1864, he was wounded, but not injured. He did not leave the battlefield, and he was bandaged that evening.⁸³ The morning of the May 9, 1864, conditions were perfect for sharpshooters. Sedgwick sat down for breakfast and a cup of coffee, 100 yards behind the main line. The Union army moved into position and 900 yards separated the two armies. The Confederate army started shooting and bullets zipped by the seated officers. Generals Grant and

⁷⁸ Whitelaw Reid, et al. *Two Witnesses at Gettysburg: the Personal Accounts of Whitelaw Reid and A.J.L. Fremantle*. Wiley-Blackwell, 2009

⁷⁹ Mark. "The Death of General John Reynolds at Gettysburg." *Iron Brigader*, 25 Apr. 2012, ironbrigader.com/2012/04/25/death-general-john-reynolds-gettysburg

⁸⁰ Fred L. Ray, "Joseph Whitworth's Deadly Rifle." *Civil War Times*, vol. 49, no. 6, pg. 42-49

⁸¹ Ibid.

⁸² Also Known as Uncle John

⁸³ Sure shot

Meade rode by and asked Sedgwick if he would like to join them in a ride to the front lines, which he declined. Lieutenant Colonel McMahon asked Major General Sedgwick not to go near Laurel Hill, Virginia because Confederate sharpshooters had had been picking off every officer they could all morning. On the hill that morning, a sharpshooter had already killed Colonel Frederick T. Locke and Brigadier General William Morris. Less than an hour later, Sedgwick ordered his own troops to move to a new location.⁸⁴ He wanted his men adjusting the line that was becoming close to being in the sector of fire from artillery.⁸⁵ Uncle John, as he was known by his men, joined up with the artillery unit to oversee the gun position, forgetting his promise he made to McMahon not more than an hour prior. Two Confederate sharpshooters, Ben Powell⁸⁶ and Sargent C. D. Grace, with Whitworth rifle number 449,⁸⁷ noticed two men who just arrived on top of the hill about 500 yards from their position. The artillery men and officers seemed to defer command to these two men, so they stuck out on the hill. Both of the sharpshooters carried Whitworth rifled muskets and adjusted for the shot. It has been debated who took the shot as both men have been credited with pulling the trigger.⁸⁸ The Enfield rifles sent a volley of rounds down range towards the Confederate line. In that same moment, a shot was fired at the artillery battery on the hill. The soldiers dove to the ground seeking cover. No one was hit from that round.⁸⁹

Sedgwick asked his men why they were dodging a single bullet while laughing: “What will you do when they open fire along the whole lone? I am ashamed of you. They could not hit

⁸⁴ Fred L. Rey, “The Killing of Uncle John

⁸⁵ Sure shot

⁸⁶ Fred L. Rey, “The Killing of Uncle John

⁸⁷ W.S. Curtis, “Whitworth Rifle Warnings.” *Research Press*,
www.researchpress.co.uk/index.php/firearms/gunmakers/whitworth/whitworth-rifle-warnings

⁸⁸ Ibid

⁸⁹ Fred L. Rey, “The Killing of Uncle John

an elephant at this distance.” A soldier defended his action by stating that he dodged a shell once before, if he had not it would have taken his head off. He believed that dodging the shell saved his life. Sedgwick told the unit to get to their feet and man your posts.⁹⁰ One last shot was fired hitting Sedgwick in the face as his head slowly came around to his aid, Lieutenant Colonel McMahon, who saw blood spurting from under Sedgwick’s eye as he fell. McMahon caught him, as both men fell to the ground. The sharpshooter that took the shot is still be debated to this day as five have taken credit for it. Through the research that I have seen so far and my experiences the most likely shooter was Ben Powell (unconfirmed).⁹¹ This was such a devastating blow to the Union forces. Even General Grant could not believe that Major General John Sedgwick had been killed in action. During the fighting, the sharpshooters also claimed the lives of Brigadier General Stephan H. Weed and Lieutenant Charles E. Hazlett. The aid to Weed came running to assist him and was struck down by the same sharpshooter falling on top of the general’s body. One hundred yards away, Brigadier General Strong Vincent and Colonel Patrick O’Rourke were both taken by sharpshooters.⁹² July 26, 1864, Brigadier General James A. Mulligan was surveying a battle while surrounded by junior officers. About 700 yards away, seven confederate sharpshooters took aim on the same target. The sharpshooters sent a volley of rounds on top of the hill. This was not a standard practice. The sharpshooters struck and killed Mulligan,⁹³ adding to the officer count and taking out a surveyor for artillery and union advances. This shot would have been very meaningful as few officers had the knowledge to work this equipment.

⁹⁰ Fred L. Rey, “The Killing of Uncle John

⁹¹ W. S. Dunlap, *Lee’s Sharpshooters*, Little Rock, ARK, Tunnar & Pittard, Print 1899, pg. 49

⁹² Martin Pegler, *Sharpshooting Rifles of the American Civil War*, Osprey Publishing, 2017, page 55

⁹³ Ibid

Fort Sumter, South Carolina on December 5, 1864, an unidentified Confederate saw a Union soldier moving up ahead of him. He was judged to be about 1390 yards away. He aligned his sights on the soldier and fired, striking him down and killing him instantly. This was longer than the longest shot taken during World War I, and still ranks as the 14th longest shot of all time if it were counted as a kill. The shot did take place but did not count due to the nature in which it was taken. Both the North and the South were under a cease fire, and both sides were not 100 percent aware at the time.⁹⁴

Francis M. Ferguson, a Confederate sharpshooter of the 4th Kentucky Infantry, reported that he specialized in only shooting Union officers. He killed 25 before being killed by a Union sharpshooter.⁹⁵ The total of officer casualties from both sides was 61 officers above the rank of major killed by sharpshooters. The total number of officers including junior officers that were killed by sharpshooters cannot be tallied as it was such a high number. At Fredericksburg,⁹⁶ the number of Union officers killed or wounded was estimated at a quarter by Confederate sharpshooters.⁹⁷ Wars had evolved by this point in the war and had been shaped and molded into a more modern approach to battles. The lines of men marching in, scared to be killed that day, had been changing and men started preparing trenches as seen in later wars. Men started changing their mindset with the adoption of trench warfare. The Whitworth rifled musket in capable hands helped to shape the more modern scene. This was looked down upon because the officer class was considered above the field fighting and were meant to keep order amongst the

⁹⁴ One of history's longest sniper kills

⁹⁵ 10 companies of union sharpshooters, the rifle of choice was a sharps rifle and the unconfirmed number was 700 sharpshooters

⁹⁶ December 11-15 1862

⁹⁷ After the introduction of the Whitworth rifle the officer's casualties grew in numbers as the sharpshooters became proficient with their craft.

soldiers. Now that they were the target, it was harder for them to be accessible to keep order and what was thought of as class and gentlemanly conduct on the battlefield.

After the importation of the Whitworth, men like Jack Hinson from Tennessee turned into one-man armies. In the early years of the war, Hinson was politically neutral, raising crops and his family, and just trying to make it through his day. His sons were out hunting for game in 1862, when a union patrol from the 5th Iowa cavalry picked up the two young men with rifles. The soldiers assumed the boys were rebel guerrillas. The sons of Jack had their weapons taken from them, then they were secured to a tree with rope, and finally they were executed. A Lieutenant from the 5th Iowa cavalry, with sword in hand, decapitated the two boys. He then placed the heads of the boys on a couple posts around the perimeter of the family farm.⁹⁸

Mr. Hinson, like his boys, tried to remain neutral until this incident. He had no military experience. He was just a hunter. He was a wealthy plantation owner, who had plenty of time for leisure, to dedicate to marksmanship, and he was very knowledgeable in the woods. There was no immediate action of retaliation against Union soldiers. Instead he placed an order for a Kentucky Rifle that had a 41-inch barrel and was chambered in 50 caliber. It was not a Whitworth rifle, however, the tactics the Whitworth sharpshooters used were even taken up by civilians with civilian rifles. This was a more powerful rifle than most of the ones that were used during the Civil War. He decided to leave the plantation and move into a cave close to the Tennessee River. Mr. Hinson used tactics that the Confederate regular army was adopting during the same time. At this vantage point, he could watch passing Union transport ships moving along the river. He targeted only officers because it was an officer that decapitated his sons. His

⁹⁸ David LaPell, "Jack Hinson: The Civil War Sniper." *Guns.com*, Guns.com, 20 July 2018, www.guns.com/news/2012/02/09/jack-hinson-the-civil-war-sniper

purpose was to torment gun boats and hold the higher brass accountable for the loss of his sons. He was tracked by four Union regiments, yet he was never caught. He never joined the Confederate army, although he aided General Nathan B. Forrest as a scout during the Battle of Johnsonville, which was a Southern victory. He was targeting officers from a covered vantage point with a specialized rifle. The Civil War claimed the lives of five of his ten children. He was responsible for the death of about 100 union officers during the war, and died peacefully in 1874.

In conclusion, sharpshooters played a key role on the battlefield, and the Whitworth rifled musket was one of the most feared firearms to serve in the Civil War. Snipers were treated very badly when caught and were often shot on sight for their actions. They were looked down upon and the morality of their fighting style was in question from both sides of the line, even though both sides employed the use of these sharpshooters. The term sniper became a common military term in World War II, however the Civil War sharpshooters is where snipers were born. Snipers took the battlefield from a gentleman's fight and transformed it into the way the two World Wars were fought. The cover and concealment tactics of modern snipers get their origin from these Civil War sharpshooters. The key to these men being able to accomplish what they did, and to be this feared, was that they had the Whitworth rifled musket. There had never been a straighter harder shooting rifle prior to the Whitworth rifled musket as those who shot it and those who were shot by it came to know all too well.

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Get Down, You Damn Fool: The Birth of the Sniper

How the Whitworth rifled helped to change the battle field forever

By Chris Holman