

Firearms and Tactics of the American Civil War: A Minority Opinion  
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Infantry in Action

This web site concerns uniforms and insignia of the Civil War and does not address firearms, which I feel are well documented by persons more knowledgeable than myself. However, I include the following in the interest of rebutting some conventional wisdom regarding Civil War weapons and tactics.

A common generalization about the American Civil War is that it was a terrible slaughter that resulted from using outmoded and inappropriate Napoleonic tactics in the face of new and improved weapons and munitions. There may be some truth in this generalization, but the story is much more complex and I do not believe that the claim does justice to the ability and intelligence of the thought leaders of the period.

There were revolutionary developments in firearms and munitions on the eve of the Civil War. The key innovation was the Minie bullet (Minie ball) that allowed a rifle to be loaded and fired with greater speed than had been possible in the past. Rifles were not new weapons. They were used in the Revolutionary War and on the American frontier but were a specialty weapon and not practical as a standard infantry long arm. The percussion lock was another innovation that allowed a faster rate of fire. These various innovations came together in the adoption of the .58 caliber model 1855 and later the model 1861 rifle as the standard infantry weapon for the United States Army.

It is necessary to come to a decision or outcome on a battlefield. Tactical draws are not what military commanders are seeking. Those who state the Civil War was fought with outmoded tactics never explain just how they would have had the Civil War soldier fight. It was necessary with the slow firing muzzle loading rifles of the period to group men together in a drilled unit to create a volume of fire necessary to damage an opposing unit sufficiently to cause them to leave the field. The concept of grouping men together in tight formation originated in ancient Greece and was extremely effective on the battlefield. Even the most courageous and determined individual warrior was doomed to fall before a wall of spears and shields. The problem compacting a body of men and maneuvering them on a battlefield was resolved by marching them in step. For millennia the effective range of weapons slowly improved, but the basic tight

formation remained.

Period military thinkers were well aware that the improvement in rifles would change tactical relationships on the battlefield. However, they were uncertain of just how it would come together in practice. The idea of having soldiers fight as individuals or in small units and use cover would have seemed impractical to military thinkers on both sides of the Atlantic. There was very little cover on typical European battlefields, and in the past it was considered an impediment to the movement of units in formation. Men fighting as small units would be difficult for officers to control. Such tactics would have resulted in chaos and stalemate. The field fortifications were also viewed with distain. These were felt to rob men of their aggressive fighting spirit. The thinking that developed after the Crimean War was that the answer lay in an aggressive assault by well-trained units. Zouaves were trained to suddenly drop to the ground immediately before the opposing unit's volley and then rise and charge with the bayonet. Occasionally these tactics worked spectacularly. The many failures were blamed on the troops rather than the tactics. This kind of thinking did not disappear until well into the First World War.

On the target range Civil War weapons are surprisingly accurate. Anyone who has seen a demonstration for the first time is sure to be impressed by what might be viewed as primitive weapons by modern standards. However, in practice both sides expended a huge amount of ammunition with only a very small fraction of those shots resulting in a casualty on the other side. This has been looked at repeatedly in studies that calculated the amount of ammunition issued to troops prior to and during an engagement and the casualties they produced. Many of these studies have developed figures on the order of one per cent. The U.S. Ordnance Department produced over one billion cartridges during the war. Of course many of these were wasted, dropped or became wet. This is the paradox that conventional wisdom regarding Civil War weapons and tactics does not explain. Despite having an accurate weapon and an opposing force in tight formation, the vast majority of shots fired missed their mark.

The explanation is complex and has to do with both ballistics and human psychology. The difference in ballistics between the new rifle firing a Minie bullet and the older musket firing a round shot is surprising. Round musket balls weigh less than conical Minie bullets of the same caliber. The powder charge was the same. Therefore, muskets of the period had a higher muzzle velocity than did the newer rifles. The result was that at close range a musket ball initially

followed a straighter trajectory. This benefit of smooth bores for close-in fighting may explain why units such as the Irish Brigade still carried them as late as 1864. On the other hand, the slower rifle shot followed a curving trajectory. Soldiers firing rifles needed to accurately estimate the distance of the target and adjust sites. If this was not done properly, shots were likely to pass harmlessly over the enemy's heads. Many period accounts mention that very phenomenon and the frequent command to "aim low."

Lastly, there is the human element. Men on the battlefield are in mortal danger. They do not behave as men do on a target range. It took a relatively long time to load a muzzle-loading rifle. The obvious explanation for the paradox is that the typical nervous battlefield soldier loaded and fired as fast as possible and simply did not take the additional time to accurately aim his weapon.

Another aspect of the human element is the Victorian mindset. Existing attitudes allowed an acceptance of the status quo. The Romantic Era celebrated a good and heroic death. Honor, duty, chivalry, and religious zeal defined men's lives. To fight in a Twentieth Century manner would have seemed base and craven to them. Of course, there is nothing like the horror of war to administer a dose of reality and by the end of the war these attitudes were eroded. Field fortifications became commonplace and the lessons of one too many hopeless frontal assault was learned by even the most callous commander.

It was inevitable that the Civil War would have been a great slaughter regardless of the weaponry used. The reason is that both sides were fighting for high stakes. This was not a contest between two European princes, the loser of which might give up a couple of islands in the Caribbean to the winner. The South was fighting to preserve a system of government that would allow it to maintain slavery, the economic underpinning of its economy. The North was attempting to maintain the union of states and prevent division. A successfully Confederacy would have a chokehold on the Mississippi River, the key to the economy of the Midwest. The issue of slavery was not one that was subject to any easy compromise. In the end, both sides would need to bleed dry before the nation could reunite in the spirit of mutual suffering. The result would have been the same were it fought with clubs and rocks or modern weaponry. The loss of life was a function of the high stakes both side had in the outcome and not in the particular weapons and tactics used. Although advanced, the typical slow firing period weapon was still not so advanced to produce a radical evolution in tactics. Many people are unaware that

the more rapid firing weapons that were developed during the period, such as the Gattling Gun or repeating rifles, were not deployed in numbers adequate to effect battlefield outcomes. It would be another 50 years before serious tactical changes would occur.