
Drill

It is thought that a good gun crew could fire as many as five rounds a minute and there is no doubt that improvements in the provision of ammunition, principally fixed rounds and vent tubes, contributed to increases in the rate of fire. But in reality it was the discipline and skill of the men that really told in battle. A gun crew might have to approach the enemy, unlimber, load and fire in a very short space of time. For the gunners, standing in front of a gun when an enemy cavalry unit was charging down on them must have been a nerve-wracking experience.

Drill was the key to good Fire discipline. In British gun crews, nine men were allocated to each gun, with each man allocated a specific number corresponding to his role, with a possible maximum of 15 if it was expected that the gun would have to be manhandled. Curiously some sources state that the men were numbered from seven to 15, although this is not always consistent.

The operations of the gun depended principally on five of the crew members. The remaining crew were 5 to 10 yards in the rear and brought up ammunition and tools. The duties of the main crewmen were as follows: No. 7 sponged, No. 8 loaded, No. 9 served the vent, No. 10 fired the gun, No. 11 was the gun commander. Other crew roles were: No. 12 carried the match and water bucket, No. 13 served No. 8 with ammunition from No. 14, who carried a cartouche bag (a waterproof canvas bag for holding gun charges) and a pair of drag ropes, and No. 15 held the limber horses and carried a cartouche bag.

When viewed from the rear, the positions were: No. 7 between the right wheel and the muzzle, No. 8 between the left wheel and muzzle, No. 9 clear of the right wheel and No. 10 clear of the left wheel, both in line with the vent. No. 11 at the rear of the gun "on the left of the handspike. The only difference with larger calibres was that Nos. 9 and 10 stood outside the wheels and Nos. 7 and 8 at the front assisted with ramming.

For howitzers the positions were the same but the duties were slightly different: No. 7 sponged, uncapped the fuse, and loaded the shell. No. 8 took the sheepskin out of the piece, laid it on the ground, loaded the cartridge, wiped the bottom of the shell and put the sheepskin in again. The sheepskin was used to stop the muzzle immediately after it was fired because there was a greater risk of accident with this type of weapon, due to the howitzer shells being filled with gunpowder and fused, whereas the round shot was inert. No. 9 served the vent, No. 10 fired the gun, No. 11 commanded and estimated range and fuse burning time, No. 12 carried the match and bucket, No. 13 served No. 8 with cartridges, No. 14 served No. 7 with shells from the limber, which he laid on the sheepskin, and No. 15 attended the limber. There was a system of sharing out the duties should a man be injured or killed and it was reckoned that a gun could still be kept firing with only three men in the detachment.

Horse artillery drill was essentially the same but all the gunners were mounted on horses so there had to be a horse holder. The horses and the horse holder were normally positioned behind the limber with five gun numbers manning the gun, with a sixth slightly behind them and one gunner controlling the limber team.

Tactics

During our period the use of artillery subtly changed within the British Army. At the beginning of the period guns were used in smaller groups and the use of the battalion gun meant that smaller calibres were spread amongst infantry battalions. The French were the great exponents of massed artillery and perfected the art of closing up with their guns in the shortest time possible. British artillery was handled in a different way.

At the beginning of the period, as we have seen, the guns were divided up into battalion guns, artillery of the park and horse artillery. The battalion guns were normally 3-pounders or light 6-pounders. Strict instructions on the positions of the guns relative to their parent units are not available but in review the battalion guns were placed to the right of the regiment with 10 yards between them and 10 yards between the left gun and the infantry, normally the battalion's grenadier company. It was said that the gun numbers 7 and 8 who stood at the rear of the trail but at a distance from it were to be in line with the front rank of the infantry. It is clear, though, that when guns were in action they would take any position that gave them advantageous locations from which to hit the enemy. A manual of 1802 gave the following advice:

With very few variations, the guns should attend in all movements of the battalion, that division of it to which they are particularly attached; and every attention should be paid in thus adapting the movements of the guns to those of the regiment.

At the start of the period artillery of the park could normally include 6-, 9- or 12-pounders. These guns were organised into brigades of six guns and the British used the heavier calibres, again normally 12-pounders, in a very specific way. The heavier guns were placed at weak points in the line and at places where they could do the most damage at the furthest range. The emphasis was placed on hidden positions and the creation of defensive works. Contemporary authors stress the use of ground and we can see that they were inclined to use guns in a similar way as a World War I tank in that the reverse of the slope was used for cover and the gun was run up to fire at the very last moment. The need to wait, hidden, until the very last moment to gain the element of surprise, was very important according to contemporary authors. There was also an optimum height at which the guns should be placed on a hill, a height of 30-40 yards at a range of 600 yards being thought most suitable.

It should be made clear that most Napoleonic combat took place at very short range compared with modern day values. Musket range was very short; anything in excess of 100 yards was out of the question and the normal effective range was really 50 yards or less. The guns then were extremely significant since they could range out to a maximum of 1,500 yards, giving the army an opportunity to destroy some enemy units long before they reached their destination.

Interestingly, in theory, guns were not to be used against other guns. Whilst this may well have been the generally accepted theorem it was clearly not the practice since there are many guns from the period with damage sustained from enemy guns. It is also interesting to note that one author suggests the masking of guns by another unit until they are needed. This suggests that their power and effect on the battlefield were very great indeed. As soon as a gun was in an advantageous position it was suggested that they were protected by some kind of defensive measure. The advice given in 1802 was:

By proper attention many situations may be found of which advantage may be taken for this purpose, such as banks, ditches. Everywhere to be met with.

Britain did not follow France's example and create grand batteries to destroy a particular part of the enemy line but during the wars the emphasis came to be placed on the need to concentrate fire on a particular target. French armies almost always had more guns than the British forces, for example during the Peninsular War Britain could rely on one gun per 1,000 men whereas the French often had four per 1,000 men.

The optimum effect would be produced by a cross-fire from the guns. This meant either choosing a target and attacking or choosing a prearranged point over which the enemy was likely to pass. The main thing was that the gunfire should hit an enemy unit at the head of the column and the weakest points of the front. The secret was to hit a unit at its greatest depth. For example infantry in line were ideally to be attacked by enfilade fire (to fire at an object along its greatest length from a perpendicularly placed gun). Columns were to be hit from the front. Emphasis was placed on the senior artillery officer knowing where and how his guns would produce the desired result, which was to be communicated to him by the senior commander. The only form of communication available was the messenger or word of mouth and so pre-arranged orders and changes in plan were difficult to carry out.

Horse artillery was another matter altogether since it was specifically formed to be light and mobile. A horse artillery unit was expected to be courageous and skilled, the gunners being good swordsmen as well as horsemen. They were expected to ride close to the enemy and unlimber to fire as soon as possible. A good example of how close this could be is demonstrated by the actions of Norman Ramsey's division at the Battle of Fuentes d'Onoro in Spain. As part of Bull's Troop Ramsey's two guns were firing on the retreat and were left out of the protective square of infantry within which they could have sheltered. They were attacked and completely enveloped by French cavalry and Major General Sir W.F.P. Napier describes what happened next:

Men and horses were seen to close with confusion and tumult towards one point, where a thick dust and loud cries, the sparking of blades, the flashing of pistols indicated some extraordinary occurrence. Suddenly, the multitude became violently agitated, an English shout pealed high and clear, the mass was rent asunder and Norman Ramsey burst forth sword in hand at the head of his battery [sic] his horses, breathing fire, stretched like greyhounds along the plain, the guns bounded behind them like things of no weight.

Napier's view may be fanciful but this incident has become something of a celebrated event in the Royal Artillery and it certainly demonstrated the high morale of the horse gunners.

Since Britain always had less artillery available than the French, as the wars proceeded British commanders began to experiment with and then carry out the practice of holding an artillery reserve. At the end of the wars this reserve usually formed a large percentage, up to half, of the overall artillery available. We should not think of the reserve as a number of units held in one place but as a central grouping from which units were drawn to support particular sectors of the battlefield when the need arose.

Battlefield effectiveness

Consider these words written by Cavalie Mercer after Waterloo about a French cavalry charge receiving the full fire of his brigade at 50 or 60 yards range:

The effect was terrible. Nearly the whole leading rank fell at once: and the round shot, penetrating the column carried confusion throughout its extent. The ground, already encumbered with victims of the first struggle became, almost impassable.

If the effect of artillery fire on cavalry was devastating it was possibly even worse when an artillery unit was attacked. Mercer's own troop was attacked by a French artillery brigade at a range of 400-500 yards:

Every shot almost took effect and certainly expected that we should all be annihilated. Our horses and limbers, being a little retired down the slope had hitherto been somewhat under cover from the direct fire in front; but this plunged right amongst them, knocking them down by pairs, and creating horrible confusion. The drivers could hardly extricate themselves from one dead horse ere another fell, or perhaps themselves. The saddle-bags, in many instances were torn from the horses' backs and their contents scattered over the field... In some instances the horses of a gun or ammunition wagon remained and all the drivers were killed.

Following the end of the Napoleonic Wars the Duke of Wellington became an immense public figure influencing almost every aspect of military life. This was in a way a backward step for gunnery development and as Britain entered the Crimean War the artillery equipment was virtually identical to that of 40 years before. Yet within ten years British armies were armed with breech-loading rifled weapons designed by William Armstrong, which were to point the way to the artillery of the future, and the age of the smoothbore gun was over.