

WHAT WAS THE MOST COMMONLY USED FIELD ARTILLERY ORDNANCE DURING THE WAR BETWEEN THE STATES?

By William Speir

Loyal Train of Artillery Chapter of the United States Field Artillery Association

Copyright © 2011

All Rights Reserved – William Speir

Artillery was the first weapon of mass destruction employed on the battlefield. There were a variety of types of muzzle-loading Ordnance (cannon shot) used by Field Artillery during the War between the States (American Civil War), and each one had a specific composition and purpose. This article discusses the four most commonly used types of Ordnance, as well as three of the less commonly used types.

The four most commonly used types of Ordnance include:

- **Solid Shot.** This was typically long-range ordnance, and was a steel ball (or bolt for rifled guns) that was used primarily for its demoralizing effect.
 1. Solid shot was frequently used when the opposing force was marching through a wooded area. For example, a 12lb. solid shot from a Napoleon could easily punch through a tree, causing the upper part of the tree to fall on the soldiers below. This would create confusion and fear, and would take the troops a while to reorganized and clear the debris so the wagons and cannons could get through – a good delaying tactic.
 2. Solid shot was not very effective when fired in the face of an approaching enemy. This would cause a disruption in the ranks, but the enemy could quickly regroup.
 3. However, because a solid cannon ball fired close to the ground will skip along the ground at tremendous speed, cannons would be set up at angles to approaching infantry and fire into their flanks. These cannon balls could easily

damage or remove dozens of limbs, which would severely injure and kill those hit and terrify the rest.

4. Solid shot was also used to damage opposing Artillery by breaking the axle or damaging the barrel. There are cannon barrels at some of the battlefield museums around the country that have been ruptured about 24 inches from the breach. This was caused by a cannon ball from an opposing gun entering the barrel of these cannons at the same time they were fired. The two balls collided and the pressure caused a hole to be torn through the bronze for the pressure to escape.
5. Solid shot was effective against fortifications and earthworks, and was typically used to punch holes in the defenses.

- **Shell.** This was typically long-range ordnance, and was a hollow ball/bolt that was filled with tightly packed powder. Shells had fuses that would be lit when the cannons were fired. This was used to damage opposing Artillery and other equipment, fortifications, as well as personnel.
- **Case.** This was medium-range ordnance, and was a hollow cylinder that was filled with 1 to 2 inch steel balls packed in resin. Case was designed to explode over the heads of approaching troops and rain these steel balls down at tremendous speeds.
- **Canister.** This was short-range ordnance (200 yards), and was a hollow cylinder (often a tin can) that was filled with small bits of metal (shrapnel). When fired, the cylinder would hit the ground and rupture, causing the shrapnel to be released and ricochet into the face of the opposing force. If a cannon was firing Canister rounds, it was typically a delaying tactic to keep the opposing force away while the gun was being limbered so it could be moved further away from the opposing force.

Double Canister. This was also short-range ordnance, and consisted of loading two Canister rounds at the same time. The first round would be loaded normally, and then the second round would be loaded backwards so that the rounds were facing each other inside the barrel. The impact of the first cylinder into the other would cause both cylinders to rupture in the barrel, turning

the cannon into a giant shot gun. Firing Double Canister was an act of desperation since, to be effective, the cannon crew would already be well within range of the opposing force and probably taking heavy losses.

Some of the less commonly used types of field ordnance includes:

- **Grape Shot.** This was primarily the naval equivalent to canister, although it was employed in Field Artillery on occasion. Rather than small bits of metal, the cylinder or canvas bag (“quilted grape shot”, sometimes referred to as “quilted grape” or “quilted shot”) was filled with small steel balls (like ball bearings) that were held together with iron rings or trussed up with fabric and twine.
- **Bar Shot.** This was primarily used in naval warfare to break masts, railings, and the hulls of ships. The greatest injuries caused during cannon duels between ships was not from the ordnance itself, but from the splinters flying about because of the cannon shot. Bar Shot was effective in punching holes through the wood, which would send splinters in all directions at high speeds, causing injuries to personnel as well as damage to the opposing ships. It was employed in Field Artillery on occasion – mostly for bringing down trees or against earthworks and fortifications.
- **Chain Shot.** This was primarily used in naval warfare to de-mast ships, but it was used on land as well. A cannon ball would be attached to center of a length of chain that was weighted at both ends. When fired, the chain would begin spinning, ripping apart anything it came in contact with. There was a brief attempt to fire a length of chain with a cannon ball on each end from two cannons in tandem, but since two cannons never fire at the same time, the cannon that fired second would find it’s ball becoming the anchor, causing the other ball to begin spinning and killing all of the artillerists in the vicinity. In Georgia, there is a cannon outside of a county court house with two barrels sharing a common breach, which was developed to overcome the problem of two cannons firing at the same time. It never worked because, even with a shared breach, the cannon balls would not travel the same distance at the same speed down both barrels.

Many reenactors and ceremonial artillerists will never experience firing live ammunition, but organizations, such as the North-South Skirmish Association and the Loyal Train of Artillery Chapter of the United States

Field Artillery Association (LTAC-USFAA), do hold regular competitions where live ammunition is fired. Spectators are welcome to watch these competitions and see how live ordnance was employed during the War Between the States.

Ready to learn more about operating muzzle-loading artillery? The LTAC-USFAA teaches the safe operation of canons from the War Between the States to all students who attend the Artillery Schools, and the manuals can be purchased online at <http://artillerypublications.com/>.