It was a grand and inspiring sight to witness batteries going headlong into action—the neighing of horses, the rumbling of caissons, the officers on their charges with swords gleaming in the sunlight, with buglers clanging out the orders, the passing of ammunition, the ramming, the sighting, the firing, and the swabbing, the guns booming in chorus like heaven-rendering thunder.

Pvt Edward Spangler, 130th Pennsylvania Infantry

The destructive shot and shell were falling, it would appear, on every foot of land.

INTRODUCTION

There were over 500 cannons engaged during the Battle of Antietam. The open, rolling terrain around Sharpsburg was perfect for the use of artillery. Over 1,000 rounds an hour were fired during the twelve hours of combat on September 17, 1862. The firing was so intense that soldiers described the day as a “savage continual thunder” and a “tumultuous chorus.” Gen. Alpheus Williams wrote that “if all the stone and brick buildings on Broadway should tumble at once the roar and rattle could hardly be greater.” The artillery was a separate branch of the army, along with the infantry and cavalry. The basic organizational unit for cannons was called a battery, made up of four to six guns with approximately 70-100 men. Field artillery was mobile, pulled by four or six horse teams that could quickly roll into position, providing offensive firepower where it was needed most. Groups of cannons, combining the awesome power of 15, 20, or 24 guns provided a powerful defense against attacking infantry and helped anchor an army’s position.

At Antietam, Gen. George McClellan’s Union Army of the Potomac had more cannons (about 300 Union to 230 Confederate), more long range guns, and generally better ammunition. Gen. Robert E. Lee’s Army of Northern Virginia effectively moved its guns back and forth within their line of battle in response to the Union attacks and began the innovation of massing cannons into larger groups called battalions.
Types of Artillery

Cannons were made in different sizes and by different manufacturers, but there were only two types—smoothbore and rifled. Smoothbore guns were mostly bronze and smooth on the inside like a pipe. They fired round ammunition that tumbled in flight. Most rifled guns are made of iron and had grooves cut inside the barrel that force the conical rounds they fire to spiral like a football, traveling farther and more accurately. There were fifteen different models of cannons at Antietam. However, the four guns below represent about 80% of the cannons used.

**SMOOTHBORE CANNON**

**1857 Model Napoleon**
- Fires 12 lb. projectiles
- Named for Emperor Napoleon III
- Weight - 2,355 pounds
- Range - up to 1,600 yards
- Approximate number at Antietam: Confederate - 27, Union - 108

**1841 Model Gun**
- Fires 6 lb. projectiles
- Workhorse of Mexican War, but considered obsolete by Civil War
- Weight - 1,784 pounds
- Range - up to 1,500 yards
- Approximate number at Antietam: Confederate - 45, Union - 0

**RIFLED CANNON**

**3 Inch Ordnance Rifle**
- Fires 10 lb. projectiles
- Lightest and strongest rifled tube
- Weight 1,726 pounds
- Range - up to 1,800 yards
- Approximate number at Antietam: Confederate - 40, Union - 94

**10 Lb. Parrott Rifle**
- Fires 10 lb. projectiles
- Named for designer Robert Parker Parrott
- Weight - 1,799 pounds
- Range - up to 1,900 yards
- Approximate number at Antietam: Confederate - 36, Union - 42

Ammunition

There were four types of ammunition:

- **Solid Shot**—cast iron with no explosives. Shell—a hollow projectile filled with powder that exploded by an impact or timed fuse. Case—hollow shell filled with powder and a number of round balls that exploded in all directions. Canister—artillery round containing 27 golf ball sized iron shot packed into a tin can that ripped open at the muzzle, showering approaching troops. Canister was used at close range—100 to 300 yards.

**Tools of the Trade**

- **Sponge Rammer, Worm, Handspike**
  - Sponge rammer and worm were used to load ammunition and clean the barrel. The handspike slips into rings on the back of the cannon and is used to move the gun from side to side when aiming.

- **Priming Wire**
  - After the ammunition is loaded, the priming wire is pushed into the vent at the back of the gun which punctures the powder bag.

- **Lanyard**
  - Hooks to the friction primer, then is stretched out by Number 4 so that he can be a safe distance from the gun when he pulls the lanyard to fire the cannon.

- **Pendulum Hausse**
  - Aiming device placed on the back of the gun by the Gunner.

- **Thumbstall**
  - Protects the thumb of Number 3 when he covers the vent with his thumb during loading.

**Ammunition**

Eight cannoneers are needed to fire a cannon. Five work the gun—the gunner and cannoneers 1, 2, 3, 4.

**The Gunner** is in charge of the piece, gives the commands, and does the aiming. Cannoneer 1 handles the sponge-rammer, pushing the ammunition down the barrel and washing the bore after every shot. Number 2 loads the ammunition and uses the worm to clear debris. Number 3 thumbs the vent and uses the priming wire to puncture the powder bag. Number 4 places the friction primer and pulls the lanyard to fire the gun.

Cannoneer 5 runs the ammunition from the limber to the gun. Cannoneers 6 and 7 prepare ammunition and cut the fuses.

**Ammunition**

**Shot with powder bag attached.** Powder bags were attached to all smoothbore rounds. Powder bags for rifled cannons were loaded separately.

**Canister**—artillery round containing 27 golf ball sized iron shot packed into a tin can that ripped open at the muzzle, showering approaching troops. Canister was used at close range—100 to 300 yards.

**Shells** and **Cases** were used with all types of ammunition.

**Canister**—artillery round containing 27 golf ball sized iron shot packed into a tin can that ripped open at the muzzle, showering approaching troops. Canister was used at close range—100 to 300 yards.

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**Priming Wire**

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**Lanyard**

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**Pendulum Hausse**

Aiming device placed on the back of the gun by the Gunner.

**Thumbstall**

Protects the thumb of Number 3 when he covers the vent with his thumb during loading.

**Haversack**

Used to safely carry every round from the limber to the gun.

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Confederate artillery commanded by Major John Pelham fired some of the first shots of the battle. Pelham blasted his guns at the 1st Corps and draped with Monroe's Battery, and the other Union guns that were massed on the Poffenberger Farm, until he was forced to reposition on Hauser Ridge.

Battery A, 1st Rhode Island Light Artillery
Capt. J. Albert Monroe
(1) 6-lb. Smoothbore Napoleon, (2) 10-lb. Parrott Rifles
Down to 7:30 a.m. - Support "Stonewall" Jackson's infantry and artillery.

Battery B, 4th U.S. Artillery
Capt. Joseph B. Campbell (wounded)
(6) 12-lb. Smoothbore Napoleon, (2) 10-lb. Parrott Rifles
Down to 7:30 a.m. - Near point blank into the Cornfield at dawn and then continued firing south toward Confederate infantry and artillery.

Battery C, Pennsylvania Light Artillery
Capt. James Thompson
(4) 3-inch Ordnance Rifles
Down to 7:30 a.m. - Fired point blank into the Cornfield at dawn and then continued firing south toward Confederate infantry and artillery.

Brokebrough's (2nd Baltimore) Maryland Battery
Capt. Bowyer Brockenbrough
(1) 3-inch Ordnance Rifle, (1) 6-lb. Smoothbore Howitzer
Down to 7:30 a.m. - Support "Stonewall" Jackson's infantry from here, then moved west to Hauser Ridge.

Woofolk's (Ashland) Virginia Battery
Capt. Francis Woofolk, Jr.
(2) 10-lb. Parrott Rifles, (1) 12-lb. Smoothbore Napoleon
(1) 6-lb. Smoothbore
At about 8:00 a.m., Woofolk moved two guns here where they were captured by the 28th Pennsylvania. Twelve other Union and Confederate batteries took this high ground at different times during the day.

Col. Stephen D. Lee's Artillery Battalion
19 Guns of all types in four Batteries
Down to 8:45 a.m. - Lee's Battery of four batteries had approximately 500 men. 90 soldiers and 60 horses were killed and wounded at one of the most important artillery locations anywhere on the battlefield, a position that Col. Lee described as "artillery hell!"

Battery A, 1st Rhode Island Light Artillery
Capt. John A. Tappan
(6) 10-lb. Parrott Rifles
9:30 a.m. to 1:00 p.m. - This battery fired over 1,000 rounds supporting the Union attack on the Sunken Road.

Battery K, 1st U.S. Artillery
Capt. William M. Graham
(6) 12-lb. Smoothbore Napoleon, 12:30 p.m. until dark - Graham's battery also supported the fighting on the Sunken Road. Gen. Irwin Richardson was mortally wounded by artillery when he was at this battery.

When the Union army arrived, Brig. Gen. Henry Hunt, Chief of Artillery, placed his long range 28-lb Parrott guns all along the high ground on the east side of Antietam Creek. He called them the "guns of position." These cannons pounded the Confederates on the other side of the Antietam.