8 Unusual Civil War Weapons

Evan Andrews

1. Hand grenades

Civil War soldiers were known to make jury-rigged explosives using assortments of fuses and gunpowder, but the era also saw advances in the design and manufacture of hand grenades. The most popular model was the Union-issued Ketchum grenade, a projectile explosive that was thrown like a dart. The grenades came in one-, three- and five-pound models equipped with stabilizer fins and a nose-mounted plunger. Upon impact, the plunger would detonate a percussion cap and ignite a deadly supply of gunpowder.

While a novel idea, the explosives didn't always work as intended. In fact, when they were bombarded with Ketchum grenades during an 1863 siege at Port Hudson, Louisiana, Confederate soldiers reportedly used blankets to catch the explosives before throwing them back at their hapless attackers.

2. Rockets

Rocket launchers might seem like a 20th-century phenomenon, but they made a few appearances on Civil War battlefields. Confederate forces reportedly experimented with Congreve rockets, a British-designed explosive that had previously seen action in the War of 1812. These weapons resembled large bottle rockets and were so inaccurate that they never saw widespread use.

Meanwhile, Union forces employed the Hale patent rocket launcher, a metal tube that fired seven- and 10-inch-long spin stabilized rockets up to 2,000 yards. While a vast improvement on the Congreve, these projectiles were still quite unwieldy, and were only generally used by the U.S. Navy.

3. Machine guns

Colt revolvers and Springfield muskets were the Civil War's most popular firearms, but the era also gave rise to some of the earliest machine guns. Of these, perhaps none is more infamous than the Gatling gun, a six-barreled piece that was capable of firing up to 350 rounds a minute. The U.S. government never ordered the Gatling in bulk, but Union General Benjamin Butler privately purchased several of the intimidating weapons in 1863 and later used them during the Petersburg Campaign.

Other rapid-fire guns included the Williams gun—a Confederate breechloader first unveiled at the Battle of Seven Pines in 1862—and the Billinghurst-Requa battery gun, which consisted of 25 rifle barrels arranged side by side. Viewed as too inefficient and unwieldy for infantry combat, these weapons were generally used for guarding bridges and other strategic locations.

4. Landmines

Mines—or “torpedoes,” as they were then known—were largely a Confederate weapon. Originally developed by General Gabriel J. Rains, these antipersonnel explosives were typically iron containers rigged with gunpowder, a fuse and a brass detonation cap. Rains first used the subterranean booby traps in 1862 during the Peninsula Campaign, and later buried thousands more around Richmond and in various parts of the Deep South. In fact, some of these still-active landmines were only recovered in Alabama as recently as the 1960s.
While they proved an intimidating method of psychological warfare, landmines were often viewed as an unethical form of combat. Union General George B. McClellan denounced them as “barbarous,” and Confederate General James Longstreet briefly banned their use. Perhaps their most vociferous critic was Union General William T. Sherman, who lost several troops to underground landmines during his famous March to the Sea. Decrying the use of mines as “not warfare, but murder,” Sherman reportedly forced his Confederate prisoners to march at the head of his column so that they might trigger any hidden “land torpedoes.”

5. Underwater mines
Along with landmines, the Civil War was also a major testing ground for underwater mines. Both sides mined harbors and rivers with torpedoes, but the Confederacy enjoyed greater success. Starting in 1862 with the sinking of the ironclad Cairo, Confederate torpedoes destroyed dozens of Union ships and damaged several others. Union torpedoes, meanwhile, only sank six Confederate Navy vessels.

The rebels owed their skill at underwater warfare in part to Matthew Fontaine Maury, an oceanographer who first demonstrated the use of mines in 1861. Maury’s “infernal machines” made the James River virtually impassable, and mines later terrorized the Union Navy during battles at Mobile Bay and Charleston Harbor. The Confederacy also succeeded in using submarines to turn mines into offensive weapons. In 1864 the H.L. Hunley destroyed the Union sloop-of-war Housatonic after ramming it with a pole-mounted torpedo, becoming the first combat submarine to successfully sink an enemy ship.

6. Calcium floodlights
During an 1863 operation to retake Charleston Harbor, General Quincy Adams Gillmore laid siege to the Confederate stronghold at Fort Wagner. Gillmore’s Union guns bombarded the fort day and night with the help of a strange invention: the calcium light. Better known as “limelights,” these chemical lamps used superheated balls of lime, or calcium oxide, to create an incandescent glow. The lights had been used in lighthouses and theaters since the 1830s, but Gillmore’s engineers were the first to adapt them for combat. By shining calcium lights on Fort Wagner, Union forces were able to illuminate their artillery target while simultaneously blinding Confederate gunners and riflemen.

Also called “Drummond lights,” these calcium floodlights were later used as searchlights to spot Confederate warships and blockade runners. In early 1865, a Union light even helped detect a Confederate ironclad fleet as it tried to move along the James River under cover of darkness. A Southern officer later noted that a planned sneak attack was made impossible in part because of the Union’s “powerful calcium light.”

7. Hot air balloons
Because they allowed generals to get an aerial view of the battlefield, Civil War balloons were primarily used in a reconnaissance capacity. The Union even had an official Balloon Corps headed by “Chief Aeronaut” Thaddeus Lowe. Under his direction, balloons were launched for scouting purposes at several famous engagements, including the First Battle of Bull Run and the Battles of Fredericksburg and Chancellorsville. In a balloon tethered to the ground with a telegraph line, Lowe was able to give real-time updates on troop movements, and once even directed Union artillery fire from the sky.
The Confederacy also tried their hand at military ballooning, although with considerably less success. The South lacked the resources to make good balloons, and their one operational airship—reportedly made from a colorful patchwork of silk—was captured after the tugboat carrying it ran aground on the James River.

8. Winans steam gun
The Civil War produced a number of experimental cannons, machine guns and rifles, but perhaps none was more unusual than the Winans steam gun. Built by Ohio inventors William Joslin and Charles Dickinson, this massive automatic weapon sat on an armored train carriage and used steam to fire projectiles—supposedly at a rate of 200 a minute.

Newspapers hailed the mysterious gun as a super weapon, but it was never actually used in combat. When Dickinson headed for Harper’s Ferry in May 1861—most likely to sell the gun to the Confederacy—Union forces intercepted him and confiscated his invention. The steam gun was later transferred to Fortress Monroe in Virginia before being sent to Massachusetts, where it was eventually scrapped. The Union Army never attempted to deploy the contraption in the field, which suggests the steam gun probably failed to live up to its deadly reputation.