

A Compendium of Projectiles Recovered from The Battlefield of the Last Major Battle of the War Between the States: Relics from Spanish Fort, Alabama

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ABSTRACT

March, 1865 began in Spanish Fort, Alabama as did countless months of March before. A breeze coming off of the Gulf of Mexico and into Mobile Bay brought a respite from what might otherwise be an uncomfortably warm month in the area immediately east of Mobile, Alabama. For several weeks, incessant rains made every road a quagmire. Even though it had been sometime since Confederate Navy forces and their accompanying blockade runners had been foiled by the Union Navy in the Battle of Mobile Bay, life in Mobile had been largely unchecked by the war, the people unbowed, and the city remained a bastion of Confederate influence. Union forces recognized Mobile's position of influence and its hopes to end the War Between the States centered largely on the defeat of the city and region. Many of Spanish Fort's earthworks built to protect Mobile, still stand. Countless artifacts have been recovered and continue to be recovered. Some of those artifacts, a reminder of the grim, last major battle of the American Civil War, fought from March 27–April 8, 2023 are documented here.

Keywords: Artifacts, Civil War, Spanish Fort, War between the States.

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I. INTRODUCTION

For decades, Louisiana residents traveling to the Florida panhandle have passed the location of the last major battle of the War Between the States – Spanish Fort, Alabama – with no regard or knowledge of the historical stand and sacrifices confederate troops made to protect Mobile, Mobile Bay and the Tombigbee and Blakely Rivers from Union troops. At the time of the war, Spanish Fort was comprised of six fortifications (redoubts), and manned by approximately 2,500 confederates – assembled from Louisiana, Mississippi, Alabama and Florida. Amazingly, the fierce firefight reportedly between 27,000 union troops and some 2,500 defenders lasted 13 days. Throw in nearby Fort Blakely's defenders and attackers, combatants in the Mobile arena totaled 6,000 confederates and a union force of more than 45,000 (Brueske, 2018). As a consequence, the area is replete with relics (artillery shells, bullets, buttons, mortar balls etc) that can reveal much about the fighting and the weapons in use at the time by both Union forces and confederate defenders, many of whom were from Louisiana.

The strategic location of Mobile and its Bay made it a prized target of the Union. The Bay was the ending point for five rivers: Tensaw, Blakely, Apalachee, Spanish and Mobile (Mobile Baykeeper, 2019). Soldiers from Alabama, Mississippi, and Louisiana were the primary defenders. Confederate units from Louisiana who fought in the Mobile arena included Louisiana's 1st, 16th and 20th infantry, 4th, 13th and 30th infantry, 19th Louisiana infantry, 25th regiment of the 4th battalion, and companies C and I of the 1st Louisiana Artillery (Wikipedia). Louisiana's confederate soldiers were well-represented at Spanish Fort. Indeed, its commander, Brigadier General Randall Gibson had grown up in Louisiana. After the war, he served as a U.S. Representative and later, a U.S. Senator representing Louisiana. He was a graduate of the University of Louisiana Law School – the predecessor of Tulane Law School - and later served as president of the University's Board of Administrators. Gibson Hall, the first permanent, campus building was named in his honor.

II. OBJECTIVE

The types of projectiles used during the battle are indicative of the types of weaponry in use at the end of that great conflict. This study will investigate the relics recovered and those relics that continue to be recovered, and discern some of the types of weapons used in the battle. The use of the Center for Southeastern Study's resources was utilized during the course of this project.

It was expected that information might be gleaned not on just the weapons, but the men who wielded those weapons and the hardships they endured. Modern metal detectors were used in the recovery of all artifacts. The artifacts (finds) are detailed in Section III.

The six redoubts for which Spanish Fort was known included Fort McDermott – the highest point on the eastern shore of the Bay, Red Fort, Fort Alexis, Fort Tracey, Fort Huger, and Old Spanish Fort. With permission of property owners, the principal investigators have been recovering relics for the past decade from private properties on which Redoubt 4 – Red Fort - was situated. Bullets, mortar balls, artillery shells, shrapnel and other items have been recovered and continue to be recovered. The area surrounding Red Fort still boasts defensive earthworks and trenches and are replete with relics. Again, all relic recoveries were made from private properties and no recovery was effected on public properties.

III. FINDS

Bullets, buttons, artillery shells and a variety of other artifacts have been recovered. As expected, many of the bullets, all of the artillery shells and the mortar ball that were recovered were fired by Union forces during the attack and siege of Spanish Fort. At the same time, bullets meant to be fired from Confederate forces were recovered – often in apparent “pocket spills.” Confederate bullets were often found in good shape, while bullets fired by union forces often had been deformed from striking targets or trees.

A. Major Bullet Types Recovered

Confederate bullets that were recovered were of two major types and manufacture. Many 0.577 rifle bullets manufactured at the Selma Arsenal located north of Spanish Fort, were found. These bullets, almost 0.60 inches in diameter typically weigh around 488 grains. Compared to a modern 0.45 caliber (0.45” in diameter) round that was used in both world wars that weighed 230 grains, the Selma round was significantly larger and heavier. The grooves around the base of the bullets held lubricant. A group of the Selma produced bullets is shown in Fig. 1.



Fig. 1. Selma 0.577 bullets.

The second major type of confederate bullet found at the site of Red Fort, was the 0.577 caliber, Enfield round. The Enfield round was 0.52 inches in diameter and weighed approximately 600 grains. The Enfield rounds and the Selma rounds were the most often recovered Confederate rounds found at Red Fort. The Confederate Enfield rifle (British Pattern 1853 rifle-musket), purchased from England was one of the most common infantry arm of the south, as 230,000 were procured (Knott, 2019). The arm was designated the standard infantry arm.



Fig. 2. Confederate Enfield Round 0.577.

Both bullet types are of the Minie' ball type. Captain Claude Minie' of the French Army, invented the bullet type which made loading rifles much easier over previous types of bullets. Minie' invented the bullet in 1848 (Smithsonian, 2022).

As expected, most of the bullets recovered that were identifiable to a specific side, were fired by Union forces. Some of the rounds could not be identified as they were too damaged. A large number of the Union rounds that could be identified were so-called "cleaners." The cleaners - Williams Patent bullets -could be fired in a variety of firearms – both long guns and handguns.

Cleaners are easily identified by the zinc, thumb-tack like addition inserted into the base of the bullet. Cleaners were used throughout the war by Union forces. The fouling of gun barrels by insufficiently burned gunpowder, increasingly degraded accuracy as a gun was repeatedly fired. The cleaners (zinc disks) worked because the ignited powder would flatten the disk expanding them into the rifling of the barrel – imparting spin to the bullet and cleaning the barrel as it exited (Thomas & Thomas, 2018). It was advised to fire cleaners after a certain number of shots to clean out the fouling, thereby improving accuracy. Most cleaners were 58 caliber and fired from rifled muskets (Wikipedia, 2022b). Most of the recovered rounds weighed approximately 456 grains.

In 1862, a cleaner came with every 10 regular cartridges as soldiers were expected to fire a cleaner every 10 rounds (Wikipedia, 2022b). Later in the war, the advice changed to firing a cleaner every third or fourth round. Towards the end of the war, perhaps owing to lowered quality of powders during wartime and harsh conditions, soldiers were advised to fire cleaners every other shot (Wikipedia, 2022b). In addition to cleaning a barrel while firing, cleaners were bullets, with all of the potential to inflict pain and death, as could non-cleaner bullets. As can be seen in Fig. 3, the cleaner (zinc tack) could come loose from the bullet and scores of loose cleaners were recovered from the site.



Fig. 3. Williams Cleaner Bullets and loose cleaners.

B. Musket Balls

Also, approximately 40 musket balls were found at Red Fort. Undoubtedly, they were Confederate in origin. Throughout the war, despite official weapons like the Confederate Enfield, many Confederate soldiers fought with what they had. Many brought their old hunting arms with them and used, easily made musket balls for ammunition. The balls collected were 0.69 inches in diameter (69 caliber) and weighed approximately 395 grains. Thomas (1993) mentions such musket balls would have been used in smoothbore muskets.



Fig. 4. Representative Confederate Musket Balls recovered.

C. Miscellaneous Bullets

Finally, the majority of bullets were typical 0.577 minie' balls known as 3-ringers. These bullets were used by both Union and Confederate forces. As such, attribution of each cannot be determined. Approximately, 200 recovered bullets fell into this category.

Fig. 5 is a representation of these types of bullets – with both fired and unfired specimens.



Fig. 5. Some of the Three Ringers recovered at the site.

Three-ringers, as recovered generally weighed around 478 grains.

IV. ARTILLERY FINDS AT RED FORT

A. The Mortar Ball

The surprise finding was a 10" mortar ball. Mortar balls were fired from short-barreled, non-rifled mortars, and were fuzed so as to explode in the air. Mortars would launch their rounds over the walls of fortifications with the intent to either kill their targets or send them scurrying for cover (Wikipedia, 2022c).

When seeking cover from incoming mortar rounds, soldiers would often scramble to so-called, bomb-proof shelters. Bomb-proof shelters were large holes dug into the ground, overlaid with trees and covered in several feet of dirt. While Confederates were seeking safety in the shelters, Union troops could advance on their position.

Mortar balls of this type often had a wooden, timed fuze and would be set to explode over the intended target. It would have been fired with a wooden sabot placed at its base. The fuze on the recovered specimen was not in place (or had rotted away). Gunpowder, albeit mixed with mud and water, was still evident in the ball.



Fig. 6. 10-Inch Mortar Ball.

The mortar ball that was recovered is likely to have been fired from a union ship positioned in the bay during the siege, as the mortar and carriage together would have weighed over 3,600 pounds (Wikipedia, 2022c). At over 3,600 pounds, moving such mortars overland in the swampy conditions would have been exceedingly difficult, if not impossible. Ten-inch and eight-inch mortars could be transported overland, but the heavier ones could only be moved with great difficulty by rail or ship (Schenkl Shell, n.d.). The actual diameter of the ball was 9.8" and it would have been fired from a 10" bored mortar. Loaded with powder, and fuzed, the ball would have weighed approximately 88 pounds when fired. This ball from Red Fort, which failed to explode, was recovered from a depth of four feet, eight inches into the earthworks. Mortars of this sort had effective ranges of up to 875 yards, but could fire even further (Wikipedia, 2022c).

B. Hotchkiss Shell

Several 3-inch Union Hotchkiss shells were recovered. These Hotchkiss shells sported simple brass fuzes that upon impact with a hardened object would crush a percussion cap-like container, which would provide the spark to set off the powder within the shell (Schenkl Shell, n.d.). Hotchkiss shells were used against hardened targets including enemy artillery so the impact would be more likely to set off the fuze. Against a soft target like the earthworks protecting Red Fort, some shells would not and did not explode.



Fig.7. Hotchkiss 3-inch Shell with lead Sabot and brass impact fuze intact.

Hotchkiss shells sported a lead ring (sabot) around the rear portion of the iron shell. The lead sabot engaged the rifling in the barrel, spinning the shell. The spinning of the shell from a rifled barrel, improved both accuracy and distance. Lead sabots would often fall free during flight. In one example that was recovered, the lead sabot was still intact. Later, a trained professional deactivated the recovered Hotchkiss shells as the gunpowder canisters had not been breached.

Hotchkiss shells fired from a typical 3-inch wrought iron rifled artillery piece (Ordinance Rifle) had the ability to strike targets at a great distance. A one-pound gunpowder charge could propel a 3-inch shell 2,000 yards (more than 1 mile) with only 5 degrees of elevation (Civil War Artillery and Cannon, n.d.). They had a maximum range of 4,000 yards (Artillery, n.d.).

C. Schenkl Shell

Another type of artillery shell recovered at Red Fort was a Schenkl shell. Schenkl's had an unusual shape compared to the bullet-like shape of Hotchkiss shells. They were longer and appeared more slender than Hotchkiss shells. They were fired with a papier-mache sabot. The papier-mache sabot like other sabots, were used to impart spin to the projectile by expanding to the barrel rifling upon firing. Needless to say, paper sabots were immediately destroyed upon firing the shell and would burn up in flight.



Fig. 8. Schenkl Shell with brass impact fuze intact.

Unlike the Hotchkiss shell, the federal 3-inch Schenkl contained grape shot. It had a large volume of gunpowder that was designed to detonate on impact with the iron and grapeshot in the exploding shell becoming shrapnel. According to at least one source, the impact fuzes worked 82% of the time (Schenkl Shell, n.d.). As a result of the 125,000 purchased by the Union Army, some 22,000 would fail to detonate upon impact.

D. Copper Cannon Igniters / Friction Primers

Since Red Fort would have had boasted four cannons, it was granted that copper cannon igniters would be found on site. And they were. Scores of cannon igniters have been removed from the site over the years.



Fig. 9. Confederate Copper Cannon Igniters.

Confederate cannon igniters (friction primers) were used to set off artillery pieces. The idea of using an open flame around gunpowder stores, to set off a cannon had long lost favor. Indeed, by the mid 19th century, cannon igniters were in widespread use. These igniters were made of copper and had a short wire chain attached. Once a cannon was loaded, the friction primer would have been inserted into the charge hole of the cannon, a lanyard attached to the chain and on order, the lanyard would be pulled, the rough chain setting off a spark which would ignite gunpowder in the tube, which would in turn, travel down the tube and into the powder chamber, setting off the cannon. The use of the lanyard allowed the cannon crew to back away safely before discharging the cannon (Wikipedia, 2023).

V. CONCLUSION

After laying siege and attacking Spanish Fort over 13 days, Union forces finally succeeded in taking control of Spanish Fort and nearby Fort Blakely, and its ultimate objective – Mobile, Alabama. Selma, Alabama, a major ammunition supply depot north of Mobile, would then prove to be an easy objective.

Between the Union and Confederate forces, approximately three million artillery shells were fired during the four-year war. Of that number, it is estimated 20% failed to explode (Foxnews, 2015).

Many of those shells are still being found and recovered as were the ones mentioned in this treatise. The shells recovered in this study were demilitarized by professionals trained in such delicate work. A hole, professionally and carefully drilled in a side of each shell after recovery, under controlled conditions, allowed the gunpowder to be safely removed and the shell preserved. The seriousness of using a professional deactivator is underscored by reports of deaths from such shells that still occur. Indeed, as recently as 2008, a resident of Virginia who had reportedly deactivated more than 1,600 shells was killed in such an effort (Wiseberger, 2020; Foxnews, 2015), emphasizing the dangerous nature of such an undertaking.

It has been more than 150 years since the attack on Spanish Fort. Earthworks and trenches are still evident in the yards of many area residents. The authors have been detecting there and recovering artifacts for the past 12 years. And still, they continue to find more.

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REFERENCES

- Artillery glossary F-Z (n.d.). *The civil war artillery project*. Retrieved from: https://www.historicalpublicationsllc.com/civilwarartillery/artillery-glossary-f-z/article_ec3473c6-24a0-11ed-86cd-e7065ded5626.html.
- Artillery. (n.d.). *Artillery in the Civil War*. Retrieved from: <https://goordnance.army.mil/history/Staff%20Ride/STAND%203%20ARTILLERY%20AND%20SMALL%20ARMS/ARTILLERY%20IN%20THE%20CIVIL%20WAR.pdf>.
- Brueske, P. (2018). *The Last Siege: The Mobile Campaign*. Casemate Publishers, Haverton, PA.
- Civil War Artillery and Cannon (n.d.). *Civil War Cannon Heavy Artillery Light Mortars Guns Field US*. Retrieved from: <http://www.thomaslegion.net/americancivilwar/artillerycivilwarcannonweaponsmortars.html>.
- Foxnews (2015, January 13). *Virginia man killed in civil war cannonball blast*. Retrieved from: <https://www.foxnews.com/story/virginia-man-killed-in-civil-war-cannonball-blast>.
- Knott, S. W. (2019). *The Confederate Enfield*. (Revised ed.). Knott Publishing.
- Mobile Baykeeper. (2019, May 17). *Our mobile bay watershed*. Mobile Baykeeper. Retrieved from: <https://www.mobilebaykeeper.org/watershed#:~:text=The%20expansive%20Delta%20is%20considered,%2C%20Apalachee%2C%20and%20Blakeley%20rivers>
- Schenkl Shell. (n.d.). *Halfshells - Federal 3-inch Schenkl projectile*. Civilwarartillery.com Retrieved from: <http://www.civilwarartillery.com/projectiles/halfshells/IIA15.htm>.
- Smithsonian (2022). *The Civil War Visual Encyclopedia*. (R. Rao Ed.). DK: Penguin, Random House. New York, NY.
- Thomas, D. S. (1993). *Ready, Aim...Fire!* Thomas Publishing, Gettysburg, PA.
- Thomas, J. E., & Thomas, D. S. (2018). *A Handbook of Civil War Bullets and Cartridges*. Thomas Publishers, Gettysburg, PA.
- Wikipedia. (2022a, June 19). *Mobile campaign Confederate order of battle*. Retrieved from: https://en.wikipedia.org/wiki/Mobile_campaign_Confederate_order_of_battle.
- Wikipedia. (2022b, October 17). *Williams cleaner bullet*. Retrieved from: https://en.wikipedia.org/wiki/Williams_cleaner_bullet.
- Wikipedia. (2022c, December 27). *Siege artillery in the American Civil War*. Retrieved from: https://en.wikipedia.org/wiki/Siege_artillery_in_the_American_Civil_War#:~:text=Siege%20and%20garrison%20artillery%20were,54.
- Wikipedia (2023, February 14). *Friction primers*. Retrieved from: https://en.wikipedia.org/wiki/Friction_primer. (Cannon, n.d.)
- Wiseberger, M. (2020). *Guys, live cannonballs are not recyclable: Ask me how I know*. LiveScience. Retrieved from: <https://www.livescience.com/recycled-civil-war-cannonball.html>.