

Marshall Texas' Red Iron Ore –Waste it Not on Ploughshares!

By
Lad Moore



Who shall feed these long throats?

* * *

*And the foundry man's initials would be scrawled into the nose of the
artillery shell in the hope that his projectile would be
carried swift and true; to snuff out the heartbeat of the enemy.
This would be a most pleasurable and satisfying
reward for having endured the stifling heat of the smelter room
and the crimson blisters arising from his endeavor. –Lords*

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At the onset of the Civil War, Union forces had by count 4,167 artillery weapons including 167 field howitzer cannons. Confederate sieges of the armories and arsenals helped fill the needs of the armies of the South, although most of what was taken were the lighter weapons. Only 35 large cannons were captured.

But what about ammunition to feed the plundered artillery pieces? The South had to react quickly to overcome the fact that the largest munitions and gunpowder mills were located in the North. Almost no mills existed in the secessionist states. The Confederate War Department swiftly established a number of such mills that almost immediately began functioning at acceptable or better production levels. These mills were located in Augusta, Georgia; Nashville and Manchester, Tennessee; New Orleans, Louisiana; **Marshall, Texas**; and Petersburg, Virginia. The mills, also called foundries, not only produced gunpowder, but small arms and large artillery ammunition. Specialization was not the goal; instead, broad servicing of the full array of weapons was needed because of the geographic spread of the armament. Classified by weight and caliber, it fell into four groupings: “Light” weapon munitions were typically for the rifles carried by common infantry, of which the Enfields and Springfields were the most common. Next were the light cannon, generally classified as “Field and Mountain” because they were light and mobile enough to be maneuvered and move with the army. “Heavy” armament included the “Twelve and Twenty-Four Pounder” mortars and larger siege guns. While portable, they were massive and unwieldy. For example, the largest of these, the “Rodman,” weighed over 115,000 pounds, and fired a half-ton projectile.

Large quantities of ammunition had to accompany the artillery. Field guns traveled in batteries of four to six, each drawn by six horses. Each gun had its caisson of ammunition chests also drawn by six horses, and typically a full six-horse caisson existed for each gun. Each caisson had three drivers and a gun crew of nine men. The drivers served as horse-handlers in battle, because of the tendency of the animals to bolt.

A field battery was attached to each brigade of infantry. A six-gun battery would have two howitzers; a 12-pounder battery thus had four 12-pound guns and two 24-pounder howitzers. A 6-pounder battery would have four 6-pounder guns and two 12-pounder howitzers.

Ammunition had to meet all battle conditions, and varied from solid shot to canister. Solid shot was mainly for battering of emplacements and used against massed troops. Shell shot was used to destroy forts, earthworks, and the soldiers that were hunkered behind them. Shrapnel loads were deployed where a distance of 500-1500 yards had to be reached with mass killing power. Canisters were deployed for short-distance range under 300 yards and were understandably feared by infantry. They were tin cylinders filled with scrap iron, steel shot, or musket balls that would explode into a large assembly of troops, showering them with hot deadly metal.

The larger siege guns moved by road on carriages. Their tremendous firepower could easily destroy brick forts and render them useless. They fired spherical projectiles of 10 to 13 inches diameter. Each ball had a percussion fuse, which was lit by the initial

discharge. It was set to burn at a rate equal to the target distance, ideally bursting at or over the enemy. This calculation was not always accurate because black powder does not burn at an exact rate. Other siege guns firing percussion-fuse projectiles rather than round shot depended on the nose of the shell hitting the target first. If they did not land properly, they would simply burrow themselves into the soil.

Smoothbore cannons were eventually replaced with rifled ones that allowed greater accuracy. In some cases, former smoothbores were converted by installing wrought-iron spirals, but the increased pressures caused these guns to burst, often killing the cannoneers.

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The Marshall Powder Mill (Marshall Trans-Mississippi Foundry)

Following the fall of Vicksburg to the Union army, supplies of ordnance were severely reduced. The Trans-Mississippi Department of the CSA sensed that its four ordnance stores in Arkansas were no longer safe. Both Tyler and Marshall Texas were chosen to receive the former ordnance works of Arkadelphia in 1863. The Military Board of Texas was instrumental in the selections, and they wanted to place operation of the factories in private hands with oversight. The large portion of small arms manufacture went to Tyler, where over 2400 rifles were made. Ammunition for small arms was also made in Tyler, and it is noted that 400,000 rounds were shipped in a three-month period in 1864.

In addition to Marshall, a second gunpowder mill was installed at Waxahachie and another at Corpus Christi. The Waxahachie mill blew up and the Corpus Christi mill was abandoned, thus little or no supplies from them were ever delivered.

There is some discrepancy on the organization of the foundries and mills and the exact placements of the Arkadelphia relocation. According to a report read in the Confederate Congress on August 18, 1863, Texas had four gun factories making 800 arms a month, two powder mills, and a percussion cap factory. The gun factories were those of Billup and Hassell at Plentitude, Whitescarver and Campbell at Rusk, N. B. Tanner at Bastrop, and Short and Biscoe at Tyler. Powder mills were established at Marshall and Waxahachie. It is unclear if these mills were in fact privately operated or if they were military with oversight from the Trans-Mississippi Department.

The mill and foundry at Marshall was located just off what is now Loop 390 between FM 1997 S and FM 1997 N. A largely black cemetery shares part of the southern end of the original site. It is known that the installation included stores for repair of small arms, shops for smiths, foundry for artillery-shell making, and a gunpowder mill. In addition to the manufacture of ammunition, the steam-powered foundry also made iron skillets and iron camp pots. Among its overseers was Benjamin Huger.

Huger was given command of a field division during the Peninsular Campaign but was harshly censured for his mishandling of the battle of Seven Pines, and the Seven Days Battle. He was relieved of command and assigned as inspector of artillery and ordnance, and in 1863, was made chief of the Trans Mississippi Department headquartered in Marshall.

Is this the Marshall Powder Mill?



This is known to be a photograph of a Texas Confederate munitions mill and foundry. Forums surrounding this photo debate whether it is the Marshall Powder Mill or not. It is noted in the background that the trees have a coverlet of Spanish moss, native to the area around Marshall, and unlikely in Waxahachie. It is also noted that the mill is being operated with slave labor, as the Marshall Mill was said to be. This may be the only existing mill and foundry photo perhaps taken in Texas, as the ordnance and munitions locations and their capabilities were deemed secret by the CSA.

Ammunition, artillery shells, and gunpowder were the chief products made at the Marshall Powder Mill and Foundry. Among the projectiles were:

The Enfield .563 Caliber Marshall Round, "The Minie"



The British Enfield 1853 Rifle-Musket was used by both the North and the South in the Civil War. The Confederate Army favored the Enfields and were forced to deal with gun runners when England refused them any further arms, fearing that a defeat of the Confederacy was eminent. Close to a million Enfields came to the battlefield and saw duty in every major campaign. The minis measured .563 diameter by .994 in length.

Marshall Foundry Artillery Shells and Munitions



Schenkl Marshall Arsenal shell, CSA. Diameter 3.7" Length 8.5"



4-Stud Mullane Trans-Mississippi, Diameter 2.85" Length 7.0"

Other Marshall-manufactured artillery shells were similar to the above two, but varied in shape and in caliber.

- *Mullane shell, Marshall Arsenal, "Trans-Mississippi" four studs, copper disc sabot, wood fuse, Confederate 3-inch diameter.*
- *Schenkl 12-Ribbed pointed nose bolt, Tapered Base for 3.8 inch **James Rifle***

(The term "Rifle" generally brings to mind light shoulder arms carried by infantry. Here the term "James Rifle" describes a wheeled bronze cannon weighing 990 pounds shooting a 6 or 12-pound projectile.)

- *"Read 3-in. Shell," smooth sided short pattern, "Trans-Mississippi" notched copper disc & band sabot, wood fuse, Confederate 3 inch. Diameter 2.94in, length 7.6in., weight 8-lbs.*
- *"Read 3.3 in. Shell" "Trans-Mississippi" Flame Groove Notched. Diameter 3.3 in., length 7.75 in.*

Much of the gunpowder made in the Marshall works had to ship long distances. The proximity to Jefferson and its steamboats saw much of the powder shipped down the Cypress into the Red River, then to the Mississippi River ports to furnish Confederate troops. Three small brick powder magazine storage buildings were built on Jefferson's riverbanks to house the gunpowder until it was loaded onto steamboats. These magazines were intentionally small in size so as minimize exposure for loss if a blast occurred. Later, near the close of the war, Union soldiers captured the buildings and used them in their encampments. Jefferson has only one of these magazines remaining, and the last one in Texas.



*The last
surviving
Civil War
Powder
Magazine
at Jefferson*

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End of the Marshall Powder Mill

Following the surrender of the Confederate forces, Federal Troops occupied the city of Marshall. The foundry and powder mill was abandoned and Union soldiers began to dismantle the machinery. For reasons unknown, an explosion occurred which killed three soldiers and wounded two others.

Perhaps the final set of initials on the final Marshall Confederate shell had found its mark.

Postscript

Despite the fury and fast-paced fields of battles, there were times when soldiers were idle and even bored. Thus arose “Soldier Art” which included the carving or whittling of minie balls. It is said that even complete chess and checker sets were made, along with carvings of animals and geometric designs such as this piece.



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Credits and Citations

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“Lords” is a pseudonym of the author, Lad Moore

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The author’s latest short story collection, “Riders of the Seven Hills” is now available at traditional booksellers along with his previous works,

“Tailwind” and “Odie Dodie.

Signed copies may also be obtained at bookstand prices by contacting the author directly at: pogo@marshalltx.com