



Visit to Fort Gaines, Dauphin Island, Alabama, USA

Clive Hollick (CH)

Date of visit October 05, 2023

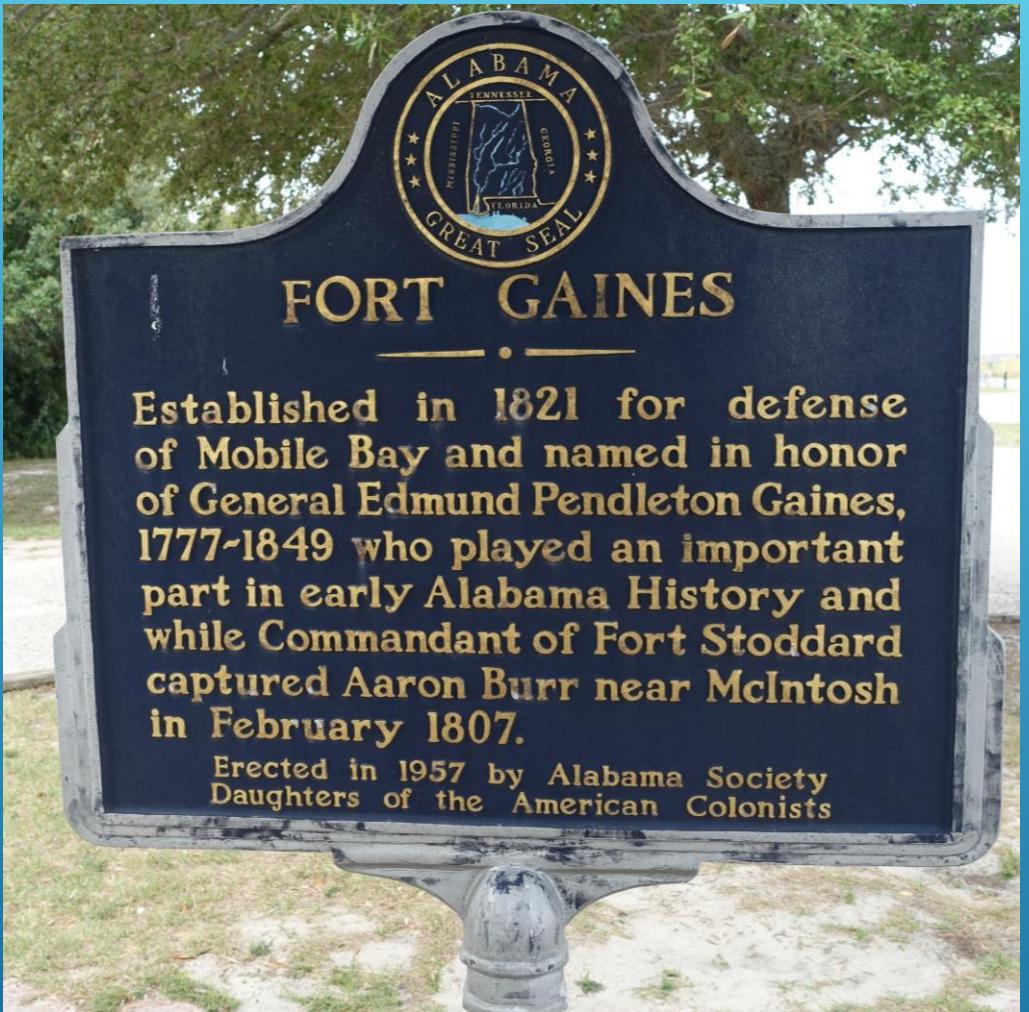
Preface

This powerpoint is CH's summary of his visit to Fort Gaines with points of interest (to him) highlighted with emphasis on the artillery. It is not a history of the fort though the links supplied can certainly take this further and no attempt has been made to look at the post civil war features, armament or history etc.

This is unlikely to be the final version because as CH discovers more he is likely to add to or modify this version.

The reason to produce this report is to freely share the knowledge discovered so hopefully others can build upon it. So if you have anything to add let CH know.

Fort Gaines: Introduction



Right. A map of Mobile Bay, 1865. Fort Gaines (circled) with Fort Powell to the NW and Fort Morgan 3 miles to the E. rebel-defenses-of-mobile-robert-knox-sneden.jpg (732×900) (fineartamerica.com)



Fort Gaines: Introduction

Video: [Tour Stop 2: Fort Gaines & The Battle of Mobile Bay \(youtube.com\)](https://www.youtube.com/watch?v=JyfJyfJyfJy)

Fort Gaines was named after Edmund Pendleton Gaines, an American hero of the War of 1812. The fort is located on the eastern tip of Dauphin Island AL, at the western approach to Mobile Bay. Originally designed in 1818 as the identical twin to Fort Morgan, work on the Dauphin Island fort was suspended in 1821 when Congress cancelled funding. Although Congress again authorized \$20,000 for the fort in 1846, construction did not begin again until 1857. Army chief engineer Joseph Totten then scrapped the original plans and designed the pentagonal Fort Gaines using the latest French fortification theory of the 1850s. During the American Civil War (ACW), with its Confederate garrison it defended the seaward approach to Mobile along with Forts Morgan and Powell.

Fort Gaines is best known for its role in the Battle of Mobile Bay during the ACW and still has some of the original cannons used in the battle. It retains 5 pre-Civil War brick buildings in the interior courtyard, operational blacksmith shop and kitchens, tunnel systems to the fortified corner bastions, and similar features. The site is considered to be one of the nation's best-preserved Civil War era masonry forts and has been nominated for listing as a National Historic Landmark.

Significant masonry damage has been sustained during hurricanes and tropical storms during its lifetime. Though this damage has been largely repaired, the fort continues to be under threat from erosion. It sits on the east end of Dauphin Island, only feet from the Gulf of Mexico. Ongoing erosional losses of sand dunes and beach total up to 10 feet per year. For these reasons, the Civil War Preservation Trust placed Fort Gaines on its History Under Siege listing on March 18, 2009. The listing identifies the ten most endangered Civil War battlefields in the United States. Additionally it was placed on the list of America's 11 Most Endangered Historic Places by the National Trust for Historic Preservation in 2011.[1,2,3,7]

Fort Gaines: Timeline to Close of the American Civil War

<u>Date</u>	<u>Event</u>
1818	Fort Gaines designed as a twin to Fort Morgan as a reaction to the 1812 War
1819	Construction of the fort on Dauphin Island commences
1821	'Established' but construction ceases
1853	Congress named the fort after Gen. Edmund Pendleton Gaines who had died in 1849
1857	Construction re-starts and Army chief engineer Joseph Totten but with new a new design with the intention of having 10 pieces of artillery on top of each of the 5 walls and 4 flank howitzers per bastion
1861	Most of the work on the fort completed
Jan 05	The Alabama state militia seize the fort – this is 3 months before the attack on Fort Sumter
1862	Confederates complete the fort and is armed with 26 cannons
1864	
Aug 03	Over 1,500 Union troops under Gen. Granger landed on the western end of the island and drive the Confederate garrison (commanded by Col. C. Anderson) on the island back to the fort
Aug 05	Battle of mobile Bay. The Confederate navy is beaten by that of the Union
Aug 06-08:	Fort Gaines under siege (with a 600-864 man garrison) from both land and sea
Aug 08	The fort surrenders to the Union and is noted as having 26 cannons – for details see slide 22
1865	
Mar	Major-Gen. E. Canby assembles 45,000 Union troops at Forts Gaines, Morgan and Barrancas (Florida) and launches his campaign which culminates in taking Mobile on Apr 12.

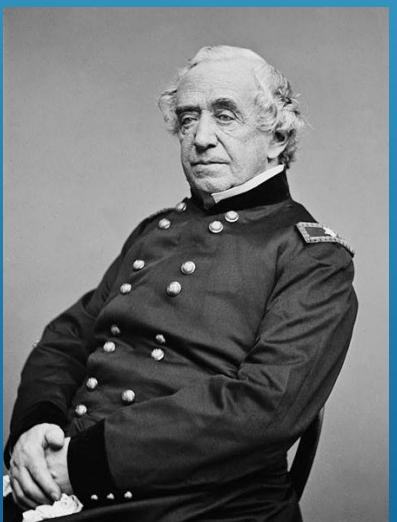
Fort Gaines: Under Siege, August 06-08, 1864



Fort Gaines: Viewed from Above

Aerial view dated April 2002

By Edibobb - Own work, CC BY 3.0,
<https://commons.wikimedia.org/w/index.php?curid=10355117>



Army chief engineer
Joseph Totten



Fort Gaines: Viewed from the Bay



Above. The nearest bastion ~~is~~ the NE one with the E bastion in the background

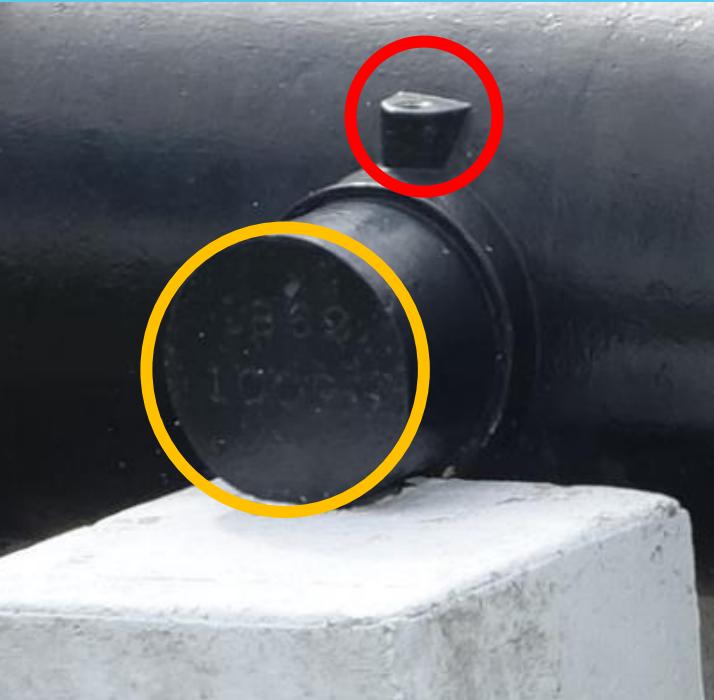
Fort Gaines: External Artillery - 6.4" (100pdr) Parrott MLRs (Guns A and B)



Above. Two 6.4" (100pdr) Parrott Muzzle Loading Rifles (MLRs), at the time of the visit, placed outside of the fort facing towards the road. These shall be examined separately as gun A and gun B. Unfortunately, these images were taken before CH began looking more closely at gun details.

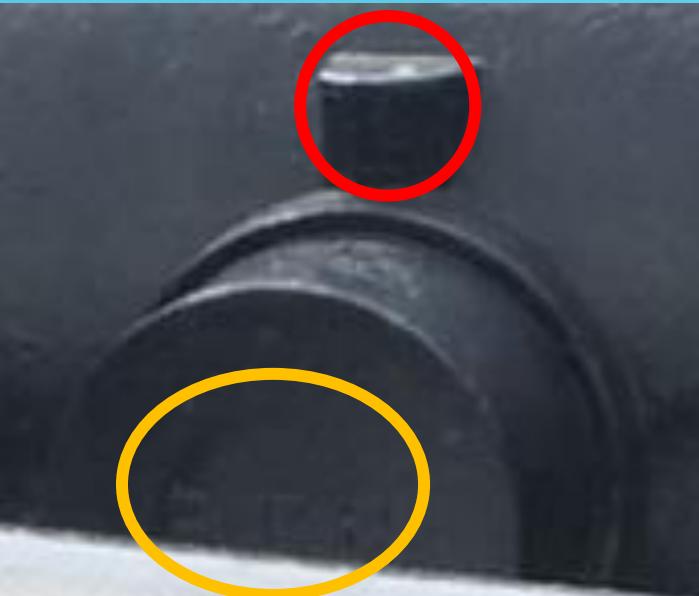
CH Comment: These guns, if originally associated with the fort at all, were likely to have been deployed by the besieging Union army in 1864 but contemporary sources only mention the use of 4.2" (30pdr) Parrott MLRs. Major-Gen. E. Canby however, used 6.4" (100pdr) Parrotts in his campaign to seize Mobile from the Confederates.[7] **Comment Ends**

Fort Gaines: External Artillery - 6.4" (100pdr) Parrott MLR, Gun A



Above left. Gun A. The breeching jaws enclose a pinned block, a feature of a 6.4" Parrott rifle, as is the right trunnion projection (for unknown purpose) circled red, above centre. The inscription on the face of the trunnion, circled orange, reads '1862 100 Pdr', the year of casting and the weight of the projectile in lbs. Right. The muzzle does not appear to have any markings at all. Markings on the reinforce band periphery along the base line (not shown in the above imagery) reveals the tube to have a registry number of 17 and a weight of 9,780lb. The location of the markings reveal it as a Navy pattern gun, though all data agrees with Army records.[4]

Fort Gaines: External Artillery - 6.4" (100pdr) Parrott MLR, Gun B



Above. A feature of a 6.4" Parrott rifle is the right trunnion projection (for unknown purpose, circled red). The face of the right trunnion appears to have the initials 'RPP' (circled orange) - Robert Parker Parrott.[4]

Right. The muzzle of Parrott MLR gun B showing the rifling and muzzle inscription:

'9752' = Barrel weight in lbs

'No 136' = Army Registry No. (ARN)

'1863' = Year of Manufacture

'W.P.F.' = West Point Foundry

'6.4' = Calibre in inches

The locations of the markings indicate an Army model rather than a Navy version.[4]

Fort Gaines: External Artillery - Army Pattern 8" (200pdr) Parrott MLRs, M.1861



Two Army pattern 8" Parrott MLRs, M.1861s at the approach to the fort gate. Unfortunately, the above images were the only ones taken by CH and were before he began looking more closely at gun details. According to records these guns have ARNs 764 and 741, cast in 1864 and were both inspected by RMH – Richard Mason Hill (inspected guns 1864-67).[4]



A close up of the face of the right trunnion of the nearest gun in the previous image. It appears to reveal the inscription 'RPP' – Robert Parker Parrott.

Fort Gaines: External Artillery - Army Pattern 8" Parrott MLRs, M.1861



The two Army pattern 8" Parrott MLRs, M.1861 viewed from the other side to the previous slide. These guns have no known association to the fort.

[Fort Gaines - Main Entrance - Two Parrott Rifles | Notice ho... | Flickr](#)

Fort Gaines: Viewed from the Outside



Left. The NW bastion (marked '1' in the aerial view).

Right. The NW bastion is on the left of the image with the fort entrance half way along the wall (marked '2') and the SW bastion in the distance (marked '3').



Fort Gaines: Viewed from the Outside



Left. The SE bastion (marked '4' in the aerial view).

Right. View with the SE bastion to the left of the image and the E bastion (marked '5'), in the distance.



Fort Gaines: Viewed from the Outside



Left. The E bastion (marked '5' in the aerial view) looking over the bay entrance towards Fort Morgan, 3 miles away. Note the two openings for the flanker howitzer cannon to cover the dry moat.

Right. View from the E bastion, at the left of the image, to the NE bastion (marked '6') in the distance. Note the musket ports.



Fort Gaines: Viewed from the Outside



Left. The NE bastion (marked '6' in the aerial view) looking towards the NW bastion, (marked '1').

Right. View from the NW bastion on the left of the image to the gate and bridge (marked '2') in the distance.



Fort Gaines: Viewed from Within



Left. View from the SW bastion towards the fort's entrance. The dry moat was originally 35 feet wide and the gate had a drawbridge.[4]

Fort Gaines: Viewed from Within



Above. On the inside of the wall heading toward the SE Bastion from the SW Bastion is damage reputedly inflicted by a shell from the USS Chickasaw. The latter was armed with 11" Dahlgren SB guns which fired shells weighing up to 135lb.



The USS *Chickasaw*, above, and below an 11" shell



Fort Gaines: Viewed from Within – Modified Seacoast M.1829s



The SE bastion points towards Sand Island where a lighthouse has been since 1838.[1]

Left. The SE bastion which had its walls lowered post civil war. All the guns on the walls at the time of the visit were described as '32pdrs'. This gun has a ring knob on the base of the breech which is an indicator of a Seacoast M.1829 cannon with a smooth bore (SB) of 6.41" - matching that required for a 32lb ball.[4] This gun and others were removed during the Civil War and taken to the iron works at Selma, AL where they received 5 or 10 rifling grooves to convert them into MLRs.[4,5]

This gun is mounted on a replica barbette style carriage. It is claimed that all four remaining 32pdrs are original to the fort.

Fort Gaines: Viewed from Within - Modified Seacoast M.1829s

CH Comment: Rifling the SB 32pdr M.1829 Seacoast cannon with a bore of 6.41" would result in a change of projectile from a round 32lb ball to that of a bullet shape which resulted in a projectile weighing at least 60lb – see opposite. Firing such a heavy projectile engaged in the rifling would substantially increase the pressure within the tube for which the gun had not been designed or reinforced for later. It is therefore a credit to the original gun that it did not fail after its modification. **Comment Ends**



Above. Left a 32lb solid ball as originally designed for a 32pdr SB and a Confederate shell (scaled to the best of CH's ability for comparison) designed to replace the latter upon the rifling of the barrel. The shell weighed 60lb and the solid bolt variant would weigh even more. The shell was over 12" long compared to less than 6.4" diameter of the ball.



Diameter: 6.35 inches
Bore Diameter: 6.40 inches
Cannon: Rifled 32-pounder smoothbore
Overall Length: 12.04 inches
Length Without Fuse: 12.04 inches
Weight: 60.0 pounds
Construction: Shell
Fusing System: Time
Fuse Material: Brass
Sabot Material: Lead, cup
Sabot Height: 2.57 inches
Battlefield: Vicksburg, Miss.

Collection: Thomas Swift Dickey Sr. Collection, Atlanta History Center

Comments: Unfired. The lead sabot was turned on a lathe to the desired diameter. Flanges were also turned on lathe. The width of the four flanges on the body are 2.50 inches. Flanges are vertical and are not slanted like their U.S. counterpart. Unmarked brass C.S. water cap fuse with a head diameter of 1.27 inches. Fuse fits flush with the shell body. There is an expansion groove between the shell body and the sabot to allow the lead to be forced into the rifling grooves.

Fort Gaines: Viewed from Within - Modified Seacoast M.1829s

Fort Gaines M.1829 Seacoast artillery still present

Foundry	Reg No.	Inspector	Year	Weight of tube (lb)	Comment
Fort Pitt	2	James Bankhead	1832	7,487	Unbanded with 10 rifle grooves added
Fort Pitt	39	William Jenkins Worth	1832	7,400	Unbanded with 5 rifle grooves added
Fort Pitt	41	William Jenkins Worth	1833	7,388	Unbanded with 5 rifle grooves added
Fort Pitt	44	William Jenkins Worth	1833	7,383	Unbanded with 5 rifle grooves added

CH Comment: It is not understood why one gun had 10 rifle grooves while the rest had just 5. Perhaps of note, a 32pdr SB modified with 10 rifle grooves suffered a 'burst breech' in nearby Mobile.^[4] **Comment Ends**

When the fort was captured in 1864 it was noted by Union captain and chief engineer, M.D. McAlester, as being armed as follows:

10" Columbiads	x 4
7" Brooke Rifles	x 2
24 and 32pdrs SBs	x '12 or 15'
Flank casemate howitzers	x '5 or 6'

CH Comment: McAlester probably did not realise that the 32pdrs were rifled (there is no external indication). Other sources claim 26 guns taken so taking the above quantity of guns as 4, 2, 15 and 5 respectively would match the former quantity. The flank casemate howitzers are likely to have been 24pdr SBs.^[7] **Comment Ends**

Fort Gaines: Viewed from Within



Above. The E bastion – as per the SE bastion



Above. The NE bastion – as per the SE bastion

Fort Gaines: Viewed from Within



Above. Looking towards the gate with the Guard house to the right and orderly room and Commandant's office to the left. Near left is the Officer's Quarters that was originally 3 stories high but Union artillery fire reduced it to what it is today. The works closest to the camera post date the Civil War.[1]

Fort Gaines: Viewed from Within

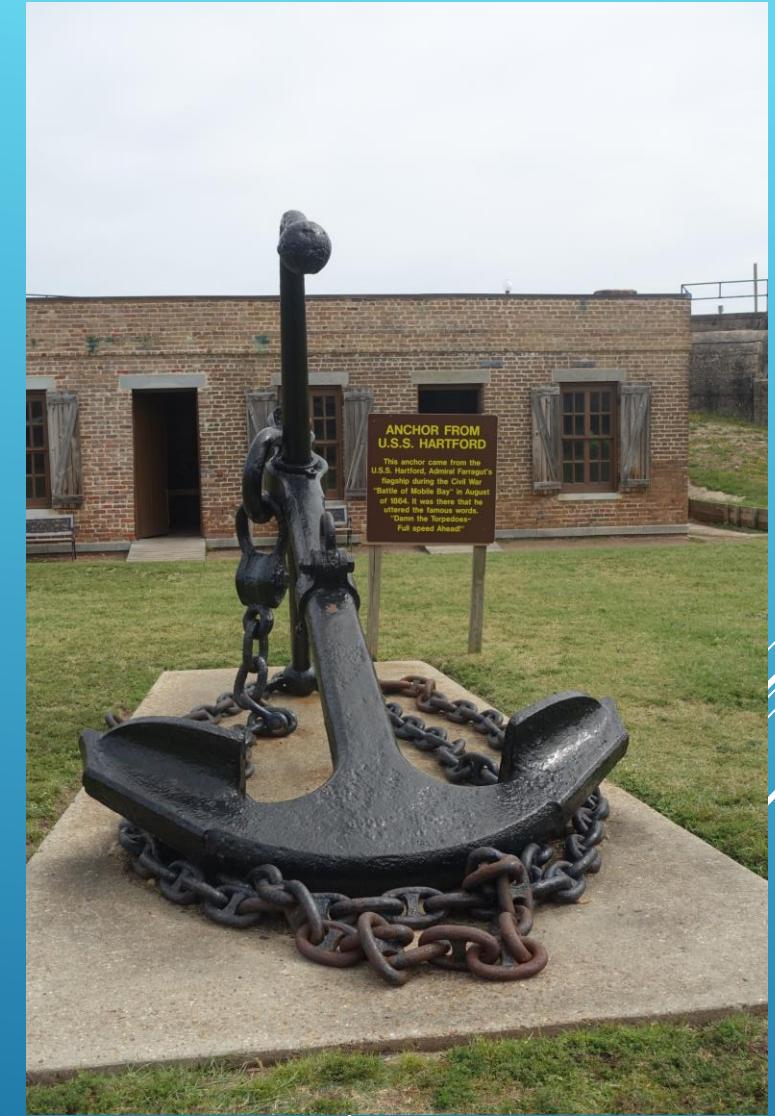


Above. The NE bastion that still retains its pre-Civil War wall with a gun that fits the description previously given for the SE bastion but note the date on the face of the trunnion – '1832'. The year it was cast at Fort Pitt.[4]

Fort Gaines: Viewed from Within



Above. The gate with the flags from the island's different occupiers over the centuries.



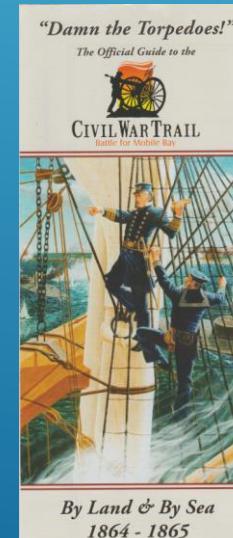
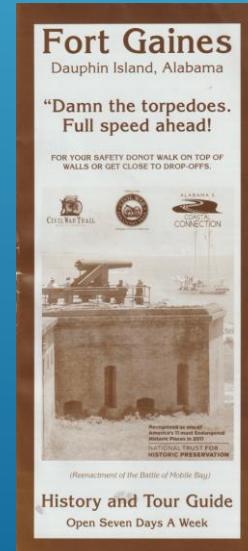
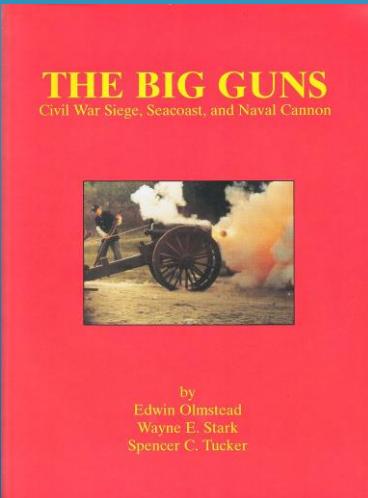
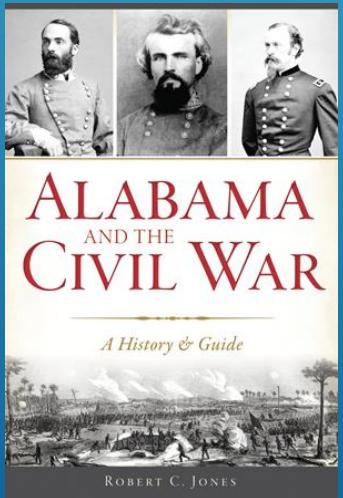
Above. The anchor from the USS Hartford, Admiral Farragut's flagship at the battle of Mobile Bay

Fort Gaines: Further Reading

[Fort Gaines Historic Site](#) | [American Battlefield Trust \(battlefields.org\)](#)

End Notes

- [1] Fort Gaines – ‘History and Tour Guide’ leaflet
- [2] [Fort Gaines \(Alabama\) - Wikipedia](#)
- [3] [Forts Morgan and Gaines - Encyclopedia of Alabama](#)
- [4] The Big Guns (Museum Restoration Service, 1997), p28, 32, 116-118, 120, 168-169, 208, 217-218, 242
- [5] [Fort Gaines - Big Gun! \(youtube.com\)](#)
- [6] The ArtillerymanMagazine.com Vol.42, No. 1, p10
- [7] Alabama and the Civil War, Robert C. Jones, 2017, p27-28, 71-72, 103, 124, 130, 169-170
- [8] “*Damn the Torpedoes!*”, The Official Guide to the Civil War Trail – Battle for Mobile Bay



All color photographs by CH unless noted otherwise.