



Material of the Sculpture = \_\_\_ Stone \_\_\_ Concrete \_\_\_ Metal \_\_\_ Undetermined  
 If known, name specific material (color of granite, marble, etc.) \_\_\_\_\_  
 If the Sculpture is of metal, is it solid cast or "hollow?" \_\_\_\_\_

Material of Plaque or Historical Marker / Tablet = \_\_\_\_\_

Material of Cannon =  Bronze \_\_\_ Iron - Consult known Ordnance Listing to confirm  
 Markings on muzzle = NONE

Markings on Left Trunion P WPT Right Trunion IX IN 1859

Is inert ammunition a part of the Memorial? NO If so, describe \_\_\_\_\_

**Approximate Dimensions** (indicate unit of measure) - taken from tallest / widest points

Monument or Base: Height 1'4" Width 10' Depth 6 FT/10 FT or Diameter \_\_\_\_\_  
 Sculpture: Height \_\_\_\_\_ Width \_\_\_\_\_ Depth \_\_\_\_\_ or Diameter \_\_\_\_\_

For Memorials with multiple Sculptures, please record this information on a separate sheet of paper for each statue and attach to this form. Please describe the "pose" of each statue and any weapons/implements involved (in case your photos become separated from this form). Thank you!

**Markings/Inscriptions** (on stone-work / metal-work of monument, base, sculpture)

Maker or Fabricator mark / name? If so, give name & location found \_\_\_\_\_

The "Dedication Text" is formed: \_\_\_ cut into material  raised up from material face

Record the text (indicate any separation if on different sides...) Please use additional sheet if necessary.

\_\_\_\_\_  
 \_\_\_\_\_  
SEE ATTACHMENT  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Environmental Setting**

(The general vicinity and immediate locale surrounding a memorial can play a major role in its overall condition.)

**Type of Location**

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Cemetery           | <input checked="" type="checkbox"/> Park | <input type="checkbox"/> Plaza/Courtyard |
| <input type="checkbox"/> "Town Square"      | <input type="checkbox"/> Post Office     | <input type="checkbox"/> School          |
| <input type="checkbox"/> Municipal Building | <input type="checkbox"/> State Capitol   | Other: _____                             |
| <input type="checkbox"/> Courthouse         | <input type="checkbox"/> College Campus  | _____                                    |
| <input type="checkbox"/> Traffic Circle     | <input type="checkbox"/> Library         | _____                                    |



**Surface Coating**

Does there appear to be a coating?  Yes  No  Unable to determine  
 If known, identify type of coating.

Gilded  Painted  Varnished  Waxed  Unable to determine  
 Is the coating in good condition?  Yes  No  Unable to determine

**Basic Surface Condition Assessment (check one)**

In your opinion, what is the general appearance or condition of the Memorial?  
 Well maintained  Would benefit from treatment  In urgent need of treatment  Unable to determine

**Overall Description**

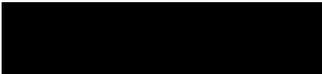
Briefly describe the Memorial (affiliation / overall condition & any concern not already touched on).

IX IN DAHLGREN ON CARRIAGE MOUNTED ON A TRIANGULAR CONCRETE BASE  
AT ONE END OF A CITY PARK  
OTHER MARKINGS INCLUDE: ON THE RIGHT SIDE OF THE CARRIAGE "NO 110" "1290L"  
ON THE BREECH "NO 249 9058 LBS" "C.A. & CO." "714"

**Supplemental Background Information**

In addition to your on-site survey, any additional information you can provide on the described Memorial will be welcomed. Please label each account with its source (author, title, publisher, date, pages). Topics include any reference to the points listed on this questionnaire, plus any previous conservation treatments - or efforts to raise money for treatment. Thank you.

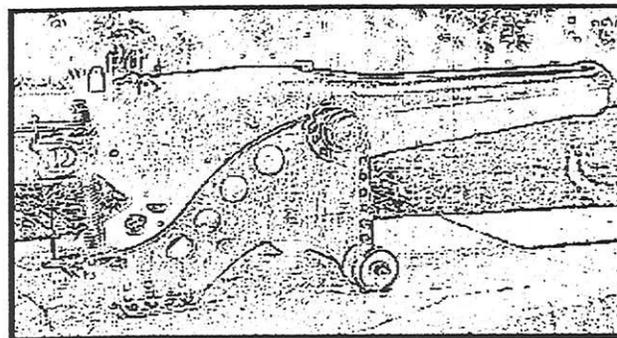
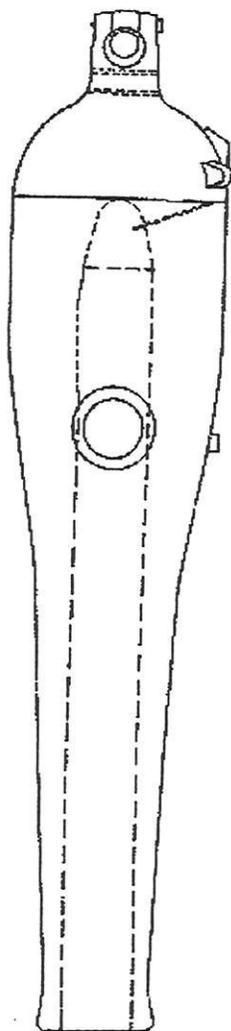
**Inspector Identification**

Date of On-site Survey JULY 4, 1999  
 Your Name DOUG ARMSTRONG  
 Address 236 E FREDERICK City LANSING  
 State MI Zip Code 48906 Telephone 

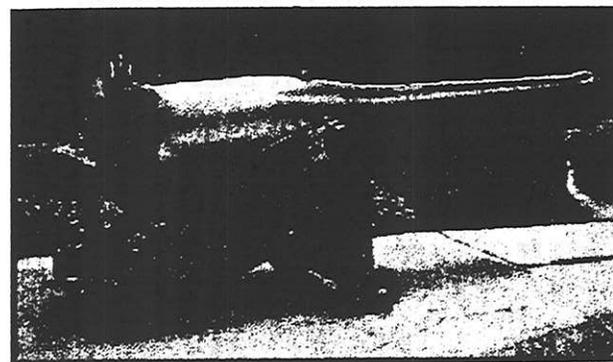
Please send this completed form to:

Thank you for your help, and attention to detail.

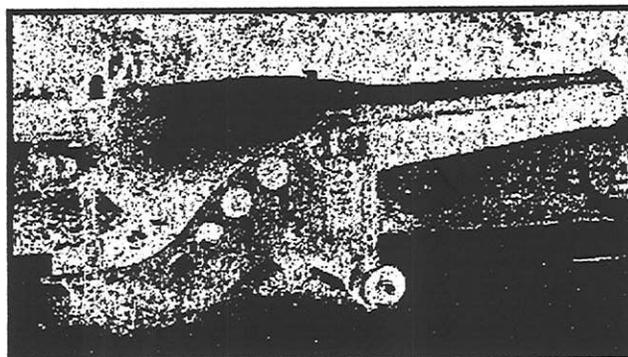
SONS OF UNION VETERANS OF THE CIVIL WAR  
 National Civil War Memorials Committee



The Gun



in the Park



## The Gun in the Park

In Petoskey's Pennsylvania Park there is a dark bottle-shaped gun on a cement pedestal. Except when children climb up to play on its iron barrel, the weapon, a IX-inch Dahlgren smoothbore shell gun, is easy to ignore. But this gun with its enlargements was called by a naval historian "the gun that won the Civil War." Navy men came to regard it as the most efficient boat weapon of its day, Dahlgrens "stood well" in battle.

The gun in our park, No. 249, was cast in 1859 by the C. A. & Co, Cyrus Alger & Co. of South Boston, the same company that furnished the government with shot and shell during the War of 1812. The nine in IX-inch refers to the diameter of the muzzle and size of the ammunition the Dahlgren could fire. Standardization of the Dahlgren battery on the *Hartford* and other sloops-of-war simplified the munitions needed for the guns. Considering it took an officer, loaders, rammers, spongers, tackle men, 16 in all, plus one powder monkey, a young boy, to fire each broadside gun, Dahlgren's uniformity of gun size

and their munitions was a great advantage, especially in an intense battle.

Now our Dahlgren has its muzzle safely plugged with wood. The large screw at the rear of the gun was used to elevated the gun for correct aim. Aiming such a large gun from the unstable deck of a ship took practice; guns were often fired at the instant the roll of the ship brought the target into line. The rectangular shape on the top of the breech, the back of the gun, is a rear sight base. The two box-like objects on the top of the gun are for percussion locks; one would be fitted to fire the gun. One of John Dahlgren's earliest inventions was an improvement of the percussion lock. The large metal loops were for the strong ropes used for running the guns out and for checking the length of the recoil when the gun was fired. The casabel block on the rear of our gun is reversed with the concave side to the rear. It should be turned and its pin made flush with the upper face of the casabel so the rope would pass through smoothly.

The iron Marsilly carriage, much more durable than a wooden carriage, is No. 110, weighing a hefty 1,290 pounds itself. Wooden carriages (probably of elm), if hit during battle, could splinter. Wounds from these splinters were serious and even fatal to the gun's crew. The lighter iron carriage was

possibly exchanged for the heavier wooden one after the Civil War in the late 1860's when the *Hartford* was refitted. Iron carriages held up better under the force of the recoil and, while heavy, were lighter than the massive wooden carriages. The large circles, holes in the sides of the iron carriage, were to further lighten it.

Originally the Marsilly carriage had four wheels, but the newer designs had only two wheels, a truck, so the rear of the carriage slid on the deck, checking recoil. To move the gun a large handspike was used to lift the carriage so the wheels could be maneuvered.

Appropriately the Dahlgren faces the waters of Little Traverse Bay. This piece weighing 9,085 pounds, two or three times the weight of a car, with its side projections, its trunnions, resting on the carriage, was a naval gun. On the end of the right trunnion is the date the cannon was cast, 1859; on the left trunnion is a letter "P" for "proved" with the inspector's initials, "W.R.T." for William Rogers Taylor.

Dahlgren was unusually involved with the correct casting and safety testing, the proving, of his guns. During the Civil War when his new and even more powerful XV-in. was placed in an ironclad's turret in spite of his protests that his newest weapon

had been insufficiently tested and perhaps poorly cast, he instructed the crews to fire the XV-in. gun only when absolutely necessary and to load only a reduced charge. In the past gun crews often felt the possibility of the gun bursting upon firing made it almost as dangerous to shoot as to be shot at. Dahlgrens, though, were handled by the crews "with as much confidence as they drink their grog." No Dahlgren gun, not the IX-in. or the XV-in., burst ever, even when fired with full charges.

By the end of the Civil War a battery of twenty-six IX-in. Dahlgrens were on the deck of the *Hartford*. The *Hartford's* Civil War battles at New Orleans, Vicksburg, Mobile Bay and Port Hudson established the ship as one of the most valuable unarmored vessel of the conflict. Gun crews called the type of gun in our park a black powder gun or "the soda water bottle." John Dahlgren did not like the nickname for his gun. The IX-in. is the result of his long struggles with the navy to change the practice of adapting army guns for navy use. Our gun was the first of a whole series of Dahlgren naval guns.

Across the bay in Harbor Spring's Zorn park is another Dahlgren IX-in. from the *Hartford*. Harbor's gun is No. 678, cast in 1862, weighing 9,061 pounds. Cheboygan has one on a carriage in

front of its County Building. Three more are in the marina park at Mackinaw City mounted on metal carriages. These three are elevated with their muzzles pointing skyward. One of the three had previously been in the Fort Michilimackinac grounds but was moved during the fort's renovation because the gun was not from the fort's period in history. Hedges almost surround the three carriages at the waterfront setting. All these Dahlgren guns except the ones in Petoskey and in the yard of the City-County Building in Gaylord were cast during the Civil War years. Gaylord's gun is No. 250 from the same foundry as the Petoskey Dahlgren. Two more IX-in. Dahlgrens from the *Hartford* were placed in parks in Bay City. The Civil War gun in the Veteran's Park in Boyne City is a land artillery piece, a Columbiad on a metal Barbette Carriage which may have been mounted on a pivoting mechanism.

We are lucky to have these relics from the Civil War in Northern Michigan. In Bay City during World War II historic cannons, city streetcar rails and other steelwork were gathered up during patriotic scrap drives. Some believe that the cannons were too large to be used for scrap and may still exist buried in some junkyard. In trying to track down the location of all the Dahlgren's from

the *Hartford* it was learned from the Naval Archives that unfortunately the records of the gun's relocations are lost. Perhaps some other of the IX-inch guns were collected for scrap during World War II. Maybe a few are in other locations in the United States.

The power of this seemingly ornamental fixture quietly resting in our park was dreadful. During pre-war trials in 1852 the shell from our IX-in. Dahlgren hit a target of white oak 30 feet thick at a range of 1,300 yards. The explosion displaced 27 cubic feet of wood. Think of a cube made of yard sticks to visualize the approximate destruction. When fired at ironclads the IX-inch shell could pierce 4.5 inches of iron plate backed by 20" of solid oak. The inventor of the gun in our park by painstakingly crafting the best cannon possible for naval warfare with wooden ships prepared the U.S. Navy for war with the more formidable ironclads.

## 2. NAVAL BATTLES OUR CANNON PARTICIPATED IN

While similar to Dahlgren land artillery pieces, the IX-in. in Petoskey's Pennsylvania Park is a specifically designed naval gun from the Hartford, flagship of Flag Officer Farragut, hero of the Civil War who became the first U.S. admiral. His

legendary orders during the battle for Mobile Bay were "Damn the torpedoes! Full speed ahead". That momentous battle was fought in the last summer of the Civil War.

"Torpedoes" were a type of mine. Mobile Bay was laced with 180. The Confederate mines were made from beer kegs filled with powder. From their sides projected many tubes containing fulminates, detonating agents. Other mines had tin cones fitted with caps for detonators. For three nights before the battle began, Union crews in small boats with muffled oars slipped quietly out to sink or grapple with the torpedoes. They cut an opening for the fleet to pass through. p73

Farragut, age sixty-three, a Southerner who reminded loyal to the Union, was a veteran of the New Orleans, Port Hudson and Vicksburg naval campaigns. The hero was an experience career officer for whom the grade of rear-admiral was created. Now he was preparing for a battle he had offered and preferred to fight at the beginning of the war, the battle for Mobile. But now Mobile was more heavily fortified, building ironclads and expecting an attack.

Farragut, suffering from fatigue, boils, the heat, and the loss of one of his key officers to yellow

fever, did not look forward to the campaign. He'd again have to maneuver his fleet cautiously as he had in his battles in the Mississippi. He could not operate freely, as the deep-sea sailor he was trained to be, but would again be confined in shifting, treacherous river channels, bayous, littorals and estuaries. In addition to sailing into warfare his officers would have to navigate in enemy waters dotted with uncharted sandbars and shoals. His vulnerable fleet would once more have to pass under the waiting guns from secure Confederate forts.

Furthermore, Farragut did not know the exact strength of the Confederate fleet, and feared the "coming out" of the large ironclad being built in Mobile. Farragut's fleet of fourteen wooden ships and four ironclad monitors would ultimately battle the Confederate Navy of three wooden gunboats and the ironclad ram Tennessee but the three formidable Southern forts that defended the entrance of bay and were the greatest of obstacles. Farragut well remembered that "running the forts", Fort Jackson and Fort St. Philip, on the Mississippi below New Orleans, had p73 been costly. One gun within a brick and cement fort was worth four on the deck of an exposed wooden ship; guns and

crews destroyed in forts could quickly be replaced; those on ships could not.

Of the three forts, Morgan, Gaines and Powell, protecting Mobile, Morgan was the strongest with three tiers of guns within the fort plus a battery of guns on the beach that could fire point blank at the Union ships forced to pass right under its guns in the deep water channel into Mobile Bay.

Farragut wanted the Hartford with its Dahlgrens to be in the lead on the morning of the battle saying, "exposure is one of the penalties of rank in the Navy," but his officers noted that the Brooklyn had four bow guns and also had on her jib-boom an arrangement for picking up torpedoes, so the Brooklyn led the fleet.

For two weeks before the battle Farragut had the vessels of his fleet cleared for battle; unnecessary spars and rigging were removed; splinter nettings were stretched to protect the men from the lethal wooden fragments. Splinters were more feared than solid shot. Metal curtains like chain mail were thrown over the sides of the vessels. These curtains sometimes extended two feet below the water line to protect the engines and munitions within the ships. Jacob's ladders were also flung over the ship's sides so carpenters could quickly descend to patch the holes shot in the ship's sides. Tubs of

water were spotted about the decks for use by the ship's well trained fire brigade. The bow of the Hartford and many of the larger vessels were fitted with sharp, p73 saw-toothed ropecutters to sever rope obstructions in Mobile Bay. He wanted two metal revolving rings placed around the ships pro pellers to prevent fouling, but this was not implemented.

Buckets of sand, sawdust and ashes were placed near each Dahlgren. Gun crews, exposed and at great risk from musketry and canister especially when fighting at close quarters, knew there would be considerable blood from the inevitable wounded. Their blood would have to be absorbed quickly so the gun crews could maintain their footing to continue firing. All about the wheel were placed a barricade of sails and hammocks to protect the helmsmen. Farragut requested but did not received a hospital ship. He showed the utmost respect for his men and the ferocity of the impending confrontation by his characteristically thorough preparations.

On the day of the battle, August 5, 1864 the Hartford took a pounding for two hours from Fort Morgan, as the Hartford counter fired to knock out the fort's guns. The mainmast of the Hartford was struck and nearly cut in two. Huge splinters some

as big as logs shot across the deck tearing the nettings to wound and kill men. A pilot with a speaking trumpet was above in the mizzen, the rear mast. He called down information to the three veteran helmsmen who had been in the previous battles. But Farragut, to get above the smoke from his firing Dahlgrens and the smoke from the Hartford's stack climbed up the port main rigging; the mainmast is the second mast from the front. An officer insisted Farragut be lashed to the rigging lest he fall if wounded. Others say Farragut, over sixty years old, suffered from vertigo and requested himself that he be lashed to the p73 rigging. Confusion erupted because of the use of Army rather than Navy signals by the Brooklyn. The Tecumseh, a federal monitor, puzzled, instead of staying inside the buoys as Farragut had ordered, turned to the port side. Suddenly the Tecumseh struck a mine, or torpedo, and quickly went under with her captain and almost ninety of her crew; a disaster. As the Union Metacomet rushed to the rescue, Confederate General Page in Fort Morgan commanded, "Pass the order not to fire on that craft; she is saving drowning men." The Confederate ram, Tennessee, also held its fire. From a crew of one-hundred and fourteen, twenty-one

men from the Tecumseh survived. While many mines were duds, their long exposure to salt water corroding their firing mechanisms, the sudden sinking of the Tecumseh was clear proof that not all were failures.

Then, as the Union fleet struggled to proceed past the Confederate forts, the Brooklyn, panicked by the rapid sinking of the Tecumseh and seeing what was thought to be mines but what were actually floating empty shell cases, slowed, backed its engines and almost collided with the advancing Hartford.

Farragut from his elevated position in the rigging insisted the Brooklyn proceed. Some quote Farragut as saying, "Damn the torpedoes! Drayton, Jouett! Full speed ahead!" Others say he said, "Damn the torpedoes! Ring four bells! Eight bells! Sixteen bells! Captain Drayton, go ahead! Jouett, full speed astern!" The Hartford, belching smoke, swinging hard to the left of the Brooklyn to avoid a near pile-up of the advancing fleet on a swift flood tide, signaled the other ships to follow.

With his broadside battery of Dahlgrens firing, their considerable recoil rolling the ship from the port to starboard and back again, Farragut steamed the Hartford further into the dangers of Mobile Bay. Men in the flagship swore they heard the

mines bumping the hull of the Hartford as the ship responded to Farragut's unequivocal order.

The Union fleet fought Confederate forts, rebel gunboats and the "secesh" ironclad ram that did, indeed, come out for the battle. The flagship had a near collision with this Confederate ironclad, the Tennessee, which repeatedly tried to ram the Hartford. Farragut, for firing on the ironclad ram, ordered extra charges for his Dahlgren IX-inch guns. The cannons, loaded with these dangerously high levels of explosives, were rapidly and repeatedly fired with safety. These more powerful volleys helped defeat the ironclad ram, Tennessee.

In the end, the battle was a victory for the United States Navy. Mobile, a major Southern port once available to swift blockade runners, was no longer as accessible. The construction of Confederate ironclad rams there would cease. Napoleon's words, "God fights on the side with the best artillery," applied, also, to naval ordnance, especially the IX-in. Dahlgren. The defeated Confederate forces called the wooden, but heavily armed, United States steam sloop, Hartford, the Black Devil of the Bayous.

After the previous, but equally horrendous battle for New Orleans during October of 1861 an old tar, one of the Hartford's gun crew, looked out

at the defeated, but openly hostile, population of New Orleans. They were jeering and ranting along the docks. He grinned at their futile shouts of revenge as he held the lanyard he used to actuate the firing mechanism on the IX-in. Dahlgren and patted the breech of his victorious "soda bottle gun." Farragut's reliance on the Dahlgren IX-in. shows in his orders for the attack on the Mississippi forts protecting New Orleans; "the best protection against the enemy's fire is a well-directed fire from our own guns." These guns were like our gun in the park.

### 3. The Powerful Cannon From the Hartford Comes to Petoskey

Our gun in the park and the two in the Bay City park were brought here during the winter of 1904-1905 from Mare Island navy yard in California. Our gun was placed in the park May 29, 1905 and dedicated on July 4, 1905. Congressman George A. Loud and our local Postmaster at the time, James Buckley, are credited with obtaining these guns for Michigan. The metal tablet on the carriage of many of the Dahlgrens in Michigan explain about the gun and the Hartford. These plaques were cast at the Industrial Works in Bay City.

Farragut, Hartford and Dahlgren were entwined in the naval battles for New Orleans, Port Hudson, Vicksburg as they were in the battle for Mobile. The Union losses during the battle of Mobile were heavy; 52 killed and 170 wounded. The battle for Mobile Bay was the hardest fought naval battle of the Civil War. The Hartford alone out of a crew of 310 had 25 killed and 28 wounded. She had been hit 20 times. Five shells pierced her hull. Four crews of the big Dahlgrens had been blown to pieces. The dead and wounded were quickly removed, the guns repaired and the firing resumed.

In its entire Civil War history the Hartford was hit 264 times, but Farragut was never hurt. He wrote his wife: "Though I am worn out with mental strain and physical fatigue, I escaped--thank God--without a scratch." He was made rear admiral in 1862, vice admiral in 1864 and a full admiral in 1866. His fame was built on only six hours of actual fighting. "Don't be afraid of doing too much; those who are, seldom do as much as they ought," he told his men. The last time the Dahlgren IX-inch guns were fired in anger was in the battle for Mobile Bay.

On one of Farragut's later missions for the United States to England he inspected docks and arsenals making extensive notes about the relative

power of a XV-inch Dahlgren and IX-inch rifle tested there.

#### 4. The Invention and Testing of the IX.-inch Dahlgren

When the IX-in. was test-fired at the Washington Navy Yard in 1850, its new technology made it what Louis XIV had called his new cannons, "the ultimo ratio; the last argument", a heavy, destructive weapon. The cannon cast at West Point Foundry was a smoothbore of iron, cast solid and cooled from the exterior. Dahlgren's had great thickness at the breech, thinning to the muzzle. They were designed to shoot shells at wooden vessels but were strong enough to switch to shot as the use of ironclads increased.

Later the inventor John Dahlgren tested his broadside shell gun on a vessel named The Experiment which cruised under his command from 1847 till 1859. Dahlgren said, "My idea was, to p73 have a gun that should generally throw shells far and accurately, with the capacity to fire solid shot when needed." Shells were cast iron, filled with exploding black powder. Shot was a round cast iron projectile, a cannon ball.

He met with opposition; still on June 6, 1849 he wrote: "Howitzer complete in every detail,--lock, sight, and carriage; also the ammunition and

equipment. Sent it to Boston for the 'Adams, being the first Howitzer ever made by the United States for the Naval Service."

In his work with naval ordnance Dahlgren was mindful of cost. In his journal he notes that the brass-founder could "produce a saving yearly of \$2,000 in ladles and metal saved." Dahlgren improved primers: "I was authorized to substitute my improvement of primer,--a flat paper instead of the stout paste board head. Hitherto primers have cost three cents each, in the future the cost will be two and one half cents."

In his book Shells and Shell Guns published in 1856 Dahlgren gave the range tables for all his guns. However, probably due to government secrecy requirements, no illustrations were allowed. Earlier, as a young naval lieutenant he notes in 1843 in his journal, "....I have condemned the whole of the old gun nery tables with a vengeance, and very deservedly, for they are a disgrace to the name of science".

Not all naval officials were convinced that Dahlgren's heavy artillery could be effectively fired from the decks of ships. Batteries of guns the weight of the one in Pennsylvania Park, 9,085 pounds, were sure to slow a ship sailing into battle. p73 Mr. George Steers, a respected yacht and ship

builder who prized speed, complained of the weight of the proposed Dahlgren armaments on a ship, the Niagara, he was building for the navy. Although Dahlgren tried to implement his plans, when the two men met to discuss the arming of the Niagara the navy agreed with Steers. Dahlgren, disappointed, noted in his journal, "Speed is an essential requisite for a first-class ship of war, but essential only to go into action, not out of it!" Dahlgren argued unsuccessfully that speed was possible for a ship with his heavy guns provided the ends of the vessels were not overladen. Farragut politely complained that the Hartford was not overly fast even with both the steam and sail being used. Top speed for the Hartford was about like the pace of our lake freighters of today, approximately 13 1/2 knots with both steam and sail being used. Its average speed was more like 7.3 knots with sail and steam. She could do 9.5 knots under steam alone.

There were other objections to such large guns; the stowing of their ammunition on board ship could cause costly explosions if hit during battle. Besides, accidents firing guns, while hazardous on land, were much more serious at sea. Dahlgren wanted, though, to invent, test and perfect a series

of guns, not borrowed from the army, but "entirely suited to naval use."

In his journal Dahlgren writes on his fortieth birthday, Nov. 13, 1849 of the test-firing on land of one of his guns at the Experimental Battery at the Washington Navy Yard. "Gunner McLane was at the right side of the gun, and a man near him to hand the match. Captain Chauncey stood near the rear right corner of the platform, I, at the place between the front and rear corners of the right end, where the best view of the whole matter was to be had. I asked, 'Are you ready?' McLane answered. 'Ready, sir.' I said, 'Fire.' An unusual explosion took place instantly. The battery was filled with smoke, and a great crash of timber was heard. Behind me I heard the ground ploughed up, and of the things that fell, something grazed my heels, which afterwards proved to be part of the breeching, a piece weighing two thousand pounds. Much stunned by the noise and the concussion. I turned to the battery. Amid the smoke, yet lifting slowly, the first object was the body of the unfortunate gunner stretched on the deck and quite dead."

The Court of Inquiry found no fault with Dahlgren, but he became more determined to produce naval guns so well built they would not

burst even after repeated firings. Dahlgren in a report about this accident and trying to get support for his gun improvement experiments noted the bow gun of the President exploded with the result of sixteen killed and wounded; the bow gun of the Pike while engaging the English squadron on Lake Ontario twenty-two men killed and wounded; a broadside main deck gun on the Guerriere the flagship of Commodore Decatur while fighting a Turkish ship in 1815 burst; five men killed and thirty wounded.

John Dahlgren ends his report about the accident by asking to design the model of the gun we have in our park, the IX-in. shell gun of approximately 9,000 pounds," made entirely after my views." He is finally successful. On May 21, 1850 his IX-in. gun was landed from the foundry at the Washington Navy Yard.

Still criticism persisted. Dahlgren in 1857 rearmed a p73 sloop-of-war, Plymouth, as a gunnery practice ship. He used four guns like the one in the park, IX-in. shell guns and a shell pivot gun, two 24-pdr. and one 12-pdr. howitzer, all of his own design as naval guns. Pounds refers to the size of the projectile shot from the gun. The Plymouth's six month cruise proved Dahlgren's heavy cannon could be managed on ships. Firing of the IX-in.

could be accomplished every 40 seconds by a trained crew.

In addition to his experiments with smoothbore guns, Dahlgren also developed a heavy rifled naval cannon. A rifled cannon has grooves cut or cast into the bore, the inside of the cannon, giving a spin, as do feathers on an arrow, to the projectile. This insures greater accuracy. On February 7, 1862 an 80 pounder loaded with 6 pounds of powder burst in the act of firing. Flying into four parts, one piece was driven through the deck into the magazine setting fire to the ship, Hetzel. Unlike the smoothbore in our park Dahlgren rifles were cast without trunnions. While rifled cannons were more accurate than smoothbores, accuracy could be lost when firing from the deck of a ship pitching and rolling at sea. Ranges then for the naval Dahlgrens necessarily had to be short.

Crews sometimes relied on and often practicing ricochet firing. Dahlgren himself did considerable calculations to perfect this technique. He felt when the sea was smooth this method could be used effectively by his gun crews.

##### 5. Lincoln's Reliance on Dahlgren

At the start of the war not all Dahlgren guns were safely on the Union side. The main source of Confederate naval guns came from near Norfolk,

Virginia, the Gosport Navy Yard at Portsmouth where, without a single shot being fired, 1,198 heavy cannon were captured in April, 1861. Fifty-two Dahlgren IX-inch guns were included. The Confederates also captured 2,000 barrels of powder and thousands of shells.

The North tried to practice a scorched earth policy when retreating from their over-whelmed Southern military installations. Demolition efforts, though, at Gosport were badly bungled. Virginia had not yet officially seceded; most of the naval officers and civilian workers were Southern sympathizers. Though the yard was ordered burned guns survived. Spiked guns were revented. The Dahlgren guns left behind were so strongly cast that not one trunnion could be knocked off by sledgehammers.

John Dahlgren called the losses "the calamity at Norfolk" and ordered Northern foundries to "fabricate as rapidly as possible" his IX-in. guns.

The Merrimack, a powerful Union steam frigate, with forty guns, was salvaged and converted by 1,500 workmen working around the clock into the Confederate ironclad, Virginia. It entered history in the battle of the Merrimack-Virginia and the Monitor. The Merrimack was commanded by Dahlgren's former

supervisor called the "Father of Annapolis", Commodore Franklin Buchanan, the highest ranking man in the Confederate navy. Iron against wood proved an uneven fight; Buchanan destroyed five Union frigates, two sunk; three run aground. Lincoln upon hearing of this setback drove immediately to the Washington Navy Yard on a Sunday morning. He brought Dahlgren back with him to the White House to meet with Secretaries, Seward, Welles and Stanton and with Generals McClelland and Meigs. But in the small revolving turret of the Union's Monitor were two XI-inch Dahlgren guns. These guns and the greater speed and maneuverability of the Monitor halted the USS Merrimack's unchallenged destruction of the Union navy.

John Dahlgren was on ordnance duty at the Washington Navy Yard when the war began. He was one of three officers who did not resign his position to join the Confederacy. As a personal friend and unofficial naval advisor to Lincoln, Dahlgren became post captain of the Washington Navy Yard by a special act of Congress. He slept at the yard and worked day and night to see that Washington was not left totally unprotected at the start of the war. He quickly prepared for a siege. Later when Northern troops arrived to end the

threat to Washington, Navy officers of higher rank than Dahlgren began vying for Dahlgren's post but Lincoln insisted Dahlgren was not a temporary appointment: "The Yard shall not be taken from the Captain; he held it when no one else would, and now he shall keep it as long as he pleases." Congress amended an old law to implement Lincoln's wishes. Dahlgren called this "the best compliment I ever received." He further said that his service during the emergency was "the best which I ever rendered to the country."

Later, at the Navy Yard Dahlgren set up with Lincoln's specific invitation a demonstration of a new weapon, the machine gun, the "Raphael Repeater." With Lincoln's approval Dahlgren dispatched a ship to Yokohama to purchase niter for gunpowder. At Lincoln's orders and independent of both the Army and Navy Ordnance Bureaus Dahlgren kept watch over a project in the less noticeable Philadelphia Navy Yard to make gunpowder using chlorates, plentiful in the United States, rather than buying niter from England which held a tight monopoly on its supplies from India.

With Lincoln, Dahlgren viewed a literally earth shattering explosion of an experimental, underground mine with a new electric detonating system. Some, upon hearing the devastating

explosion, feared the president had been killed. Lincoln also encourage and personally viewed demonstrations of Greek Fire, an early flame thrower. The president was nearly injured when an experimental rocket misfired during a demonstration.

General Ripley of the Army Ordnance Bureau and Secretary Wells disliked this bent of Lincoln continually to investigate new weapons. There was some concern for the president as he freely and repeatedly received inventors carrying weapons that could easily be used to assassinate him. Wells even ordered Dahlgren not to encourage the President in these "irregular, valueless proceedings" with new inventions. Dahlgren, greatly overworked, asked to have an assistant in charge of testing and evaluating new weapons. Dahlgren also requested active sea duty. Besides Dahlgren's busy Navy Yard was on a war time, round-the-clock, busy schedule of manufacturing two hundred shells, twenty-five thousand percussion caps, and thirty-five thousand Minie and musket balls every day; rifling cannon; casting, finishing and mounting howitzers. The blast furnaces and steam hammers for forging anchors and reworking scrap iron, the chain-cable shop, the rolling mill, the boilermaking shop, the machine shop, the foundries for brass and iron for making

howitzers and fieldpieces and the shipways were all working at top speed.

But in addition to all these responsibilities, Dahlgren wrote in his journal that he examined sixty-two inventions in six months; "I believe that no one person in the United States or abroad has been instrumental in introducing to the public use so many inventions of others as myself." The president's "champagne experiments", as they were ridiculed by many in the military, with new weaponry at the Navy Yard and with Dahlgren's assistance, gave Lincoln much needed companionship and help in finding the munitions to win the war more quickly. Dahlgren, the same age and tall like the president, made the Navy Yard a presidential refuge where two men of imagination and intelligence could more freely explore the world of military ordnance.

Even after Dahlgren was on active sea duty commanding the naval blockade off Charleston and Lincoln had lost him as his righthand man in ordnance matters, Lincoln sent an inventive sea captain to Dahlgren's ship off Charleston. The man tested a device for removing underwater obstructions. Dahlgren wrote the president he was "much pleased" with the innovation.

The Civil War Navy was one in transition: sail was giving way to steam; wooden vessels were confronting ironclads; on February 17, 1864 the Union ship Housatonic was the first ship ever sunk by a submarine; heavy artillery such as the Dahlgren guns were needed on ships.

The Civil War was fought on the land, but also on the sea. The Union Navy enabled the war to be won. Our Dahlgren gun helped the Union Navy fight well.

The value in money to a collector of Civil War armaments or for a public display of our gun would be between 5,000\$ and 15,000 \$. A 10,000 pound gun plus its carriage is not too portable so a great deal of money would be needed to be set aside to move the cannon.

## 6. Admiral Dahlgren and His Family

John Adolph Dahlgren was born in Philadelphia on November 13, 1809, son of the Swedish consul to the United States. His mother was Martha Rowan, daughter of James Rowan an officer in the American Revolution. The young John Dahlgren was educated at the Quaker school in Philadelphia and extensively tutored by his father and a local Swedish minister. At fifteen while he was a competent Latin, Spanish and

mathematical scholar, his ambition was to join the navy.

The sudden death of his father made finding a career an economic necessity. His mother, left a widow with four children, wrote many letters to influential people to get her son into the navy. When his first application to the navy was refused he shipped before the mast in the brig Mary Beckett to learn about his intended profession.

John Dahlgren did considerable writing throughout his life. Before his sixteenth birthday he wrote an article entitled "The Fragment" for the Saturday Evening Post telling of the journey on the Mary Beckett. His extensive journal beginning in 1825 ended at his death in 1870. After his death, his second wife, Sarah Madeleine Vinton Dahlgren edited his journals into a Memoir of John A. Dahlgren.

At the age of seventeen, he was appointed acting midshipman on Feb. 1, 1826. After several years at sea his health began to fail. He was granted a short leave during which he studied law. He was ordered back to duty as his health improved. He sailed with the Coast Survey under F.R. Hassler, a mathematician. Dahlgren served in the triangulation of the survey and assisted in astronomical observations and the measurement of

the base line on Long Island, the first base line in the United States measured scientifically. In 1836 he was selected to make observations of solar eclipses. Anonymous letters signed "Blue Jacket" but really by Dahlgren were published in the National Gazette of Philadelphia. The letters were critical of the new navy regulations, but Dahlgren remained anonymous.

His eyesight became so seriously impaired that he was threatened with total blindness. He was granted a leave to go to Paris for care with the famous oculist, Sichel. He was treated for amaurosis, a dimness of vision. The assumption was he was going blind from overwork.

After his return to the U.S. he married Mary C. Bunker, on Jan. 8, 1839. For Dahlgren's health and for improvement of his eyesight, his physician advised that he live in the country. On their farm in Bucks County, then a predominately Swedish area, the Dahlgrens had three children, Charles, Ulric and Elizabeth. He eventually fathered ten children.

By 1843 his eyesight was fully restored. He returned to the navy at the Philadelphia Yard, cruised in the Mediterranean on the Cumberland, and tried out an improved percussion lock he had designed.

In 1847 he was ordered to Washington for ordnance duty where he later became chief of the Bureau of Ordnance. One of his first jobs was to study the Hale system of rockets. In addition, he was a professor of gunnery at Annapolis. Since fuse stocks, cannon locks and shells were made and fitted in the plumber's shop, Dahlgren suggested an ordnance workshop in the yard. Gradually through his persistence the yard acquired such a workshop, a foundry for cannon, gun-carriage shops, an experimental battery and a greatly enlarged laboratory.

He continually published books: 32 Pounder Practice for Ranges, 1850; The System of Boat Armament in the United States Navy, 1852; Naval Percussion Locks and Primers, 1855; Shells and Shell Guns, 1856.

At his request for active service Dahlgren was placed in command of the South Atlantic Blocking Squadron in July 1863. He was stationed outside Ft. Sumter and Charleston. For an ambitious man this assignment proved irritating. While he assisted Gen. Gilmore in attacks on Charleston, silenced the batteries on Morris Island and at Sumter, secured a safe anchorage for the monitors inside the bar, and stopped blockade-running, he was criticized for not

taking Charleston and Ft. Sumter as Farragut had boldly taken New Orleans.

His son Ulric Dahlgren gave up the study of law to enlist as a private in the army. By the end of the year Ulric was commissioned as a captain in the cavalry. At Gettysburg Ulric was shot in the foot. The foot with part of his leg had to be amputated. Promotion to colonel at twenty-one made Ulric the youngest colonel in the Union Army. On crutches Ulric spent some of his convalescence on his father's flagship off Charleston. Ulric spoke fervently with his father about the "pens and sewers" of confederate prisons. When he was fitted with an artificial leg he returned, most likely prematurely, to duty. He volunteered for an especially dangerous raid.

Off Ft. Sumter, Charleston and Charleston Harbor as the Negro troops assaulted the battery at Wagner's parapet as shown in the movie Glory the older Dahlgren tried to get his monitors close enough to pound the fort with his guns. He describes meeting the Negro regiment in his journal.

The retaking of Ft. Sumter proved difficult. Though it had been reduced almost to rubble, when Dahlgren sent a landing party to take the fort they were unable to conquer it. Five landing boats were

captured along with over a hundred men and thirteen officers. Dahlgren, commander of this large blockading fleet of over seventy ships was tormented with frustration, heat and failure. He was especially embarrassed at being seasick. He wrote in his journal about his stalemate with the emblematic Ft. Sumter and the defiant Charleston; "but the worst of this place is that one only stops getting weaker. One does not get stronger." His fleet coped with shortages of coal.

Then his son, Colonel Ulric Dahlgren, was killed on March 2, 1864 during the bold two-pronged cavalry raid on Richmond designed by General Judson Kilpatrick. The overt goals of the raid were: to free the 22,000 Union prisoners Ulric had been so upset about who were starving in Richmond's Libby, Belle Isle and other dungeons; to destroy Confederate installations; to distribute leaflets declaring amnesty and to strike a blow at the heart of the Confederacy. Dahlgren commanded five hundred men, had the longer ride and was to provide a diversion for Kilpatrick's main thrust at Richmond.

Young Dahlgren was ambushed at night and died revolver in hand yelling, "Surrender, you damned rebels or I'll shoot you". On his person, pierced by four bullets, were found startling papers

that ordered the freed Union prisoners to burn Richmond and kill Jefferson Davis and his cabinet.

The Kilpatrick prong of the botched raid had gotten within a few miles of Richmond. Jefferson Davis immediately met with his cabinet. He released the order to "kill or capture" him and his cabinet to the press. In one of the most heated cabinet meetings of the Confederacy, many in his cabinet demanded execution of part or all the nearly one-hundred captured Union troops. Jefferson Davis staunchly opposed this killing of unarmed soldiers who "had only been following orders." To pacify his enraged cabinet who felt arson and assassination demanded hangings, the president of the Confederacy said he'd discuss the issue with General Lee. Lee's own son was a prisoner in Union hands. Perhaps fear of retaliation made Lee and Jefferson Davis both refuse to order the deaths of the captured Dahlgren raiders regardless of the angry cabinet's urgings. More prudent Southerners cautioned against getting into a "hanging contest" with the North. But the ill-favored prisons of Richmond now included three hundred more Union soldiers, veteran troopers, captured themselves in the aborted raid to free their compatriots.

Union Officials denied any sanction of the order to burn and assassinate. They countered with

shock at the theft of Colonel Dahlgren's artificial leg, the removal of one of his fingers to get his ring and the stealing of his watch, boots and some of his clothes.

Though the father, John Dahlgren, tried repeatedly to have his son's body returned to the North it remained in Richmond. He wrote in his journal, "How busy is death—oh, how busy indeed." At the war's end Sec. Stanton immediately had the body found and with great formality and ritual planned its return to the North. Because of the summer heat, the young hero's return had to be delayed until cooler weather. In October his remains, in a sealed metal coffin, were placed in Independence Hall in Philadelphia for public viewing. They were then sent on to Washington for a proper Presbyterian funeral service. It was one fit for a war hero. President Andrew Johnson and cabinet members attended the funeral of Colonel Ulric Dahlgren, John Dahlgren's son.

The Dahlgren family received letters from Southerners who "owned" Ulric's hat, coat, artificial leg, watch and ring offering to sell Ulric's things back to the family.

John Dahlgren does not mention in his journal that one of his brothers, Charles G. Dahlgren, was sent to Natchez, Mississippi, as a young man,

perhaps when their father died. Charles stayed on in the South, owned slaves, became rich. His nephew, brave Ulric, had spent, in happier times, the summer of 1859 on his plantation. At the start of the war Charles raised a regiment, the Third Mississippi, of which he became the colonel. He was wounded at Vicksburg but survived to reach the rank of major general. He was ruined by the war and moved to Brooklyn where he died in 1888.

Charles Bunker Dahlgren, Admiral John Dahlgren's oldest son, named after this Southern uncle and his mother's maiden name, served in the Union navy as an officer on the San Jacinto the ship that forcibly removed Confederate commissioners from the British ship Trent; the Trent incident almost caused the British to enter the war on the side of the South.

John Dahlgren wrote a memorial tribute to his son, Ulric, and the raid he died in called Memoir of Ulric Dahlgren, which his second wife had published in 1882. John Dahlgren's grandfather still in Sweden translated the Ulric Memoir into Swedish and had it published there. In John Dahlgren's own journal he writes poignantly and often of his son Ully; his leg being lost at Gettysburg; Ully, so young, so gallant, killed in the cavalry raid on Richmond to save his comrades

from their imprisonment; Ully's horse shot three times. He notes sadly that some men were making a great deal of money on the war. The destiny of the Dahlgren family and the nation was at an exceedingly low point.

John Dahlgren had become a rear-admiral in 1863 with the approval of Lincoln, not through regular promotion procedures. Because of his promotion over Navy men who had been at sea much longer, Dahlgren had only been at sea for nine years, resentment grew in the eighteen commanders passed over. However, he expected to return to his esteemed ordnance duty at the Washington Yard at the end of the war. Nevertheless, some felt he was too limited because of his interest in the development his own guns. Others felt he had been favored too often by Lincoln.

Much to his shock and over his personal protest, Admiral Dahlgren was ordered back to sea to command the South Pacific Squadron in October 1866. He felt further insulted by the navy's refusal to allow his new wife and their newborn twins to be on board ship with him. "How strange," he writes in his journal, "I never asked the government one cent for my guns, with which the navy is armed and yet I am refused a passage for my wife."

Undeterred, Madeleine Vinton Dahlgren traveled with their infant twins to South American to be with her husband when his ship came briefly into ports in Chile. Later she gave birth to their son, John, on April 28, 1869 in Valparaiso, Chile.

In 1868 he was appointed chief of the Bureau of Ordnance. He, because of failing health and at his own request, in 1869, was assigned to the command of the Washington Navy Yard. He died July 12, 1870, two month after his eldest daughter had died of T.B. His Notes on Maritime and International Law with a preface by his wife appeared in 1877 after his death.

#### 7. Madeline Vinton Dahlgren Petitions Congress

While Madeleine Dahlgren, opposed to women voting or becoming involved with politics as expressed in her publication Thoughts on Female Suffrage she says pointedly in the preface to her husband's Memoir: "The brilliant victories of Farragut and Porter dazzled the Republic with the effulgence of the electric flash; but the task assigned to the brave men of this Squadron and their devoted leader, although of equal magnitude required sustained and painful efforts which the popular apprehension failed to grasp." She was referring to her husband's controversial blockading of Charleston. In 1872 she published The Petition

to The National Government of Madeleine Vinton Dahlgren, Widow of The Late Rear Admiral Dahlgren, Submitting Her Claim Asking for Compensation for The Adoption and Use by The United States Navy of Certain Inventions of The Late Rear Admiral Dahlgren Relating to Ordnance, with Gideon Brothers publishers. So while not putting herself forward she seemed capable of great interest in her husband's career and reputation. The petition went to the Court of Claims where considering 3,948 Dahlgren guns with an aggregated weight of 23,453,160 pounds or about 11,726 tons of his guns were manufactured for our Navy and even though he was in the Navy using Navy equipment and facilities, "the claimant shall have and recover of and from the United States the sum of sixty-five thousand dollars in full compensation...."

Perhaps she would be contented if she knew that in 1961, the centennial year of the Civil War, the U.S. Navy and the Swedish Colonial Society raised a monolith of Swedish red granite on Admiral Dahlgren's grave in Laurel Hill Cemetery in Philadelphia. She'd smile as graduating Naval officers tossed their caps in Dahlgren Hall at Annapolis. Dahlgren, Virginia is the site of the Naval Weapons Laboratory and the Naval Weapons

Factory. Three ships in the U.S. Navy, one a guided-missile frigate, are named Dahlgren. Towns in Illinois and Minnesota and a mountain peak in Alaska are also named Dahlgren. Approvingly Madeline Vinton Dahlgren would note the name of an exhibit room in the American Swedish Historical Museum in Philadelphia, the Dahlgren-Burke Room, named in honor of her husband and his son Ulric and Admiral Burke.

8. The Hartford and the Union Navy

The gun in our park interesting and important in itself was on a most famous ship, the U.S.S. Hartford.

At the start of the Civil War, the Union navy lacked crews and ships necessary to blockade the 3,500 miles of Confederate coastline. The "sesch" coastline ran from the Potomac to the Rio Grande and included 189 rivers. The US Navy had 90 warships with only 42 in commission. Many were in distant waters as was the Hartford. By the end of the war the Union had 626 warships plus 64 ironclads. In 1861 there were 9,000 men serving in the navy; by the end of the war in 1865 there were 59,000. Lincoln called the navy "Uncle Sam's web feet."

Urgently, the three upper classes at the Naval Academy at Annapolis were put on immediate

active duty. Foreign sailors, the English, Danes and Swedes were encouraged to join our navy. Shipyards began construction. Posters advertised that to avoid army "conscript" the U.S. Navy would pay \$18.00 a month for a seaman, which was \$6.00 a month more than the army paid for a soldier. Any and all available vessels—tugboats, yachts, freighters, paddle wheels—anything from "Captain Noah to Captain Cook" were fitted with weapons to strengthen "Scott's anaconda." The aging General Winfield Scott planned to "constrict" the power of the Confederacy with a naval blockade. The Hartford with its Dahlgren guns had important victories.

The Hartford was a steam sloop-of-war launched at the Boston Navy Yard as Farragut's flagship and was an tenacious segment in that construction. on 22 November 1858 at a cost of \$502,650. She was to have a ninety-nine year life. Attempts in the 1950's in Congress to restore her for placement as a museum ship in Mobile Bay were never completed. In spite of all her glories in battle she spent her last years as a garbage scow and even flew the Confederate flag as a joke by Southern workmen. She, partially sunk, was torn apart for salvage and her remains burned 6 November 1957.

At her launching she was named in honor of Hartford, Connecticut, given a thirty-two gun salute, one for each state in the union. "Sloop" did not refer to size or rig but designated a federal warship with the main broadside battery, an artillery unit, on the upper or spar deck. Guns were mounted on the exposed spar, gun, deck so fighting could continue even in rough seas; the gun ports would be high enough to keep waves out. Attempts at some protection for the vulnerable gun crews were made in construction by the building of wooden troughs to heighten the bulwarks, the ship's sides. These troughs were filled with the men's sleeping hammocks and extra sails. These wooden storage bulwarks were then covered over with tightly fitting canvas to avoid the splintering of the wood during enemy fire. Above these hammock rails were stanchions for rigging and boarding nets. The decks were of tough yellow pine to support heavy guns. The Hartford had a telescopic smokestack so she'd not be slowed when sailing. Her propellers could be retracted when under sail too.

Since the officer in charge of the launching ceremonies was an unrelenting teetotaler the ship was christened with water from the Hartford River and salt water from the Atlantic Ocean. Originally

her battery was 18 guns. She had a complement of 302 men and officers. After duty in the East Indies protecting American citizens and property she returned to the United States on 2 December 1861 from the Straights of Sunda to become the flagship of Flag Officer Farragut who was in command of the West Gulf Blockading Squadron.

After her service in the battles for New Orleans, Port Hudson, Vicksburg, and Mobile and the war was won, she was fitted out for a cruise as a flagship of the newly organized squadron on the Asiatic Station. Later she served in the North Atlantic Station and as a flagship for the Pacific Squadron. When she was put out of commission 14 January 1887 she was used as a training ship in the Pacific and Atlantic. During the 1900's she was a training ship for landsmen and apprentices, instruction ship for midshipmen at Annapolis and a cruise ship for midshipmen. On 24 October 1912 she was detached for use in Charleston, S.C. as a station ship. Finally at the Norfolk Navy Yard she was classified as a relic. Admiral Farragut never set foot on her after the Civil War was over and he departed for a cruise in the Atlantic on another ship.

As the gun rests in our park its fierce battles over and with a memorial to the dead from another war nearby, Farragut's words are appropriate: "The

best gun and the best vessel should certainly be chosen, but the victory three times out of four depends upon those who fight them."

DEDICATION TEXT

A BRONZE PLAQUE ON RIGHT SIDE OF CARRIAGE READS:

"THIS GUN IS ONE OF TWENTY SIX NINE INCH GUNS  
COMPOSING THE BATTERY OF ADMIRAL FARRAGUT'S  
HISTORIC FLAGSHIP "HARTFORD" DURING THE WAR OF  
THE REBELLION 1861-1865 AT THE BATTLES OF  
NEW ORLEANS, VICKSBURG, PORT HUDSON, MOBILE,"

"FOREVERMORE A SILENT REMINDER TO THE RISING  
GENERATIONS OF THE GLORIOUS DEEDS OF OUR NAVY  
DURING THAT FIERCE CONFLICT IN WHICH GOD OF  
BATTLES WATCHED OVER OUR NATION AND IN WHICH  
THIS GUN EFFECTIVELY SPOKE FOR LIBERTY AND A  
UNITED COUNTRY."

MOUNTED JULY 4, 1905

