

International Journal of Naval History

Volume 2 Number 3

December 2003

“The Guns at Filipstad: Some Reflections on the John Ericsson Bicentennial”

by

Howard J. Fuller

Picture and Document-CAPTIONS

All captions are noted by their row, then proceed left to right across the page.

Some of the pictures do not have or require any captions.

Row 2:

(John Ericsson)

“U.S. Naval Historical Center website.”

(15-inch Dahlgren diagram)

“Eugene B. Canfield, *Civil War Naval Ordnance* (Washington: Navy Department, Naval History Division, 1969), 11.”

Row 3:

(Drayton)

“Captain Percival Drayton, U.S.N.”

(Turret diagram)

“Eugene B. Canfield, *Civil War Naval Ordnance* (Washington: Navy Department, Naval History Division, 1969), 12.”

(*Terror*'s turret)

“U.S. Naval Historical Center website.”

(Letter)

“23-11-1862, Drayton to Dahlgren, Dahlgren Papers, Library of Congress, Manuscript Division.”

Row 4:

International Journal of Naval History

Volume 2 Number 3

December 2003

(B/W Dahlgrens photo)

“15-inch Navy Dahlgrens at the Brooklyn Navy Yard, from Jerry Harlowe, *Monitors: The Men, Machines and Mystique* (Gettysburg, PA: Thomas Publications, 2001), 21.”

(Filipstad gun, author)

“15-inch Navy Dahlgren now at Filipstad, Sweden, with the author.”

Row 5:

(Iron carriage)

“Iron gun carriage with friction gearing, designed by John Ericsson, from Björn Hallerdt, *Propellerns Pionjär och Monitors Mästare Glimtar Av John Ericssons Liv och Verk* (Stockholm: Teknista Museet, 2003), 55.”

(Oregon Gun, carriage)

“Iron gun carriage designed by John Ericsson for the “Oregon Gun” aboard the U.S.S. *Princeton*, from Björn Hallerdt, *Propellerns Pionjär och Monitors Mästare Glimtar Av John Ericssons Liv och Verk* (Stockholm: Teknista Museet, 2003), 54.”

Row 6:

(*Congressional Globe*)

“*Congressional Globe*, 37th Congress, 2nd Session, No. 44, 08-2-1862, 697.”

(Fox)

“Assistant Secretary of the U.S. Navy, Gustavus Vasa Fox—the virtual “Chief of Naval Operations” during the American Civil War, and John Ericsson’s strongest departmental advocate.”

(*Monitor* schematic)

“U.S. Naval Historical Center website.”

(*Monitor* at sea)

“U.S. Naval Historical Center website.”

Row 7:

(Cross-section of *Passaic*-class monitor)

International Journal of Naval History

Volume 2 Number 3

December 2003

“Ericsson’s cross-section of his 10 second-generation monitors of the *Passaic* class, from John Ericsson, “The Early Monitors”, in Robert Underwood Johnson and Clarence Clough Buel (eds.), *Battles and Leaders of the Civil War*, 4 vols. (New York: Castle Books, 1887; 1956 reprint), 4: 31.

(Monitors at sea)

“U.S. Naval Historical Center website.”

(*John Ericsson* model ship, stern)

“Model of the Swedish monitor *John Ericsson*, based on plans of the *Passaic* provided by Ericsson himself in 1862, Swedish National Maritime Museum. Author’s collection.”

(*John Ericsson* model ship, turret)

“Swedish monitor *John Ericsson*, again. Note the Swedish modification of the acute sloping glacis around the base of the turret to prevent jamming—based on experiences of the Union *Passaic* class monitors during the Civil War, particularly in their assault against the combined defenses of Charleston, April 7, 1863. Author’s collection.”

Row 8:

(Fort Sumter ruins)

“Fort Sumter by 1864, smashed to ruins by successive Union Army-Navy bombardments.”

(15-inch shot, with satchel)

“The 15-inch Fort Sumter shot, sent by John Ericsson to the British Patent Office Museum in London in 1865, but now at the Teknista Museet (the Swedish National Museum of Science and Technology) in Stockholm. The author’s briefcase is alongside for scale.”

(15-inch shot, inscription plate)

“15-inch Fort Sumter shot inscription plate.”

(15-inch shot with Helena Sandgren)

“Many thanks again to Helena Sandgren (show here with the 15-inch Fort Sumter shot for scale) and the other staff of the Teknista Museet for their very kind assistance in locating what proved to be no ordinary cannonball.”

Row 9:

(Stimers)

“Chief Engineer Alban Stimers.”

International Journal of Naval History

Volume 2 Number 3

December 2003

(Light-draft monitor schematics)

“Schematics for the ultra light-draft monitors, disastrously modified from Ericsson’s original specifications by Stimers.”

(Du Pont)

“Rear-Admiral Samuel Francis Du Pont, one of the most controversial figures of the Civil War.”

(Charleston illustration)

“Julian Oliver Davidson’s rendition of the Union attack—and repulse—against Charleston’s outer layer of defenses (April 7, 1863), with Fort Sumter in the middle background, from Robert Underwood Johnson and Clarence Clough Buel (eds.), *Battles and Leaders of the Civil War*, 4 vols. (New York: Castle Books, 1887; 1956 reprint), 4: 38.

(*Dictator at sea*)

“From Paul F. Mottelay and T. Campbell-Copeland (eds.), *The Soldier in Our Civil War*, 2 vols. (New York: Stanley Bradley Publishing Company, 1890), 2: 226.

Row 10:

(U.S.S. *Princeton*)

“U.S. Naval Historical Center website.”

(“Ericsson’s Monitor” poster)

“A rare publicity poster, most likely paid for by Ericsson himself. A relentless press war was underway during these years between Great Britain and the United States; ‘who designed turret ships first’ was one of its major battles. From the Navy Art Collection of the U.S. Naval Historical Center (Washington, D.C.); my thanks again to Karin Haubold.

(U.S.S. *Miantonomoh*)

“The “*Miantonomoh* idea”, as British naval authority Oscar Parkes noted, “was behind the *Cerberus* and through her the *Devastation*, while the [Admiralty] Board must have had the *Puritan* in mind when specifying the design of the *Glatton*,” Oscar Parkes, *British Battleships, 'Warrior' 1860 to 'Vanguard' 1950: A History of Design, Construction and Armament* (London: Seeley Service & Co., Ltd., 1970), 48. Indeed, the *London Times* reported that the Board of Admiralty and Captain Cowper Coles (and probably also Edward Reed) toured the American monitor while at Portsmouth, England, on June 29, 1866. From the U.S. Naval Historical Center website.

International Journal of Naval History

Volume 2 Number 3

December 2003

(H.M.S. *Devastation*)

“H.M.S. *Devastation*, laid down in November 1869 but not completed until April 1873.”

Row 11:

(Dahlgren portrait)

“John A. Dahlgren, from the Navy Art Collection of the U.S. Naval Historical Center (Washington, D.C.).”

(11-inch Dahlgren)

“11-inch Dahlgren pivot gun aboard the U.S.S. *Kearsage*, which wreaked havoc against the commerce raider C.S.S. *Alabama*. After Hampton Roads Dahlgren’s professional pride was wounded from the suggestion that his heaviest service gun was largely ineffective against armor. Though he subsequently invested much of his time vindicating the 11-inch gun through armor target tests, point blank broadsides failed to penetrate the casemate of the C.S.S. *Tennessee* at Mobile Bay.”

(Letter)

“16-11-1861, Stimers to Dahlgren, Dahlgren Papers, Library of Congress, Manuscript Division.”

Row 1 2:

(*Monitor* model)

Model of the U.S.S. *Monitor*, U.S. Naval Historical Center Museum (Washington D.C.). The hand lantern Ericsson used to inspect the vessel while under construction is visible in the upper left corner. Author’s collection.”

(Letter)

“19-10-1861, Smith to Welles, U.S. National Archives, Record Group 71, Entry 1, Vol. 74 (Letterbook), 126-7.”

(Welles photo)

“Gideon Welles, Secretary of the Navy. From the Library of Congress.

Row 13:

(Ericsson photo)

“U.S. Naval Historical Center website.”

International Journal of Naval History

Volume 2 Number 3

December 2003

(Lincoln Gun, with sign)

“The first experimental 15-inch Rodman (Army), the “Lincoln Gun”, still at Fort Monroe, Virginia. Author’s collection.”

(Telegram)

11-3-1862 telegram, from Fox to Dahlgren, found in the Dahlgren Papers, Library of Congress, Manuscript Division.”

(Lincoln Gun, with author)

“This is truly a beast of a cannon, and a cast-iron muzzle loader at that. It is little wonder that the idea of somehow using a version of it shipboard—and within the confined space of an iron turret—met with continued professional opposition. Author’s collection.”

Row 14:

(Dahlgren letter)

“17-3-1862, Dahlgren to Harwood, R.G. 74, Entry 201, Item 5, Box 2.”

(*Monitor* photo)

“U.S. Naval Historical Center website.”

(Dahlgren letter to Welles)

7-10-1861, Dahlgren to Welles, R.G. 74, Entry 201, Item 5, Box 2.”

Row 15:

(Dahlgren photo)

“Rear Admiral John A. Dahlgren. From the U.S. National Archives.”

(Dahlgren letter)

“8-5-1862, Dahlgren to Fox, R.G. 74, Entry 201, Item 5, Box 2.”

(Target illustration)

“ “Target 3”, penetrated by the 11-inch Dahlgren gun. R.G. 74, Entry 99 (‘Reports of Target Practice, 1862-66’), Box 1, Vol. 1.”

(*Scientific American*)

“28-6-1862, *Scientific American*, vol. 6, no. 26, “What We Ought to Do in Relation to Iron-Plated Ships”, 407.”

International Journal of Naval History

Volume 2 Number 3

December 2003

Row 16:

(Letter)

“15-5-1862, Fox to Harwood, R.G. 74, Entry 16, Box 4.”

(20-inch Rodman illustration)

“An illustration of the 20-inch Rodman smoothbore, in comparison with contemporary ordnance. From Paul F. Mottelay and T. Campbell-Copeland (eds.), *The Soldier in Our Civil War*, 2 vols. (New York: Stanley Bradley Publishing Company, 1890), 2: 212.

(Side-view of 20-inch Rodman, Brooklyn)

“The 20-inch Rodman Gun today, at Fort Hamilton, New York. The author is also shown for scale, otherwise difficult to believe. If the 15-inch gun was a beast, this was definitely a monster. Author’s collection.”

(Quarter-view of 20-inch Rodman, Brooklyn)

“Significantly, the British naval attaché to the U.S., Captain James G. Goodenough, R.N., was invited to witness the casting of the first 20-inch Rodman, on February 11, 1864, at the Fort Pitt Foundry, Pittsburgh, Pennsylvania. His official report, dated 18-2-1864, can be found in the British Public Records Office, Kew (ADM 1/5879). This was a weapon clearly intended to defend New York City and the Navy Yard not from marauding Confederate commerce raiders such as the *Alabama*, but against the heaviest ironclads Europe could produce. The 20-inch shot (some of which are shown at the right) weighed 1000 pounds and was fired with 100lb. service charges. Author’s collection.”

Row 17:

(*London Times*)

“*London Times*, 1-4-1862.”

(*Dictator*, photograph, stern)

“Launch of the U.S.S. *Dictator*, December 26, 1863. From William C. Davis (ed.), *The Guns of '62: Volume 2 of The Image of War, 1861-1865* (New York: Doubleday & Company, 1982), 75.”

(*Dictator* illustration)

“U.S. Naval Historical Center website.”

(Letter)

International Journal of Naval History

Volume 2 Number 3

December 2003

“29-8-1862, Ericsson to Dahlgren, Ericsson Papers, Library of Congress, Manuscript Division.”

Row 18:

(Interior turret illustration)

“Turret interior of the U.S.S. *Montauk* (*Passaic* class), with the 11-inch and 15-inch Dahlgren guns side by side. From Paul F. Mottelay and T. Campbell-Copeland (eds.), *The Soldier in Our Civil War*, 2 vols. (New York: Stanley Bradley Publishing Company, 1890), 2: 188.”

(Letter)

“11-10-1862, Ericsson and Stimers to Dahlgren, Ericsson Papers, Library of Congress, Manuscript Division.”

(*Passaic* turret photo)

“Remarkable photo of the battered turret of the U.S.S. *Passaic*, following the Union ironclad repulse at Charleston in April 1863. Note the 15-inch muzzle on the left cut into the inner face of the porthole (with a smoke-box and muzzle ring), to allow for firing from within the turret. Ericsson considered this an advantage in close-range combat but was eventually overruled. From the U.S. National Archives.”

Row 19:

(H.M.S. *Minotaur* illustration)

“While the Union Navy edged more and more towards light-draft, coastal defense ironclads of the monitor pattern, Great Britain was working overtime to complete a series of breathtaking armored frigates. H.M.S. *Minotaur*, depicted here in the 8-4-1865 issue of the *Illustrated London News*, drew over 27 feet of water, required a crew of nearly 800 men, and was protected by only 5½-inches of iron plate.”

(U.S.S. *New Ironsides* painting)

“U.S.S. *New Ironsides*, the Union Navy’s only seagoing broadside-ironclad during the Civil War, drawing nearly 15 feet and requiring a crew of some 400 men, protected by 4½-inches of armor. From the Navy Art Collection of the U.S. Naval Historical Center (Washington, D.C.).”

(U.S.S. *Onondaga* at sea painting)

“U.S.S. *Onondaga*, the Union Navy’s first double-turreted monitor, built under private contract by George W. Quintard and drawing nearly 11 feet with a crew of 150. Her two

International Journal of Naval History

Volume 2 Number 3

December 2003

Ericsson turrets were 11-inches thick, side (waterline) armor at 5½-inches. From the Navy Art Collection of the U.S. Naval Historical Center (Washington, D.C.).”

(Armstrong Gun)

“British Armstrong 8-inch, 150-pounder, muzzle-loaded rifled gun (with British seacoast gun carriage), captured at Fort Fisher in January 1865, and now a prize of the U.S. Military Academy at West Point, New York. Author’s collection.”

Row 20:

(Armor plate, side)

“An iron armor plate used for target-tests, measuring 8-inches thick, currently at the Washington Navy Yard. The entire plate is clearly bent from the crushing impact of a 15-inch solid shot, still lodged inside. Author’s collection.”

(Armor plate, top)

“8-inch plate with 15-inch shot embedded inside. A 3.5-inch floppy disk next to the ball is for scale. Author’s collection.”

(Armor plate with multiple shot, top)

“A solid 4-inch iron armor plate, also found at the Washington Navy Yard. Author’s collection.”

(Armor plate photo)

“Colorized photo of “Target No. 61”, consisting of an imported 5-inch thick, rolled iron plate manufactured by John Brown & Co. of Sheffield—England’s foremost armorer. The 15-inch Dahlgren, mounted on iron carriage and slides, fired a 435 lb. cast-iron shot with a 60 lb. charge (listed at an initial velocity of 1,572 feet per second), at a range of 169 feet from the target. The shot passed “completely through the plate and timber and entered the bank where it was found 4 ft. from the target broken into pieces. Diameter of Shot hole 18 inches.” Foreign observers complained of the short ranges used and the structure of the targets themselves. The range may have simply been a matter of insuring test-fires accurately struck the middle of the 39-inch wide plate. Unlike British tests conducted at Shoeburyness, for example, the 20-inch oak-backed target was firmly packed against a solid clay bank which would have fully absorbed much of the force of the impact of shock. From R.G. 74, Entry 98, “Reports Concerning Target Practice on Iron Plates, 1862-64, 2 vols”, 1: 63-4.”

Row 2 1:

International Journal of Naval History

Volume 2 Number 3

December 2003

(John Rodgers)

“Captain John Rodgers, U.S.N.”

[unidentified source; most likely U.S. National Archives]

(Letter)

“1-12-1864, John to Anne Rodgers, Rodgers Family Papers, Library of Congress, Manuscript Division.”

(*Dictator* cross-section)

“Cross-section of the U.S.S. *Dictator*. From Donald L. Canney, *The Old Steam Navy, Volume Two: The Ironclads, 1842-1885* (Annapolis, Maryland: Naval Institute Press, 1993), 89.

(*Dictator* photo)

“U.S.S. *Dictator*, 1865. From Donald L. Canney, *The Old Steam Navy, Volume Two: The Ironclads, 1842-1885* (Annapolis, Maryland: Naval Institute Press, 1993), 91.”

Row 22:

(Ericsson Memorial, B/W photo)

“U.S. Naval Historical Center website.”

(Ericsson Memorial today)

“The John Ericsson Memorial in Washington D.C. today. Author’s collection.”

(Book cover)

“A good example of Ericsson’s superstar status during the Civil War years, though he was not a military commander.”