

The Morris Collection

Catalog no.

Description

C146

Spanish Bronze Mortar by Barnola, dated 1750

Markings: Chase: Spanish Royal Coat of arms, ca. 1750

Breech: (in banner): " JOSEPHUS BARNOLA
FECIT BARNE 1750" (founder, date, city)
(in banner): "EL GAVILAN" (gun's name)
Left trunnion: "BRONZES VIEJOS" (metal origin)
Right trunnion: "3q^S 48L^S (weight)
PE^O CA^O"

Measurements: Barrel length: 20 in.

Width at trunnions: 16 in.

Bore dia: 6 3/8 in.

This large bronze mortar is of the "old" Spanish pattern, being very elaborate in design. Entwined dolphins form the lifting handle on top of the piece. The trunnions are in the form of a solid bar completely across the rear of the piece. The piece has a beautiful turquoise patina. The carriage is an oak reproduction which serves as a stand only (not authentic.) The bore of the piece bears many deep score marks from firing rough or strapped shells, and many of them.

Fine Spanish mortars are rare in themselves, but "EL GAVILAN" is especially interesting in that it is a colonial American piece. It was apparently in use in Spanish Florida by the Spaniards until they were evicted. It remained in the area (exact location unknown) until the Civil War, when it was placed into action by the Confederates. They used it to defend Fernandina Island (unsuccessfully) in February, 1862, when it fell to Union troops. Authenticated documentation proves that this specific piece was one of at least two mortars captured on Feb. 3rd. 1862, by Rear Admiral S.F. DuPont in that brief skirmish. See references "H" and "U".

TELCAVILLANO



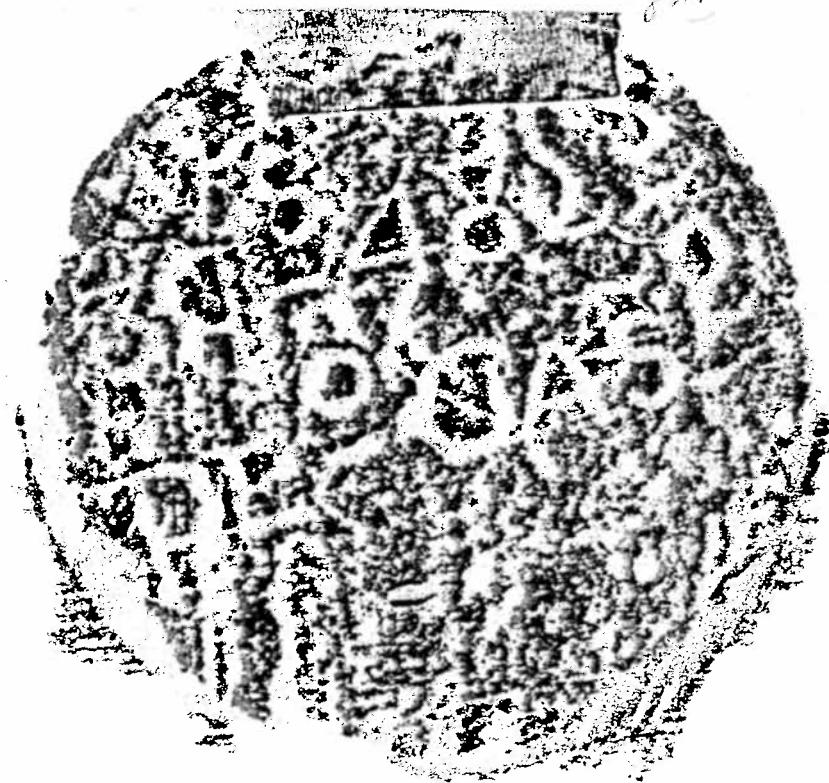
C146 Sheet 1 of 3

"BRONZES
VIEJOS"



Right

39⁵ 40⁵
PE 2 CAS⁹

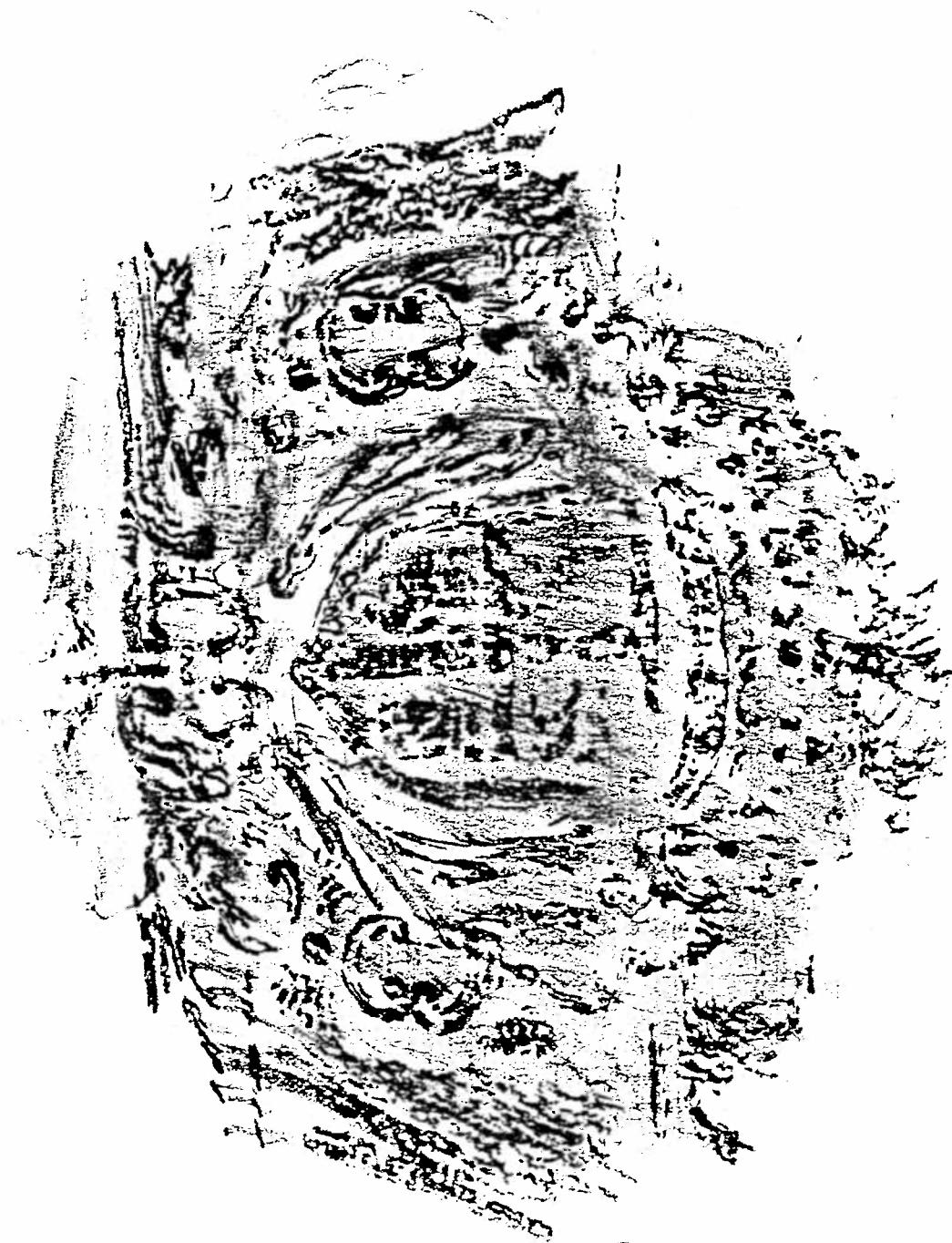


Right

C146 Sheet 2-63

2146

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LIST ON TROPHIES
BRONZE GUNS, ETC.

- Trophy #1: Small bronze mortor or rail gun. Located in Trophy Park concrete circle, south of Bldg. No.1
- Trophy #2: Same as Trophy No.1
- Trophy #3: Same as Trophy No.1
- Trophy #4: Same as Trophy No.1
- Trophy #5: Bronze cannon "Camillo" No.1194 Barcelona 28 June 1788 "on 3rd day of August 1804 Captain Stephen Decatur in command of the American gunboat off Tripoli boarded and captured in succession two Tripolitan gunboats armed with this and Trophy #6 below Located N. W. cor. Leutze Park at base of flag pole.
- Trophy #6: Bronze cannon "Corzo" No.1199 (same history as above)
- Trophy #7: Bronze cannon "El Alano" tradition is that this gun was captured from the Mexicans. Located in front of Bldg.#1.
- Trophy #8: Bronze cannon cast May 1767 Barcelona "El Toro" said to have been captured from the Mexicans Located in front of Bldg.#1.
- Trophy #9: Bronze cannon cast July 23, 1740, Berenger, Donicourt Fecit - Duaci - "Pluribus No Impar" "Louis Charles" de Bourbon Comte D'eu Duc Aumale" "Ultimo Ratio Regum" LeBellique Located in front of BLDG.#1
- Trophy #10: Bronze cannon cast January 16, 1740. Same history as Trophy #7. Same inscriptions as on Trophy No. #9 Located in front of Bldg. No.1
- Trophy #11: Bronze mortor or rail gun Located in Trophy Park concrete circle south of Bldg.#1.
- Trophy #12: Bronze mortor or rail gun. Same as Trophy #11.
- Trophy #13: Bronze mortor or rail gun. Surrendered by the capitulation of York- Town, October 19, 1781 "Berenger A. Douay 11 October 1777. Located in Trophy Park, South of Bldg.#1, N.W.cor. of square.
- Trophy #14: Small bronze Spanish mortor or rail gun No.64 Barcelona November 13, 1782 "Misticiebo" Trophy Park N.E. cor. of square.
- Trophy #15: Small brass howitzer Spanish or Moorish guns Taken from the Norfolk Navy Yard and brought to this yard during the Civil war period. Located in Elliptical Park on brick wall South of Bldg. No. 1.
- Trophy #16: Same as Trophy #15
- Trophy #17: Bronze howitzer Spanish gun. "El Tosico" made Barcelona 6 July 1767 Captured at Norfolk, May 10, 1862.
- Trophy #18: Bronze howitzer Spanish gun Captured at Norfolk May 10, 1862. Same location as #17.

Trophy #19: Bronze Spanish gun "Generoso" Charles IV. Made Barcelona 23 March 1795. This gun is of Spanish royal manufacture, bearing the arms, etc. of Charles IV, and it is believed were brought to the yard by the brig "FRANKLIN" when she arrived first from the Mediterranean, hence it is highly probable that they are the two pieces taken at Derne, #19 and gun marked "Garzon". Located Elliptical Park.

Trophy #20: Spanish cannon "El Galco" Charles III made Barcelona 3 December 1787. Located in Elliptical Park.

Trophy #21: Spanish cannon "Cambernon" Charles IV made Barcelona 18 December 1790 Located in Elliptical Park.

Trophy #21: Bronze gun captured by Admiral Lee, September, 1863. Located in Elliptical Park.

Trophy #22: Bronze gun received from Mount City, November 1865 Located in Elliptical Park.

Trophy #23: Bronze gun of Rebel manufacture received from New York, June, 1865. Located in Elliptical Park.

Trophy #24: Bronze rifle - Austrian captured on board the Steamer COLUMBIA August 3, 1862 "Bronn Major" in wein 1852 - on breech.

Located in Trophy Park, South Bldg. No.1 West Side

Trophy #25: "Huss Major in wein made 1830, bronze rifle -Austrian Located same as #24.

Trophy #26: "Delberte De Galite" Smith Boury-Lyon 1795 bronze gun Located in Elliptical Park on brick wall.

Trophy #27 : "Delberte De Galite" Ferejeon-Feres, Lyon, May 1795 bronze gun Located same as #26.

Trophy #28: Bronn Major in Wein 1849, bronze gun - Austrian Located Trophy Park - South Bldg. #1, West side.

Trophy #29: Same as #28 made 1843.

Trophy #30: Same as #28 made 1844.

Trophy #31: Same as #28 made 1843.

Trophy #32: Same as #28 made 1854.

Trophy #33: Bronze gun (no inscription) located Elliptical Park South Bldg. #1 on brick wall.

Trophy #34: Small brass mortor or rail gun, no inscription, located in Trophy Park on concrete circle.

Trophy #35: Small brass mortor or rail gun - same as #34.

Trophy #36: Bronze cannon said to have been captured from the Mexicans Located in front of Bldg.#1.

Trophy #37: Bronze cannon captured at Simoniski, Japan, September 1864. Received at Washington from New York, March, 1866. Trophy Park South of Bldg.#1.

Trophy #38: Bronze cannon said to have been captured from the Mexicans Located in front of Bldg.#1.

Trophy #41: Huss Major in Wien made 1827 bronze cannon located in front of Bldg. #1.

Trophy #42: Bronze cannon said to have been captured from the MEXICANS. Located in front of Bldg. #1.

LIST OF TROPHIES - BRONZE, BRASS, ETC

Trophy Present	Number Proposed	Description of Trophy	Location
✓ 1	10	4 5/8" Bore Brass Heat Mortor made in Boston, Mass., by Cyrus Alger & Co., Number "On base ring, "1-201;" on right trunion, "12-1847;" on left trunion, P.A.A.H.	On West side of Leutze Park along the curb opposite north end of entrance.
✓ 2	9	4 5/8" Bore Brass Heat Mortor made in Boston, Mass., by Cyrus Alger & Co., Number "On base ring, "1-202;" on right trunion, 12-1847; on left trunion P.A.A.H.	On West side of Leutze Park along the curb opposite north end of entrance.
✓ 3	5	4 7/8" Brass Mortar of English manufacture. Weight 24:09; Length from base ring to muzzle, 21". No rim base.	On West side of Leutze Park along the curb opposite south end of Bldg. 40.
✓ 4	6"	4" Brass Mortar of English manufacture. Weight 2:3:05; Length from base ring to muzzle, 21". No rim base.	On West side of Leutze Park along the curb opposite south end of Bldg. 40.
5		24 pounder Brass Gun of royal manufacture bearing the crest of Charles III of Spain on the breech. Made in Barcelona, Spain 28 Jno 1788. Name "on chase next to muzzle astragal "Camello". Length from base ring to mouth 10'-8". This gun was one of those captured by Captain Stephen Decatur in command of an American gunboat off the coast of Tripoli on 3 August 1804 when he captured in succession two Tripolitan gunboats armed with this type of gun. This gun bears Ordnance No. 1194.	In Leutze Park at base of flag pole.

LIST OF TROPHIES - BRONZE, ETC.

Trophy Present	Number Proposed	Description of Trophy	Location
✓ 6		24 pounder Brass Gun of royal manufacture bearing the crest of Charles III of Spain on the breech. Made in Barcelona, Spain, 1788. Name "An" chase next to muzzle astragal "Corzo". Length from base ring to mouth 10' 8". This gun was one of those captured by Captain Stephen Decatur in command of an American gunboat off the coast of Tripoli on 3 August 1804 when he captured in succession two Tripolitan gunboats armed with this type of gun. This gun bears Ordnance No. 1199.	In Leutze Park at base of flag pole.
✓ 7		4 7/8" - 12 pounder Bronze cannon of royal manufacture bearing the crest of Charles III of Spain on the breech. Made in Barcelona, Spain, May 1765. Name "On" ring to mouth 7' 5". Name "An" chase "El Alano". Captured by Navy in Manila, 1 May 1898.	On west side of Leutze Park along the sidewalk (i.e. The second gun from Kidder Breese St.)
✓ 8		4 7/8" Bore - 12 pounder Bronze cannon of royal manufacture bearing the crest of Charles III of Spain on the breech. Made in Barcelona, Spain, May 1767. Name "On" chase "El Toro". This gun is said to have been captured during the Mexican War.	On South side of Bldg. No. 200.
✓ 9		4 3/4" Bore - 12 pounder of royal manufacture bearing the Royal Coat of Arms with the Rising Star of France on the breech. It also carries the inscriptions "de-12", "Pluribus Hec Imp"; dolphin handles on the case, the Duke of Burgundy and inscription "Louis Charles De Bourbon Comte De Bucquoy". Name "An" chase "Le Vicomte de Bucquoy". This gun is a Falconet; cascable and button represent the head of a falcon. This is a Stint-Horn Gun of the period 1732-1744; it was made by Berenger, Desnoyer, Recit Duachuy 23 July 1740.	On North side of Bldg. No. 1.

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LIST OF TROPHIES - BRONZE, ETC.

Number
Proposed

Description of Trophy

Location

Number Proposed	Description of Trophy	Location
10	4 3/4" bore - 12 pounder of royal manufacture bearing the Royal Coat of Arms with the Rising Star of France on the breech. It also carries the inscription "de-12, and Pluribus Nec Impar; dolphin handles on the case, the Ducal Crown and inscription "Le Roi Charles Des Bourbon Comte Des Bagnolais Jemmapes Ultimatum Regnum". Name on chase "Le Bellegue". This gun is a Falconet; cascabel and button represent the head of a falcon. This is a Stint-Henry Gun of the period 1732-1744; it was made 16 January 1740, and captured from the Bey of Algiers by Captain Stephen Decatur in 1815.	On north side of Bldg. No. 1.
11	5 1/4" bore brass howitzer of English manufacture. Length 34 1/2", mark on Base Ring A810. Rim bases on trunions and lug for elevating screw. Brass Mortar	On west side of Leutze Park along the curb (i.e. 4th from north end of park)
12	3 1/2" bore brass howitzer of English manufacture. Length 34 1/2", mark on Base Ring A838. Rim bases on trunions and lug for elevating screw. Brass Mortar	On west side of Leutze Park along the curb (i.e. opposite entrance to Museum)
13	8.79" brass Howitzer of English make. Made by Berenger A. Douay 11 October 1777. This gun was surrendered by Lord Cornwallis at Yorktown on 19 October 1781.	On west side of Leutze Park along the sidewalk (opposite south end of Band Stand, Bldg. 134).
14	Small brass howitzer made in Barcelona, Spain 13 Dec. 1782. Mark on base ring, No. 641; on right trunion, "Bronzes Vetus"; left trunion No. 64674160. Name on Gun "Misticieke". Misticiebo.	On west side of Leutze Park along the curb (i.e. opposite south end of Bldg. 122)

Bronze Viejo mortero

Verdoratum Left Union
Ring hot iron

LIST OF TROPHIES - BRONZE, ETC

Number Proposed	Description of Trophy	Location
210	This gun is of royal manufacture bearing the crest of Charles III of Spain. Made in Barcelona, Spain, 3 Dec. 1767. It bears the name "El Galco" on the chase. Weight 1399 lbs, on trunions. Inscribed on Right Trunnion "Left trunnion inscribed "Cobre YES de amore. Lijas contra".	On north side of Bidg No. 166
210 cont.	This gun is of royal manufacture bearing the crest of Charles IV of Spain. Made in Barcelona, Spain, 18 Dec. 1790. It bears the name "Cambernon" on the chase; No. 1800 Barcelona 18 Decembre 1790 on Basing; 13 93 C 8ds m ^{er} cu vnum. Left trunnion inscribed "Cobre de amore". 4 13/16" bore - 24 pounder - Brass Howitzer of American make. Captured from the Confederates by Admiral Lee, Sept. 1863.	Bldg No. 166
22	Bronze gun of American Confederate manufacture. Made by C. S. Arsen at Columbus, Ga. 1864. Bears numbers 1229 and 42FC. Bears inscription received from Mound City Nov. 1865. The chase was cut to draw the charge.	On west side of Leutze Park along the sidewalk (i.e. 1st from Kidder Breese St.)
23	Brass gun of American Confederate manufacture. Received from Mound City June 1865	
24	Rifled brass gun made by Major Huss. Captured aboard Confederate Ship "Columbia" 3 Aug. 1862.	
25	Rifled brass gun made in Wien, Austria 1830 as noted on breech. Captured aboard Confederate Ship "Columbia" 3 August 1862.	

LIST OF TROPHIES - BRONZE, ETC.

Number Proposed	Description of Trophy	Location
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26

3 3/8" bore - 4 pounder bronze gun of French manufacture bearing name & date "Smith Boury Lyon 1793; inscription on breech "Belbert de Galite;" on left trunion #622; on right, 70. _{Liberate} Egalite

On West side of Leutze Park along (i.e. 3rd from Kidder Breese St.)

27

3 3/8" bore - 4 pounder bronze gun of French manufacture bearing name & date "Smith Boury Lyon 1793; inscription on breech "Belbert de Galite." Inscription "Liberate Egalite" on left trunion #622; on right, 70. _{Liberate} Egalite

South side of west section of Willard Park

28

3 3/4" bore - 4 pounder bronze gun made in Wien, Austria 1849 as noted on breech. Captured aboard Confederate ship "Columbia" 3 Aug 1862.

On west side of Leutze Park along sidewalk (i.e. 7th above Kidder Breese St.)

29

3 3/4" bore - 7 pounder of Austrian manufacture. Made by Brann Major in Wien 1843. Class #100; Ordnance No. 815; weight 70613. This gun was captured aboard Confederate Ship "Columbia" 1862.

On west side of Leutze Park along sidewalk (i.e. 7th above Kidder Breese St.)

30

3 3/4" bore - 7 pounder of Austrian manufacture. Made by Brann Major in Wien 1843. Class #100; Ordnance No. 815; weight 70613. This gun was captured aboard Confederate Ship "Columbia" 1862.

On west side of Leutze Park along sidewalk (i.e. 7th above Kidder Breese St.)

31

Bronze gun made in Wien, Austria 1844 as noted on breech. Captured aboard Confederate Ship "Columbia" 3 Aug 1862.

On west side of Leutze Park along sidewalk (i.e. 7th above Kidder Breese St.)

32

Bronze gun made in Wien, Austria, 1854 as noted on breech. Captured aboard Confederate Ship "Columbia" 3 Aug. 1862

On east side of east section of Willard Park

33

3 3/4" bore x 3'6" lg Bronze.

On east side of east section of Willard Park

LIST OF TROPHIES - BRONZE, ETC.

Number proposed	Description of Trophy	Location
34	5 3/4" bore. Brass Howitzer of English manufacture. Mark on right trunion P 369.	At entrance to museum
35	5 3/4" bore. Brass Howitzer of English manufacture. Mark in right trunion 381; left No. 7H.T.	At entrance to museum
36	3 5/8" bore brass guns of American manufacture. Made in Boston by Cyrus Alger & Co. Mark in left trunion No. 13,690 J.W.P. This gun is said to have been captured during the Mexican War.	
37	6 " Bore Brass gun of Japanese manufacture. Captured at Simoniski, Japan, Sept. 1864. Received at this naval establishment March 1866,	On west side of Leutze Park along the sidewalk (opp. Museum entrance)
38A	3 11/16 Bore Brass Gun of American manufacture made by Cyrus Alger & Co., Boston, Mass. in 1839. Smooth base on the cascable 23680 J.W.H. Captured during the Mexican War.	
39		
40		
41	3 1/8" Bore Brass Gun of Austrian manufacture Class 7CC; Ordnance No. 517; Weight 100 lbs. Made by Major Huss in Wien 1827	
42	4 5/8" Bore Brass Naval Gun of American manufacture. Rifled cast about 1860.	
38B	4 1/2" Bore Brass Mortar of American Manufacture. Made by J.J. Welft in 1817.	

LIST OF TROPHIES - BRONZE, ETC.

Number Proposed	Description of Trophy	Location
45 (new)	<p>4 7/8" Bore - 12 pounder of royal manufacture bearing the crest of Charles IV of Spain on the breech. Made in Barcelona, Spain, 21 Dec 1803. Name on chase "Eldesforsd". Captured by ^{Span} _{Adm} ^{Gen} _{Manila}, P.I., 1 May 1898.</p> <p><i>Offance El Desa Fored.</i></p>	On west side of Leutze Park along sidewalk (i.e. 5th from Kidder Breese St.)
46 (new)	<p>4 1/8" Bore rifled Brass Gun of royal manufacture bearing the crest of Ferdinand VII of Spain on the breech. Number on base ring No. 7721, made 8 Nov. 1829. Captured by Admiral Dewey ⁱⁿ Manila 1898.</p>	At southeast corner of Leutze Park
43	<p>Brass mortar captured at Fernandina Florida by Rear Admiral Dupont 3 Feb 1862.</p> <p><i>Same as 43</i></p>	On lawn of Mrs. H. (Warrington St.)
44	<p>Bore - of royal manufacture bearing the crest of Louis XVI of France on barrel at trunions. Made in 1798. Inscription on barrel "M № 694". Weight as noted on brush "43-0-9". Inscription on barrel "a crown with 18-P, 17 lbs W.G." - 8 - Inscription on cascabel "XXVII".</p> <p><i>Same as 43</i></p>	ditto
52	<p>Sooth side of Bdg So-Bellone Stnxx</p> <p><i>Model Gun of French Manufacture</i></p>	

South side of Bldg
So-Bellene
Annex

Barrel of royal manufacture
bearing the crest of Louis VII of France on the
barrel at the trunions. Made in 1798. Inscription
on base ring . Weight as noted
on branch "43-2-9". Inscription on barrel "a curum,
R 1798 wq."

20

3 $\frac{7}{8}$ " Bore - 6 pounder of royal manufacture bearing
the crest of Charles III of Spain on chase. Made in
Barcelona, Spain 3 December 1767. Inscription on
base ring "Barcelona 3 De-Diciembre De 1767"; on
the chase "El Gallo"; on the left trunion "No 126
Cobre y Esta de America".

21

3 $\frac{7}{8}$ " Bore - 6 pounder of royal manufacture bearing
the crest of Charles IV of Spain on chase. Made in
Barcelona, Spain 18 December 1790. Inscription
on base ring "No 1800 Barcelona 18 Dicembre De 1790";
on chase "Camberton"; on left trunion "Cobre de America";
on the right trunion "P.C.O" and weight "13 99 68 lbs"

IMPORTANT

Copyright Pending

5 Jun 74

INTRODUCTION

These pages report and attempt to interpret all marks which could be found upon certain pieces of ordnance in the custody of the U. S. NAVY MEMORIAL MUSEUM. The scope is British and American cannon from about 1800 to 1875.

Weapons regarding which nothing is presently known, lacking markings or other adequate identification, have been omitted.

Extensive reference to a single source, Warren Ripley: ARTILLERY AND AMMUNITION OF THE CIVIL WAR, has deliberately been made for three reasons:

it is readily available, being still in print

it is more complete and comprehensive than any other known reference

it is filled with copious footnotes which may be used as an index to extensive original sources, however difficult to find

A brief glossary has been included to define necessary terms not adequately covered in ordinary dictionaries, and to deal with technical nuances which might otherwise require considerable research.

Names for Civil War ordnance reflect the confusion typical of any period of transition. So called "12-pounder rifles" existed in at least six different bore diameters. The 8-inch Parrott rifle was called "200-pounder" by the Army but "150-pounder" by the Navy, while the 10-inch Parrott rifle was called "300-pounder" by the Army and "250-pounder" by the Navy. In the interests of clarity without intending malice toward the usages of that day, these pages apply the traditional ".....-pounder" designation only to smoothbores. Rifles throughout shall be known by the land diameter of their bore without regard to the names applied, by their friends, a century ago.

One goal of this work is to stimulate further discovery, such as matching unidentified weapons with what are as yet mere names in the literature. With this end in view the compiler welcomes correspondence - corrections, suggestions, challenges, and further information.

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4 Jun 74

GLOSSARY

- words which can not be avoided must be defined -

GROOVE See RIFLING

LAND See RIFLING

PREPONDERANCE

The weight which must be supported by the elevating quoin (wedge) or by the elevating screw, when the gun barrel is horizontal and freely supported by its trunnions (or by the loop bolt through the underloop of a boat howitzer, carronade, & certain extremely rare naval rifles).

RIFLING

Consists of GROOVES, to impart rotation to projectiles, & LANDS, the remainder of the original cylindrical bore after grooves have been cut.

John Mercer Brooke of the Confederate Navy Office of Ordnance and Hydrography standardized on seven groove rifling of sawtooth cross section, widely known as "Brooke rifling". In this the lands have been diminished to little more than seven right hand spiral lines the length of the bore. In 1863 an anonymous Federal draftsman, endeavoring to designate the land diameters of Brooke rifles captured aboard the C. S.-S. ATLANTA, adopted the phrase, "ball size of bore", implying the diameter of the largest ball which might pass without interference.

American practice has been to designate bore size by diameter across lands, a convention retained throughout these notes. In the Whitworth hexagonal bore this becomes the measurement across opposite flats, identical to "ball size". However, it is so tempting to measure the Whitworth bore across corners of the hexagon that two different published tabulations present measurements of one weapon thus, but the next across flats, with no clue to the reader that each has been measured differently. By such means the illusion can be created of twice as many Whitworth sizes as actually existed.

RIMBASE

Reinforcement of a trunnion where it attaches to the gun tube. Originally "base rim", which became "rimbase" under the influence of the French equivalent, "crbase".

TRUNNIONS

Cylindrical extensions from the sides of a gun tube for its support.

UNDERLOOP

For boat howitzers, carronades, & certain extremely rare naval rifles, the lug or ring underneath the barrel for its support. It takes the place of trunnions for these weapons. Rear Admiral John A. Dahlgren once wrote of this as "loop, or navel (sic) ring".

Location: Admiral Leutze Park #1

Designation: 24-pounder howitzer, bronze, field Model of 1844.
Diameter of bore 5.82"

Inscriptions: "Trophy No. 24." "CAPTURED BY R. ADMIRAL LEE. SEP 1863"

References:

John Gibbon: THE ARTILLERIST'S MANUAL, reprinted by Benchmark Publishing Co., Inc., Glendale, New York, 1970, pp. 65 - 67, p. 83, Appendix p. 2, & Plate 4 Fig. 24

T. T. S. Laidley: ORDNANCE MANUAL ... UNITED STATES ARMY, reprinted by Ordnance Park Corporation, Lyons, Colorado, 1970, pp. 2, 20, & 386

Warren Ripley, ARTILLERY AND AMMUNITION OF THE CIVIL WAR, Van Nostrand Reinhold Company, New York, 1970, pp. 45 & 46

Markings:

& their significance:

right trunnion: C. A. & Co.

Cyrus Alger & Co., manufacturer

BOSTON

left trunnion: 1858

year of manufacture

left rimbase: 642

manufacturer's number. Gibbon notes that the "foundry number" is to appear "on the end of the right rimbase, above the trunnion." No reason is known for marking occasional howitzers on left rimbase.

muzzle near top 11

Army Ordnance number

muzzle near bottom: B. H.

Benjamin Fuger, Army Ordnance Officer from 1832 until 1861

note: The weight of this piece in pounds, probably stamped into the cascabel above the knob, would have been effaced in the course of making the inscription.

Rarity:

Not particularly rare. A small number are on display in battlefield parks, museums, & an occasional town square or park.

Location: Admiral Leutze Park #2

Description: 12-pounder howitzer, mountain, Model of 1841.
Bronze. Bore diameter 4.62"

Identification: "Trophy No. 1"

References:

Gibbon, p. 57, Appendix p. 2, & Plate 4 Fig. 24

Laidley, pp. 2, 20, & 386

Ripley, p. 48

Markings:

& their significance:

right trunnion: 12

bore diameter for a 12-pound iron ball;
that is, 4.62" bore

1847

year of manufacture

left trunnion: P.

accepted after Navy proof

A. A. H.
Andrew A. Harwood, Navy Inspector
1843 - 1852, 1859 - 1861, 1862 - 1863

base ring: C. A. & Co.

Cyrus Alger & Co., Boston, maker

No. 1

Navy Ordnance number

201

weight of the piece, pounds

Parity:

Navy markings upon mountain howitzers are extremely rare; this
tube & #15 nearer the flag pole might be the only two such.

30 May 74 5

Location: Admiral Leutze Park #15

Designation: 12-pounder howitzer, mountain, Model of 1861
Bronze. Bore diameter 4.62"

Identification: "Trophy No. 2"

References:

Gibbon, p. 67, Appendix p. 2, & Plate 4 Fig 24

Laidley, pp. 2, 20, & 386

Ripley, p. 48

Markings:

& their significance:

right trunnion: 12

bore diameter for a 12-pound iron ball;
that is, 4.62" bore

1847

year of manufacture

left trunnion: P.

accepted after Navy proof

A. A. H.

Andrew A. Harwood, Navy Inspector
1843 - 1852, 1859 - 1861, 1862 - 1863

base ring: C. A. & Co.

Cyrus Alger & Co., Boston. Maker

No. 2

Navy Ordnance number

202

weight of the piece, pounds

Rarity:

Navy markings upon mountain howitzers are extremely rare; this
tube & Admiral Leutze Park #2 near the other end of the park may be
the only two such.

25 May 74

Location: Admiral Leutze Park

Identification: Epreuve mortars, iron. 5.655" bore.

References:

Pipley, p.60

one of these powder testing devices, Pipley Fig: III-3

Markings:

& their significance:

Two of what appear to be three identical iron eprouvettes for testing powder are marked thus:

top of tube: U S : N D United States Navy Department

COL : FOUN Columbia Foundry, by one source listed in George Town (sic) D. C.

1816 : I M year of manufacture

John Mason, proprietor of Columbia Foundry

Rarity:

Eprouvette mortars are so rare the writer has never seen any others. He does have the report of two or three around Wilmington, Delaware, while West Point catalogs indicate a few not presently upon display.

As indicated in connection with Pillard Park #52, known Columbia Foundry survivors number under ten, and these are the two earliest yet discovered.

25 May 74

Location: Willard Park #16

Name: "The Mersey Gun", or "The Third Stockton Gun".

Description:

12" wrought iron smoothbore gun, mounted upon a bed from
a 13" seacoast mortar, Model of 1861

Manufacturer: Mersey Iron Works, in England, during 1845

References:

Warren Ripley, ARTILLERY AND AMMUNITION OF THE CIVIL WAR,
Van Nostrand Reinhold Company, New York, 1970, p.177 & Fig: IX-32

Alexander L. Holley, A TREATISE ON ORDNANCE AND ARMOR etc.
D. Van Nostrand, New York, 1865, pp. 86 ff.

Markings:

top of trunnion
ring:

ENGLAND

T. CUT.
7 10

& their significance:

Country of manufacture.

Using the long ton as 2240 lbs with the
corresponding hundredweight of 112 lbs,
this computes to be 16,800 lbs. The
references state the weight to be
16,700 lbs.

Rarity:

This piece is unique. The first "Stockton Gun", the "OREGON",
may still exist at the Naval Academy in Annapolis. The second, the
"PEACEMAKER", exploded 28 February 1844 aboard the U.S.S. PRINCETON,
killing five including the Secretary of State and the Secretary of
the Navy, and injuring 20 others. Stockton then ordered this third gun.

Slightly different pieces being developed in England at that same
time are also known as "Hotsfall Guns".

25 May 74

Location: Willard Park #49

Designation: 42-pounder gun, seacoast, Model of 1841. 7" smooth bore

Inscription: "Trophy No. 9 Captured from the Rebel Battery
on the Potomac River July 1862"

References:

Ripley, pp. 40 & 41 & Fig: 1-51

John Gibbon, ARTILLERIST'S MANUAL

D. Van Nostrand, New York, 1850, p.63 & Plate 3, Fig. 19

Markings:

& their significance:

right trunnion: B. F. Bellona Foundry, on the James River
in Chesterfield County, Virginia

J. L. A. (Dr.) Junius L. Archer, proprietor of
Bellona Foundry. Not directly related
to Mrs. Sally Archer Anderson, wife of
Joseph Reid Anderson, proprietor of
nearby Tredegar Foundry.

right rimbase: 24 founder's number

left trunnion: 1860 year of manufacture

tube over trunnions: U. S. accepted & owned by United States Army

muzzle near top: No. 24 Army Ordnance number

muzzle near bottom: B. H. Benjamin Huger, who accepted the piece
during his duty as Army Ordnance Officer
from 1832 until 1861

cascabel near top: 8590 weight of the piece in pounds

Rarity:

Relatively commonplace. A dozen or more may be scattered about,
some of them converted to rifles or banded or both. Pieces of this
sort frequently seem to have found their way into National Cemeteries,
mounted upright & thus concealing breech marks & detail.

25 May 74

25 May 74

Location: Willard Park #50

Designation: 7" Blakely rifle, seacoast & navy

Inscription: "Trophy No. 8 Blakely 100-pdr, from Anglo-Rebel
Pirate FLORIDA"

Reference:

Ripley, p. 155 & Fig: VIII-34

Markings:

& their significance:

right trunnion: J. D. B. unknown; possibly British inspector
These are not the initials of the
inventor, whose full name was
Alexander Theophilis Blakely.

left trunnion: 80 probably founder's number

tube top: Blakely's Patent
No. 37 possibly Blakely's own serial number.
Fawcett, Preston & Co.
Liverpool, Makers

1861 year of manufacture

ruzzle near top: 80 probably founder's number

rear of upper
breeching jaw: 80 probably founder's number. This &
breeching block: 80 following number in combination indicate
that this particular block has been
fitted to these jaws

Rifling: 9 groove conventional right hand twist, approximately equal width
lands & grooves.

Rarity: Perhaps unique. This compiler known of none other like it.

Location: Willard Park #51

Designation: 7.5" Blakely rifle, banded, seacoast & navy

Description: Perhaps a British 42-pdr of 67 cal., reworked by rifling & banding. Now that the tampion has been removed, the bore (7.503" ±0.002") and the rifling (12 groove, right hand twist, fat obturating projectiles) match those of the "WIDOW BLAKELY", now at Vicksburg

Inscription: "Trophy No. 7 Blakely Gun. (imitation Parrott.) Left by Rebels at Shipping Point, Potowac River"

References:

for this, Ripley, pp. 155 & 156, Fig: VII-36

for the "WIDOW BLAKELY", same but Fig: VII-35

for the rifling, Ripley, Fig: VII-2

Markings:

left trunnion: LOW MOOR

& their significance:

Low Moor Iron Co., England

10759

probably founder's number. Low Moor & Carron seem to have used large numbers, the meaning of which is as yet unknown to this compiler

1861

year of manufacture?

top of tube: Blakely's Patent

1861

patent date?

boss for lock

significance unknown

at top of cascabel: 13

Parity:

This piece & its erstwhile twin, the "WIDOW BLAKELY", are the only such yet known to this compiler. The damage which prompted foreshortening the latter by something in the order of two feet leaves this as the unique survivor in original condition.

25 May 74
J. H. C.

Location: Willard Park #52

Designation: 32-pounder gun, army, banded & rifled

Description: Original 6.4" smooth bore has been rifled 7 groove sawtooth with right hand twist, the recognized preference of John Mercer Brooke of the Confederate Bureau of Ordnance & Hydrography. Probably banded at the same time.

Inscription: "Trophy No. 10 Army 32-pdr banded and rifled by the rebels. Captured from them by R. Admiral D. D. Porter at Fort de Russy May 4, 1853"

Markings:

& their significance:

right trunnion: I. M. John Mason, foundry proprietor. Dictionaries did not differentiate (new?) "I" from "J" prior to 1828

C. A final "F." was apparent 29 Apr 67, prior to effacement by abrasion or erosion. This was the mark of Columbia Foundry, by one source listed in George Tamm (sic) D.

left trunnion: 1....4 Unplugged hole from which specimen for tests was removed obliterates center two numbers of the year of manufacture. However, term of duty for the Ordnance Officer sets this as 1834

tube over trunnions: U. S. accepted & owned by United States Army

muzzle near top: W. J. W. William J. Worth, who accepted the piece during his duty as Army Ordnance Officer from 1832 until 1838

muzzle near bottom: No 289 Army Ordnance number

muzzle at 4 o'clock orientation: vestige of hole, since plugged, from which second specimen for testing was removed. See reference below

Reference: no compiler or editor listed on title page, STRENGTH AND OTHER PROPERTIES OF METALS FOR CANNON etc., Henry Carey Baird, Philadelphia, 1856. Consists of many reports by William Wade from March 1844 through August 1854, with further reports by Thomas Jefferson Rodman, Louis A. de Barth Walbach, and others.

On 30 June 1847 Walbach reported testing, over the prior year, all 2808 cannon, then in forts & arsenals, cast prior to the Revised Regulations of 1840, "the Metal of which has been minutely examined as to Specific Gravity, Tensile Strength, and Characters of Fracture" (p. 327) p. 342 explains why samples were not always removed from a trunnion, "The results therefrom could not be depended on, as the rapid cooling and chilling of this comparatively small portion of the metal, together with the frequent occurrence of sand or scoria, which during

"the operation of casting becomes inclosed therein, very materially affected the strength and density of the metal. The same objections, in part, were found with specimens taken from the knob of the cascable. The sample, most accessible in any position of the gun, and, most to be relied on for accurate results, was that taken from the ruzzle; because, the metal cooling there under the pressure of the sinking head, and in a larger and more proportionate mass, would approximate more nearly to the body of the gun;....."

No comment was made regarding the refilling of trunnion test holes, nor have any been found which appear to have been refilled. Nor is a name given to the familiar muzzle mark herein dubbed "test scar". Malbach discusses these twice, upon page 328 & again upon page 342. To quote the former, "The cavity or perforation left in the face of the ruzzle by the abstraction of the trial sample has, in every instance, been filled with a composition of sal ammoniac and iron turnings, compactly driven in the moist state. This filling leaves no trace of disfiguration on the surface of the gun, and, as has been previously reported, sustains both the effects of weather and the heavy shocks of firing uninjured.

Rarity:

Of many surviving 32-pounder guns, original & reworked, from the early 19th Century, there may be some of this same model date as yet unidentified. However, Columbia Foundry pieces are so rare the compiler knows of but 9 others legibly so marked:

four at Shiloh
two at Ft. Pulaski
one recovered with the CAIRO
two iron eprouvettes dated 1816 in Admiral Leutze Park,
nearest to the 8th Street guardhouse

Location: Willard Park #53

Designation: 9" Dahlgren shellgun

Reference:

Pipley, pp. 90 & 92, & Fig: V-10

Markings:

& their significance:

right trunnion: IX in 9" smooth bore

1862 year of manufacture

right rimbase: 134 founder's number

left trunnion: P. accepted after Navy proof

T. A. H. Timothy Atwater Hunt, a Navy Inspector from 1862 until 1867

base ring: C. A. & CO. Cyrus Alger & Co, Boston

No. 378 Navy Ordnance number

9210 lbs weight of the piece

top of upper breeching jaw
behind elevating screw thread:

806

preponderance of the piece in pounds. S. I.
If the piece is supported without friction by its trunnions, this is the weight which must be supported by the elevating screw.

Rarity:

Although the 9" Dahlgren was one of the Navy's principal work horses of the Civil War, precious few seem to have survived. One in Detroit, one in Portsmouth, Va, two in Philadelphia, one in Oakland, N.J., — at least this leads to a guess that there may be less than 20 in the country.

Location: Willard Park #88

Designation: 6.4" single banded Brooke rifle

Inscription: "Trophy No. 11 Brooke's 100-pdr Rifle from Rebel Ram Atlanta. Captured by U. S. Monitor 'Tehawken', Commanded by John Rodgers"

References:

Ripley, Chapter 7, pp. 127 through 136.

for rifling, Ripley, Fig: VII-1

for mate to this piece, Ripley, Fig: VII-4

The writer was once given a photocopy of a drawing dated 12 October 1863. From an original, probably now in the National Archives, this specific piece is identified as "broadside gun" on "steam ram ATLANTA".

For Tredegar records, available but distant, the writer is indebted to a personal communication from Mr. Larry Daniel of Memphis.

Markings:

& their significance:

right trunnion: J R A & Co Joseph Reid Anderson & Co, Richmond, Va

T F Tredegar Foundry

left trunnion: 1862 year of manufacture

base ring: 9120 weight of the piece in pounds

ruzzle near top: 1610 Tredegar serial number. Note that second "1" has been struck on top of an earlier "0". Tredegar records indicate 1610 to have been cast June 19, 1862 & to have been then called a "32 pdr. Brooke"

rear of upper breeching jaw: 1610 duplicates Tredegar serial number. In combination indicates that this particular block has been fitted to these jaws

breeching block: 1610

Rarity:

23 Brooke guns of all sizes are known to survive. Only two of these are 6.4" with single reinforcing bands. Both of these are at the Navy Memorial Museum; Willard Park #s 88 & 99.

25 May 74

Location: Willard Park #89

Designation: 7" single banded Brooke rifle

Description: 7 sawtooth grooves with right hand twist

Inscription: "Trophy No. 4 Brooke's 7 in Rifle. Rebel imitation
of Parrott) from Rebel Ram Atlanta. Captured by U. S. Monitor
Hesarken, Commodore John Rodgers"

References:

Ripley, Chapter 7, pp. 127 through 136

for rifling, Ripley, Fig: VII-1

The writer was once given a photocopy of a drawing dated 12 October 1861. From an original probably now in the National Archives, this specific piece is identified as "pivot gun" on "steam ram ATLANTA".

For Tredegar records, available but distant, the writer is indebted to a personal communication from Mr. Larry Daniel of Memphis.

Markings:

& their significance:

right trunnion: VII in

7" bore

1863

year of manufacture

left trunnion: P.

accepted after Confederate Navy proof

A. D. B.

A. H. de Bree, Navy inspector

40

Navy Ordnance number? Matches final two figures of founder's number

base ring: T F

Tredegar Foundry, Richmond, Va

15,315

weight of the piece in pounds

muzzle near top:

1740

Tredegar serial number, which according to records was cast Jan. 15, 1863 & called a "7-in Brooke, Navy"

top of upper breeching jaw:

910

preponderance of the piece in pounds. If the piece is supported without friction by its trunnions, this is the weight which must be supported by the elevating screw.

Rarity:

23 Brooke cannon of all sizes are known to survive. Of these at least 3 & no more than 4 are 7" with single band. Two of these are at the Navy Memorial Museum; Willard Park #s 8/89 & 94.

25 May 74

Location: Willard Park #90

Designation: 7" double banded Brooke rifle

Description of rifling: 7 sawtooth grooves with right hand twist.

Inscription: "Trophy No. 17 Captured on board the Rebel Pam TENNESSEE
by R. Admiral Farragut's Fleet in Mobile Bay Aug. 5th, 1864"

References:

Ripley, Chapter 7, pp. 127 through 136

rifling detail, Ripley, Fig: VII-1

Markings:

& their significance:

right trunnion,
near top:

S 10

Selma Naval Ordnance Works, Selma, Ala.
founder's or shop number 10

left trunnion,
near top:

S 10

same

outer band top
near base ring:

S 10

same

inner band top
near base ring:

S 10

same

top of middle
sight boss:

S 10

same

Note: Some other Selma Brookes may be marked at the front sight, at the top of the base ring or lockwork boss, & indicate the weight of the piece along with the initials of Catesby ap Roger Jones. There is no explanation why such marks have not been found on this tube.

Rarities:

23 Brooke cannon of all descriptions are known to survive. Of these at least seven & no more than eight are 7" rifles with double banding, seven of which are known to have been manufactured by Selma. Two of these, S 5 & S 10, are on display as Willard Park #S-95 & -90 respectively.

25 May 74

Location: Willard Park #91

Designation: 6.4" double banded Brooke rifle

Description of rifling: 7 sawtooth grooves with right hand twist

Inscription: "Trophy No. 18 Captured on board the Rebel Par TENNESSEE by R. Admiral Farragut's Fleet in Mobile Bay Aug. 5th, 1864"

References:

Ripley, Chapter 7, pp. 127 through 136

for rifling, Ripley, Fig: VII-1

OFFICIAL NAVAL RECORDS Series 2, Vol. 2, p. 548

For Tredegar records, available but distant, the writer is indebted to a personal communication from Mr. Larry Daniel of Memphis.

Markings:

& their significance:

right trunnion: 6.4 bore diameter in inches

1863 year of manufacture

left trunnion: P. accepted after Confederate Navy proof

A. D. B. A. H. de Bree, Navy inspector

47 Navy Ordnance number?

base ring: T F Tredegar Foundry, in Richmond, Va

R. N. O. W. Richmond Naval Ordnance Works. Indicates that this piece was cast by Tredegar but rifled by the Ordnance Corps during the 5 months after the destructive fire

10,680 weight of the piece in pounds

muzzle near top: 1841 Tredegar serial number, which according to records was cast June 3, 1863 & called "6.40-in."

Rarity:

23 Brooke cannon of all sizes are known to survive. Of these, 5 are 6.4" with double bands. Three of these, all from the TENNESSEE, are at the Navy Memorial Museum; Willard Park Ps. 91, 92, 6.

25 May 74

Location: Willard Park #92

Designation: 6.4" double banded Brooke rifle

Description of rifling: 7 sawtooth grooves with right hand twist

Inscription: "Trophy No. 13 Captured on board the Rebel Par TENNESSEE
by R. Admiral Farragut's fleet in Mobile Bay Aug. 5th, 1864"

References:

Ripley, Chapter 7, pp. 127 through 136

for rifling, Ripley, Fig: VII-1

this piece - Ripley, Fig: VII-3, front tube

For Tredegar records, available but distant, the writer is indebted
to a personal communication from Mr. Larry Daniel of Memphis

Margins:

of their significance:

right trunnion: 6 $\frac{4}{5}$ in date character

1863 year of manufacture

left trunnion: P. accepted after Confederate Navy proof

A. D. R. A. V. de Bree, Navy Inspector

35 Navy Ordnance number?

base ring: T F Tredegar Foundry, Richmond, Va

10,790 weight of the piece in pounds

ruzzle near top: 1714 Tredegar serial number, according to record
was a "32 pdr. Brooke" (6.4") cast
Dec. 10, 1862

top of upper breeching jaw 880 preponderance of the piece in pounds.
If the piece were supported without friction
by its trunnions, this is the weight which
must be supported by the elevating screw.

Rarity:

23 Brooke cannon of all descriptions are known to survive. Of these,
5 are 6.4" with double banding. Three of these, all from the
TENNESSEE, are at the Navy Memorial Museum; Willard Park #s 91, 92, &

25 May 74

Location: Willard Park #93

Designation: 6.4" double banded Brooke rifle

Description of rifling: 7 sawtooth grooves with right hand twist

Inscription: "Trophy No. 12 Captured on board the Rebel Par TENNESSEE
by R. Admiral Farragut's fleet in Mobile Bay Aug. 5th, 1864"

References:

Ripley, Chapter 7, pp. 127 through 136

for rifling, Ripley, Fig: VII-1

this piece - Ripley, Fig: VII-3, second tube

For Tredegar records, available but distant, the writer is indebted
to a personal communication from Mr. Larry Daniel of Memphis

Markings:

& their significance:

right trunnion 6 1/8 in bore diameter

1863 year of manufacture

left trunnion: P. accepted after Confederate Navy proof

A. D. B. A. " de Bree, Navy Inspector

base ring: T F Tredegar Foundry, Richmond, Va

10,675 weight of the piece in pounds

muzzle near top: 1711 Tredegar serial number, which according
to records was called a "32 pdr Brooke",
cast Dec. 6, 1862, & delivered to
Charleston, S.C.

top of upper breeching jaw: 912 preponderance of the piece in pounds.
If the piece were supported without fric-
by its trunnions, this is the weight whi-
must be supported by the elevating screw

Rarity:

23 Brooke cannon of all descriptions are known to survive. Of these,
5 are 6.4" with double banding. Three of these, all from the
TENNESSEE, are at the Navy Memorial Museum; Willard Park #s. 91, 92, &

25 May 74

Location: Willard Park #94

Designation: 7" single banded Brooke rifle

Description of rifling: 7 sawtooth grooves with right hand twist

Inscription: "Trophy No. 14"

Peterences:

Ripley, Chapter 7, pp. 127 through 136

for rifling, Ripley, Fig: VII-1

this piece - Ripley, Fig: VII-3, third tube

For Tredegar records, available but distant, the writer is indebted
to a personal communication from Mr. Larry Daniel of Memphis

Markings:

& their significance:

right trunnion: VII. in. 7" bore diameter

1862 year of manufacture

left trunnion: P. accepted after Confederate Navy proof

base ring: TF 15, 162 A. D. E. A. N. de Bree, Navy Inspector

ruzzle near top: 1652 Tredegar serial number, which according
to records was cast Aug. 20, 1862 & known
as a "7-in Brooke rifle"

top of upper breeching jaw: 908

preponderance of the piece in pounds. Since
the piece supported without friction
by its trunnions, this is the weight which
must be supported by the elevating screw.

rear of upper breeching jaw: 1652

duplicates Tredegar serial number. In
combination these indicate that this
particular block has been fitted to these
jaws.

breeching block: 1652

Parity:

23 Brooke cannon of all descriptions are known to survive. Of these,
at least 3 & no more than 4 are 7" with single banding. Two of these
are at the Navy Memorial Museum; Willard Park #'s 89 & 94.

25 May 74
N.Y.C. 1974

Location: Willard Park #95

Designation: 7" double banded Brooke rifle

Description of rifling: 7 sawtooth grooves with right hand twist

Inscription: "Trophy No. 15 Captured on board the Rebel Ram Tennessee by R. Admiral Farragut's Fleet in Mobile Bay Aug. 5th 1864"

References:

Ripley, Chapter 7, pp. 127 through 136

rifling detail, Ripley, Fig: VII-1

this piece, Ripley, Fig: VII-3, fourth tube

Markings:

right trunnion,
near top: S 5

left trunnion,
near top: S 5

outer band top
near base ring: S 5

inner band top
near base ring: S 5

top of middle
sight boss: S 5

& their significance:

Selma Naval Ordnance Works, Selma, Ala.
founder's or shop number 5

same

same

same

Note: Some other Selma Brookes may be marked at the front sight, at the top of the base ring or lockwork boss, indicate the weight of the piece & show the initials of Catesby or Roger Jones. There is no explanation why such marks have not been found on this tube.

Fairly:

23 Brooke cannon of all descriptions are known to survive. Of these at least seven and no more than eight are 7" rifles with double banding, seven of which are known to have been manufactured by Selma. Two of these - #s 90 & 95 - are on display in Willard Park.

25 May 74

Location: Willard Park #96

Designation: 10" double banded Brooke smoothbore

Inscription: "Trophy No. 16 Rebel Smooth Bore X in.
made for the Rebel Par Columbia"

References:

Ripley, Chapter 7, pp. 127 through 136

this piece, Ripley, Fig: VII-6, front tube

For Tredegar records, available but distant, the writer is indebted
to a personal communication from Mr. Larry Daniel of Memphis.

Markings:

& their significance:

right trunnion: X

10" bore diameter

1864

year of manufacture

left trunnion: P.

accepted after Confederate Navy proof

A. D. B.

A. M. de Bree, Navy Inspector, by then
in charge of Richmond Naval Ordnance Work

57

Navy Ordnance number?

base ring: T F

Tredegar Foundry, Richmond, Va.

21,140 lbs

weight of the piece

muzzle near top: 1923

Tredegar serial number. According to
records was cast Oct. 1, 1863 & known
as a "10-in. Navy, Double Banded"

top of upper
breeching jaw:

890

preponderance of the piece in pounds. If
were the piece supported without friction
by its trunnions, this is the weight which
would have to be supported by the
elevating screw.

Rarity:

23 Brooke cannon of all descriptions are known to survive. Of these,
two are 10" smoothbores with double banding, one made by Selma & this
made by Tredegar.

Location: Willard Park #97

Designation: 5" Whitworth muzzle loading rifle

NOTE: For this designation conventional American practice has been followed. The bore diameter is measured across flats, corresponding with the "land diameter" for other types of rifling. By this convention the writer recognizes just six sizes of Whitworth field, siege, garrison, and naval rifles & has yet to find survivors for all of them. Vague use of measurements across corners generates the illusion of another six sizes, while utmost confusion is created by those writers who specify one rifle one way & the next the other.

Further bewilderment is created by writers on both sides of the Atlantic some of whom refer to this size as "70-pounder" & some as "80-pounder". To avoid all this every rifle herein is known by its land diameter without regard to the names applied throughout the past century.

Inscription: "Trophy No. 23 Whitworth 80 Pdr Rifle Captured with 3 others Blockade Runner Princess Royal"

References:

Ripley, pp.146 & 147

this piece, Ripley Fig: VIII-19 & Fig: VII-6, second tube

rifling detail, Ripley, Fig: VIII-10 & VIII-11

Marking:

Top of tube ahead of vent, the single word, "WHITWORTH". Markings of some other Whitworths appear upon plates attached to the ends of the trunnions. Perhaps such, now lost, were the origin of the records which indicate this piece to have been made by (or for) Whitworth Ordnance Co., Manchester, England, Patent 1862.

Rarity:

At the time of Ripley's research, somewhere around 1960, there were two such Whitworth 5" rifles in the Yard. A third, discussed & illustrated by Ripley, remains on display at West Point.

25 May 74

Location: Willard Park #93

Designation: 32-pounder gun, navy, 57 cwt Model of 1846, rifled & banded

Description: Original 6.4" smooth bore has been rifled with 7 sawtooth grooves of right hand twist. This is the recognized preference of John Mercer Brooke of the Confederate Bureau of Ordnance & Hydrography. Probably banded at the same time.

Inscription: "Trophy No. 22 Navy 32 Pdr banded & rifled by the rebels.
Taken in TUG TEAZER".

References:

Ripley, p.38 & Fig: I-49

Markings:

& their significance:

right trunnion: 32

originally "32-pounder", or 6.4" smooth bore

1852

year of manufacture

left trunnion: P.

accepted after Navy proof

C. W. S.

unknown Navy Inspector, whose initials also appear on a similar piece now on display on the Capitol grounds in Raleigh, N.C.

muzzle near top: 642

exceptionally small numbers, presumably not contemporary latter day ~~as~~ added ^{at} See 642

rear of upper breeching jaw: 3

In combination with identical number on breeching block, indicates that this particular block has been fitted to these jaws

breeching block

near top: questionable 3

Note: Manufacturer's marks, Navy Ordnance number & weight of the piece were probably originally stamped into the base ring, revereved in the process of applying the reinforcing band. ^{obliterated?}

Parity:

Relatively commonplace, particularly along southeastern seaboard.

Location: Willard Park #99

Designation: 6.4" single banded Brooke rifle

Description of rifling: 7 sawtooth grooves with right hand twist

Inscription: "Trophy No. 21 Brooke's 100-pdr Rifle from Rebel Ram Atlanta. Captured by U. S. Monitor Weehawken, Commodore John Rogers"

References:

Ripley, Chapter 7, pp. 127 through 136

rifling detail, Ripley, Fig: VII-1

this piece, Ripley, Fig: VII-4 & Fig: VII-6, fourth tube

For Tredegar records, available but distant, the writer is indebted to a personal communication from Mr. Larry Daniel of Memphis

Markings:

right trunnion: J. R. A. & Co. Joseph Reid Anderson & Co.

T. F. Tredegar Foundry, Richmond, Va.

left trunnion: 1862 year of manufacture

base ring: 9110 weight of the piece in pounds

muzzle near top: 1537 Tredegar serial number. According to records, cast June 9, 1862 & known as "32 pdr. rifle, Brooke"

top of upper breeching jaw: doubtful 9

ended numbers could have expressed a preponderance something in the order of 900 pounds. Were the piece supported without friction by its trunnions, this is the weight which would have to be supported by the elevating screw.

rear of upper breeching jaw: 1587

duplicates Tredegar serial number. In combination with identical number on breeching block, indicates that this particular block has been fitted to these jaws.

breeching block:587

Rarity:

23 Brooke cannon of all descriptions are known to survive. Only two are 6.4" rifles with single reinforcing bands. Both of these are on display in Willard Park: #s 88 & 99.

25 May 74

Location: Willard Park #101

Designation: 8" howitzer, siege & garrison, U. S. Model of 1841

Description: Until marks are found, there is no way to tell whether this piece was captured from the Union or manufactured by a Confederate foundry

References:

Dipley, pp. 50 to 52 & Fig: II-10

Markings: None found presently. The muzzle of this piece has been damaged by high power shoulder arm bullets, while the tube exterior appears to have been used for sledge hammer practice.

Rarity:

Ex #110 If the conventional Federal piece whose marks have become eradicated, this may be one of two dozen or more. However, discovery of Confederate marks or other proof of Confederate manufacture would make this most unusual if not unique.

25 May 74

NY 1974 AF

Location: Willard Park #102

Designation: 32-pdr gun, navy, 27 cwt, Model of 1846

Box 6 of 7

References:

Ripley, p.38 & Fig: I-46. If the captions for this illustration are not interchanged, the guns have had their positions reversed since the photograph was taken.

Markings:

& their significance:

right trunnion: 32 6.4" smooth bore.

18.... partially illegible year of manufacture

left trunnion: P. accepted after Navy proof

base ring: W.P.F. or W.P.F.A.?? obscure; if either, West Point Foundery (sic) Association, Cold Spring, New York

No. 122

Navy Ordnance number

27.5.10 weight of the piece in hundredweight (of 112 lbs), quarters (of 28 lbs) and pounds. Calculates as 3118 pounds

Parity:

Probably quite rare if not unique.

25 May 74

Location: Willard Park #103

Designation: 32-pounder gun, navy, 33 cwt, Model of 1846

Loc. S-17

References:

Ripley, p. 38 & Fig: I-46. If the captions for this illustration are not interchanged, the gun positions have been reversed since the photograph was taken.

Markings:

& their significance:

right trunnion: 32 6.4" smooth bore

1846 year of manufacture

left trunnion: P. accepted after Navy proof

A.S.W.? somewhat obscure; if correct, Alexander Scammell Wadsworth, Navy Inspector from 1825 to 1829 & from 1841 to 1850

top of tube

ahead of vent: anchor, either U.S. or U.S. Navy ownership
fouled or superscribed with the letter "C"

base ring: F. P. F. Fort Pitt Foundry, Pittsburgh, Pa

No. 16 Navy Ordnance number

33.2.10 weight of the piece in hundredweight
(of 112 pounds), quarters (of 28 lbs)
and pounds. Calculates as 3762 lbs

Rarity:

number on display in other + 2 more

With at least four of these on display or in storage around the
Museum, may be more commonplace than its lighter neighbor, 2102

25 May 74

Location: Willard Park #104

Designation: 12-pounder of 23 cast, circa 1800. Ringknob cascabel

Inscription: "Trophy No. 2"

Martings:

& their significance:

top of tube
ahead of vent: TN or NT

meaning unknown no matter from which side you read it

top of tube
near vent: 23 3 10

weight of the piece in hundredweight (of 112 lbs), quarters (of 28 lbs) and pounds. Calculates as 2670 lbs

base ring: M.

identification of manufacturer, perhaps British, unknown

No. 16

ordnance number of the piece

Rarity:

Might be unique.

U.S.A.C

25 May 74

Location: Willard Park #105

Designation: British 32-pounder gun of 32 cwt with Blakely rifling

Description of bore: 6-1/4" diameter, rifled 8 Blakely grooves
with right hand twist

Inscription: "Trophy No. 24 32-Pdr rifled from Anglo-rebel pirate Florida"

References:

Ripley, pp. 156 & 157, & Fig: VIII-37

rifling detail, Ripley, Fig: VII-2

Markings:

& their significance:

left trunnion: LOW MOOR Low Moor Iron Co., in England

10666... probably founder's number. Low Moor & Carron both used large numbers, the meanings for which are as yet unknown to this compiler

Parity:

Might be unique.

6/84 AP

25 May 74

R. S.

Location: Willard Park #107

Designation: 2-3/4" Whitworth rifle, field, breech loading

NOTE: For this designation conventional American practice has been followed. The bore diameter is measured across flats, corresponding with the "land diameter" for other types of rifling. By this convention the writer recognizes six or seven sizes of Whitworth field, siege, garrison, & naval rifles, but has yet to find survivors for all of them. Vague use of measurements across corners generates the illusion of another six or seven sizes, while utter bewilderment is created by those writers who specify one rifle one way & the next the other.

Inscriptions: on breech: "Whitworth Breech Loading Gun Captured by Admiral Lee near Fort Fisher, N.C. Aug. 23 1863"

plate on carriage: "Captured near Ft. Fisher 23 Aug 1863
North Atlantic Blockading Squadron S. P. Lee Commanding"

References:

Ripley, pp. 142 to 146

this piece, Ripley, Fig: VIII-13

detail of rifling: Ripley, Figs: VIII-10 & VIII-11

Markings:

& their significance:

both trunnions: Whitworth Ordnance Co.

manufacturer

46 manufacturer's number for this piece

Patent 1861

Manchester manufacturer's address

Rarity: (as of 1974)

4 at Gettysburg

1 now at West Point. Formerly 3 - remainder in storage?

1 in a museum in Turin, Italy

1 at Petersburg

25 May 74
J. C. W.

Location: Willard Park #108

Designation: 4.2" Sawyer rifle

Inscriptions: "Trophy No. 26 Received from Norfolk March 1865
Sawyer 30 Pdr Rifle captured by the rebels on board
the Fanny and recaptured at Elizabeth City from the Louisiana"

References:

Pipley, pp. 173 & 174

this piece, Pipley, Fig: IX-24

NOTE: This compiler has measured the lands as 1-3/8" wide,
4.216" land diameter; grooves as 1" wide, 4.575" groove diameter

Markings:

right trunnion: C A & Co

& their significance:

Cyrus Alger and Company, Boston

left trunnion: 1856

year of manufacture

rugle near top: 1

manufacturer's number?

Parity:

This is the only Sawyer rifle of any size yet to come to my attention

6/8/74

25 May 74

31 May 74

Location: Willard Park #110

Designation: 8" howitzer, siege & garrison, U. S. Model of 1841

Description: Until marks are found, there is no way to tell whether this piece was originally captured by the Confederates from the Union or manufactured by some Confederate foundry.

Inscription: "Trophy No. 6 8 in siege howitzer captured Stono, S. C. December 25th, 1863 by Pawnee, Marblehead, C. P. Williams"

References:

Ripley, pp. 50 to 52 & Fig: II-10, showing this tube

Markings:

None found presently except for tiny "62", presumably latter day, on the upper muzzle face-

Rarity:

If this is the usual Federal piece whose marks have somehow become eradicated, it may one of two dozen or more widely scattered. However, discovery of Confederate marks or other proof of Confederate manufacture would make this most unusual if not unique.

W. A.
W. A.

25 May 74

Locations: Willard Park #109 & #111

Designation: 32-pounder Treadwell 6.4" bore diameter

References:

Ripley, pp. 172 & 173

this piece #2, Ripley Fig: IX-22

Markings:

& their significance:

both tubes
immediately
behind trunnion
band: DANIEL TREADWELL name of inventor-developer

base ring,
piece #109 No. 2 manufacturer's number

base ring,
piece #111 No. 1 manufacturer's number

Rarity:

Only known survivors of four made for the Navy in 1844.

Location: Willard Park #113

Designation: 3.4" Wiard boat howitzer, rifled, underhammer

Description: Rifling similar to that of certain 3.6" Wiard field rifles:
12 groove, left hand twist, lands $5/8"$ wide, virtually
semicircular grooves $1/4"$ wide.
Land diameter 3.400", groove diameter 3.565"

Cascabel, except for knob, covered by distinctive cast bronze ring
incorporating both the socket for stadia sight & lugs for the lock hammer

It is unknown to what purpose the hammer has been placed on the bottom.

Inscription: "Trophy No. 33 Rec from Mound City Dec 1865"

References:

Ripley, pp. 168 & 169

Markings:

& their significance:

top of tube
from front
toward rear:

U. S.

United States ownership

fouled anchor

Navy mark?

Rifled 12 Pdr

contemporary Navy name for this size

Wiard

Norman Wiard, inventor-promoter-
ordnance gadfly

1861

year of manufacture

New York

Wiard's base of operations

785

weight of the piece, pounds

Parity:

Unique so far as known. Wiard boat howitzers are so rare & references
to them so obscure an otherwise comprehensive article in a recent
popular historical publication overlooked them completely.

Compare to #118

25 May 74

Location: Willard Park #114

Designation: 3" Ordnance Rifle, Model of 1861

Inscription: "Trophy No. 30 June 1865"

This inference of recapture or surrender, in combination with the manufacturer's early date & low numbers, leads to the supposition this weapon may have captured from the Union some time earlier.

References:

Hazlett, James C., M.D.: "The 3-inch Ordnance Rifle", CIVIL WAR TIMES, ILLUSTRATED, Vol. VII, No. 8, (December 1968) pp. 30 - 36

Ripley, pp. 161 - 163

Markings:

muzzle front,
near top: T. T. S. L.

& their significance:

Theodore Thaddeus Sobieski Laidley,
Army Ordnance Officer from 1842 to 1882

No. 25

Army ordnance number

P. I. Co.

Phoenix Iron Co, Phoenixville, Pa.

1861

year of manufacture

muzzle front,
near bottom: 821 lbs

weight of the piece

top of tube: U. S.

accepted & owned by United States Army

right rimbase: 27

manufacturer's number

Rarity:

One of the three most commonplace Civil War weapons to survive.

Inset Comment: With excellent range, unexcelled accuracy, light weight & superior strength (perhaps the only ordnance of the Civil War never known to explode), the 3" Ordnance Rifle was ahead of its time & popular. Following the capture of one at Gaines' Mill, a Confederate historian described it as a "beautiful wrought iron 3" Ordnance rifle" and recorded the honor of its presentation to his captain as a reward for gallantry.

Second only to bronze, the wrought iron generally ^{has withstands} withstands the ravages of weather over the past 100 years.

Location: Willard Park #115

Designation: 2-3/4" Whitworth rifle, field, muzzle loading

See Glossary, "RIFLING"

Inscription: "Trophy No. 32"

Reference:

Ripley, pp. 142 - 146

this piece, Ripley Fig:VIII-15

Markings:

& their significance:

both

trunnions: Manchester Ordnance & Rifle Co.

Whitworth Patent inventor & patentee

No. 115 manufacturer's number

1863 year of manufacture

Rarity:

One of a very small number; writer knows of but two others.

61-84-AN

25 May 74

2 2 74

Location: Willard Park #116

Designation: 4" Blakely field rifle

Inscription: "Trophy No. 28 Captured by Admiral Lee, Lt. Fisher N. C.
Aug. 23, 1863"

References:

Ripley, pp. 152 & 153

this piece, Ripley Fig: VIII-29

Capture after engagement over the beached blockade runner NEBE,
Official Naval Records, Series 1, Volume 9, p.171

Markings:

& their significance:

top of tube: Fawcett, Preston & Co. Liverpool manufacturer, well known
for other Blakely rifles

1862 year of manufacture

right trunnion: 136 significance unknown

top of muzzle face: 921 significance unknown; the piece should
weigh more than this

Parity:

Only such known by writer.

6/84-AP

Location: Willard Park #117

Designation: 2.9" Confederate Parrott, underloop

Description: Most cannon are supported by their trunnions. However, a few naval pieces - carronades & boat howitzers - have barrels provided on their undersides with a lug or loop for attachment to their carriages by pins. This and an identical piece at West Point are the only long rifles known with underloops instead of trunnions.

No marks have been found by several searchers covering both pieces. The shape of the breech reinforcing band, with a chamber toward the muzzle, has been identified with marked pieces only with Tredegar Foundry. However, absence of the almost universal Tredegar number at the upper muzzle face is disconcerting. The West Point piece is reported to have been captured at Richmond April 3, 1865, which might increase the probability of Tredegar manufacture.

Description:

References:

Ripley, p. 124

this piece, Ripley Figs: VI-30 & VI-31, and Francis Trevelyan

Mller: THE PHOTOGRAPHIC HISTORY OF THE CIVIL WAR, Thomas Yoseloff, Inc
New York, 1957, Volume 6, p. 77 upper photo

Rarity:

Only two such are known

25 May 74

Inventory No. 701

j21

Location: Willard Park #118

Designation: 3.4" Wiard boat howitzer, rifled, tophammer

Description: Rifling similar to that of certain 3.6" Wiard field rifles:

12 grooves, left hand twist.

Lands $5/8"$ wide.

Nearly semicircular grooves $1/4"$ wide

Land diameter 3.400"

Groove diameter 3.565"

Cascabel, except for knob, covered by distinctive cast bronze ring incorporating both the socket for stadia sight & lugs for the lock hammer.

Inscription: "Trophy No. 31 Received from Mound City Dec. 1865"

References:

Ripley, pp. 168 & 169

Markings:

& their significance:

top of tube from United States ownership
front toward rear: U. S.

fouled anchor Navy mark?

Rifled 12 Pdr contemporary Navy name for this size

Wiard Norman Wiard, inventor-promoter-
ordnance gadfly

1861 year of manufacture

New York Wiard's base of operations

783 weight of the piece, pounds

C meaning unknown

6/84 - PW

Parity:

Unique so far as known, although closely resembling a corresponding Dahlgren rifled boat howitzer. Wiard boat howitzers are so rare with references to them so obscure that an otherwise comprehensive article in a recent popular historical publication overlooked them completely.

Reported to the Board

25 May 74

Location: Willard Park #120

Designation: 3-1/4" Yates muzzle loading rifle

Comment: Nothing is yet known of this rifle or its developer beyond what is self evident. Although clearly marked "YATES", knowledge of the man awaits the right person turning the right page in some obscure manuscript.

generally appears to
This tube/reflects the state of the art somewhere around 1870. Its long, slim barrel has been derived from thoughtful application of metal only where it will be of use, without regard to tradition or ornamentation. Its polygroove rifling reflects against the failures of flanged, studded, and expanding projectiles during the Civil War, showing evolution toward expansion cup driving and sealing.

It is clear that the inventor wished to improve ignition by placing the vent for the friction primer as near the center of the charge as possible, namely at the rear of the breech upon the bore axis.

However, the reinforcement cup is a puzzle. Its shape points toward fabrication from cast iron, because of the difficulty of forging or machining such from wrought iron.¹ Particularly in view of the number of Parrott rifles whose failure consisted of blowing the breech out from the reinforcing band, and from Whitworth experience with band slippage, it seems reasonable to expect an early post-War development to be a cup to reinforce both the chamber & the breech. But the writers of that time were in general agreement cast iron was not the proper material with which to reinforce.

Should analysis prove the reinforcing cup to be wrought iron or steel this piece should fit into the normal sequence of development somewhere between 1865 and 1875 or 1880. However, if the cup is cast iron my guess would be to date it as early as 1855, with every feature but the material from which the cup is made being well ahead of its time.

Marking:

left trunnion: YATES

& its significance:

unknown

Rarity:

Only such piece known.

43.
corrected 13 Dec

Location: U. S. Navy Memorial Museum

Designation: Rifled 20-pounder Dahlgren boat howitzer, 4-inch bore,
3 groove rifling, right hand twist.

Reference:

Ripley, pp. 88 - 90

Comment:

The rifled 20-pounder Dahlgren boat howitzer, almost ignored in contemporary ordnance manuals, is the only one of seven similar Dahlgren weapons to have trunnions. The other six are characterized by a loop cast on the underside of the barrel for attachment to the carriage, similar to that of the carronade a short distance away in the Museum.

Markings:

& their significance:

top of tube,
progressing from
muzzle toward
breech: fouled anchor

signifies Navy acceptance & ownership

Rifled 20 pdr

Dahlgren's name for this rifle

1865

year of manufacture

W. N. J.

William N. Jeffers, Navy Ordnance
inspector, 1862 - 1865

DAHLGREN

John A. Dahlgren, inventor & developer

base ring: U. S. N. Y.

United States Navy Yard

washington

1352 lbs

weight of the piece

142 Pre

preponderance, pounds

No. 76

Navy ordnance number

muzzle near bottom: C H
inscribed within
a diamond

significance unknown

Rarity:

Quite rare; only four others known to compiler, with a fifth reported but not confirmed.

4 Jun 74

Location: U. S. Navy Memorial Museum

Designation: 32-pounder gun, Navy, 33 cwt. Model of 1841. Bore diameter 6.

<u>Markings:</u>		<u>& their significance:</u>
right trunnion:	32	6.4" smooth bore
	1846	year of manufacture
left trunnion:	P.	accepted after Navy proof
	G. A. M.	George A. McGruder, Navy Inspector, 1845 - 1846 & 1855
base ring:	J. R. A.	Joseph Reid Anderson (a Col); Tredegar Foundry, Richmond, Va.
	No. 200	Navy Ordnance number
	33-3-15	weight of the piece in hundredweight (of 112 pounds), quarters (of 28 pounds) & pounds. Calculates to be 3795 pounds

Parity:

Not known. A similar piece, manufactured by Tredegar Foundry
in 1846, is on display as Willard Park #103, while two others
from Fort Pitt Foundry are in storage.

4 Jun 74

Location: in storageDesignation: 32-pounder gun, Navy, 33 art. Model of 1846. Bore diameter 6.4"Reference:

Pipley, p.38

Markings:

right trunnion: 32

& their significance:

6.4" smooth bore

1847

year of manufacture

left trunnion: P.

accepted after Navy proof

J. S. C.

John S. Chauncey, Navy Inspector from
1840 to 1843 & from 1847 to 1850

base ring: F. P. F.

Fort Pitt Foundry, Pittsburgh, Pa.

No. 295

Navy Ordnance number

33.1.26

weight of this piece in hundredweights
(of 112 pounds), quarters (of 28 pounds)
& pounds. Calculates to be 3750 poundsParity:

Not known. Two manufactured by Tredegar Foundry in 1846 are on display here, one in the Museum & one as Willard Park #103.
 A mate to this Fort Pitt Foundry piece is also in storage -
 see p.46

4 Jun 74

Location: in storage

Designation: 32-pounder gun, Navy, 33 cwt. Model of 1846. Bore diameter 6.4"

Reference:

Ripley, p. 38

Markings:

& their significance:

right trunnion:

left trunnion:

base ring:

F. P. F.

Fort Pitt Foundry, Pittsburgh, Pa.

No. 262

Navy Ordnance number

33.1.20

weight of this piece in hundredweight
(of 112 pounds), quarters (of 28 pounds),
8 pounds. Calculates to be 3744 pounds

Rarity:

Not known. Two manufactured by Tredegar Foundry in 1846 are on display here, one in the Museum & one at Willard Park #103.
A mate to this Fort Pitt Foundry piece is also in storage -
see p.45