54083

Dahlgren 9-inch model story
First Refusal

Dahlgren 9-inch shellgun No. 2, John Dahlgren's Model

How many times have you asked someone who has a collectible item

you want, but isn't ready to sell it, to give you the "right of

first refusal?" I've done this quite a few times, and sometimes

the owner honors it and sometimes he doesn't. A man I know owned

one of the 9-inch Dahlgren guns that was aboard HARTFORD during

the Battle of Mobile Bay, all 9000 pounds of it. It is registry

number 117 cast at Tredegar Foundry just prior to the Civil War.

I called him annually for many years and asked if he was ready

to sell it yet, and he'd say no, but I was at the top of the

list, since I was the only one who had shown a continued

interest in it. So I called him last year and of course he'd

sold it to someone else, saying he forgot I was interested. To

add insult, he wouldn't tell me who he sold it to so I could

keep chasing it.

Now I have such a "right" I've actually earned on an item. A

gentleman I see now and then has an interesting little cannon

model. He didn't know much about it

but I was sure it had to be

some kind of arsenal model, it was just too well-made and

detailed to be anything else. He said if I found out exactly

what it was, he'd feel comfortable about letting it go in time,

and I'd have the "right of first refusal." He seems like an

honest person, so I decided to put in some time trying to find

out about the cannon model, to satisfy my own curiosity if

nothing else.

I assumed it was some kind of official Navy Bureau of Ordnance

model made prior to the production of over 1000 of the 9-inch

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Dahlgren guns between about 1855 and 1865. The barrel is about

16.5 inches long overall, has a 1 1/8-inch bore, and weighs

about 17.5 pounds. I checked all the drawings of Navy muzzle-

loading cannons in the National Archives and came up with a

close, but not an exact match. The model was precisely a 1/8

scale of a 9-inch Dahlgren gun, except for the correct form of

percussion firing lock. All I could think is that this model was

some intermediate step in the initial design that hadn't made it

far enough to merit a large mechanical drawing for the Bureau's

files. Or maybe the drawing had been lost,

After a few days of scratching my head about this dilemma,

something made think of the John Adolphus Dahlgren papers in the

Library of Congress. What I needed was more detail on the

development of that weapon, and Dahlgren's personal papers

seemed like they might hold something. The collection's 10,000

items stored along 15 "shelf-feet" were somewhat intimidating,

but I requested about a third of it covering the time period and

type of document I wanted. I requested any box whose

description contained anything about plans, specifications,

drawings, etc.

I was incredibly lucky this time. I only had to spend only

about a day in the Manuscript Reading Room before I found

exactly what I was looking for. The "find" consisted of a

notation in Dahlgren's design workbook for the 9-inch shell gun,

to the effect that he had made a 1/8 scale cast iron model to

use as an instrument for calculating the proper distribution of

mass. This notation was in a section of the workbook on "9-inch

Dahlgren 9-inch model story shell gun no. 2." The model has the words "9-INCH SHELL GUN NO.

2" engraved on the top of the reinforce. Since the model is

obviously "period" in patination, corrosion, etc., I'm convinced

Dahlgren's notes describe this particular item. Not only are

the dimensions of the model precisely what they should be, but

the weight matches as closely as I can measure it. The bore was

bored with exactly the correct shape of powder chamber.

In rough notes and calculations made somewhat later, Dahlgren

calculates the exact specific gravity of the iron in the model

Dahlgren 9-inch model story by weighing it in air, then in water. The model's specific

gravity was lower than he had initially estimated, so he re-

calculated his dimensions for the full-sized gun. He was

particularly concerned about the "preponderance" of the finished

full-sized gun (simply, how "breech-heavy" the gun was.)

In the photo of the model, forget about the carriage, it's

certainly much younger than the iron barrel.

Here are links to photos of the documents:

http://i17.photobucket.com/albums/b62/cannonmn/miscforumsetc/for

Dahlgren 9-inch model story

ums25/LOCDahlgrenB176a.jpg
http://i17.photobucket.com/albums/b62
/cannonmn/miscforumsetc/for

ums25/LOCDahlgrenB189.jpg
http://i17.photobucket.com/albums/b62
/cannonmn/miscforumsetc/for

ums25/LOCDahlgrenB195.jpg
http://i17.photobucket.com/albums/b62
/cannonmn/miscforumsetc/for

ums25/LOCDahlgrenB198.jpg
http://i17.photobucket.com/albums/b62
/cannonmn/miscforumsetc/for

ums25/LOCDahlgrenB302.jpg
http://i17.photobucket.com/albums/b62
/cannonmn/miscforumsetc/for

ums25/LOCDahlgrenB305.jpg
http://i17.photobucket.com/albums/b62
/cannonmn/miscforumsetc/for

ums25/Models022.jpg

Dahlgren 9-inch model story

http://is.gd/i2tG

http://is.gd/i2ux

http://is.gd/i2uQ

http://is.gd/i2v3

http://is.gd/i2vj

http://is.gd/i2vF

Nine Inch Shell Guns

Nos. 1 and 2.

7°
12.9
11.2
940

Nine Inch Shell Gun

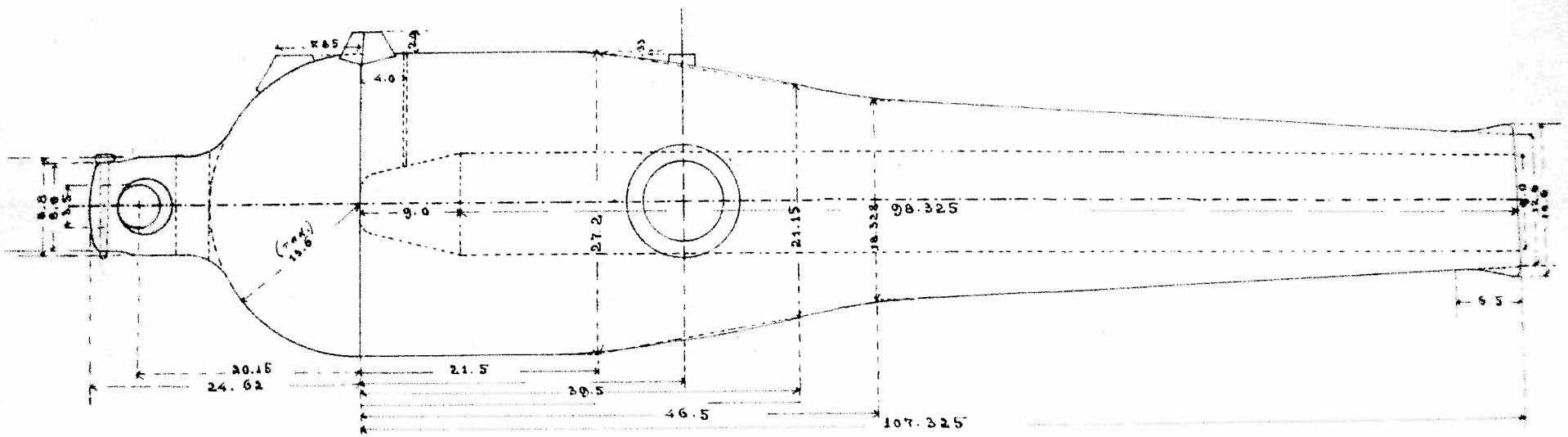
of 9000 lbs.

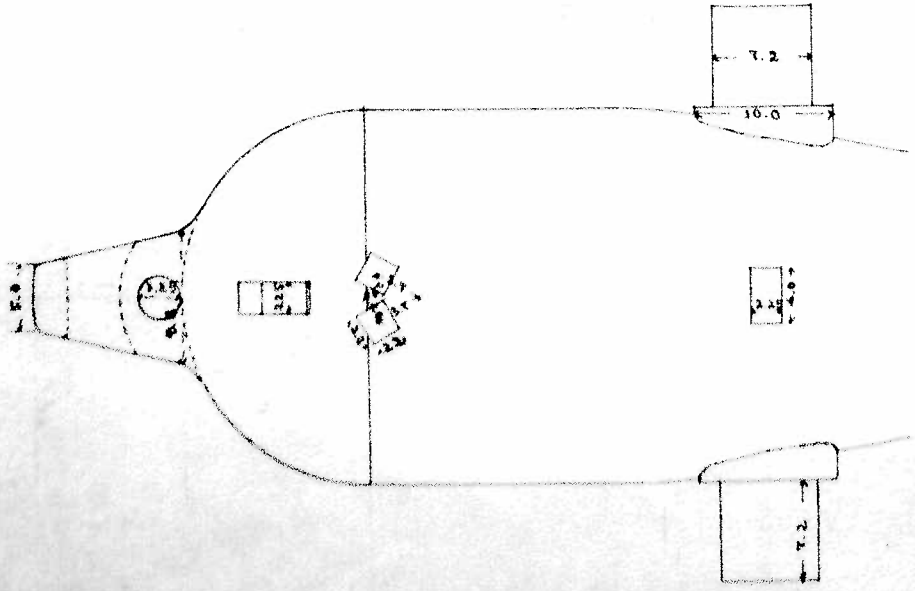
No. 2

(Bore = 11.925 Calibres)

John A Dahlgren

March 30th 1853.


4.0
9.0
27.2
21.15
98.325
20.16
24.62
21.5
30.5
46.5
107.325


7.2
10.0
7.2

A model of this Shell Gun was made of Cast Iron on a scale of $\frac{1}{8}$. By calculation there are 34759 Cu: Inches in the Piece which at the Density assumed for it, 7250, would weigh 9114 lbs –

Now the content of the model will equal $\frac{1}{8}^3$ (the scale being $\frac{1}{8}$) or $\frac{1}{512}$ of the full scale, viz 67.889 Cubic Inches, which taking the probable density at 7150 (ascertained to be that of the model of No. 1) – would make the computed Weight of the model 17.56 lbs –

The actual weights were as follows:–

Total Weight	17.48
Preponderance at B.R	1.112
at Screw	.719
Distance of Trunnions from B.R.	3.65 (should have been, $\frac{1}{8}$ 29.217 = 3.65)

17.471

April 22

lbs

...ht of 9 Inch Model No 2 17.32

...of ...sm with wire in the water 17.34

...t in water 15.00

2.33

(36) 17.4710 (7091.6

17 2452

225800

221724

40760

24636

161240

7050

17.4...

15.00

2.46...

17.471

April 22

Set of 9 Inch Model № 2
Open with brine in the water
Up in water

	17.32
	17.34
	15.00
	2.33

30) 17.4710 (7091.6
17 2452
225800
221724
40760
24636
161240

7050

	17.47
	15.00
	2.46

MANUSCRIPT
The Papers of
JOHN A. DAHLGREN
0 022 236 628