

# ARMY AND NAVY CHRONICLE.

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## DOMESTIC MISCELLANY.

*From the Naval Magazine.*

### LINE OF BATTLE SHIP OHIO.

*By a member of the Naval Lyceum.*

This splendid ship, which has been recently rebuilt, from the water's edge up, and fitted out in such masterly style at our navy yard, under the direction of Commodore Ridgely, has been taken to Boston, under the command of Captain Lawrence Kearny, and is now in the dry dock at that station. It is gratifying to learn, that her lower works require much less repair than was expected from the circumstance of her having remained moored, in the Wallabou, for seventeen years after she was launched.

When the water was pumped out of the dock, her bottom was ascertained to be perfectly sound; but from the unskillful manner of docking her, the blocks having been laid with nearly a foot crowning, it is feared that she has been somewhat *hogged* in the process. As the keel was laid bare, it was discovered that the centre blocks, which were made to sustain the whole weight of the ship, were crushed down, whilst the forward and after parts did not touch by several inches. A more ingenious contrivance to ruin the ship could not well have been devised; but, from her great strength, it is still hoped that she has shown the same *firminess* in resisting all attempts to interfere with her perfect model, that her constructor did while she was on the stocks.

It is to be regretted that the ship could not have had her repairs completed without the necessity of leaving the New York yard, where naval construction and fittings of all kinds, are more neatly and substantially executed than at any naval station in the United States. Appropriations have long since been made for the commencement of a dry dock here, but, thus far, we see no hope of the construction of such an important and useful work. The line-of-battle ships Washington and Franklin are both at this yard requiring repairs, which can only be made in a dry dock and, under existing circumstances, must be sent to other stations to be re-built. The expense of this, added to that of sending the Ohio to Boston, would nearly, if not entirely, pay for a dry dock at this station.

There never has existed any good reason why a dock should not be constructed at this port; but, even admitting the objections made by some to the insufficient depth of water formerly found on the bar, for the passage of large ships, the recent discoveries of Lieut. Gedney have now set that difficulty entirely at rest. The Ohio passed out through his new channel, carrying full thirty feet water, to which a foot must be added in consequence of the tide having fallen before she reached the bar. This is more than sufficient to float the largest ship that ever was built; what more is required? Here we will leave this subject, with the sincere hope that when another large ship may require a thorough repair, it may not be necessary to send her off to another station.

In the course of the passage of the Ohio from this port to Boston, from the report of the officers who sailed in her, she realized the fullest expectations of those who had so confidently predicted her good qualities as a sea boat, fast sailer, &c. She proved to be perfectly easy in all her motions, steered like a pilot boat, worked quickly, and sailed at the rate of 12 knots, 7 fathoms with a whole sails breeze, off the wind, and 10½ knots by the wind, under double-reefed topails. This was certainly a wonderful performance, when we consider that she had an old set

of sails belonging to the Franklin 74, one full reef too small, and that her copper was quite foul, as may reasonably be supposed from the circumstance of its never having been touched in seventeen years. Added to this rapidity of sailing, she possesses the advantages over all other ships of her class in our navy, of a lighter draught of water, and more room on her decks to fight her guns.

It is impossible for a seaman to look at her for a moment, without acknowledging her to be one of the most beautiful ships that ever floated; and we sincerely congratulate the navy and the nation, that she has been reserved from lingering, but certain destruction, by the liberality of Congress in making a special appropriation for her repairs; for we truly believe that she will now become the model from which all ships of her class will, hereafter, be constructed.

And, here, let us express our regret, from our sincere interests in the navy, that the same master hand which moulded her, was not employed to superintend the construction of our entire navy. Had this been done, we now should have a collection of beautiful, fleet, and efficient ships of all classes, in lieu of the present Dutch galliot looking things which, instead of keeping pace with the improvements of the day, carry us at once back to the days of De Ruyter and Van Tromp.

Any person desirous of seeing an exhibition of naval architecture of the present day, will do well to visit our navy yard at this time, where he will find some specimens of this noble art, in the form of exploring vessels, which would rival the most approved models in the Chinese navy. I hazard nothing in saying that such vessels never could have come into existence under the direction of such an architect as Henry Eckford. The same mind which modelled the Ohio, and those beautiful frigates which were built for the South Americans, could not, with all its ingenuity, have given birth to such deformities as the Pilot, the Pioneer, and the Consort. Well may the Sultan have exclaimed, when he witnessed the productions of Mr. Eckford's professional genius at Constantinople, "America must be overstocked with talent, if she can spare so great a man as Mr Eckford!" But she could not spare him; and he ought never to have been permitted to leave the country while the treasury was rich enough to command his services. Our naval reputation in future encounters may be the price of our folly in this respect. During our last war with Great Britain, our ships were superior in point of sailing to those of all other nations. Two of those ships are still in existence—the Constitution and the United States—and, notwithstanding the number of new vessels which have since been built, they are still the fleetest in the navy, and the *only two* which can cope with the improved models of the French and English architects.

These frigates were built in the year 1797. What then has been the improvement in our ship building in forty years? The answer is simple. In the constructions of our merchant ships, the improvement has been astonishingly great. They have combined speed with bulk, beauty with strength, comfort with economy, and, added to all these, every safe and desirable quality which a sea-going vessel can possess; whereas, in the navy, with one or two exceptions, we have as rapidly retrograded in almost every particular except strength, to which every other consideration is made a sacrifice, and so long as the present order of things continues, we fear we never shall advance. We hope, however, when the Ohio's qualities are more fully developed, and forced on the

attention of those under whose care the navy is growing up, that a new system of things may arise, and that our officers may once more have the pride and satisfaction of finding themselves on board of ships which can get out of the way of such as are too heavy for them, and overhaul those of equal or inferior force.

*Dimensions of the U. S. Ship Ohio.*—The following are the principal dimensions of the Ohio, her spars, sails, &c., which may be of interest to our naval readers:

	Ft.	In.
Length between perpendiculars,	198	
Beam moulded,	54	
Depth of hold from upper side of timber to upper side of orlop deck,	15	
From top of orlop deck to top of lower gun deck,	7	5
From top of lower gun deck to top of upper gun deck,	7	7
From top of upper gun deck to top of spar deck,	7	3½
From base line to top of timbers,	2	7
From spar deck beams to top of rail,	5	1
Depth from base line to top of rail,	45	
Rake of stern post,		8
Rake of stem,	32	
Length of orlop deck,	192	8
Breadth,	49	8
Lower gun deck in length,	194	6
Breadth,	51	2
Length of upper gun deck,	199	1
Breadth,	50	8
Length of spar deck,	208	8½
Breadth,	49	6
Extreme breadth,	55	6
Thickness of deck plank,		4½
Length from figure head to outside of taffarel,	226	2
Height from bottom of keel to top of rail of midships,	48	6
Distance between the ports,	7	8
Height of ports,	2	9
Breadth,	3	4
Lower gun deck ports in number,	34	
Upper gun deck do. do.	36	
Spar deck do. do.	36	
Whole length of keel,	175	6
Tonnage. Carpenter's measurement, 2,542 52-95 tons.		
Draft with 200 tons ballast on board forward,	15	2
Aft,	19	4
Displacement, 2170 tons		
Deduct ballast 210 "		
Displacement at launching draft, 1960 "		
Height of lower midship port sill when loaded,		6
Above water, as near as I can judge, the draft of the water when loaded will probably be, forward,	24	
aft,	25	
Displacement at this line, 3952 tons.		
Deduct displacement at launching draft, 1960		
Actual tonnage,	1992	
Displacement of 1 inch at light draft,	17 tons	
Do. do at load line,	22 do.	

It is estimated that the three lower masts and bowsprit, including trusseltrees and cap, will weigh 80 tons.

#### Masts and Spars.

<i>Masts and Spars.</i>				
	Length		Diam.	Mast hds
	Ft.	In.	In.	Ft. In.
Main mast,	124	6	40	20
Do. top mast,	70		21½	12

	Ft.	In.	Ft.	In.
Do. top gallant mast,	41	12	6	
Do. royal mast,	24	9½	1	
Do. flag pole,	16			
Fore mast,	115	86½	18	
Do. top mast,	63	21½	10	6
Top gallant mast,	37	6	22	5
Royal mast,	22	8½		
Do. flag pole,	10			
Mizen mast,	105	26½	16	
Do. top mast,	55	16½	9	
Do. top gallant mast,	33	6	9½	4
Do. royal mast,	20		7	
Do. flag pole,	8	6		
Main yard,	107	6	23½	5
Do. topsail yard,	78	17½	6	6
Do. top gallant yard,	52	10½	2	
Do. royal yard,	36	7	1	6
Fore yard,	96	21½	5	
Do. topsail yard,	71	16	6	
Do. top gallant yard,	46	9½	2	
Do. royal yard,	32	6½	1	6
Cross jack yard,	80	16	7	6
Mizen topsail yard,	52	11	4	
Do. top gallant yard,	33	6½	1	6
Do. royal yard,	23	4½	1	
Sprit sail yard,	52	11	4	
Bowsprit,	78	37		
Jib boom,	60	16½		
Flying jib boom,	61	10½		
Height from water line to main truck,	225			
Height from water line to fore truck,	204	6		
Height from water line to mizen truck,	195	6		
Length from knight heads to end of flying jib boom,	113			

#### Sails.

	Yds.	No.
Main course,	1440	1
Do. topsail,	1520	1
Do. top gallant sail,	420	3
Do. royal,	220	5
Fore course,	1100	1
Do. topsail,	1260	1
Do. top gallant sail,	380	3
Do. royal,	160	5
Mizen topsail,	760	1
Do. top gallant sail,	200	3
Do. royal,	80	5
Spanker,	400	2
Main spencer,	600	1
Fore spencer,	520	1
Do. storm stay sail,	240	1
Do. top mast stay sail,	260	1
Jib,	660	2
Flying jib,	380	2
Main top mast stay sail,	320	4
Middle stay sail,	280	4
Lower top gallant,	220	4
Upper do.	140	4
Royal,	90	6
Lower studding sail, 2,	1080	5
Fore topmast studding sails, 2	890	5
Fore top gallant do. do. 2,	440	6
Fore royal do. do. 2,	140	7
Main top mast do. do. 2,	1050	5
Main top gallant do. do. 2,	520	6
Main royal do. do. 2,	160	7
Fore sky sail,	100	7
Main do. do.	140	7
Mizen,	80	7

Quantity of canvass in one suit of sails, 1624 within a fraction of two acres.