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BOSTON
CHARLESTOWN NAVY YARD 1800-1842

NATIONAL HISTORICAL PARK / MASSACHUSETTS

HISTORIC RESOURCE STUDY

VOLUME II OF II

CHARLESTOWN NAVY YARD
1800-1842

BOSTON NATIONAL HISTORICAL PARK
Massachusetts

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PREFACE

This historic resource study details the history of the Charlestown Navy Yard from its authorization in 1800 through August 1842, when the Board of Naval Commissioners that had overseen the day-to-day operations of the United States Navy since 1815 was abolished and their authority transferred to the newly-constituted bureaus. The cut-off date for this study was deliberately chosen because of the manner in which the National Archives manages the sundry record groups focusing on the Department of the Navy. The organization of the subject record groups previous to the establishment of the bureaus is such that it is possible for a researcher to examine the paper trail detailing the administrative, structural, and operations history of a major naval facility. After organization of the bureaus and the resulting decentralization, this becomes impossible. Consequently, the historic resource studies of the Charlestown (Boston) Navy Yard subsequent to August 1842 will be less comprehensive with their focus on the activities of certain of the bureaus.

The guidelines charting the direction this report took and its scope were outlined in my 1976 discussions with Superintendent Hugh Gurney of the Boston National Historical Park; F. Ross Holland, former associate director of professional services, North Atlantic Region; and Blaine Cliver, historical architect, North Atlantic Regional Office. To document the history of the yard, I was to study the various National Archives and Federal Records Center Record Groups concentrating on the Charlestown Navy Yard, as well as pertinent manuscripts and published materials at the Boston area repositories--the Massachusetts Historical Society, the Boston Athenaeum, the Middlesex County Courthouse, etc. After evaluating and synthesizing these materials, I was to prepare a documented narrative of the history of the Charlestown (Boston) Navy Yard, supplemented by a series of historical base maps.

Many dedicated people have assisted in the preparation of this report. At the Boston National Historical Park, Superintendent Hugh Gurney, Chief of Planning of Historic Preservation Frank Montford, Museum Curators Peter Steele and Arsen Charles, Historian Paul Weinbaum, and Chief of Maintenance David Rose all scored 4.0 in recognition of their many kindnesses. These ranged from providing office space and secretarial support, to chasing down illustrations, and having the report indexed.

Commander Tyrone G. Martin, former skipper of Constitution, and Professor David F. Long of the History Department at the University of New Hampshire read the manuscript, made incisive comments, and shared their encylopedic knowledge of Constitution, Commodore Bainbridge, and naval lore.

The staffs of the Boston Public Library, the Boston Athenaeum, and the Massachusetts Historical Society were cooperative and expedited my work at these institutions.

At the National Archives and the Washington Record Center at Suitland, Maryland, I, as heretofore, would have been at a loss without the assistance of such well-informed and dedicated personnel as these archivists and technicians: Dale Floyd, Tim Ninninger, Bob Matchette, George Chaulou, Steve Bern, Mike Musick, Richard Cox, John Matias, Justin Dempsey, Tom Lipscomb, Fred Prennell, Ralph Ehrenberg, Raymond Cotton, and Elaine Everly.

Denver Service Center managers, professionals, and technicians played key roles in the support and production of this report. Programming responsibilities were handled during the research and writing phase by John Luzader, now retired, while Nan Rickey, Ronald W. Johnson, Sharon A. Brown, and L. Craig Cellar of the Northeast Team boldly shouldered these arduous tasks during the production phase. Dick Morishige and his graphics people refined and drafted the four historical base maps. The most challenging and unrewarding tasks of all--the typing and editorial work--were handled by Mrs. Virginia Fairman and Ms. Evelyn Steinman.

Last but not least, is a debt owed North Atlantic Regional historian Dwight Pitcaithley for identifying funding sources to have the report reproduced and distributed.

Edwin C. Bearss
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VI. TWO AND ONE-HALF EXCITING YEARS: AUGUST 1832 - MARCH 1835

A. Elliott's Reforms and Controversies

1. Commodore Bainbridge's Final Assignment

Commodore Bainbridge's health was failing. As the winter promised to be very quiet with little business to demand his attention, he asked for and was granted two months' leave of absence. On November 23, after turning over command to Master Commandant Thomas W. Wyman, he started for Philadelphia, where he hoped to recuperate. Bainbridge took the stage and arrived at his Pennsylvania home on the evening of the 27th.[1]

Bainbridge decided to return to Boston by sea. On January 5, 1833, he boarded Water Witch at Philadelphia. He was back on duty at the navy yard on the 10th.[2]

At first, Bainbridge felt that he had recovered his vigor. But this was not to be, and, on March 21, he wrote Secretary of the Navy Woodbury:

> My health is so bad, and this climate so severe, that it renders it necessary for me to ask the favor to be relieved from my present command on the lst of May next. In making this request I feel confident our excellent President will grant it, with your appreciation to one who has served his Country as Commander nearly thirty five years, most zealously, and as he trusts most faithfully.[3]

The secretary approved Bainbridge's request. His condition continuing to deteriorate, he decided to take leave of his station before

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1. Bainbridge to Rodgers, November 23 and 27, 1832, NA, RG 45, Letters Received, BNC.

2. Bainbridge to Rodgers, January 5 and 10, 1833, NA, RG 45, Letters Received, BNC.

3. Bainbridge to Woodbury, March 21, 1833, NA, Captains' Letters, Microcopy M-125.

the arrival of his replacement. On April 13 he informed the department, "I shall leave here in a few days to quit this command. Capt. J. Smith, Master Comdt. of the yard, will attend to all orders from the Department until my successor is appointed."[4]

Bainbridge's many friends in the Navy, as well as those on the Board of Commissioners, regretted to learn that he had resigned.[5]

Commodore Bainbridge returned to his Philadelphia home to die. Suffering from pneumonia and dropsy, he passed away on July 27. Moments before his heart stopped, he raised himself up and, calling for his arms, ordered all hands to board the enemy. On July 30 by order of the department, the flags at the Charlestown Navy Yard, as at all other naval stations, were half-masted and 13 minute guns fired at noon in honor of his memory. At his death, Bainbridge was 59 years, 2 months, and 21 days old.[6]

2. Commodore Elliott Takes Command

Secretary of the Navy Woodbury selected one of the Navy's most controversial officers, Commodore Jesse D. Elliott, as Bainbridge's successor. Known as "Old Bruin," he was a man of rough manners and positive ideas.

A son of Robert and Ann Elliott, he had been born in Hagerstown, Maryland, in July 1782.

His father was killed in 1794 by Indians, while serving as a commissary in Major General Anthony Wayne's army. Young Jesse attended school at Carlisle, Pennsylvania, from where, in 1804, he was appointed a midshipman in the Navy by President Jefferson. His first

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4. Bainbridge to Woodbury, April 13, 1833, NA, Captains' Letters, Microcopy M-125.

5. Rodgers to Bainbridge, April 17, 1833, NA, RG 45, Letters Sent, BNC.

6. Dearborn, Life of William Bainbridge, p. 218.

cruise was on the Mediterranean in Essex under Commodore Barron, and he was with Barron when he surrendered Chesapeake to Leopard in June 1807.

Promoted to lieutenant in 1810, Elliott was ordered to London as a bearer of dispatches to the United States minister. While there he was "insulted" by an Englishman, who declined to receive his challenge to a duel. On April 7, 1812, he was married in Norfolk, Virginia, to Miss Frances C. Vaughan.

Early in the War of 1812 he was ordered to Lake Erie. Aided by Captain Nathan Towson of the Army, he surprised and captured Detroit and Caledonia. For this well planned and daring exploit, he was voted a sword by Congress, and was promoted, in July 1813, master commandant over the heads of 30 lieutenants. Twenty years after the war, Towson, now a brigadier general, entered into correspondence with Elliott claiming that the official report of the capture of the two vessels had not done justice to the Army's role. He, however, failed in his efforts to provoke the fiery Elliott into a duel.

Placed in command of United States naval forces on Lake Erie, Elliott, in the autumn of 1812, assembled a small squadron and began building the brigs Lawrence and Niagara. In the spring of 1813 he was relieved by Commodore Oliver H. Perry. After a brief tour of duty on Lake Ontario, he returned to Lake Erie in August and took command of Niagara, as the ranking officer under Perry. In this position, he fought in the battle of Lake Erie, September 10, 1813. His conduct in the battle caused a controversy which wracked the Navy for more than 30 years. For upwards of three hours during the fight, Elliott failed to bring Niagara into close action. She thus gave Perry relatively little assistance, while his flagship, Lawrence, was battered, and she suffered more than two-thirds of the entire American loss. Elliott and his defenders were compelled to explain and justify this action. Congress did not hesitate to award equal honors to Perry and Elliott, matching the gold medal given to the senior officer with one presented to the second in command. In 1818 the dispute resulted in Elliott challenging Perry to a

duel, and in Perry preferring charges against Elliott, and requesting that he be court martialed. These were pigeon-holed by President Monroe.

In 1815-16 Elliott commanded the sloop Ontario and participated in the war against the Algerines. In 1818 he was promoted to captain, and from then until 1822 he was a member of the Board of Fortifications. While on the coast of Brazil in command of Cyane, (1825-27), he was offered the post of admiral in the Brazilian Navy. From 1829 to 1833 he commanded the West India Squadron. He assisted in suppressing the Nat Turner insurrection in Southampton County, Virginia, in 1831 and represented the Navy at Charlestown during the nullification crisis of 1832-33.

Commodore Elliott reached Charlestown from Charleston, South Carolina, aboard Experiment on May 12, and assumed command of the yard. He proceeded almost immediately to institute changes in existing rules and regulations. Many of these were dictated by an "arbitrary disposition, and restless active character," and brought him into conflict with the officers of his command, resulting in several court martials. He was also an ardent Jacksonian, and for the first time support of the administration became an important criteria in the employment of mechanics and laborers, and non-support a cause for discharge. Politics were volatile and passionate, and Massachusetts and Boston were anti-Jacksonian strongholds. Elliott's "predilections and actions" accordingly earned for him strong local opposition. Combined with his efforts at change and reform, his politics caused his administration to be brief but stormy.[7]

3. The Midshipmen's School Is Reorganized and Expanded

On May 13, 1833, the day after he assumed command, Commodore Elliott complained to the department that the young midshipmen attached to the yard had no instructor. If at all possible, one should be

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7. Preble, "History of the Boston Navy Yard," p. 211, NA, RG 181.

ordered to the yard.[8] Within a few days, Secretary Woodbury informed him that Duncan Bradford had been named professor of mathemathics and languages, and would report to him in early June. After the school was organized, if there was need, a second teacher would be selected and appointed.[9]

It was August 12 before Bradford reported, and four days later the school was opened. The department now directed Elliott to "prescribe rules for the government of the school, direct the course of studies to be pursued, and bestow on it such superintending care as may be best calculated to promote its efficiency and advance the improvement of the young gentlemen, for whose benefit it has been established." A monthly report was required by the department of those in attendance, along with their studies, progress, and conduct.[10]

The school was so successful that the department, in November, issued a general order requiring that:

> All Midshipmen, whether passed or not, who have seen sea service, and are on special duty or furlough, will, after their leaves of absence expire, consider it their duty in the future, to repair to the Navy Yard near Norfolk, New York, or Boston, as may be most convenient, and there attend the naval school and perform such services as may be required of them, under the superintendence of the commander of the yard.
>
> The Commander of each yard will furnish those who report under this order, suitable accommodations in the Receiving Ships or Vessels in ordinary, and suitable opportunities for professional instruction, and employment in conformity with general regulations prescribed by this Department. As the present measure is intended to be highly beneficial to the Midshipmen, he will not, beyond the usual pay and rations, make any allowances for the execution of it.[11]

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8. Elliott to Woodbury, May 14, 1833, NA, Captains' Letters, Microcopy M-125.

9. Woodbury to Elliott, May 28, 1833, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

10. Woodbury to Elliott, August 16, 1833, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

11. Woodbury to Elliott, November 19, 1833, NA, Captains' Letters, Microcopy M-125.

These schools were the successors of the one organized aboard Independence moored in the Charles off the navy yard in 1816, and the precusors of the Naval Academy established at Annapolis, Maryland, in 1845.

4. Elliott's Attack on Religious Freedom

Commodore Elliott next turned his attention on "the religious instruction" of his command. He sought to coerce the officers and men professing various beliefs into one and the same manner of worship. This was contrary to the First Amendement to the Constitution, and embroiled him in additional difficulties.

Writing the Secretary of the Navy, on November 18, Elliott observed that, upon his arrival at the yard, he had found the men assigned to ordinary divided into two classes, "the first to have a liberty on the first Sunday of the month after muster, and the second to have liberty on the succeeding Sunday." This resulted in much drunkenness, and the "Sabbath was spent in a manner that was illy calculated to make men better seamen, or husbands, and the whole arrangement called loudly for revision and correction."[12]

To correct this situation, Chaplain Fenner having been on sick leave for months, Elliott applied for and secured the services of Chaplain James Everett, an Episcopalian. The upper story of the cordage store, not then in use, was outfitted with a pulpit and slips. Heretofore, Sunday muster and prayers had been held in the sail loft. Having readied a chapel, Commodore Elliott next moved to provide the Reverend Everett with a congregation. He issued an order for the ordinary men, the crew of the receiving ship and recruits, the Marines not on duty, and the officers of the station to attend services every Sunday, "at the ringing of the yard bell."

This for a time had the desired effect. Soon, however, "the novelty wore away." The officers became lukewarm and neglected to attend

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12. Elliott to Woodbury, November 18, 1833, NA, Captains' Letters, Microcopy M-125.

service until the worthy chaplain found himself "preaching to bare walls as regarding officers." Whereupon, Elliott inserted in the Yard Regulations the words, "Officers presumed to be at church will not be permitted to leave the yard until services are over." This had little effect, and on Sunday, November 17, Master Commandants Smith and Wyman and several others were absent. This caused Elliott to explode that "without harmony" among the senior officers of the yard, "public duty cannot be carried on with spirit or satisfaction." If his two senior officers were dissatisfied with "the correction of certain abuses, which have been so long allowed as to be thought matters of right and equity," they must be replaced. He must, he notified the secretary, have "prompt and willing officers, and above all I must be supported by the Navy Department as I have been heretofore, or my efforts to reform this Naval Establishment will be unavailing."[13]

On November 18 Commandant Elliott issued an order, calling attention to the failure of certain officers to observe, with proper spirit, the paragraph of the General Regulations, pertaining to divine services. Hereinafter:

> all persons borne on the books of this Station . . ., with the exception of the officers on watch duty, and the sick to give their attention to the Chapel each Sabbath while the Chaplain is performing Devine Service.
>
> It is to be understood that this order is not issued to produce a change in the religious tenets of any one, but for the purpose of causing the officers to present a proper example to the men in this respect.[14]

This order was attended with no better results and engendered bitter recriminations. When Elliott asked Lieutenant Edward B. Babbit why he did not attend services, he answered, "I presume the right to worship according to the dictates of our own conscience is not denied to us by the law of our country, either as to be the mode or manner."

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13. Elliott to Woodbury, June 24 and November 18, 1833, NA, Captains' Letters, Microcopy M-125; Preble, "History of the Boston Navy Yard," pp. 230-32, NA, RG 181.

14. Elliott to Woodbury, November 18, 1833, NA, Captains' Letters, Microcopy M-125.

"The church service here not being in accordance with my views of religion is the reason of my absence."[15]

Master Commandant Smith, in reply to the same question, remarked, "It was not convenient for me to attend church yesterday."[16]

The secretary did not intervene in this dispute, while the board reminded Elliott that he had failed to submit his recently promulgated regulations to the department for the required review. Then either Elliott or the Smith-Babbitt faction, probably the former, yielded.[17]

5. The Ordinary Men Feel Elliott's Reforms

Elliott next moved against the practice which had permitted the ordinary men to sleep and mess outside the yard. Orders were issued forbidding this. As many of the men had been shipped with the understanding that this privilege was to be theirs, they were discharged and replacements enlisted. Henceforth, Elliott had the entire force available round-the-clock, in event of fire or accident.[18]

6. The Commissioners Define the Relationship Between the Commandant and Receiving Ship Captain

There was a clash with the commander of the receiving ship, Master Commandant William V. Taylor, as to his status and the duties incumbent upon him and his men. This was laid to rest, when the commissioners notified Commodore Elliott that the captain of a receiving ship "should be considered in all respects like the commander of other vessels in commission, with regard to the vessel, and to the officers and

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15. Babbitt to Elliott, November 18, 1833, NA, Captains' Letters, Microcopy M-125.

16. Smith to Elliott, November 18, 1833, NA, Captains' Letters, Microcopy M-125.

17. Rodgers to Elliott, November 26, 1833, NA, RG 45, Letters Sent, BNC. There are no letters on file in Record Group 181 or Microcopy 149 from Secretary Woodbury referring to this explosive issue.

18. Elliott to Woodbury, November 15 and 18, 1833, NA, Captains' Letters, Microcopy M-125.

men attached to her regular compliment." But the manner in which recruits were to be disciplined and employed, while aboard, was the responsibility of the officer in charge of the station. They would both be governed by the Navy's General Regulations. All communications to and from officers assigned to the receiving ship were to pass through the vessel's commander.

The number of sailors allowed the receiving ship was to be limited by estimates to the number deemed necessary for the "services of the vessels and for attendants upon the officers who might be attached to her." Like all naval personnel, they were expected to respond to any extraordinary public duties requiring their services.[19]

7. Elliott Inaugurates a Pass System

Before the close of the year, Elliott instituted a change aimed at tightening control of the mechanics and laborers. As of January 1, 1834, the clerk of the yard was to call on the employees to produce a check from their master workmen before applying to the clerk for a pass out of the yard.[20]

8. Elliott Establishes an Officers' Watch

On his arrival at the yard in May 1833, Commodore Elliott found it guarded by Marines and watchmen. He was troubled to discover that no naval officers were responsible for security of the yard and the public property. After existing vacancies in the ordinary and yard were filled, Elliott directed that an officers' watch be established, thus placing the yard on the same footing as the deck of a warship at sea.

Since then Elliott boasted:

> Everything in the Yard has thus far been conducted to my entire satisfaction.

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19. Elliott to Woodbury, November 15, 1833, NA, Captains' Letters, Microcopy M-125.

20. Ibid.

> When you take into consideration the vast amount of property which is so accessible to the incendiary, and the thief, and which without an officers' watch, would be guarded by a few irresponsible Marines, who are in the habit of deserting their posts, and carrying others with them, and who if they feel disposed to be malicious, might apply a torch to the ships on the stocks, or those in ordinary, with but little chance of being detected. A watch of responsible officers is of vast importance to the public and should be continued.[21]

One month later, Elliott called on the department to assign a number of lieutenants, independent of those allowed to the yard and receiving ship, to the facility for watch duty. "Had such a watch been established years ago," he noted, "no one can tell how much the government would have been saved from waste and embezzlement."[22]

Secretary Woodbury replied that "there will soon be Midshipmen enough to act on watch duty, without any additional expense."[23]

9. Elliott's Fight to Control Access to the Yard

Elliott likewise focused attention on the several gates and landings then in use. Within a few months, he had discontinued all these, except the main gate and the landing at the entrance to the dry dock. The only other routes then open for entry and exit to the yard were through the commandant's quarters and the Marine barracks.

When the lower gate was closed, orders had been issued allowing all "carriages and equipages" of officers and their families to enter or leave the yard by day without being stopped and at night by the authority of the officer-of-the-watch.[24]

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21. Elliott to Woodbury, November 4, 1833, NA, Captains' Letters, Microcopy M-125.

22. Elliott to Woodbury, undated, NA, Captains' Letters, Microcopy M-125.

23. Woodbury to Elliott, undated, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

24. Elliott to Woodbury, October 7, 1833, NA, Captains' Letters, Microcopy M-125.

This order, affecting as it did the comfort and convenience of senior officers, was challenged. Master Commandant Smith and Lieutenant Babbitt complained to the secretary that closure of the lower gate worked a hardship on their families and friends. Because of the distance from their quarters to the main gate, three-fourths of a mile, some of their visitors had been compelled to drive away rather than walk that distance. This deprived them of "the privilege of receiving and extending usual civilities." They trusted the secretary would issue instructions allowing them "to pass in their respective carriages to & from our quarters, such of our friends as for them, it may be inconvenient to walk; trusting that our rank & character are so estimated by you, as to afford a sufficient guaranty against an abuse of the privilege asked."[25]

Commenting on the Smith-Babbitt letter, Elliott reminded the department that the lower gate had been closed in accordance with Secretary Woodbury's suggestion. Since then "the business of the yard has been performed as promptly and with as great facilitiy as before." This, along with establishment of the officers' watch, had resulted in better control, leading to a decline in desertions, improper intercourse, and theft of public property.[26]

The department, after reviewing the correspondence, held that the carriages of the officers and their visitors must be allowed to pass through the main gate en route to and from the lower quarters. If not, they should be permitted to open the lower gate for ingress and egress of their families and friends. They would be entrusted with the key to the latter gate, keeping it locked except when in use.

Elliott was to adopt one of these options.[27]

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25. Smith and Babbitt to Woodbury, October 7, 1833, NA, RG 45, Letters Received, BNC.

26. Elliott to Woodbury, October 7, 1833, NA, RG 45, Letters Received, BNC.

27. Rodgers to Elliott, October 12, 1833, NA, RG 45, Letters Sent, BNC.

Elliott assured the commissioners that the main gate had been open to friends of the officers in the same manner as heretofore to themselves, under the direction of the officer-of-the-watch. Experience had satisfied him that wherever there was an entrance it must be guarded. Plans and estimates for a change of the front and entrance of the lower officers' quarters were being formulated, and when implemented would alleviate much of this friction.[28]

10. The Organization of the U.S. Naval Benevolent Association

In 1833 the naval and marine officers assigned to the yard formed a U.S. Naval Benevolent Association. Its goals were to relieve "the distress--ameliorate the condition--and administer to the wants of much persons as might be entitled to its benefits, rendered by uncontrolable misfortunes, proper objects of its care and benevolence." It was active for the next eight years, its last annual meeting being held on October 18, 1841.[29]

11. Elliott Combats Theft

During the winter of 1833-34 a large number of 3- to 8-inch copper bolts were stolen from the yard. Harrison Wingate, who had made a nuisance of himself with unsubstantiated charges of wrong doings and malfeasance, let it be known that a Mr. Manley had purchased stolen copper. When questioned, Manley identified the vendor as W.A. Chesley, a ship's carpenter at the yard. Whereupon, Commodore Elliott directed his clerk, Mr. Dow, to swear out a warrant against Chesley. The accused was arrested and brought before Judge Davis to be bound over for trial before the District Court.

Wingate next told of other Boston and Charlestown metalsmiths that were in the habit of purchasing stolen copper. When Dow investigated, he was unable to document a case, because, although they had bolts and spikes similar to the Navy's, the smiths were unable to or refused to identify the persons from whom they had purchased the copper.

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28. Elliott to Rodgers, October 18, 1833, NA, RG 45, Letters Received, BNC.

29. Preble, "History of the Boston Navy Yard," p. 239, NA, RG 181.

Elliott contemplated securing a search warrant to visit and search certain of the shops. But, if one were procured, he feared, the bolts would be melted down before a search could be made.

To combat this situation, Elliott had all yard copper bolts and spikes marked, "U.S.," and urged the merchants to insist on taking the names of all persons offering copper for sale.[30]

12. The Yard Gets a New Executive Officer

On August 19, 1834, Commodore Elliott notified the department that Master Commandant Smith's health had failed, and he was unfit for active duty. This forestalled Elliott from going on leave. To make it more embarrassing, Mrs. Elliott was also in poor physical condition, and during the late winter of 1833-34 she had gone south for her health. Because of Smith's illness, Elliott had to remain at the yard, instead of accompanying his spouse.

He trusted a replacement could be found for Smith in the near future, because he was desirous of traveling to Maryland and bringing his wife back to Massachusetts.[31]

More than a month, however, passed before the department acted. In late September, Master Commandant George Budd was ordered to the yard as Smith's replacement.[32]

13. The Infighting Continues

The final 13 months of Elliott's time at the yard were wracked by a number of acrimonious clashes with his principal subordinates, both civil and military. Master Commandant "Mad Jack"

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30. Elliott to Woodbury, April 14, 1834, NA, Captains' Letters, Microcopy M-125; Elliott to Rodgers, February 27, 1834, NA, RG 45, Letters Received, BNC.

31. Elliott to Dickerson, August 18, 1834, NA, Captains' Letters, Microcopy M-125.

32. Dickerson to Elliott, October 13, 1834, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

Percival, Taylor's successor as captain of the receiving ship, soon found himself at odds with the commodore. Elliott asked for his transfer, and Percival was delighted to be sent to sea as captain of Erie.

a. Elliott Seeks to Get Rid of Storekeeper Bates

In the winter of 1833-34 there was difficulty with Yard Storekeeper Dr. George Bates, a politically astute Bostonian. On January 21 Bates wrote the department, complaining that Commodore Elliott had compelled him to discharge John McAlvin, a laborer, employed in the Navy Store as a clerk. McAlvin, he explained, was very industrious, and, moreover, this position had been authorized by Captain Crane, while commandant. He urged the commissioners to consider the propriety of continuing to allow the storekeeper one man, in addition to the clerk, to be carried as a laborer at $1.50 per day.[33]

The department was distressed by Bates' failure to send his letter through proper channels. Writing Elliott, the board directed him to inform Bates that all official correspondence must pass through the commandant. The commissioners assured Elliott that he had the necessary authority to act on Bates' request.[34]

It was simple to gauge Elliott's response. Bates, he informed the board, had in his office one clerk, one clerk rated as a laborer, and one laborer. Of these, Elliott deemed the clerk-laborer unauthorized.

If Bates would move to the Charlestown side and tend to his business by performing "a portion of its labors," he could, Elliot noted, with the clerk allowed and a seaman from the ordinary, perform his

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33. Bates to Rodgers, January 21, 1834, NA, RG 45, Letters Received, BNC. Harrison Wingate, whom Elliott had previously branded a troublemaker, had told him that "Dr. Bates is . . . a man of no principal other than his own interest."

34. Rodgers to Elliott, January 25, 1834, NA, RG 45, Letters Sent, BNC.

required public duties. Elliott did not "conceive" that the board intended to have "Idlers" in the Navy Store.[35]

Elliott waited "patiently" for nearly a month for Bates to apologize or to make some explanation for his conduct, which seemed "unfair and highly reprehensible." To his suspicious nature it looked as if Bates had sought to make the board believe that Elliott had discharged McAlvin for being "honest and capable."

Writing the commissioners, Elliott, after remarking on this, explained that he had ordered Bates to fire McAlvin, because he did not believe he had the authority to employ him.

Subsequently, Elliott learned that Bates had merely transferred McAlvin to another account. Calling this deception to the board's attention, Elliott asked them to bring it before the secretary. He was certain that there were "many persons" in the Nation more deserving of the storekeeper's position than Dr. Bates.[36]

The commissioners determined to await further information on the Bates situation before referring it to the Secretary of the Navy. If Elliott desired such action, he must document his charges against the storekeeper.[37]

Reviewing the situation, Elliott found that Bates justified his corresponding directly with the department on the contention that he had discussed the situation with the commandant. Elliott argued that there had been a misunderstanding, and the letter in question should have been transmitted through him.

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35. Elliott to Rodgers, January 29, 1834, NA, RG 45, Letters Received, BNC.

36. Elliott to Rodgers, February 20, 1834, NA, RG 45, Letters Received, BNC.

37. Rodgers to Elliott, February 24, 1834, NA, RG 45, Letters Sent, BNC.

Elliott wished it understood that he did not desire any man on his staff in whom he had no confidence. If Bates were not to be fired, he wanted him transferred.[38]

Replying, the commissioners assured Elliott that their letter of June 30, 1830, authorizing employment of an assistant and laborer to work in the store had been misinterpreted, as they intended it to be left to Elliott's discretion whether Storekeeper Bates was to be allowed an assistant. It was regrettable that Elliott had not been more specific in his charges against Bates and had not provided him with a copy of them. The board, however, would present the secretary with the papers in their possession bearing on the case.[39]

The secretary took no action and the subject was dropped.

b. The Babbitt Court Martial

The difficulties between Commodore Elliott and certain of his officers climaxed at the court martial of Lieutenant Babbitt in October 1834. Seven years before, in 1826, Babbit's brother, Surgeon William D. Babbitt, had been killed, while serving under Elliott's command, aboard Cyane. Lieutenant Babbitt, in the autumn of 1833, had been one of the officers opposed to Elliott's chapel edict. Then, on May 15, 1834, Elliott accused his lieutenant of "willfully & knowingly disobeying" orders by having two iron rails cut off Erie's bow and replaced by warping chocks. When asked about this, Babbitt denied having given any such orders. Whereupon, Elliott arranged with the department to have Babbitt transferred to the Portsmouth Navy Yard.

Before this was consummated, there was more difficulty. Babbitt was ordered to ready Potomac to be docked. On June 27, the day the frigate was to enter the dock, Elliott accused Babbitt of failure to see

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38. Elliott to Rodgers, March 8, 1834, NA, RG 45, Letters Received, BNC.

39. Rodgers to Elliott, March 13, 1834, NA, RG 45, Letters Sent, BNC.

that her ballast, lower masts, and bowsprit were removed, and to be on duty by 3 A.M. Words were exchanged, and Elliott suspended Babbitt from duty and confined him to his quarters.[40]

On July 23 Babbitt asked the Secretary of the Navy to hold a court of inquiry.[41] The department at first sought to let passions cool. Elliott, however, decided to force the issue, and demanded that Lieutenant Babbitt be court martialed for neglect of duty and disobedience of orders.[42] Secretary Dickerson reluctantly acquiesced.

The court presided over by Commodore Crane convened at the Charlestown yard on October 13. It sat until November 4, when it decided that the evidence did not support the charges.

The 25-year-veteran was ordered restored to duty. Babbitt remained at the yard until January 22, 1835, when he was transferred to Portsmouth.[43]

c. Elliott Wins a Case

Commandant Elliott employed the mutilation of Constitution's figurehead (see section dealing with the repair of "Old Ironsides") to rid himself of Clerk of the Yard Samuel Etheridge. On July 4, 1834, he wrote Secretary of the Navy Dickerson, who had replaced Levi Woodbury three days before, that Etheridge was "strongly opposed to the Government." He had made wagers that the figurehead would be desecrated, and now "exaults that it has been thus treated."

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40. Babbitt Court Martial, October-November 1834, NA, Records of General Court Martials & Courts of Inquiries of the Navy Department, 1799-1867, Microcopy M-273.

41. Babbitt to Dickerson, July 23, 1834, NA, Lieutenants' Letters, Microcopy M-148.

42. Elliott to Dickerson, September 20, 1834, NA, Captains' Letters, Microcopy M-125.

43. Dickerson to Elliott, November 4, 1834, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

Etheridge had also boasted that he would make it a point to call on Secretary Woodbury, whenever he was in the area, because he was convinced Woodbury was a "great Blackguard and a mean dirty fellow."

Elliott would have fired Etheridge, but he lacked the authority, as the clerk was appointed by the commandant, with consent of the secretary.[44]

The next day Elliott fired off a letter to the board, complaining of more serious derelictions on Etheridge's part. In obedience to instructions from the board, he had directed Etheridge to check the pay of the master mechanics, when they were absent. This order, Elliott charged, had been neglected. Etheridge had told one of the master mechanics, who desired to be absent for several days, that he did not believe Elliott would enforce this rule. The mechanic left, and his time was not checked, until the commandant repeated the order. The mechanic then complained, and Elliott, taking into consideration the clerk's action, authorized payment of the per diem.

Learning that Etheridge had absented himself from the regular muster of mechanics, Elliott had asked for an explanation. Check Officer Robert Knox reported that Etheridge had been absent from the musters once or twice a week for the past 3-1/2 months. Knox on these occasions had mustered the men alone, thus largely nullifying the check on the mechanics and laborers.

Elliott thereupon called in Etheridge and told him that he was making application for his removal.[45]

Writing the board in his defense, Etheridge explained that he had held the position of clerk of the yard for ten years, under a series of

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44. Elliott to Dickerson, July 4, 1834, NA, Captains' Letters, Microcopy M-125.

45. Elliott to Rodgers and Knox to Elliott, July 5, 1834, NA, RG 45, Letters Received, BNC.

distinguished officers, and this was the "first expression of dissatisfaction at my official conduct." He welcomed an investigation.[46]

Secretary Dickerson responded that Elliott was correct: Etheridge could only be dismissed by the commissioners. But if he were disrupting the "business of the yard he was unworthy of his position." It would be difficult, if not impossible, Dickerson cautioned, to fire Etheridge without proof of misconduct, and without a hearing at which he would have the opportunity of refuting the charges.[47]

Elliott accordingly transmitted to the department formal charges against Etheridge, along with supporting affidavits from several individuals. The commandant did not believe that a court was necessary to investigate the charges, because the offenses were so "flagrant and the proof offered so conclusive and respectable" that it would be a "mockery to have a court."[48]

The charges boiled down to six specifications: (a) neglecting to attend muster of mechanics in defiance of yard regulations; (b) failure to check into the per diem claimed by Master Blacksmith Varney; (c) writing the commandant a "contemptuous letter on September 19, 1833; (d) treating orders of the commandant with contempt; (e) circulating a pamphlet critical of Elliott's conduct during the battle of Lake Erie; and (f) traducing the character of former Secretary Woodbury.[49]

Acting Secretary John Boyle (Mr. Dickerson having departed for New England) acknowledged receipt of the specifications. Since the

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46. Etheridge to Rodgers, July 5, 1834, NA, RG 45, Letters Received, BNC.

47. Dickerson to Elliott, July 7, 1834, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

48. Elliott to Rodgers, July 11, 1834, NA, RG 45, Letters Received, BNC.

49. Elliott to Dickerson, July 11, 1834, NA, Captains' Letters, Microcopy M-125.

secretary would soon be in Charlestown, Elliott could discuss the case with him and the board.[50]

United States District Attorney Dunlap was named to hear the charges against Etheridge. By late December, Dunlap had finished the hearings, and Commodore Elliott ordered Etheridge to resume his duties from which he had been suspended during the investigation. He refused and left for New York City on the next to last day of the year, without notice. Whereupon, Commodore Elliott named one of his clerks as a temporary replacement.[51]

Etheridge was back at Charlestown on January 8, but he failed to return to duty, and treated Elliott and yard regulations with silent contempt. Advising the secretary of this, Elliott trusted the department would soon make a decision in the case, and appoint someone to assume Etheridge's duties, which were "arduous and important."[52]

The board, after studying Dunlap's report, determined that Etheridge's continuation on the payroll was inconsistent with the public interest. He was to be notified of his dismissal.[53]

On March 21 the department named Benjamin Hawkes, clerk of the check, to succeed Etheridge as clerk of the yard. Commodore Downes was to select a replacement for Hawkes as check.[54]

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50. Boyle to Elliott, July 23, 1834, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

51. Elliott to Dickerson, December 31, 1834, NA, Captains' Letters, Microcopy M-125.

52. Elliott to Dickerson, January 13, 1835, NA, Captains' Letters, Microcopy M-125.

53. Rodgers to Elliott, January 31, 1835, NA, RG 45, Letters Sent, BNC.

54. Rodgers to Downes, March 21, 1835, NA, RG 45, Letters Sent, BNC.

14. Commodore Elliott Leaves the Yard and Takes "Constitution" to Sea

On February 9, 1835, Secretary of the Navy Dickerson notified Commodore Elliott that he was to assume command of Constitution. The frigate's first mission, on being put back into commission, would be to proceed to France to embark U.S. Minister Edward Livingston and his family, for return to the United States. Elliott would not hoist his broad pennant until his task had been accomplished, and his ship had rendezvoused with the Mediterranean squadron.

Elliott's family would be permitted to accompany him aboard the frigate on the run down from Boston to New York Harbor.[55]

Later in the month, the department advised Elliott that President Jackson wished Constitution brought around to New York with as little delay as possible. He was to put to sea as soon as there were enough officers and seamen aboard to handle her.[56]

Replying, Commodore Elliott, on the 24th, announced that tomorrow morning he would embark 132 seamen, 50 ordinary seamen, 53 landsmen, and 26 boys. The Marine guard, having arrived from New York, would board at the same time. Two months' provisions were already stowed. Provided there were no last minute hitches, he planned to be at sea by March 2, and a "quick passage" down the coast to New York Harbor was in prospect.

To reduce the time the frigate would lay-to in New York, Elliott had had a drawing of the decapitated figurehead prepared and forwarded to a New York artist. It was anticipated that he would have a new head ready to attach to the trunk soon after their arrival. Preparations had also been made for the reception of Minister Livingston and his family.[57]

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55. Dickerson to Elliott, February 9, 1835, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

56. Dickerson to Elliott, February 20, 1835, NA, Captains' Letters, Microcopy M-125.

57. Elliott to Dickerson, February 24, 1835, NA, Captains' Letters, Microcopy M-125.

Elliott's forecast was correct. On March 2, his successor as commandant not having reported, Elliott turned over command of the yard to Master Commandant Budd, and took Constitution to sea. On the 6th she arrived off Sandy Hook. Thus concluded Elliott's stormy but exciting 21 months as commandant of the Charlestown Navy Yard.

B. Important Events in the Yard's Day-to-Day Activities

1. The Department Requires More Reports

Because of Commodore Bainbridge's infirmities, there was little to mar the day-to-day routine during the months between his arrival at Charlestown and his retirement from active duty to die. In the years since he had first commanded the yard on the eve of the War of 1812, there had been a proliferation of paperwork for which the commandant was responsible. For example, on October 21, 1832, Bainbridge transmitted to the department a packet containing a number of required reports. Included were these documents: (a) report of vessels on stocks; (b) report of vessels in ordinary; (c) report of expenditures for "Gradual Increase"; (d) report of progress in "Gradual Improvements of the Navy"; (e) improvements of navy yards, 1830; (f) improvements of navy yards, 1832; (g) improvements of navy yards for preceding years; (h) improvements recommended; and (i) repairs necessary to existing improvements.[58]

2. The Adams-Parker Duel

Early in January of 1833 two midshipmen (John P.B. Adams and John R. Parker) late of the sloop Boston fought a duel near the village of Cumberland, Rhode Island. Adams was the challenger, and four shots were exchanged, beginning at eight paces and closing to four, before Parker was wounded.

On being informed by Commodore Bainbridge of the incident, Secretary Woodbury noted, "I much regret the occurrence of the duel,

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58. Bainbridge to Rodgers, October 21, 1832, NA, RG 45, Letters Received, BNC.

but am happy yet to hear no complaint of improper or oppressive conduct incidental to it."[59]

3. Staffing the Dry Dock

On April 18 the department, noting that Master Blockmaker William Beckford's wages were higher than those paid to men holding this position at other yards, called for his wages to be reduced to $2 per day. Even then, he would be paid more than the man holding this position at New York.[60]

Commodore Elliott, after assuming command, sought to have Beckford's wages made commensurate with those of the other master workmen. Beckford, he added, was also superintendent of the steam engine and its house at the head of the dry dock.[61]

The board, however, could not at this time place Beckford in charge of the engine, which must remain under Colonel Baldwin's superintendence until the dock was completed. But when the dock was accepted, if Beckford could procure a certificate from Baldwin as to his competence, the commissioners would agree to his becoming the engineer.[62]

Beckford, however, lost out. Master Builder John Wade was placed in charge of the dry dock and enginehouse, without any addition to his pay. Noah Butts was retained as engineer at $3 per day and Lawrence Devay as fireman at $1.12 per diem.[63]

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59. Bainbridge to Woodbury, January 12, 1833, NA, Captains' Letters, Microcopy M-125. Midshipmen Oliver H. Perry and S.W. Wilkinson were the principals' seconds.

60. Rodgers to Bainbridge, April 18, 1833, NA, RG 45, Letters Sent, BNC.

61. Elliott to Rodgers, May 18, 1833, NA, RG 45, Letters Received, BNC.

62. Rodgers to Elliott, May 22, 1833, NA, RG 45, Letters Sent, BNC.

63. Elliott to Rodgers, September 12, 1833, NA, RG 45, Letters Received, BNC.

It proved impossible for Wade to wear two hats as master boatbuilder and dockmaker. Elliott therefore urged that Wade surrender the latter position to give full attention to the former, and that a dockmaster be named at $3 per day.[64]

The board rejected Elliott's proposal, as it would be an "unnecessary expense."[65]

4. Caring for the Ships in Ordinary

The board, in mid-April 1833, directed the yard to fill the empty billets in the ordinary with petty officers, seamen, and ordinary seamen according to the annual estimate, and to allow the purser an assistant at $30 per month.[66]

During the last week of May, Columbus, the warm season at hand, was placed in a "more airy state."[67]

On August 14 Commodore Elliott boarded Independence to see that she was "well moored against the arrival of the equinoctial gales." While he was on deck, she lurched more than usual, and he ordered the pumps manned. When they were tried, it was found that she had four feet of water in her hold. After she was pumped out, it was discovered that some "rogue" had broken off one of her brass seacocks, and she was rapidly shipping water. But for Elliott's vigilance, "she must have sunk during the afternoon or night, in a depth of 50 feet of water."[68]

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64. Elliott to Rodgers, January 12, 1835, NA, RG 45, Letters Received, BNC.

65. Rodgers to Elliott, January 16, 1835, NA, RG 45, Letters Sent, BNC.

66. Rodgers to Bainbridge, April 23, 1833, NA, RG 45, Letters Sent, BNC.

67. Elliott to Rodgers, May 31, 1833, NA, RG 45, Letters Received, BNC.

68. Preble, "History of the Boston Navy Yard," opposite p. 226, NA, RG 181.

The commissioners made their annual visit to the yard in mid-August. They were received with customary honors, and spent two days with Commodore Elliott and his officers and men.

Several days after their departure, Elliott wrote the department, suggesting the propriety of salting the ships in ordinary with coarse alum salt, rather than the fine grain salt heretofore used.

He also recommended removal of the guns from Columbus and Independence. To secure them better, he would send aboard each 400 tons of kentledge.[69]

Elliott was impetuous. Without waiting for a reply, he had the armament from the two big 74s sent ashore. When the board learned of this, they expressed disappointment, because the guns would have served as well as an equal weight of ballast, provided the decks were properly shored. This was particularly true as no arrangements had been made ashore for the storage of the guns and carronades.

Ballast should be sent aboard Columbus and Independence to bring them down to 20 feet aft and 19 feet forward, and on the sloop Boston to bring her down to 14 feet 6 inches aft and 13 feet forward.[70]

Elliott protested that there had been a misunderstanding. While they were inspecting Independence, he had understood two of the commissioners to say that the guns "ought to be removed from these ships, more ballast put on board and the decks properly shored fore and aft." This he had concluded was an order.

He therefore had the guns removed to the park and placed upon skids, lacquered, and washed out. As soon as stone foundations were laid, they would be rolled on to their places.

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69. Elliott to Rodgers, August 19, 1833, NA, RG 45, Letters Received, BNC.

70. Rodgers to Elliott, September 14, 1833, NA, RG 45, Letters Sent, BNC.

The ballast currently aboard brought the two ships-of-the-line down to the stipulated depth.[71]

As for salting vessels, the commissioners believed Turks or St. Ubes salt was equal to any other.[72]

With the end of the year less than two months in the future, the commissioners found the yard's estimate of funds for November too large. Satisfied that all this money could not be used, they reduced some of the items on Agent Broadhead's requisition. It was always important, but especially so at the close of the period for which the appropriations were made, they chided, that the estimates be accurate.[73]

Elliott could live with the reduction of his requisition for repairs from $16,000 to $12,000. Within a few days he would slash the pay of the mechanics, and this reduction, along with the men who would be laid off because of cold weather, would make his situation less embarrassing.[74]

5. Purchase of and Stockpiling of Timber

Commandant Elliott had discovered on reporting that there was about 1,000 cubic feet of live oak timber at the yard delivered by E. Swift, under his contract, which had been rejected, because of its length. Swift was willing to sell it to the Navy at the same price as that paid for the last lot, 70 cents per cubic foot.

Elliott recommended that it be received at that price, provided it was of good quality.[75]

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71. Elliott to Rodgers, September 18, 1833, NA, RG 45, Letters Received, BNC.

72. Rodgers to Elliott, September 14, 1833, NA, RG 45, Letters Sent, BNC.

73. Rodgers to Elliott, November 15, 1833, NA, RG 45, Letters Sent, BNC.

74. Elliott to Rodgers, November 30, 1833, NA, RG 45, Letters Received, BNC.

75. Elliott to Rodgers, May 17, 1833, NA, RG 45, Letters Received, BNC.

The board sanctioned Elliott's suggestion.

In the summer of 1833 the department again advertised for timber to be delivered to the various yards. Elliott was accordingly alerted to make arrangements for docking another 50,000 to 70,000 feet of timber.[76]

On checking the books, Elliott found that frames and "promiscuous" live oak timber had been received by his predecessors for two ships-of-the-line, two frigates, and one sloop-of-war, which, including live oak beams for the 74s and frigates, totaled 135,051 cubic feet, delivered at a cost of $179,101.93. In addition, there was on hand 35,000 feet of pine, 24,295 feet of oak plank stock, 10,338 feet of mast and spar timber, and 957 white oak knees, valued at $44,528.13, including the labor in stowage. Contracts had been made for delivery in 1833 of 30,000 feet of oak and 20,000 cubic feet of pine plank stock.[77]

6. Elliott Revises the Regulations

Elliott, on assuming command, found the regulations for government of the yard encumbered with general orders. Revoking some and substituting others, he drew up a new set. On November 29 he forwarded these to the board.[78]

The board, on reviewing these regulations, saw one rule to which it took exception. Writing Elliott, they advised him that workmen were to be mustered at sunset, as at the other yards.[79]

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76. Rodgers to Elliott, July 18, 1833, NA, RG 45, Letters Sent, BNC.

77. "Annual Report of the Secretary of the Navy, Showing the Condition of the Navy in 1832." American State Papers, Naval Affairs, Vol. IV, p. 164.

78. Elliott to Rodgers, November 29, 1833, NA, RG 45, Letters Received, BNC.

79. Rodgers to Elliott, December 26, 1833, NA, RG 45, Letters Sent, BNC.

7. Supplying the South American Squadrons

On April 12, 1834, the schooner Potomac, under charter to the government, sailed from the yard for Washington. Aboard was a cargo destined for the South American squadrons--2 boxes of moulds, 12 barrels scrap copper, 93 bales slop clothing, 35 boxes of shoes, 400 barrels of beef, and 61 barrels of pork.[80]

8. Lieutenant Howard Supresses a Mutiny

A little after midnight on April 14, Commandant Elliott was awakened by Captain Delapier of the brig Helen & Augusta. He excitedly told Elliott that the crew of his vessel, then lying in Nantasket Roads, had mutinied.

Elliott responded with his characteristic vigor. Lieutenant W.L. Howard of the receiving ship was turned out with a detail of sailors armed to the teeth. Howard and his tars cast off at 1 A.M. in a small boat, and reached the brig 90 minutes later. He found her sails set loose and the five mutineers in the steerage. Boarding the brig, Lieutenant Howard ordered them to go to the forecastle, which they did. The sailors then furled the sails and attended to the vessel until 2 P.M., when the United States deputy marshal came on board Helen & Augusta and took charge of the prisoners. After seeing that the marshal and his men had the situation in hand, Lieutenant Howard and his sailors reboarded their boat and returned to the yard.[81]

9. The French Consul Visits the Yard

During the fourth week of May, the French Consul, A.J. Picquet, called on Commodore Elliott and reported that the Minister of Marine had seen U.S.S. Delaware on her recent visit to Cherbourg. Impressed with what he saw, the minister had written Picquet, asking him to secure information respecting the Americans' mode of hooping masts.

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80. Elliott to Rodgers, April 12, 1834, NA, RG 45, Letters Received, BNC.

81. Elliott to Woodbury, April 15, 1834, NA, Captains' Letters, Microcopy M-125.

Elliott was the perfect host. He gave Picquet a conducted tour of the yard and shed where the masts were housed. The consul was allowed to inspect "such tables of the size and lengths of them," as were at the yard.

Picquet asked the sparmakers to provide him with a model of the hooped masts. This could not be done, Elliott told his guest, unless clearance was given by the board.[82]

The French consul was granted permission by the department to have a model of a ship's lower mast made at his expense.[83]

10. Elliott Vainly Seeks to Expand the Yard's Work Load

On June 24 the flags were half-masted in memory of General Lafayette, and a salute of 24 guns fired in quick succession at sunrise, followed by one gun at every half hour until sunset. The Revolutionary War hero had died in Paris on May 20, in his 77th years.[84]

Leonard Norcross of Maine had invented a "submarine dress." Clad in this suit, he claimed to be able to examine the bottoms of vessels while at sea or in shoal water. Early in September, Norcross visited the yard, and before Commodore Elliott and his officers successfully demonstrated the suit's capabilities.[85]

Commodore Elliott, in mid-November sought, unsuccessfully, to get the board's sanction for building a storeship at Charlestown. There was at the yard, he reminded the department, about 30,000 cubic feet of promiscuous live oak timber and knees, purchased under the

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82. Elliott to Rodgers, May 23, 1834, NA, RG 45, Letters Received, BNC.

83. Chauncey to Elliott, May 30, 1834, NA, RG 45, Letters Sent, BNC.

84. Charlestown Navy Yard Journal, June 15-30, 1834, NA, RG 181.

85. Elliott to Rodgers, September 10, 1834, NA, RG 45, Letters Received, BNC.

appropriation for "Gradual Increase" from which a sufficient quantity could be spared for a frame of a storeship of about 400 tons. There was also enough white oak and yellow pine timber and plank, and white oak knees on hand.[86]

Moreover, despite the long winters, the yard's efficiency was comparable with that of the others. To verify this, the board could review the time expended in "cutting down and repairing" Constitution and refitting Potomac for a three-year cruise. The former was done in one year's working time and the latter in four weeks.

Shiphouses H and I were sufficiently commodious to permit the framing to be undertaken immediately, and by early spring a vessel could be laid down on one of the slips.[87]

The yard, however, lost out, and it was determined by the board to build the storeship Relief at the Philadelphia yard.

Commodore Elliott understandably watched with interest the developing diplomatic crisis with France. The difficulties with the Nation's first ally had followed the 1831 tragedy with France for payment of the expoliation claims for damages to American overseas commerce in the wars following the French Revolution and during the Napoleonic wars, and the recent refusal by the Chamber of Deputies to make an appropriation to implement the treaty. This resulted in saber rattling on both sides of the Atlantic.

Satisifed that his hero, President Jackson, might be compelled to employ the Navy, Elliott, on December 5, called the department's attention to the condition of the vessels for which he was responsible, and the "facility" with which they "could be prepared for a hurried movement."

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86. Barker to Elliott, November 13, 1834, NA, RG 45, Letters Received, BNC.

87. Elliott to Rodgers, November 13, 1834, NA, RG 45, Letters Received, BNC.

Because of her "defective condition" as a ship-of-the-line, he urged that Independence be razeed. This involved taking off her upper deck. The other two could then be arranged in such a fashion to receive a "full battery on each of 42 pound long Guns." She would then be able to contend with ordinary ships-of-the-line, and to overpower any frigate or razeed line-of-battle-ship afloat. By increasing the yard's labor force, she could be razeed and made ready for sea in five months at the latest.

Cumberland, a first class frigate, in event of emergency could be launched and at sea in 50 days. Constitution had her ballast stowed; tanks aboard and filled; the "minor fitment" as to blocks well along; and her battery aboard. She could be ready to sail in 30 days. Boston would have to be docked and coppered. With "very inconsiderable" other repairs, she could cast off in 30 days.[88]

No instructions had been received by the board from the secretary to "justify an expectation of immediate War." They, however, were pleased to learn that "so much can be done in case of necessity, as it corroborates their own opinions upon the subject."[89]

11. 1835 Brings Several Changes

Elliott complained that the practice sanctioned by the board since 1829 of loaning flags to responsible committees upon national occasions had gotten out of hand. He was now being asked "for them to dress almost every ball room." Although the wear upon each occasion was slight, the heavy annual use caused much cumulative injury from carelessness and dust.[90]

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88. Elliott to Rodgers, December 5, 1834, NA, RG 45, Letters Received, BNC.

89. Rodgers to Elliott, December 9, 1834, NA, RG 45, Letters Sent, BNC.

90. Elliott to Rodgers, January 1, 1835, NA, RG 45, Letters Received, BNC.

The board accordingly refined the guidelines. Hereinafter, United States flags were not to be loaned to private citizens or organizations.[91]

Early in January 1835 Elliott was directed to send to New York for transshipment to Pensacola 800 blue cotton frocks and 600 blue cotton trousers. He would ship to Valparaiso for the South Pacific squadron 150 pea jackets and 500 flannel shirts.[92] This represented a curtailment in the yard's role in supplying the overseas squadrons. For the time being, at least, it was not limited to slop clothing.

C. The Yard Repairs Three Vessels

1. The Repair and Outfitting of "Erie"

a. She Arrives, Is Surveyed, and Placed in Ordinary

In mid-March 1832 the department notified the commandant that, barring emergencies, Constitution was the only vessel scheduled for repair at the yard during the year. In addition, a West Indies squadron sloop would probably be ordered to Boston to be placed in ordinary. This information, Washington hoped, would enable the yard to organize efficiently its work force.[93]

It was mid-August before the sloop Erie arrived from La Habana. On the 12th she dropped anchor in Boston Harbor, and, two days later, she was hauled to the wharf and a force turned to "dismantling." Commodore Bainbridge proposed to remove everything from her, except breaking out the hold. This would be done in the autumn, when the weather was cooler.[94]

Meanwhile, the department was writing Commodore Bainbridge. Before placing Erie in ordinary, he was to have her surveyed, and a

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91. Rodgers to Elliott, January 5, 1835, NA, RG 45, Letters Sent, BNC.

92. Rodgers to Elliott, January 5 and 8, 1835, NA, RG 45, Letters Sent, BNC.

93. Rodgers to Morris, March 16, 1832, NA, RG 45, Letters Sent, BNC.

94. Bainbridge to Rodgers, August 15, 1832, NA, RG 45, Letters Received, BNC.

report covering the cost and time involved in her repair forwarded to the board.[95]

The survey revealed that the sloop's planking, and part of her ceiling were sound. The outboard plank from the lower wale to rail, the gun- and berthdeck platforms, and thick strakes in the hold were defective, and would have to be replaced. She would require new fore- and mainmasts and some spars, and would have to be recaulked throughout.[96]

b. "Boston" Joins "Erie" in Ordinary

On the last day of November, the sloop Boston arrived in Boston Harbor from Port Mahon by way of the Madeira Islands. Upon learning of her arrival, the board called on the yard to undertake the prerequisite survey and prepare necessary estimates for her repair. She was to be placed in ordinary after the survey was completed.[97]

Boston was hauled into the wharf on December 9. By the 13th she had been "dismantled" and her crew paid off.[98]

c. Repairing the Sloops' Rigging, Sails, and Boats

On January 17, 1833, Commodore Bainbridge inquired whether he should complete the repair, excepting the hulls, of the sloops Erie and Boston. With an increase in the hours of daylight, considerable progress could be made in preparing the sloops for sea, before Constitution entered dry dock.

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95. Rodgers to Bainbridge, August 15, 1832, NA, RG 45, Letters Sent, BNC.

96. "Annual Report of the Secretary of the Navy, Showing the Condition of the Navy in 1832," American State Papers, Naval Affairs, Vol. IV, p. 183.

97. Rodgers to Bainbridge, December 4, 1832, NA, RG 45, Letters Sent, BNC; Charlestown Navy Yard Journal, November 1-30, 1832, NA, RG 181.

98. Wyman to Rodgers, December 13, 1832, NA, RG 45, Letters Received, BNC.

It now appeared that the dock would not be ready to receive Old Ironsides as early as the commissioners' anticipated.[99]

If the department approved this proposal, Bainbridge urged that the boatbuilder gang be increased from three to six, on February 1, to complete repair of the boats belonging to Erie and Boston. Seven additional sailmakers were needed to reinforce the three making new sails and hammocks and repairing the old for the two sloops; and nine more sparmakers.[100]

The commissioners gave Bainbridge the go ahead to repair the two sloops. He would not, however, increase the yard labor force before March 1.[101]

By mid-March the rigging of Erie and Boston was nearly finished, along with most of their outfits. Now, to keep his hands busy, Commodore Bainbridge desired to know whether he should begin work on Constitution's rigging and outfits.[102]

The department did not at this time wish to have the frigate's rigging taken in hand.[103]

By late March, Boston had been tied-up at the wharf at the east end of the yard. Should the board determine to have her recaulked and coppered, the new slip was ready to receive her.[104]

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99. Bainbridge to Rodgers, January 17, 1833, NA, RG 45, Letters Received, BNC.

100. Ibid.

101. Rodgers to Bainbridge, January 22, 1833, NA, RG 45, Letters Sent, BNC.

102. Bainbridge to Rodgers, March 13, 1833, NA, RG 45, Letters Received, BNC.

103. Rodgers to Bainbridge, March 26, 1833, NA, RG 45, Letters Sent, BNC.

104. Smith to Rodgers, March 27, 1833, NA, RG 45, Letters Received, BNC.

The department did not have immediate plans to send the sloop to sea. She was to remain in ordinary for the time being.

d. The Repair of "Erie"

On May 28, 1833, the department called upon Commodore Elliott to have Erie repaired. She was to be outfitted and prepared to sail by September 1.[105]

By mid-August it was apparent that it would be impossible to have the sloop ready for sea by the date designated.[106] On being apprised of this, the board notified Elliott that repair of Constitution would be given priority. It was, however, desirable that both vessels "be completed as early as circumstances will permit."[107]

By the last week of October, Erie's masts were in, and within the week she would be heaved out for coppering. She would, Commodore Elliott wrote the department, be ready to receive her officers and crew by December 1.[108]

Her skylights, lanterns, and windows were being made from Massachusetts mica. Believing this mica to be "impervious to water, proof against fire and so flexible and strong as to resist the force or concussion produced by the firing of Guns," Elliott shipped a sample to the commissioners.

In his opinion, all magazines should be lighted by means of it.[109]

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105. Rodgers to Elliott, May 28, 1833, NA, RG 45, Letters Sent, BNC.

106. Elliott to Rodgers, August 17, 1833, NA, RG 45, Letters Received, BNC.

107. Rodgers to Elliott, August 29, 1833, NA, RG 45, Letters Sent, BNC.

108. Elliott to Rodgers, October 25, 1833, NA, RG 45, Letters Received, BNC.

109. Elliott to Rodgers, November 16, 1833, NA RG 45, Letters Received.

Although they did not deem it as safe for magazines as the patent lights currently in use, the board sanctioned the experiment.[110]

Preparations were made to haul Erie up onto the ways placed on the plane between the lower shiphouses. Naval Constructor Barker began operations by placing a way, wide enough to receive a sliding board, upon which her keel would rest. After making all preparations deemed "necessary as to purchases, and fixtures in the Earth," he availed himself of a flood tide, took the "top of high water," and hauled the sloop up some distance. The heavy strain caused the "purchases" to part until just one remained. The fixtures to which it was fastened ashore gave way, and the tide ebbed. Efforts to heave the vessel out were momentarily abandoned. But she had not been shored, and slid back into the river.

There she remained until other purchases were arranged and there was another flood tide. A second attempt to haul her out failed, when she parted her tackle, slid back, and heeled against the wharf. At the next high tide, Erie lay "obliquely upon her bottom while the water came in and partly filled her." Barker was getting ready for a third attempt to haul her out, when Commandant Elliott ordered him to cease, and to repair her alongside the wharf.

Her upper deck, previous to the first attempt to haul her out, had been removed, the berthdeck plank taken off, and the vessel lightened.[111]

e. "Erie" Is Outfitted, Manned, and Puts to Sea

Five months later, in mid-April 1834, the department directed that Erie be outfitted for a three-year cruise.[112] Replying

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110. Rodgers to Elliott, December 5, 1833, NA, RG 45, Letters Sent, BNC.

111. Elliott to Rodgers, May 19, 1834, NA, RG 45, Letters Received, BNC.

112. Rodgers to Elliott, April 21, 1834, NA, RG 45, Letters Sent, BNC.

promptly, Elliott reported that the outfitting had commenced, and she would be ready to receive her complements in six weeks.[113]

Elliott was as good as his word, and Erie was ready for sea by June 1. Another five weeks, however, slipped by before her crew had been shipped and all her stores stowed. On July 4, the 58th anniversary of the Nation's independence, she sailed under the command of "Mad Jack" Percival for Brazil.[114]

f. "Boston" Enters the Dry Dock for Repair

Boston remained in ordinary until January 2, 1835, when she was hauled into the dry dock to be given a careful examination and recoppered.[115]

2. "Experiment" Undergoes Emergency Repair

On her run up the coast from South Carolina, with Commodore Elliott and his family, Experiment sprang a leak. On reaching Charlestown, the schooner's hold was examined. This led to the "conviction" that the leak was such as to produce a "general failure, of nearly all the iron fastenings on the inner layer of the bottom planks." This could only be determined after her hold had been broken out. As soon as this was done, Elliott would have Naval Constructor Barker make a survey. Should the decay not be as extensive as feared, he recommended that the copper be removed and a coat of felt, tarred or leaded, be placed on and coppered over. This could be done in the dry dock, as it was now ready to receive its first vessel.[116]

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113. Elliott to Rodgers, April 28, 1834, NA, RG 45, Letters Received, BNC.

114. Elliott to Rodgers, May 30, 1834, NA, RG 45, Letters Received, BNC; Charlestown Navy Yard Journal, June 1-July 4, 1834, NA, RG 181.

115. Rodgers to Elliott, December 27, 1833, and Elliott to Rodgers, December 31, 1834 and January 2, 1835, NA, RG 45, Letters Sent and Received, BNC.

116. Elliott to Commissioners, May 13, 1833, NA, RG 45, Letters Received, BNC.

Barker, on examining the hold, agreed with Commandant Elliott that the leaks extended several yards from the "points where they were visible to the eye, and the iron fastings [were] corroded and rendered useless by the salt water." He urged that Experiment be placed on the ways. A few copper bolts would be driven through and rivetted on the inside, before she was recoppered, thus making her a strong and safe vessel.[117]

The board, upon reviewing the correspondence, ordered the schooner placed on the ways and repaired, using such of the metal as could be salvaged to copper her bottom.[118]

Upon being given the go ahead, Commodore Elliott had Experiment hauled onto the ways.[119] Besides the repairs to her hull, she was given a new topmast, 4 feet longer than the one replaced, and a royal. Her masts were raked, her rudder unshipped and eased, and several leaks stopped. This work was completed by June 5, 1833, and she was readied for sea. Experiment left the yard, on the 13th, a good looking vessel, and "in beating" down the harbor, en route to Norfolk, she "worked and sailed exceedingly well."[120]

3. "Potomac" Is Repaired and Sent to Sea in Near Record Time

On May 23, 1834, the frigate Potomac (Commodore John Downes) entered Boston Harbor and dropped anchor off the yard. A large crowd turned out to welcome the warship on her return from the longest cruise yet made by a frigate flying the "stars and stripes." She had circumnavigated the globe, crossed the equator six times, and had landed a force of sailors and Marines at Quallah Battoo in the East Indies.

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117. Elliott to Rodgers, May 19, 1833, NA, RG 45, Letters Received, BNC.

118. Rodgers to Elliott, May 23, 1833, NA, RG 45, Letters Sent, BNC.

119. Elliott to Rodgers, June 11, 1833, NA, RG 45, Letters Received, BNC.

120. Elliott to Rodgers, June 29, 1833, NA, RG 45, Letters Received, BNC.

Her officers and men, despite their trials and tribulations, were in good health.

Advised of Potomac's arrival, the department notified Commordore Elliott that as soon as she was turned over to him, he was to have her carefully surveyed to ascertain her condition and what repairs were necessary.[121]

Most of the crew's time was up, so Commodore Downs discharged many of his tars almost as soon as the anchors dropped. Elliott would have to call on men from ordinary and off the receiving ship to dismantle Potomac.[122]

On June 14 the commissioners ordered Elliott to ready her for a three-year cruise. Any articles which may have been prepared for Constitution or were on hand from "Repairs" that would answer for any deficiencies could be transferred to Potomac. Such of the masts, spars, boats, or sails belonging to Cumberland, under the "Gradual Increase," could be appropriated.

Potomac would enter dry dock, as soon as Constitution was taken out.[123]

Since Potomac's rigging would be condemned, Elliott wished to know whether it was to be replaced with the experimental rigging formerly intended for Constitution.[124]

This was not only permissable but was desirable, the board answered.[125]

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121. Chauncey to Elliott, May 28, 1834, NA, RG 45, Letters Sent, BNC.

122. Elliott to Rodgers, June 2, 1834, NA, RG 45, Letters Received, BNC.

123. Rodgers to Elliott, June 14, 1834, NA, RG 45, Letters Sent, BNC.

124. Elliott to Rodgers, June 20, 1834, NA, RG 45, Letters Received, BNC.

125. Morris to Elliott, June 25, 1834, NA, RG 45, Letters Sent, BNC.

On Friday, the 27th, Potomac was docked. As soon as the water was pumped out and the frigate shored, it was seen that, although her copper was badly worn, she was not hogged.[126]

On learning this, the department directed that the frigate be recoppered with English felt, after first being recaulked.[127]

The prompt repair of the ship was soon threatened by the loss of a number of mechanics to private yards. Elliott, to cope with this situation, asked authority to raise the wage rates to those paid by area ship builders.[128]

He was instructed to regulate the pay of the mechanics to secure the number required, taking care "to keep it as low as may be consistent with the object, and not to exceed the price paid in private yards."[129]

On Saturday, July 27, Potomac was taken out of dock and hauled alongside the wharf. Workmen continued to swarm over her for another six weeks. Commandant Elliott, on September 9, notified the department that Commodore Downes had inspected the frigate, and added, she "has been scarcely two months under repairs, and is now ready for a three years' cruise, a fact which speaks volumes in favor of Dry Docks."[130]

During these weeks her masts had been taken out, her mainmast and bowsprit replaced with new ones, and her fore- and mizzenmasts with old ones repaired. New fore- and mainyards had been positioned. Her copper had been removed, her bottom caulked, felted, and recoppered. The

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126. Charlestown Navy Yard Journal, June 21-30, 1834, NA, RG 181.

127. Rodgers to Elliott, July 2, 1834, NA, RG 45, Letters Sent, BNC.

128. Elliott to Rodgers, July 7, 1834, NA, RG 45, Letters Received, BNC.

129. Chauncey to Elliott, July 18, 1834, NA, RG 45, Letters Sent, BNC.

130. Elliott to Dickerson, September 9, 1834, NA, Captains' Letters, Microcopy M-125.

catheads had been renewed and raised, her head remodeled, her channels renewed, and her chains removed, where they interfered with the range of her guns.

Her bitts had been arranged for additional chain cable, new iron fixtures had been placed for the hawse, and the chain lockers enlarged.

A "new gang of rigging, including that placed in the yard for experimental purposes, had been given her." The decks had been caulked fore and aft, and two guns added to her gundeck to replace those removed at Norfolk. A new suit of sails, hammock cloths, and tarpaulins had been sent aboard. The steerage had been repaired and a new anchor added to her outfit.[131]

On the 18th Potomac was hauled into the stream, in charge of her executive officer. A crew had been recruited and supplies stowed by the end of the third week of October. On the 20th she weighed anchor and proceeded to sea, "with a fine breeze from the NW." She was bound for the Mediterranean under the command of Captain J.J. Nicholson.[132]

D. The 1833-35 Repair and Outfitting of "Constitution"

1. The Board Holds to Its Decision

The repair of Constitution would engross much of the yard's time and energy during the Elliott months. In the late summer of 1832, eight months before Commodore Elliott reported for duty, the department directed that when the project commenced, Naval Constructor Barker would undertake a thorough "examination of her original frame and timbers." A comparative study would be made, utilizing some of Old Ironsides' live oak and similar size docked timber.[133]

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131. Elliott to Rodgers, August 30, 1834, NA, RG 45, Letters Received, BNC.

132. Charlestown Navy Yard Journal, September 15-October 21, 1834, NA, RG 181.

133. Rodgers to Bainbridge, Septemer 15, 1832, NA, RG 45, Letters Sent, BNC.

Her repair, in view of the department's decision, was dependent on the early completion of the dry dock. Colonel Baldwin, who was superintending construction of that structure, had told Commodore Bainbridge that, if all went according to schedule, the dry dock would be ready to receive a ship on December 1. If Baldwin were correct, Bainbridge inquired of the department, what would be the first vessel docked?[134]

2. The Docking Is Delayed

The board replied promptly. He was to have Constitution prepared for docking "as early in the Spring as weather will justify."[135]

On December 20 the board called for information as to when the frigate, with most advantage, could be docked to commence her repair, and the probable date she would be ready for sea.[136]

Acting Commandant Wyman advised the department that she would be hauled into the dry dock about April 1, 1833. Naval Constructor Barker had forecast that four months would be sufficient to effect necessary repairs.[137]

In late March, with good weather at hand and a number of carpenters employed on the dry dock about to be laid off, Commodore Bainbridge suggested that the best of these men be retained. But, unless the department proposed to have some vessels repaired, there would be no work. If discharged, it would be impossible to reemploy them at the same wage scale during the building season. The same

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134. Bainbridge to Rodgers, November 1, 1832, NA, RG 45, Letters Received, BNC.

135. Stewart to Bainbridge, November 9, 1832, NA, RG 45, Letters Sent, BNC.

136. Rodgers to Bainbridge, December 20, 1832, NA, RG 45, Letters Sent, BNC.

137. Wyman to Rodgers, December 28, 1832, NA, RG 45, Letters Received, BNC.

situation applied to the caulkers who were finishing the dry dock's floating gate.[138]

The department had bad news for the carpenters, because the only vessel scheduled for repair at the yard in 1833 was Constitution. It would therefore be necessary to lay-off some of the ship carpenters, if there were more on the payroll than required for that project.[139]

Acting Commandant Smith, to facilitate preparations for the frigate's repair, wished to know whether the plank for the bulwarks would be oak or pine, and if she were to have bulwarks for guns in the gangway.

Her bulwarks, he reported, were oak plank on the outside and pine on the inside.[140]

The department informed Smith that Constitution's bulwarks, when repaired, would be yellow pine. She was to have bulwarks for guns in her gangway.[141]

Colonel Baldwin, in mid-April, told Acting Commandant Smith that, with the floating gate in place, the frigate could be docked in early May. Upon receipt of this news, Smith had yard workmen remove the vessel's roof and make other preparations for docking her.

Writing the board, he inquired, will Constitution be sent into the dock as soon as it is ready to receive her?[142]

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138. Smith to Rodgers, March 27, 1833, NA, RG 45, Letters Received, BNC.

139. Rodgers to Bainbridge, April 4, 1833, NA, RG 45, Letters Sent, BNC.

140. Smith to Rodgers, April 13, 1833, NA, RG 45, Letters Received, BNC.

141. Rodgers to Bainbridge, April 17, 1833, NA, RG 45, Letters Sent, BNC.

142. Smith to Rodgers, April 19, 1833, NA, RG 45, Letters Received, BNC.

The department replied, directing that the frigate's ballast, etc., be removed. Smith was to notify the board whenever the dock could take her.[143]

3. Preparations Are Completed

A force from the ordinary was turned out, and all the ballast, except that needed to trim her, and the useless stuff sent ashore. By April 28 she was ready to be hauled into the dock.

Meanwhile, Colonel Baldwin kept a number of laborers busy dismantling the cofferdam at the entrance to the dock. The way things were developing, Acting Commandant Smith predicted, the dock would be ready for Constitution in the first week of May.[144]

This forecast was doomed by shoal water at the entrance to the dock. On May 29 Colonel Baldwin finally reported the dry dock ready to receive the frigate. The "excavation" of its entrance had been accomplished "in a summary manner" by a steam-powered Boston dredge.[145]

The board now called for a delay in docking the frigate. She was to be ready to enter the dock at the time of President Jackson's visit to the Boston area. It was anticipated that he would arrive in Boston about June 25, though he might be delayed until July 1. The President had expressed a desire to "witness the ceremony."[146]

When she was docked, the department desired that she be permitted to "stand upon her blocks so as to straiten her." Elliott would have her stripped as far as necessary to ascertain what repairs were required.

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143. Rodgers to Smith, April 24, 1833, NA, RG 45, Letters Sent, BNC.

144. Smith to Rodgers, April 28, 1833, NA, RG 45, Letters Received, BNC.

145. Elliott to Rodgers, May 29, 1833, NA, RG 45, Letters Received, BNC.

146. Rodgers to Elliott, May 30, 1833, NA, RG 45, Letters Sent, BNC.

The commissioners planned to be in Charlestown about July 10, when they would give more "particular directions in relation to her repairs."

"Great care," the board admonished, "must be taken to preserve the original form and dimensions" of Constitution "in the course of the repairs."[147]

4. "Constitution" Is Docked

Long before daybreak on June 24, Commodore Elliott turned out all hands to assist in docking Constitution. On hand for the occasion were a large number of dignitaries including Vice President Martin Van Buren, Secretary of War Lewis Cass, Secretary of the Navy Levi Woodbury, Governor Levi Lincoln of Massachusetts, Joel R. Poinsett of South Carolina, and members of the Massachusetts legislature. President Jackson, however, was ill and unable to attend.

The frigate, having been previously demasted and stripped of her outfits and ornamental work, was a strange sight. Commodore Hull again walked her decks, as the gates opened, and Constitution was hauled into the dry dock at 5:30 A.M. The gates now closed. By 1 o'clock the dock had been pumped, and the vessel was safely "shored and secured." Her bottom was barnacle encrusted and these mussels became much sought after mementos of the occasion.

Constitution, however, had lost the honor of being the first warship to enter a public dry dock in the United States by seven days. On June 17, at Norfolk, the ship-of-the-line Delaware had entered the Gosport dry dock.[148]

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147. Rodgers to Elliott, June 24, 1833, NA, RG 45, Letters Sent, BNC.

148. Elliott to Rodgers, June 24, 1833, NA, RG 45, Letters Received, BNC; Preble, "History of the Boston Navy Yard," pp. 225-26, NA, RG 181; Grant, Captain of Old Ironsides, pp. 324-25.

The frigate safely docked, Commodore Elliott took note of the large number of men employed thereabouts "at a large expense whose services" were no longer needed.[149]

The men referred to as employed about the dock, the department responded, were responsible to Colonel Baldwin.[150]

5. The Board Calls for the Frigate's Early Repair

Although the commissioners were at the yard in mid-August no orders were forthcoming from the department for Elliott to turn his hands to. Becoming impatient, he inquired on August 17, "Will the Commissioners inform me whether I shall proceed to repair the Constitution under your orders of June 24, or wait further instructions?"[151]

Replying, the commissioners announced that her early repair was deemed important. As the work developed, Elliott was to see that the frigate conformed to "her former internal arrangements, as respects the position of her decks--accommodation for officers--store rooms and similar objects, taking great care to preserve the original form of her bottom."[152]

6. Chief Naval Constructor Humphreys Examines the Vessel and Outlines the Plan to Be Followed

Naval Constructor Barker, on being apprised of this, raised a question. When she was repaired in 1813, he recalled, Commodore Bainbridge was satisfied that "the height between the birth and Gun Decks was not sufficient." The gundeck had been raised 4

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149. Elliott to Rodgers, June 24, 1833, NA, RG 45, Letters Received, BNC.

150. Rodgers to Elliott, June 28, 1833, NA, RG 45, Letters Sent, BNC.

151. Elliott to Rodgers, August 17, 1833, NA, RG 45, Letters Received, BNC.

152. Rodgers to Elliott, August 29, 1833, NA, RG 45, Letters Sent, BNC.

inches at the mainmast, and the same at the beam abaft the foremast, retaining the original height aft and at the stem, because of the hawse holes.

In repairing her, Barker recommended that the decks retain the same sheer as the outboard.[153]

When he forwarded Barker's inquiry to the department, Elliott broached another subject. During their recent tour of the yard, he had called the commissioners' attention to the frigate's gundeck from her foremast forward, her forebay seemingly having settled.

On examination this was found not to have occurred. He now suggested that her upper deck forward and aft be lifted. If this were done, he inquired, should the centre of the gundeck be "dropped to its original place?"[154]

To determine "the propriety of lifting the upper deck of Constitution forward and aft," the board ordered Chief Naval Constructor Humphreys to Charlestown.[155]

Humphreys reached Boston from Philadelphia on September 9. After studying the situation, he found that the ship was no longer hogged, having been restored to "her original form by straightening her keel." This had resulted in the gundeck port sills varying 3 inches in their height.

"To preserve uniformity in the height of her gun deck ports" it was "proposed to fix the port sills two feet from the Deck." To accomplish this

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153. Barker to Elliott, September 3, 1833, NA, RG 45, Letters Received, BNC.

154. Elliott to Rodgers, September 4, 1833, NA, RG 45, Letters Received, BNC.

155. Rodgers to Elliott, September 9, 1833, NA, RG 45, Letters Sent, BNC.

the sill of the foremost port (not the bridle port) to be kept as it now is gradually raising the lower sill line towards the main Hatchway until it is two inches above the present sills and continuing the two inches above the old sills to the stern. The sills being placed agreeably to the foregoing instructions, the Gun deck beams will be placed two feet 4-1/2 inches below them fore and aft. This will keep the deck amidships in its present position as directed . . . & will bring the guns mounted on their present carriages within one fourth of an inch of their proper height in the port by placing the upper part of the bore in the centre (perpendicular) of the port.

The height of port sill to be	2 feet
Half the height of port	1.4-1/2
	3.4-1/2
Deduct the same diameter of bore	2-3/4
	3.1-3/4
Height of Gun Carriages	3.1-1/2

The depth of gun deck ports to be the same as they now are. The height from top of Gun deck plank to under side of Spar deck beams to be six feet and the height from top of Berth Deck plank to underside of Gun Deck beams to be 5 feet 6-1/2 inches. The Spar Deck beams to be moulded 10 inches, the Gun Deck beams to be moulded 14 inches. The Berth Deck and Spar Deck plank to be 3-1/2 inches thick, the Gun Deck plank to be 4-1/2 inches thick.

Humphreys called for the the spar- and berthdecks to be parallel to the gundeck. The fore and after orlops were to be replaced "in their former position. The fore and after pieces of Keelson to be Live Oak." The forward pieces to "reach abaft the step of Foremast, and the after pieces to extend before the magazine. The pieces to be as long as a regard to strength and their Timber will admit."

As the main stern post was scarped at the upper end and there was no inner stern post, Humphreys called for the keelson knee to "run up so high as to cover the scarph of the post and bolt through it."

The breasthooks were to be fayed to the timbers before the ceiling was put on. The mast steps were to be live oak, and those for the fore- and mainmast were to be fitted and fastened to the timbers before the ceiling was hung.

The bridle port was to be shifted about 10 inches "further forward from the side of the present one and to be the same dimensions" as the other gundeck ports.

The corner counter timbers were to be "lowered so far that the knuckle shall range fair with the top of gun deck beams." In making this alteration, Humphreys cautioned, sufficient room must be left for the rudder and to permit the stern guns to be run out clear of the frigate's stern.

Constitution's waist was to be timbered up and planked, "leaving ports of the same size and about the same distance asunder as the Quarter Deck and forecastle ports are."

The distance from the spardeck port sills to the under side of the rail was to be 3 feet 6 inches. The port sills were to be 8 inches above the deck.

Humphreys called for the replacement of the "third futtocks and top timbers." This was dictated by the number of short pieces near the berthdeck, "left in from former repairs." The thickness of the wales, strings, drifts, clamps, spirkettings was to be identical to Cumberland's. The wales, strings, and drifts were to parallel the port sills.[156]

On September 20 the department notified Elliott that Humphreys' report was to be the guide governing repair of Constitution, except for the waist, "which is not to be timbered and planked up, but to be left open as it was formerly."[157]

7. The Board Tends to Certain Details

Meanwhile, the commissioners had been giving Elliott instructions pertaining to certain details. All copper sheathing removed

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156. Humphreys to Elliott, September 16, 1833, NA, RG 45, Letters Received, BNC.

157. Rodgers to Elliott, September 20, 1833, NA, RG 45, Letters Sent, BNC.

from Constitution, as well as Erie and Experiment, was to be shipped to the Washington yard for recycling. All composition castings were to be requisitioned from the Washington facility. There would be sent to the department "some pieces of the original frame" of Old Ironsides, from which "frames" were to be made for pictures in the commissioners' office. When she was equipped, any deficiencies in her masts and spars would be supplied from those shaped for Cumberland.[158]

8. The Rigging Is Deferred

The board, to secure data to guide its decision regarding the type of machinery to be purchased for the proposed ropewalk, ordered two sets of standing rigging to be made for a frigate. One was to be manufactured by the patent method and the other in the usual fashion. They were to be made from the same lot of hemp. The plan was to place one-half of each on the same vessel to ascertain which was the most satisfactory and stretched least.

Elliott was to have the rigging tested, and if it passed, two sets were to be made up. One was to be sent to the New York yard for Brandywine and the other reserved for Constitution.[159]

The "common laid rigging," which had been stowed since 1828, did not pass the regular test. The patent-laid tested 31-1/2 pounds and the common-laid 14 pounds. If this rigging were not be used on Constitution, Elliott desired further instructions. He could then procure other rigging and have it fitted in the loft during the winter, when storms curtailed outside work by the recruits in ordinary.[160]

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158. Rodgers to Elliott, July 6, September 9 and 14, 1833, NA, RG 45, Letters Sent, BNC.

159. Rodgers to Elliott, October 21, 1833, NA, RG 45, Letters Sent, BNC.

160. Elliott to Rodgers, December 6, 1833, NA, RG 45, Letters Received, BNC.

Replying, the board directed Elliott to defer rigging the frigate until receipt of further orders.[161]

9. Sheathing Her Bottom

Desirous of making Old Ironsides' bottom "do justice to her upper body in sailing," Elliott suggested sheathing her with "No. 1 felt before coppering her." No. 1 felt of Russian manufacture had been employed to sheath Experiment, he explained, while No. 2 felt of British manufacture had been used in sheathing Erie.

As they were planking Constitution's outside under the wales and putting in clamps for the berthdeck and ceiling her, Elliott wished instructions as to her sheathing, as soon as practicable.[162]

The board believed English felt preferable to Russian, as it was of closer texture, more equal in thickness, and better calculated to resist the worm and preserve the ship bottom, should the copper be damaged. English felt would accordingly be used on Constitution.[163]

10. Elliott Details Rapid Progress

Submitting an early December progress report, Elliott forecast that if it were a mild winter he could, with his present force, complete the repairs by early spring. She was now planked to her thick strake and her berthdeck beams were being put in.

On Monday (the 30th) he had cut the wages of the mechanics to the winter schedule. None of them quit, as they "would rather work on her than any other vessel."[164]

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161. Rodgers to Elliott, December 11, 1833, NA, RG 45, Letters Sent, BNC.

162. Elliott to Rodgers, November 23, 1833, NA, RG 45, Letters Received, BNC.

163. Rodgers to Elliott, November 27, 1833, NA, RG 45, Letters Sent, BNC.

164. Elliott to Rodgers, December 5, 1833, NA, RG 45, Letters Received, BNC.

By the end of the first week of the new year, Old Ironsides' berthdeck had been laid, the outside planked to the port sills, and the carpenters were forming the ports. The gundeck beams were to be put in soon, as they had her nearly ceiled to their positions.

The New England weather continued to be unseasonable mild, and if the board desired they would be able to take her out of dry dock by March 15, and complete her repair at the end of the slip. This would clear the dock for another ship.[165]

When the department failed to acknowledge this letter, Commodore Elliott correctly assumed that there were no immediate plans to order another vessel into dock.

11. The Board Opts for Chain Pumps

On February 14 Elliott advised the commissioners that Mr. Barker had prepared sketches of the Lester metal pump, which he recommended. Elliott concurred. As the gundeck was nearly enclosed, he trusted the department would promptly resolve this matter.[166]

The board vetoed use of the Lester metallic pump. Constitution would be outfitted with two chain pumps forward as heretofore. They were to have a 7-inch bore.[167]

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165. Elliott to Rodgers, January 8, 1834, NA, RG 45, Letters Received, BNC.

166. Elliott to Rodgers, February 14, 1834, NA, RG 45, Letters Received, BNC. Ebenezer Lester had provided the Navy with a drawing of his metal pump. In a covering letter, he pointed out that his pumps would occupy much less space. The old wooden pumps, removed from Constitution, measured 17 inches in diameter at the head and 13 inches at the foot. The chamber was 8 inches in diameter, and the bore below the lower box was 6 inches. They were lined with lead and banded with wrought iron. Lester to Elliott, February 13, 1834, NA, RG 45, Letters Received, BNC.

167. Rodgers to Elliott, February 24, 1834, NA, RG 45, Letters Sent, BNC.

12. The Mutilation of the Jackson Figurehead

On February 24, 1834, the commissioners directed that in finishing the stern some "light carved work of the scroll or wreath character may be adopted to guide the painter and relieve the flatness."

The billethead and the curve of the cutwater were to be restored as in her glory days.

The grating of the head and head seats were to be protected by close woodwork as was recently done on United States.[168]

The directive regarding the billethead came too late. Elliott, as we have seen, was impetuous, opinionated, and controversial. The "previous summer, shortly after his friend, the President, had departed the Boston area," Elliott had discussed with Naval Constructor Barker the wisdom of replacing Constitution's billethead with a figurehead. On learning that a bust of Hercules had occupied this position before the billet, he decided to proceed.[169] Contacting Laban Beecher, well known and respected carver of figureheads for naval and other ships, Commodore Elliott directed him to make for Constitution

> a figurehead of the President of the United States, dressed as represented at the Hermitage, holding in his hand a scroll this motto "The Constitution it must be preserved," taken from the remarks which you [Secretary Woodbury] made on her deck, at the time she was received into the dock.

He also directed Beecher to carve busts of Commodores Hull, Bainbridge, and Stewart for her stern ornaments, "thus presenting our Chief Magistrate, and the three successful commanders of that favorite ship, in an attitude which I deemed highly honorable to the Navy and Nation."

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168. Ibid.

169. The bust had been mutilated during the Tripolitan War, and had been replaced by a billethead, which she carried during the War of 1812. This billet, following its removal in 1833, was preserved and displayed in a conspicuous location in the yard until removed in the 1870s to the U.S. Naval Academy. Preble, "History of the Boston Navy Yard," p. 241, NA, RG 181.

Although the Jacksonian policies were unpopular with the Massachusetts electorate, there was no protest of Elliott's decision until the fourth week of February 1834.[170] Then there appeared on the streets of Charlestown and Boston a handbill reading:

Freeman Awake
or the Constitution will sink.

It is a fact that the old "Glory President," has issued his special orders for a Colossean Figure of his Royal Self in Roman Costume to be placed as a figure head on Old Ironsides!!! Where is the spirit of 76?--where the brave Tars who fought and conquered in the glorious ship, where the mechanics, and where the Bostonians who have rejoiced on her achievements? Will they see the Figure of a Land Lubber at her bows? No let the cry by "all hands on deck" and save the ship by a timely remonstrance expressing our indignation in a voice of thunder!

Let us assemble in the "Cradle of Liberty," all hands up for the Constitution--let the figure head (if mortal men be worthy) be that of the brave Hull, the immortal Decatur, or the valiant Porter, and not that of a Tyrant. Let us not give up the ship, but nail the flag of the Union to the mast head, and let her ride the mountain waves triumphant, with none aboard but the Sons of Liberty, all flesh and blood, having the hearts and souls of Freemen.

North enders! shall this Boston built ship be thus disgraced without remonstrance. Let this Wooden God, this old Roman, building at the expense of 300 dollars of the People's money, be presented to the Office Holders who glory in such worship, but for God's sake Save the Ship from this foul disgrace.

A. North ender.

Up till this moment, Elliott assured the secretary there had been no protest, and had the figurehead been positioned at the time of Jackson's visit, "many who now express such intemperate opinions would have been equally zealous in raising it with acclamation, to its appropriate place." He had, Elliott protested, no political or personal ambitions in "placing the figure there, as politics are not supposed to be subject of communication or action with the yard." He had not heretofore brought

170. Elliott to Woodbury, February 24, 1834, NA, Captains' Letters, Microcopy M-125.

this subject to the attention of the department, he confessed, because he "knew that custom furnished me a precedent." His predecessors had ornamented ships with "Figure, Eagles, and Billet heads at their option."[171]

Then, on February 25, Elliott received a poison pen letter:

> North End 24th
>
> We have made you abandon the Constitution; take Jackson's name off the dock, or in 48 hours you breath no more.
>
> Many North Enders.

Writing Secretary Woodbury, on the 26th, Elliott enclosed this letter. He was satisfied that the "excitement" was designed for political purposes. If they bowed to threats and removed the Jackson figurehead, he cautioned, "there is no telling what they will ask next, as they now demand the removal of the Inscription from the Dry Dock."[172]

Elliott, on March 1, wrote the board. After divulging what he had done, he announced that the figurehead was nearly finished and bore a "remarkable strong resemblance" to the President. If the board wished to avoid controversy and change the figurehead, Elliott would await their orders, and "offer as my apology that on an examination of the papers on file in my office I could find nothing which had offered as a guide to my predecessors but what left the ornamentation of public vessels built or repairing at this yard entirely to their discretion."[173]

The commissioners replied, reminding Elliott that published regulations required a commandant, in making repairs, "to act in strict conformity to the instructions from the Board . . . or to the report of

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171. Elliott to Woodbury, February 22, 1834, NA, RG 45, Letters Received, BNC.

172. Elliott to Woodbury, February 26, 1834, NA, Captains' Letters, Microcopy M-125.

173. Elliott to Rodgers, March 1, 1834, NA, RG 45, Letters Received, BNC.

the officers of survey, and no additional repair or alteration, of any moment are to be made, without instructions from them."

It seemed to the board that this had "been averted to . . . with the long established useage of substituting billets for figureheads for vessels less than Ships of the Line," and would have induced Elliott to consult the board, before he gave this order.

If the ornaments for the stern had not been commenced, he was to cancel the order.

As the figurehead was nearly completed, and his order given in ignorance of regulations, and intended as a compliment to the President, it could either be positioned on Constitution, or reserved for Vermont or Virginia.[174]

The busts of the three captains, despite what the board wrote, were completed, and in the 1870s still graced Constitution's stern.[175]

On March 20 Beecher notified Elliott that a trio of respectable citizens had offered him $1,500 to allow them to spirit away the figurehead. If so disposed, he continued, he could pocket $20,000 for it, so great was the excitement. He did not believe it was safe in his shop. Elliott consequently sent Sailing Master Hixon in a boat the next morning to the Market Street landing. Taking charge of and boxing the figure, Hixon conveyed it to the yard. There it was completed and, on April 28, placed on Constitution's bow.[176]

On the night of July 2, Old Ironsides, having been removed from the dock and moored between Columbus and Independence, a North Ender struck. As Sam Dewey recalled, Constitution was anchored with her head

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174. Rodgers to Elliott, March 15, 1834, NA, RG 45, Letters Sent, BNC.

175. Preble, "History of the Boston Navy Yard," p. 244, NA, RG 181.

176. Ibid., pp. 244-45; Elliott to Woodbury, March 31, 1834, NA, RG 45, Letters Received, BNC.

to the west; there were a large number of men aboard Columbus; and a sentry had been posted where he could see the figurehead, while a second was on the nearby wharf, and a third patrolled the frigate's forecastle. From one of Columbus' open ports, a beam of light outlined the graven features.

It was a dark and stormy night. Lightning flashed around the masts and spars, and "only by its livid flash could any object be distinguished in the blackness."

Dewey, a 28-year-old, cast loose his boat from Billy Gray's Boston wharf, and, with muffled oars, pulled out into the darkness. He had previously reconnoitered the anchorage, and knew his way. He soon found himself alongside Independence, the outside ship, "and worked his way alongside her big black side, which served to screen him from observation."

He climbed Constitution's side by the man ropes, and hid himself in the bow, protected by the headboards. He "extended himself on his back," and in this position sawed off Jackson's head. While at work he saw the sentry on the wharf occasionally glance in his direction. The lightning and storm, however, curbed the Marine's vigilance, and he spent too much time in the sentry box.

Dewey, having completed his mission, took his hard earned trophy and regained his boat to find it nearly swamped. It had swung under a scupper, and had received a torrent from Old Ironsides' decks. After bailing his craft, he returned to Gray's wharf, with the head for which he had risked his life.[177]

Reporting the outrage to the department, Commodore Elliott wrote:

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177. Samuel A. Drake, Historic Mansions and Highways Around Boston . . . (Boston 1899), pp. 40-42.

> Some one last night in spite of the sentinel, and the watch on board of the Columbus, found means to mutilate the statue of Jackson. . . . Suspicion at first rested upon the Marine on post, and the shipkeeper; but it seems to me at present, more probable that some person from outside the yard concealed himself on board during the day, and at night when the storm raged . . . accomplished his work, and escaped.

Upon being notified of the decapitation, Elliott sent for Beecher, and demanded the names of the trio who had offered the bribe. He refused until compelled. This satisfied Elliott that the head had been removed by a person acting under the influence of the bribe. Beecher was hired to replace the head.[178]

Later that summer, Mahlon Dickerson, who had succeeded Woodbury as Secretary of the Navy, visited the yard with the commissioners. Seeing that Elliott had draped the figurehead with canvas to hide the mutilation, he ordered this continued, remarking that no repairs or alterations should be made to it until the frigate left the area.[179]

Elliott now tightened the guard. A Marine and a naval officer were posted by night to defend the figurehead from further mutilation. On the evening of the 5th, a second attempt was made. Discovered, one of the participants may have drowned in effecting his escape, while the other succeeded in climbing the wall. Their boat was, however, captured and impounded as a prize.[180]

After the uproar had quieted, Dewey packed the head and started for Washington, with the trophy of his daring raid. At Philadelphia, he exhibited his prize to John Tyler and Willis P. Mangum, who were investigating the second U.S. bank. "These grave and reverend seigniors shook their sides as they regarded the colossal head, now brought so low, and parted with Captain Dewey with warm" praise for his deed.

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178. Elliott to Dickerson, and Armstrong to Elliott, July 3, 1834, NA, Captains' Letters, Microcopy M-125.

179. Preble, "History of the Boston Navy Yard," p. 246, NA, RG 181.

180. Elliott to Dickerson, July 6, 1834, NA, Captains' Letters, Microcopy M-125.

Dewey's plan to present the head to Old Hickory were frustrated by Jackson's dangerous illness. He did secure an audience with Vice President Martin Van Buren. Upon Dewey introducing himself as the man who had beheaded Constitution's figurehead, Van Buren "gave a great start," and demanded an explanation. After he had finished, Dewey offered the vice president his trophy. "Go to Mr. Dickerson it belongs to his department; say you have come from me," he replied.

On his arrival at the Navy Department, Dewey found Secretary Dickerson "busily engaged with a heap of papers." He asked his visitor to be brief.

"Mr. Dickerson," Dewey continued, "I am the person who removed the figurehead from the Constitution, and I have brought it with me for the purpose of returning it."

Dickerson was aghast. Throwing "himself back into his chair," he pushed his gold-bowed spectacles, with a sudden movement upon his forehead," and contemplated the man, who now came forward with this voluntary avowal. Dickerson sputtered, "You, sir! You! What sir! Did you have the audacity to disfigure a ship of the United States Navy?"

"Sir, I took the responsibility."

"Well, sir, I'll have you arrested immediately," the secretary shouted, and reached for a bell to summon a clerk.

"Stop, sir," exclaimed Dewey:

> You cannot inflict any punishment; I can only be sued for a trespass, and in the country where the offence was committed. Say the word and I will go back to Charlestown and await my trial; but if a Middlesex jury don't give me damages, my name's not Dewey.

Dewey knew of what he spoke. There was then no law against defacing warships. Secretary Dickerson, an able lawyer, reflected a

minute and put down the bell. "You are right sir," he remarked, "now tell me all about the affair."[181]

13. The Debate Over Positioning the Chains and Channels

In late March 1834 Elliott suggested to the department that the chains, on each side of the ports where they interfered, be formed and fitted in "the new manner." If made in the usual fashion, the ports would prevent "the guns raking fore and aft almost two points more than the other chain which is bent to an inverted arch."[182]

The board was unready to make a decision on this subject, and Elliott was instructed to suspend preparation of the chains and channels until further notice.[183] But there was more involved. In mid-April Elliott complained that his workmen were ready to caulk and paint Constitution, consequently information was needed regarding her channels and chains.[184]

This was not a problem, the commissioners replied, because the caulking and first coat of paint could be applied, as they would not interfere with the disposition of the channels.[185]

Late in May, the dry dock being needed for repair of another frigate, the department announced that Constitution must not be retained in the dock on account of her chains and channels.[186]

In late August, Elliott reviewed the situation pertaining to the channels. As Naval Constructor Barker understood the directions, the

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181. Drake, Historic Mansions and Highways, pp. 42-3.

182. Elliott to Rodgers, March 26, 1834, NA, RG 45, Letters Received, BNC.

183. Rodgers to Elliott, April 1, 1834, NA, RG 45, Letters Sent, BNC.

184. Elliott to Rodgers, April 16, 1834, NA, RG 45, Letters Received, BNC.

185. Rodgers to Elliott, April 21, 1834, NA, RG 45, Letters Sent, BNC.

186. Chauncey to Elliott, undated, NA, RG 45, Letters Sent, BNC.

channels were to be placed on the second strake above the spardeck port sills and cut off between the ports. The chain bolts were to go through the strake above the gundeck ports.[187]

The board had a different view. The underside of the channels were to be placed on "the lower part of the second strake above the spar deck port sill . . . so far from the seam only, as will allow for caulking." This would bring the under parts of the channels about 16 or 17 inches above the spardeck. The chain bolts were to be driven into the strake next above the top of the gundeck ports, about one-third of the width of the strake from the lower edge. The preventer bolts were to go through the strake of spirketing next above the gundeck waterways.[188]

Agreeable to the board instructions, Elliott took off and lifted the channels to the places indicated.

Those examining this change were in agreement that by this alteration, the frigate would lose "the workings of the whole of her spar deck guns with the exception of the 2 guns on each side."

Once again, Elliott called this to the board's attention, as her maindeck ports were "directly underneath her spardeck ports, and the concussion of her main deck guns in a battle would destroy the exertion of those stationed at the spardeck guns, even should it not make the guns themselves useless."

Elliott desired that this subject be referred to a Board of Naval Architects.[189]

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187. Barker to Elliott, August 30, 1834, NA, RG 45, Letters Received, BNC.

188. Morris to Elliott, September 3, 1834, NA, RG 45, Letters Sent, BNC.

189. Elliott to Rodgers, October 26, 1834, NA, RG 45, Letters Received, BNC.

The commissioners were unable to perceive how "use of the spardeck guns can be more injured or impeded by raising the channels than they would have been with them placed as usual, if they and the deadeyes have been placed as directed." Nor were they able to comprehend what danger could be apprehended to persons stationed on the spardeck from the concussion of maindeck guns, or that their exertion would be destroyed in battle, or that the spardeck guns would be rendered useless.

Consequently, the department saw no reason to convene a board of naval officers and architects to study the project.[190]

14. Resewing the Canvas

Meanwhile, the repair and outfitting of the frigate continued. On March 19, 1834, Commodore Elliott learned that her sails, manufactured in 1828, were rotten. Informing the commissioners of this, he fowarded for their inspection samples of twine taken from her mainsail of No. 1 flax canvas. It was too defective to use without resewing, although the canvas itself was good.[191]

The department, replying, directed that the sails, where required, be resewn.[192]

15. The Joiners Are Turned to and the Carpenters Copper the Bottom

With the joiners about to be turned to, Elliott needed to know what kind of materials to use in construction of her cabin bulkheads and those fore and aft of the wardroom. The master joiner had recommended that they be made of hardwood, which was more durable and handsome.

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190. Rodgers to Elliott, October 31, 1834, NA, RG 45, Letters Sent, BNC.

191. Elliott to Rodgers, March 19, 1834, NA, RG 45, Letters Received, BNC.

192. Rodgers to Elliott, March 24, 1834, NA, RG 45, Letters Sent, BNC.

In addition, information was needed as to whether "the Bulwarks and stern part of her cabin [would] be ceiled," and if so, what with.[193]

Constitution's after cabin would be fitted with hardwood, and the forward bulkhead of the main cabin wardroom steerage and other bulkheads were to be pine, the department answered. The stem and sides would not be cased. The deck overhead could be ceiled in the cabin with pine, and painted.[194]

On examing the stem and sides of the cabin, Elliott saw that the bolts were seemingly riveted on the "inside and came out flush with the surface." Consequently, they could not be covered with putty before painting.

If painted without a covering, there would be a rust stain upon the rivets, unless painted often. To avoid this, he recommended that a "slight ceiling be put upon the stem and sides and painted."[195]

The board would not approve ceiling the sides or stem, as it would "injure the durability of the planking."[196]

At 9 A.M., on May 1, 30 ship carpenters, who had been ordered by Mr. Barker to begin coppering the frigate, struck. They told Commodore Elliott that ship carpenters employed over in Boston received one dollar per day more than the United States was paying. Elliott refused to make a difference between wages paid to carpenters working on the launching ways and in the dry dock, and declined boosting their pay one cent.

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193. Elliott to Rodgers, March 21, 1834, NA, RG 45, Letters Received, BNC.

194. Rodgers to Elliott, March 25, 1834, NA, RG 45, Letters Sent, BNC.

195. Elliott to Rodgers, April 5, 1834, NA, RG 45, Letters Received, BNC.

196. Rodgers to Elliott, April 9, 1834, NA, RG 45, Letters Sent, BNC.

As they left the yard, he remarked he would give them 24 hours to reconsider. That afternoon most returned, and the next morning the remainder. Elliott congratulated himself on his success as a strike-breaker.[197]

The carpenters by May 8 had nearly finished coppering Constitution. She would receive her remaining copper and first coat of paint by the 14th.

The joiners' work would be finished within six weeks, Elliott reassured the board.[198]

Such of the "companion stanchions and bars," along with other composition work, as could be salvaged were used in repairing Old Ironsides. Requisitions were made on the Washington Navy Yard to "supply the injured and deficient articles."

She had formerly had iron port hinges, but these had become useless from rust. As other ships built or repaired at the yard in recent years had composition hinges, Elliott included these in his requisition.[199]

16. The Board Orders Her Outfitting Deferred

The department, on learning that the repair had entered its final stages, directed that, as there was no intention to send her to sea in 1834, her "rigging, sails, and perishable articles" be deferred. Her gun carriages, boats, spars, etc., could be prepared.[200]

17. The Frigate Leaves the Dry Dock

The board was desirous of ascertaining whether Constitution, on being floated out of the dry dock, would hog, and if she

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197. Elliott to Rodgers, May 2, 1834, NA, RG 45, Letters Received, BNC.

198. Elliott to Rodgers, May 8, 1834, NA, RG 45, Letters Received, BNC.

199. Barker to Elliott, May 1, 1834 and Elliott to Rodgers, May 2, 1834, NA, RG 45, Letters Received, BNC.

200. Rodgers to Elliott, May 20, 1834, NA, RG 45, Letters Sent, BNC.

did, how much. Elliott would accordingly place targets on the gundeck, before water was admitted to the dock, at these points: the first to be placed 6 feet abaft the apron, the second to be 31 feet abaft the apron, the third to be 56 feet abaft the apron, the fourth to be 81 feet abaft the apron, the fifth to be 106 feet abaft the apron, the sixth to be 131 feet abaft the apron, the seventh to be 156 feet abaft the apron, and the last to be positioned 4 feet before the after end of the gundeck plank. As soon as she was floated out of dock, the targets were to be examined and the deviation, if any, from a straight line noted at every sight.

About 40 tons of ballast were to be sent aboard before she was waterborne.[201]

By mid-June yard workmen were ready to refloat Old Ironsides, preparatory to docking Potomac. Advising the department of this, Commodore Elliott reported that, when she was laid-up, she had aboard some 85 tons of ballast. As she would now have iron water tanks, he wished to know how much ballast to send aboard.[202]

After she was removed from the dock, about 300 tons of ballast were to be stowed to bring her down in the water for preservation. So as not to strain the ship, the board directed it was to be arranged between the mainmast and the forward part of the hatch.[203]

The dock was watered on Saturday, the 21st, and Constitution hauled out into the stream, and moored between Columbus and Independence. She had been dry docked for 358 days, and had been repaired in "a complete manner; and no difference in her sheer is perceptible to the eye, of the closest observer."

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201. Rodgers to Elliott, May 7, 1834, NA, RG 45, Letters Sent, BNC.

202. Elliott to Rodgers, June 18, 1834, NA, RG 45, Letters Received, BNC.

203. Chauncey to Elliott, June 23, 1834, NA, RG 45, Letters Sent, BNC.

Elliott mailed the board, Naval Constructor Barker's return of her "straightning." Only three of the eight target points were listed, as the differences at the others could not be perceived.

Her draft on leaving the dock was: aft 18 feet 3 inches and forward 14 feet 6 inches.[204]

Every precaution had been taken to keep her decks and sides from "drawing, but such was the power of the Sun" and effect of the wind that unless she was housed, Elliott feared she "may sustain much injury."[205]

The department accordingly directed the yard to rebuild the deck housing.[206]

Should it be desirable to outfit her for sea by winter or before, steps must be taken soon to secure rigging. Potomac would be ready to sail by September 1, Elliott reported, when they could resume work on Constitution.[207]

Elliott soon had his answer. It would be spring of 1835 before the Navy had a mission for Old Ironsides. He would give orders to have yarns spun and tarred for her standing and running rigging. Three hemp cables would be required. He would take care not to secure an excess of rigging, as a large surplus was undesirable.

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204. Elliott to Rodgers, June 23 and 30, 1834, NA, RG 45, Letters Received, BNC.

205. Elliott to Rodgers, June 25, 1834, NA, RG 45, Letters Received, BNC.

206. Rodgers to Elliott, July 2, 1834, NA, RG 45, Letters Sent, BNC.

207. Elliott to Rodgers, July 2, 1834, NA, RG 45, Letters Received, BNC.

The board at this time ordered five Henry Philpott 15-inch portable water closets for the yard. These would be of cherry, maple, or some other good hardwood. One was to be sent aboard Constitution.[208]

18. Several Details Are Resolved

Potomac had been repaired by early September and was being outfitted for sea. This task completed, the yard again focused its attention on Constitution. While at Charlestown in July, the board had inspected the frigate. On examining the hammock stanchions the commissioners had suggested they be enlarged, as all the hammocks allowed the vessel could not be stowed in them.

Before having them enlarged, Elliott ordered the hammocks stowed on one side. The result was:

Forecastle	27	hammocks
Waist	128	hammocks
Quarterdeck	78	hammocks
Total	233	

This would account for 486 hammocks, which was 18 more than the number allowed.[209]

The board therefore canceled its orders for alteration of the subject stanchions.[210]

Some three months passed before Elliott had another question for the department. Although the "book of allowance" specified 23-inch cables for Old Ironsides, he wished to know whether 21 inch would answer.[211]

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208. Chauncey to Elliott, July 19, 1834, NA, RG 45, Letters Sent, BNC.

209. Elliott to Rodgers, September 1, 1834, NA, RG 45, Letters Received, BNC.

210. Morris to Elliott, September 5, 1834, NA, RG 45, Letters Sent, BNC.

211. Elliott to Rodgers, December 5, 1834, NA, RG 45, Letters Received, BNC.

Twenty-two and one-half-inch was the proper size for Constitution's cables, the board answered, but they should not be made at this time.[212]

19. The Outfitting Begins

Secretary of the Navy Dickerson and the commissioners failed to coordinate their actions. In early December the secretary directed Elliott to begin enlisting a crew for a first class frigate. Consequently, the yard delayed positioning the hurdles to protect her from the elements.[213]

On learning of this, the board announced that no orders having been received from the secretary to ready Constitution for sea, Elliott was to cover her in accordance with his instructions of June 25.[214]

But by December 17, the secretary and commissioners were in agreement. The secretary prevailed, and the board notified Elliott that he was to ready the frigate for a cruise. All stores, except provisions, were to be sent aboard and stowed.[215]

The board now provided instructions to guide the yard in outfitting Constitution. As to her masts and spars, the lower masts would be:

	Length	Diameter	Masthead
Mainmast	105 feet	34 inches	18 feet
Foremast	95 feet	31-1/2 inches	16 feet
Mizzenmast, the cap to be level with the maintop		23 inches	18 feet

212. Rodgers to Elliott, December 9, 1834, NA, RG 45, Letters Sent, BNC.

213. Elliott to Rodgers, December 11, 1834, NA, RG 45, Letters Received, BNC.

214. Rodgers to Elliott, December 15, 1834, NA, RG 45, Letters Sent, BNC.

215. Rodgers to Elliott, December 15, 1834, NA, RG 45, Letters Sent, BNC.

If the depth of her keelson had been increased during the repair beyond the original 18 inches, the length of her fore- and mainmasts were to be reduced by taking their heels, the same length as the depth of the keelson had been increased.

The bowsprit, if in, could remain as it was, while the other masts and spars must be of the same dimensions as "prescribed for a first class Frigate in the printed book of tables."[216]

On Christmas eve, Elliott assured the commissioners that the depth of her keelson was unchanged. Her bowsprit had been positioned, while the lower masts were finished, and ready to put in. They were of the length prescribed for a first class frigate.[217]

By the end of the year, the yard reported that the masts were hooped; the lower masts stepped; the water casks finished; the sails, except one maintopsail, completed; her rigging being hung; and the provisions requisitioned.

If the good weather held, she would be ready to receive her officers and men in 30 working days.[218]

20. Arming the Ship and Supplying the Magazines

Elliott learned from Storekeeper Bates that Constitution required 13,000 pounds of cannon powder and 2,300 pounds of priming powder over and above the amount in the magazine.[219]

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216. Rodgers to Elliott, December 19, 1834, NA, RG 45, Letters Sent, BNC.

217. Elliott to Rodgers, Decmeber 24, 1834, NA, RG 45, Letters Received, BNC.

218. Elliott to Rodgers, December 27, 1834, NA, RG 45, Letters Received, BNC.

219. Elliott to Rodgers, December 22, 1834, NA, RG 45, Letters Received, BNC.

The department called on the commandant of the Norfolk yard to ship the needed powder to Boston on the first available vessel.[220]

The Washington Navy Yard was to send for use aboard the frigate shot gauges. From the New York yard came 120 muskets, 120 pistols, 30 cutlasses, and 4 bullet moulds (2 pistol and 2 musket).[221]

Elliott, in selecting the frigate's armament, was to take for the gundeck the 24 pounders numbered 33 to 34, 56 to 70, and 78 to 85. They were marked with the letter "A" and had been numbered by the ordnance officer at his last inspection. For the spardeck, he was to employ two of the Congreve 24 pounders, and 20 - 32-pounder carronades, lettered "O," and numbered 1 to 18 and 21-22.[222]

21. Elliott Encounters Cold Weather and Labor Difficulties

The weather turned bitterly cold at the end of the year, and the harbor was sheeted with ice as far as Fort Independence. Although Constitution would be ready for sea by the date forecast, Commodore Elliott did not believe she could get out of the ice-bound harbor.

On Saturday, the 3rd, the caulkers struck for higher wages. To break the strike, Elliott fired them, and sent his master caulker to the south shore to recruit a group willing to work for the established wage. This was easily done.

The "refractory caulkers" returned to the yard on the 5th and "begged" to be reemployed with no raise in pay. After due consideration, Elliott determined to do so, because it was not in the interest of the United States to have "jealousy existing" between the navy yard and the caulkers, and besides he needed their services.

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220. Rodgers to Elliott, January 3, 1835, NA, RG 45, Letters Sent, BNC.

221. Rodgers to Hull and Ridgely, January 6, 1835, NA, RG 45, Letters Sent, BNC.

222. Rodgers to Elliott, December 26, 1834, NA, RG 45, Letters Sent, BNC.

If he had raised their wages, he would have been obliged to increase the pay of the other crafts. Had they not returned, they would have been blacklisted.[223]

The commissioners, as was to be expected, approved Elliott's labor relations policy.[224]

Yard workmen had been unable to stow a spare rudder below deck because of its size. As wood could always be obtained, Elliott suggested the propriety of sending rudder moulds, securely boxed aboard ship. In a crisis a spare rudder could be shaped with the moulds.[225]

The board acquiesced, and Commandant Hull of the Washington Navy Yard forwarded a set of rudder pintles and moulds.

22. Rigging the Frigate

The board, noting Elliott's reports, cautioned not to hasten the equipping of Constitution in a fashion calculated to neglect giving her "rigging a proper stretch" to avoid damage, should she encounter North Atlantic gales upon leaving port.[226]

There was a mid-January thaw. If the good weather held for 10 to 12 days, Constitution, Commodore Elliott predicted, would be ready by February 20 to receive her crew and provisions.

Acknowledging what he considered gratuitous advice, he informed the department that the rigging loft was heated by stoves, and no rigging had been cut until it had been on "the stretch with heavy

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223. Elliott to Rodgers, January 5, 1835, NA, RG 45, Letters Received, BNC.

224. Rodgers to Elliott, January 9, 1835, NA, RG 45, Letters Sent, BNC.

225. Elliott to Rodgers, January 2, 1835, NA, RG 45, Letters Received, BNC.

226. Rodgers to Elliott, January 9, 1835, NA, RG 45, Letters Sent, BNC.

weights" for 48 hours. Her buffs would be kept on, and every opportunity taken to sweat the rigging down. The lower rigging had been stretched 1 inch and her stays 3/4 inch. Her lower rigging would be "overhead" by nightfall and her topmasts on end by the 15th.[227]

On the 20th Elliott wrote the board that Old Ironsides, while on the Mediterranean Station in the 1820s, had lost three anchors. These had been replaced by lighter ones, which did not weigh as much as the figures with which they were stamped.[228]

The board accordingly directed him to select from the anchors in the park two from 55 to 60 cwt. and five from 50 to 55 cwt.[229]

23. Elliott Reports "Old Ironsides" Nearly Ready to Sail

Elliott, on the 26th, notified Washington that the frigate's water was stowed, her rigging nearly completed, and her provisions would be sent aboard on the 27th. By then her topgallantmasts would be on end. If they were not delayed by "non-arrival" of the cable chain from the Washington Naval Yard, she would be ready to put to sea on February 5.[230]

The department, on the next to the last day of January, assured Elliott that 300 fathoms of 1-15/16-inch cable was en route to Charlestown from Norfolk.[231]

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227. Elliott to Rodgers, January 13, 1835, NA, RG 45, Letters Received, BNC. The thermometer, during the first 12 days of the new year, seldom rose above zero.

228. Elliott to Rodgers, January 20, 1835, NA, RG 45, Letters Received, BNC.

229. Rodgers to Elliott, January 24, 1835, NA, RG 45, Letters Sent, BNC.

230. Elliott to Rodgers, January 26, 1835, NA, RG 45, Letters Received, BNC.

231. Rodgers to Elliott, January 30, 1835, NA, RG 45, Letters Sent, BNC.

On February 9 Commodore Elliott advised the board that Constitution was "ready to receive her officers and crew."[232]

24. The Channels Continue to Plague Elliott

In mid-February Commodore Elliott advised the department that the vessel's chain pumps worked to perfection, but the chains and channels were a problem. He trusted that the accompanying "plates" would convince the board of "the insecurity of trusting to them or the bolts when fitted, in that manner." When the rigging was set up, the shrouds drew the bolts into the wood and "twisted and fractured the plates."

To obviate this difficulty, the plates had been made larger and thicker, but there was still danger they would give away.

If the commissioners concluded to continue this mode in other ships, Elliott recommended that the channels be placed about 7 inches lower and the deadeyes removed from the range of the guns, when at their lowest depression.[233]

The department asked Commodore Downes to have a look at the frigate and report. On doing so, he commented that as far as he could judge from appearance, not having been present when they were made, that she had been thoroughly repaired. Her equipment was of first order. He, however, was of the opinion that the security of her masts had been "considerably impaired" in consequence of raising the bed channels from their original position. Because of the raising of the channels, the deadeyes and laniards of the lower rigging interfered with the training of the spardeck battery.

In all other respects, Constitution was ready for sea.[234]

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232. Elliott to Rodgers, February 9, 1835, NA, RG 45, Letters Received, BNC.

233. Elliott to Rodgers, February 14, 1835, NA, RG 45, Letters Received, BNC.

234. Downes to Rodgers, February 25, 1835, NA, RG 45, Letters Received, BNC.

The crew went aboard on February 26, and on March 2 she hoisted anchor and sailed for New York Harbor.

E. Other Important Yard Activities

1. The Yard Builds an Anchor Hoy and Tank

Upon arrival at the yard, in mid-May 1833, Commandant Elliott was disappointed to see that the yard lacked an anchor hoy and tank. Such a craft would greatly facilitate mooring and watering vessels. If given authority, he would have one built from available promiscuous and refuse timber.[235]

This project, he learned, would have to be held in abeyance, because there were no funds for its implementation.[236] The department, when it submitted its budget to Congress in December 1833, asked for an appropriation for an anchor hoy and tank.

By late February 1834 the repair of Constitution had reached a point where the yard would soon be compelled to discharge some of the 125 ship carpenters. To avoid this, Commodore Elliott again recommended that the anchor hoy and tank be built. He was having a draft made of a craft 65 feet between perpendiculars, 20 feet wide, 6 feet deep forward, and 9 feet aft, to carry 20,000 gallons of water and 100 barrels of provisions. She could be rigged as a culler or sloop, a bowsprit "to go by means of a hinge on the mast so as to answer for an Anchor Derrick."

This vessel, if built, would also be valuable for supplying ships in Nantasket Roads and at Provincetown, "where the only water available was from cisterns."[237]

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235. Elliott to Rodgers, June 1, 1833, NA, RG 45, Letters Received, BNC.

236. Rodgers to Elliott, June 5, 1833, NA, RG 45, Letters Sent, BNC.

237. Elliott to Rodgers, February 21, 1834, NA, RG 45, Letters Received, BNC.

Congress having voted $18,000 for the project, the commissioners directed Elliott to have the anchor hoy and water tank built in accordance with the enclosed plans prepared by Samuel Humphreys.

The tank was to be 31 feet 6 inches long and 17 feet wide, with a watertight bulkhead around the mast. There were to be "fore and aft bulkheads over the keelson, and a fourth athwart ship, near the frame." She was to have two capstans, fitted with wheel and pinion.[238]

Work commenced immediately on the craft, and she was launched on July 28.[239] She, however, cost more than the sum appropriated, and Elliott was compelled to call upon the department for a $900 allottment to outfit the hoy.[240]

2. Administering the Dry Dock

In January 1834 Commodore Elliott placed George Dexter on the rolls as clerk of the dock at $80 per month.[241] The only understanding Elliott had with Colonel Baldwin regarding Dexter's transfer from the dock to the yard was that he and "others might be placed on the yard rolls." This Elliott had declined to do until the subject had been referred to the board because: (a) the dock had been turned over to the yard and there was no further use for them; and (b) the instructions of the Secretary of the Navy to his predecessor were such as to preclude his having anything to do with the pay of persons employed at the dock except to approve the roll. Colonel Baldwin had

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238. Rodgers to Elliott, March 21, 1834, NA, RG 45, Letters Sent, BNC.

239. Elliott to Rodgers, July 29, 1834, NA, RG 45, Letters Received, BNC.

240. Elliott to Rodgers, August 16, 1834, NA, RG 45, Letters Received, BNC. Of the projects funded under "Improvements & Repairs," in the 15 months since Elliott had become commandant, this was the second to exceed estimates.

241. Elliott to Rodgers, January 28, 1834, NA, RG 45, Letters Received, BNC.

accordingly applied to the board, and they had given instructions, through the purser, to employ Dexter.[242]

On March 10 the department ordered that Dexter, along with other personnel connected with management and use of the dry dock, be paid from the appropriation for "Repairs of Vessels."[243]

Soon after Potomac was hauled out of the dock in late July and before Boston was taken in, a Mr. Weld, a local shipowner, requested permission to use the facility for overhauling one of his vessels. As this was a policy matter, Commodore Elliott referred the request to Secretary of the Navy Dickerson. He, in turn, submitted the correspondence to the board. They ruled that "it would be injudicious to grant the request, as it would be difficult to deny others if a precedent were once established."[244]

3. Contracting in the Mid-1830s

The Navy continued to contract for delivery of slops and stores at the yard. In mid-March 1833, the department called on Commodore Bainbridge to make requisitions on the slops' contractor for: 800 blue cloth jackets, 800 blue cloth trousers, 600 blue cloth vests, 1,200 duck frocks, 900 duck trousers, 100 pea jackets, 500 black silk handkerchiefs, 600 flannel shirts, 300 flannel drawers, 800 pair shoes, and 500 pair hose.

After these items had passed inspection, they were to be securely packed and labeled. The bales would be stored and held ready to meet requisitions made by commandants of other yards.[245]

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242. Elliott to Rodgers, February 10, 1834, NA, RG 45, Letters Received, BNC.

243. Rodgers to Elliott, March 10, 1834, NA, RG 45, Letters Sent, BNC.

244. Preble, "History of the Boston Navy Yard," p. 255, NA, RG 181; Elliott to Dickerson, September 11, 1834 and Dickerson to Elliott, September 20, 1834, NA, Captains' Letters, Microcopy M-215 and Letters Sent, Secretary of the Navy, Microcopy M-149.

245. Rodgers to Bainbridge, March 12, 1833, NA, RG 45, Letters Sent, BNC.

The board, during the mid-1830s, as in the past, advertised for and contracted nationwide for supplies to be delivered at the various yards. On December 23, 1833, and January 6, 1834, the department notified Commodore Elliott that these contractors would make deliveries to the Charlestown facility during the next 12 months:

J. Jackson & Son	Iron
Gilbert Davis	One-half of the flour
John Barney	One-half of the flour
S. & J. Elder	Navy bread
Gilbert Davis	Whiskey
Gilbert Davis	Candles and Oil
John Barnes	Molasses, vinegar, rice and beans
Gilbert Davis	Butter and cheese
J. Mariner	Slop clothing, with exception of blankets
F.M. Thompson	Iron mongery
William Stickney	Cordage[246]

4. The Pay and Allowances of Permanent Personnel

The yard's payroll continued to inch upward. In 1834 the pay and allowances for permanent personnel, military and civilian, were:

246. Rodgers to Elliott, December 23, 1832, and January 6, 1834, NA, RG 45, Letters Sent, BNC.

Yard Officers and Warrant Officers

	Number	Pay Per Month	Rations Per Day	Quarters Rent Per Year	Candles Per Year	Cords of Wood Per Year	Servants at $8 Per Month	Servants at $6 Per Month	Pay, Rations, and Allowances Per Year
Commandant	1	$100	16	X	65	30	3	X	$ 3,466.75
Master Commandant	1	60	5	X	40	20	2	X	1,710.55
Lieutenant	1	50	4	X	20	20	1	X	1,292.25
Lieutenant	1	50	4	X	X	X	X	X	965.00
Master	1	40	2	X	20	12	1	X	941.75
Master	1	40	2	X	20	12	1	X	941.75
Surgeon	1	60	4	X	20	20	1	X	1,412.25
Assistant Surgeon	1	30	2	$145	16	14	X	1	950.75
Purser	1	40	2	200	20	12	1	X	1,141.75
Chaplain	1	40	2	200	12	9	X	1	1,091.75
Teacher of Mathematics	1	40	2	90	12	9	X	1	981.75
Teacher of Languages	1	40	2	X	12	X	X	X	662.50
Midshipmen	4	19	1	X	X	X	X	X	1,277.00
Boatswain	1	20	2	X	12	9	X	1	651.75
Gunner	1	20	2	X	12	9	X	1	651.75
Carpenter	1	20	2	X	12	9	X	1	651.75
Sailmaker	1	20	2	X	12	9	X	1	651.75
Steward	1	18	1	X	X	X	X	X	307.25
Steward	1	30	1	X	X	X	X	X	451.25
									$20,201.30

	Number	Pay Per Month	Rations Per Day	Quarters Rent Per Year	Candles Per Year	Cords of Wood Per Year	Servants at $8 Per Month	Servants at $6 Per Month	Pay, Rations, and Allowances Per Year
					Ordinary				
Lieutenants	3	$50	4	X	X	X	X	X	$ 2,895.00
Master	1	40	2	X	X	X	X	X	662.50
Midshipmen	6	19	1	X	X	X	X	X	1,915.50
Boatswain	1	20	2	X	X	X	X	X	422.50
Gunner	1	20	2	X	X	X	X	X	422.50
Carpenter	1	20	2	X	X	X	X	X	422.50
Carpenter's Mate	1	19	1	X	X	X	X	X	319.26
Carpenter's Mates as Caulkers	3	19	1	X	X	X	X	X	957.75
Boatswains's Mates	2	19	1	X	X	X	X	X	638.50
Seamen	14	12	1	X	X	X	X	X	2,293.50
Ordinary Seamen	36	10	1	X	X	X	X	X	7,605.00
									$18,554.51[247]
					Civil Establishment				
Storekeeper	1	X	X	X	X	X	X	X	$ 1,700.00
Naval constructor	1	X	X	X	X	X	X	X	2,300.00
Clerk to yard and inspector	1	X	X	X	X	X	X	X	900.00
Inspector and measurer of timber	1	X	X	X	X	X	X	X	900.00
Clerk to commandant	1	X	X	X	X	X	X	X	750.00
Clerk to commandant	1	X	X	X	X	X	X	X	600.00
Clerk to storekeeper	1	X	X	X	X	X	X	X	600.00
Clerk to naval constructor	1	X	X	X	X	X	X	X	600.00
Porter	1	$25	X	X	X	X	X	X	300.00
									$ 8,650.00
									$47,405.81[248]

247. "Annual Report of the Secretary of the Navy, showing the Condition of the Navy in 1834," found in American State Papers, Naval Affairs, Vol. IV, pp. 378-79. Quarters rent for officers was only allowed where there were no government quarters.

248. Ibid.

F. Improvements to and Repair of Yard Facilities

1. Planning and Funding the Program

In October 1832 Commodore Bainbridge, in accordance with procedures, submitted a report listing maintenance items that should be funded in the near future. He advised the department that his quarters must be painted and the decayed covering on the east side removed.

Shiphouse I required a second coat of paint, while the masting shears needed two coats of "good paint."[249]

Secretary Woodbury included this information, along with other data provided by the board, in his budget, which he submitted to Congress in December.

On March 11, 1833, the commissioners transmitted an abstract of the sums appropriated by Congress for various improvements at the yard during the year. Included were:

Toward erection of a quay wall and stone fence thereon	$16,954.74
Toward placing foundations under shiphouse I and slip, clearing away old wharf, filling etc.	27,807.95
Toward quay wall from shiphouses G to 39 . . .	9,419.74
Toward erection of a steam box shed, a pitch house, and oil and varnish house	4,526.86
For completion of warrant officers' quarters in Block No. 7, authorized in 1832, and toward building two other quarters	9,000.00
For painting and repairing, etc., brick stores, officers' quarters, shiphouses, and mast shears; for painting porter's and gunner's quarters, blacksmith's shop and tank shed; for repair of wharves; and for painting and repairing mast, boat, and timber sheds . .	5,826.26
Total	$73,535.55[250]

249. Bainbridge to Rodgers, October 21, 1832, NA, RG 45, Letters Received, BNC.

250. "Annual Report of the Secretary of the Navy, Showing the Condition of the Navy in 1832," American State Papers, Naval Affairs, Vol. IV, p. 175.

Agent Broadhead was to contract for the materials and for laying the quay walls; for leveling and filling the yard; for the materials and positioning the foundation under shiphouse I; and for clearing away the old cobb wharf.

The wall next to the slip at the west end of the yard was to be of "good thickness, well laid and fourteen feet high above the coping of the dock."

The two additional quarters at site No. 7 were to correspond with the three already built. It was presumed that these houses, steam box shed, pitch house, oil and varnish house, and the projected repairs would be completed by December 31.

Better quality work, the board observed, could be secured by extending the deadline for the quay walls, the wall at the west end of the yard, and the foundation for shiphouse I until December 31, 1834.[251]

In mid-August 1833 Commodore Elliott recommended that the surplus funds on the books, about $10,500, be reprogrammed to: (a) complete and repair the foundation wall on the easterly side of shiphouse G; and (b) raze the building currently used as a boatshed and provision store. This structure was very insecure and when the earth was removed beyond, it would become more so. A new building should be erected for this facility at side 57 on the yard Master Plan.

Other high priority projects were: (a) construction of the east wall of the canal, west of shiphouse H, to the first bridge, and the filling with earth of the area between the shiphouse and canal wall. This earth to be taken from the high bank at the eastern end of the yard; (b) the removal of the wharf at the eastern end of the yard, adjoining the draw of the Chelsea Bridge. Once the wharf was out of the way, a seawall

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251. Rodgers to Bainbridge, March 11, 1833, NA, RG 45, Letters Sent, BNC.

should be built from the Chelsea Bridge around the eastern end of the yard to meet the quay wall. Coasters, he warned, were in the habit of making fast to this wharf, and the fire burning aboard their vessels constituted a hazard to the yard; (c) preparations should be made for erecting a building at site No. 15 on the yard plan; (d) estimates should be prepared for enlarging building No. 55 to enable the steam engine to saw lumber, and to provide a second story for mechanic workshops.[252]

After studying Elliott's want list, the board concluded that any unobligated funds remaining from the appropriation for quay walls and laying the foundations for shiphouse 39 and its launching ways were to be employed in positioning a stone wall under the southeast corner of shiphouse G and continuing the quay wall from its present termination near the dock to the shiphouse.[253]

On October 26 Elliott transmitted plans and estimates for: (a) a provision storehouse to be built at site No. 15; (b) a porters' quarters to be erected at site No. 8; and (c) for relocating the main entrance.

If the department deemed the cost of the storehouse too great to be funded in 1834, he argued that at least one wing of it be commenced.[254]

Before a week had passed, Elliott submitted estimates for "Improvements and Repairs for 1834." He placed the cost of an anchor hoy and water tank at $6,120, provided new materials were purchased for its construction. Naval Constructor Barker, however, was of the opinion that a large part of it could be built from available refuse timber and plank.[255]

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252. Elliott to Rodgers, August 14, 1833, NA, RG 45, Letters Received, BNC.

253. Rodgers to Elliott, August 15, 1833, NA, RG 45, Letters Sent, BNC.

254. Elliott to Rodgers, October 26, 1833, NA, RG 45, Letters Received, BNC.

255. Elliott to Rodgers, November 1, 1833, NA, RG 45, Letters Received, BNC.

After studying the documents, the department threw out the $3,000 estimate for removal of the old cobb wharf from the timber dock. Some of the surplus from the quay wall appropriation could be employed for that purpose. It was presumed that the remainder would be used to complete the slip and ways at site No. 39. If not, the board recommended that it be expended in leveling the area to form the enclosure for the lower officers' quarters.[256]

At the end of 1833 there was still on the books from the $73,535 appropriated for improvements $20,490.27. After completion of the works authorized by the board, Commodore Elliott reported, there would remain a balance of $18,047.40, and under "Repairs" a surplus of $1,930.10.[257] The former sum, he noted, could be spent "with advantage in opening a new entrance into the yard or to build a porter's lodge.[258]

The board questioned these figures. Replying, Elliott pointed out that the project funded by Congress in 1833 for filling in and foundations for shiphouse I and building slip at 39 had not been completed, but the appropriation for these objects--$27,807.95--was more than sufficient.

A contract had been made for leveling the hill, and would be executed when dirt was needed to fill the space around the slip.

The foundations for shiphouse I and the slip, along with the digging and filling, was one-fourth completed. The $18,000 balance reported to the board on the 15th was correct, Elliott wrote, and was independent of the appropriation "for foundation under shiphouse . . . [I] and slip, clearing away old wharf, filling, etc.," and of the appropriation for building quay walls from shiphouse G to 39.[259]

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256. Rodgers to Elliott, November 6, 1833, NA, RG 45, Letters Sent, BNC.

257. Preble, "History of the Boston Navy Yard," pp. 238-39, NA, RG 181.

258. Elliott to Rodgers, January 15, 1834, NA, RG 45, Letters Received, BNC.

259. Elliott to Rodgers, January 25, 1834, NA, RG 45, Letters Received, BNC.

The board, satisfied that its figures were correct and unwilling to sanction the relocation of the main entrance from Water Street to Henley Street or construction of a new porter's lodge, pigeonholed Elliott's request to reprogram the $18,000.

Congress on January 24, 1834, appropriated $86,300 for "Improvements & Repairs" to the yard in 1834. This money was to be allotted:

(a)	For extending quay wall	$12,500
(b)	Toward building a rope-walk	50,000
(c)	For laying stone ranges for guns	1,800
(d)	For construction of anchor hoy and water tank .	8,000
(e)	For enclosing houses at east end of yard . .	4,500
(f)	For extending and repairing timber docks, and repair of all timber docks and wharves . . .	5,000
(g)	For repair of all other buildings, and for keeping steam engines and dock pumps in repair. . .	4,500
	Total	$86,300

The department desired Elliott to proceed with the necessary arrangements for executing time (c), and for making expenditures under (f) and (g). Plans of the anchor hoy and water tank would be submitted for approval before building was commenced.

Item (e) was to embrace construction of a substantial stone wall, 12 feet high, as an enclosure for the block of quarters, with a gate to communicate with the yard. It was not deemed expedient at this time to change the quarters' fronts or to remove the wall paralleling the turnpike.

Arrangements were to be made for executing (a), either in 1834 or 1835, as it best suited the public interest. When completed, an opening, extending 10 to 15 feet on either side of the area allotted for the permanent gates was to be left, as they were to be seated in "regular masonry."[260]

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260. Rodgers to Elliott, February 8, 1834, NA, RG 45, Letters Sent, BNC.

In mid-April Elliott again took up with the board the previous year's program. He reported that all projects funded from the 1833 appropriation, but two, had been completed. As of the 15th no money had been expended under any of the 1834 appropriations for the yard, except for extending the quay walls and repair of buildings.

The surplus for 1833 Elliott estimated, after meeting all demands, would be nearly $18,500. Part of this sum, he reiterated, could be used advantageously for opening a new entrance, building a porter's lodge, tidal gates, and in finishing the avenue.[261]

The board failed to answer Elliott's letter, thus scuttling for the time being his proposal for expenditure of the surplus.

Commodore Elliott, following the commissioners' July visit to the yard, submitted to the department his recommendations for improvements to be funded in 1835. Wharfage, he noted, was at a premium, and great inconvenience resulted from its lack. In next year's program, he would include an estimate for a wharf at side No. 59, and a wall to make a solid wharf at the angle in the quay wall between 60 and shiphouse H, where the masting shears were to be erected.

The masting shears, currently in use, were old and would become hazardous within another three years. To guard against a disastrous accident, new shears should be erected.[262]

Elliott had not dipped into the $5,000 appropriation for extending the timber docks. This sum might be used to advantage in construction of a wharf at site 59, he added.

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261. Elliott to Rodgers, April 17, 1834, NA, RG 45, Letters Received, BNC.

262. Elliott to Rodgers, July 30, 1834, NA, RG 45, Letters Received, BNC.

2. The Upper Quarters Are Completed and the Warrant Officers Move In

By the time Commodore Bainbridge reached the yard in the summer of 1832, workmen were laying up the walls of the upper quarters. The Salem Turnpike culvert was built for less than the sum allotted, and the balance--$587.55--was transferred to the account for construction of the three warrant officers' houses. As of November 1 there had been spent on these structures for materials $5,836.84 and for labor $4,195.57, leaving $455.40 in the account for plastering.[263]

By late April 1833 the three houses were nearly ready for occupancy, while work on the two recently authorized dwellings was underway. Acting Commandant Smith was desirous of ascertaining to whom these quarters were to be assigned. According to the master plan, the occupants were to be the purser, porter, boatswain, gunner, and carpenter. He questioned whether the paymaster and porter should be billeted in this block until the present entrance into the yard is changed. Consequently, Acting Commandant Smith recommended that the sailmaker, who was allowed no rent, be allowed to occupy one and Sailing Master Waldo, officer of the check, the other.[264]

Replying, the board advised the acting commandant that the warrant officers were to have their choice of quarters in this order: boatswain, gunner, carpenter, and sailmaker. The dwelling designated "porter" on the plan could be occupied by the second sailing master until further orders. The house labeled gunner, if he chose one of the others, could be assigned to the sailmaker until one of those under construction was completed.[265]

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263. Bainbridge to Rodgers, November 7, 1832, NA, RG 45, Letters Received, BNC. Ten thousand dollars had been programmed for the quarters.

264. Smith to Rodgers, April 24, 1833, NA, RG 45, Letters Received, BNC.

265. Rodgers to Bainbridge, April 30, 1833, NA, RG 45, Letters Sent, BNC.

Boatswain William Hart was boarding with another yard officer and was anxious to rent the dwelling assigned him to Lieutenant Henry Bruce, who was allotted quarters aboard the receiving ship. Bruce wished his family to live with him.[266]

The quarters had been justified by the need to secure the attendance of the residents for the better preservation of the public property, the board reminded Elliott, and to provide the occupants with comfortable accommodations ashore. If any of the quarters were not required to insure these objects, they were to be allotted to another officer, who was receiving a housing allowance, to save the government that expense.[267]

On reviewing the master plan, Elliott saw that the porter was to have a "lodge" at the main entrance. The lodge was 15 by 18 feet and would answer for the porter "to occupy during the day and evening." He also noted that one of the quarters in the warrant officers' block had been reserved for the porter. It had since been appropriated by another officer.

This being the case, the porter would be without a house unless one was built for him or another structure assigned to him.

Elliott recommended that the porter's lodge, as shown on the master plan, be enlarged by raising it to two or three stories, so he would have a tenement to occupy connected with the lodge.[268]

It was not advisable to alter the "arrangements of the approved plan of the yard, as related to the accommodation of the Porter," the board

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266. Elliott to Rodgers, August 31, 1833, NA, RG 45, Letters Received, BNC. Mrs. Hart was in poor health, and Boatswain Hart could not afford to occupy the commodious quarters by himself.

267. Rodgers to Elliott, September 4, 1833, NA, RG 45, Letters Sent, BNC.

268. Elliott to Rodgers, September 6, 1833, NA, RG 45, Letters Received, BNC.

answered. Permission for another to occupy the house identified for his use was temporary, and had been allowed as the porter was already housed.[269]

By the end of September 1833, all the quarters had been completed and were occupied: No. 1 by Boatswain William Hart, No. 2 by Gunner William R. Brown, No. 3 by Carpenter Calvin Oaks, No. 4 by Sailmaker Samuel B. Bannister, and No. 5 by Sailing Master Charles W. Waldo (who was pulling duty as clerk of the check). The quarters were numbered from north to south.

The porter was quartered in the lodge at the main gate, while the house adjoining it on the north, formerly occupied by the gunner, now served as a sick bay. There were quarters for the assistant surgeon on the receiving ship Columbus.[270]

3. Relocating Walls and Building Fences at the Lower Quarters

In late August 1833 the commissioners called on Commodore Elliott to prepare estimates for: (a) removal of so much of the wall behind the lower block of quarters, as would leave an opening equal to "their extent"; (b) to construct walls from the east and west elevations of the quarters to the wall paralleling the Salem Turnpike; (c) to replace the wall removed with an iron fence; (d) to build "eight wood fences" to separate the yards of the four quarters; (e) to remove outbuildings from north of the quarters to facilitate a change so they would front on the turnpike instead of the yard; and (g) to cut off access from the quarters into the yard, except through the dwellings or a large gate. If through a gate, it was not to be opened without permission of the commandant.[271]

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269. Rodgers to Elliott, September 10, 1833, NA, RG 45, Letters Received, BNC.

270. Elliott to Rodgers, October 4, 1833, NA, RG 45, Letters Received, BNC.

271. Rodgers to Elliott, August 30, 1833, NA, RG 45, Letters Sent, BNC.

On November 19 Elliott forwarded a plan of the northeast section of the yard, depicting the wall proposed to be built around the commissioned officers' quarters.

If it were the board's object to include the entire area as shown on the master plan, his estimate must be doubled.[272]

At this time the quarters, which were numbered from west to east, were occupied: No. 1 by Master Commandant Joseph Smith, No. 2 by Lieutenant of the Yard Thomas W. Wyman, No. 3 by Surgeon George R. Sproston, and No. 4 by Sailing Master Robert Knox.[273]

In the spring of 1834 Commodore Elliott sought to change several of the quarters assignments. Because they were intimately associated with day-to-day operations of the yard, he wrote the department, it would be to the public's interest for the master commandant and lieutenant to switch quarters with the sailmaker and carpenter, who were "Idlers" as it pertained to general operation of the yard. These officers, Elliott noted, were agreeable to the move.[274]

The commissioners promised, on their next visit to the yard, to look into the subject.[275] On doing so, they determined to retain the status quo.

Elliott had had the grounds surveyed. On doing so, it was found that the quarters' foundations were 8 feet above the level of timber shed No. 32. To remove the earth about the foundations would "ruin" them, but to fill the ground around the timber shed, to raise it to the level of

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272. Elliott to Rodgers, November 19, 1833, NA, RG 45, Letters Received, BNC. The referred to letter is missing from the files.

273. Elliott to Rodgers, October 4, 1833, NA, RG 45, Letters Received, BNC.

274. Elliott to Rodgers, April 12, 1834, NA, RG 45, Letters Received, BNC.

275. Rodgers to Elliott, April 17, 1834, NA, RG 45, Letters Sent, BNC.

that at the quarters, would "nearly cover the doors" of the shed with earth.

To correct this evil, he suggested that the ground around the lower quarters be sloped downward to the level of the timber shed and that the stone wall be founded on a level with the shed.[276]

The board was agreeable. The quarters would be left at their present elevation, and the "yard space" graduated to "meet the general level about it."[277]

While the project was underway, the officers residing in the quarters asked that they be provided with a stables. Elliott desired the board's opinion on this subject.[278]

The master plan, the commissioners' replied, did not call for stables at the lower end of the yard.[279]

By mid-summer 1834 good progress was reported on the stone wall enclosing the quarters on three sides, but another $2,000 was needed to finish the project.[280]

4. Elliott Vainly Seeks Relocation of the Main Yard Entrance

On June 1, 1833, Commodore Elliott wrote the department regarding the main entrance to the yard. According to the 1828 master plan, he noted, it was to be relocated north of the warrant officers'

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276. Elliott to Rodgers, February 15, 1834, NA, RG 45, Letters Received, BNC.

277. Rodgers to Elliott, February 20, 1834, NA, RG 45, Letters Sent, BNC.

278. Elliott to Rodgers, April 16, 1834, NA, RG 45, Letters Received, BNC.

279. Rodgers to Elliott, April 21, 1834, NA, RG 45, Letters Sent, BNC.

280. Elliott to Rodgers, August 16, 1834, NA, RG 45, Letters Received, BNC.

quarters. There were in the vicinity of the main gate a number of "low tenements, and grocery stores" that made it most unpleasant. These dives were haunted by the "lower classes" of laborers, as soon as they broke off work. Already, businessmen, having seen the yard master plan, were lining Henley Street with the same type of hovels in anticipation of the change.

Elliott therefore recommended that the plan be changed to place the main entrance, when the present one was removed, at the angle on the Salem Turnpike side, between the Marine barracks and the ropewalk site. Opposite the yard in this area, there were "respectable buildings," and no space for "low or disgusting shops and Tenements."

An entrance here would also accommodate the officers living at the lower end of the yard, make the lower gate unnecessary, and place the only entrance to the yard under the eye of the commandants.[281]

The board at this time had no plans to change the location of the yard's main entrance. When it came time to implement this portion of the master plan, the department would consider Elliott's recommendation as an alternative.[282]

Undaunted by this rebuff, Commodore Elliott, on August 23, again called attention to the need to relocate the main entrance to the yard. The present situation facilitated "smuggling spirits." Taking a different tact than heretofore, he urged that it be relocated on the site designed by the master plan. The materials in the present gate could be reused. Stone, however, would be required to close the gap in the wall left by relocation of the Water Street entrance.[283]

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281. Elliott to Rodgers, June 1, 1833, NA, RG 45, Letters Received, BNC.

282. Rodgers to Elliott, June 5, 1833, NA, RG 45, Letters Sent, BNC.

283. Elliott to Rodgers, August 23, 1833, NA, RG 45, Letters Received, BNC.

Once again, the board rejected Elliott's proposal.[284]

5. Repairing and Beautifying Main Avenue

At the beginning of 1834 Commodore Elliott requested and received permission to utilize money accruing in the "ship fund" to "set out trees and to clear up our main Avenue."[285] This task was completed by mid-summer.

6. Enlarging the Gun Park

In mid-August 1833 Commodore Elliott inquired, will the department authorize from the appropriation for ordnance the purchase of stone and laying the same for foundations upon which to position the cannon about to be removed from Columbus and Independence?[286]

The department instructed Elliott that, in preparing his estimates for 1834, he was to ask for stone for a double range of guns between those now placed, and another range above the upper one currently in position.[287]

By the summer of 1834, Congress having appropriated $1,800 for this undertaking, the laying of the stone runners was underway.[288] It was completed by autumn.

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284. Rodgers to Elliott, August 30, 1833, NA, RG 45, Letters Sent, BNC.

285. Elliott to Rodgers, January 18 and August 16, 1834, NA, RG 45, Letters Received, BNC.

286. Elliott to Rodgers, August 19, 1833, NA, RG 45, Letters Received, BNC.

287. Rodgers to Elliott, September 14, 1833, NA, RG 45, Letters Sent, BNC.

288. Elliott to Rodgers, August 16, 1834, NA, RG 45, Letters Received, BNC.

7. Leveling the Yard Continues

In early January 1833, Messrs. Robinson and Lewis completed their contract for removal of 2,500 squares of earth from the yard's high bank.[289]

8. Good Progress Is Made on the Quay Wall Program

On June 21, 1833, Commodore Elliott recommended that the stone fence to be built atop the quay wall between cordage store (F) and shiphouse G be raised 3 feet. This was justified by the wharf, with a narrow slip between, where small vessels could lay-to. A person seeking to enter or leave the yard illicitly could do so by crossing their decks.[290]

The board believed a 14-foot wall was sufficient, but would defer a final decision until their mid-July visit to the yard.[291]

Since no minutes were kept or correspondence exchanged on the subject, we can only conclude that the 14-foot wall height was retained.

By late November the quay wall and stone fence between the cordage store and shiphouse G had been finished, and Elliott was authorized to approve payment by Agent Broadhead of the 10 percent retained, provided the amount reserved on the other portion of Bent and Company's contract was more than $12,000. The contractors and their suretors, however, must first make a statement that the payment of this sum would not affect their liability on the other works.[292]

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289. Wyman to Rodgers, January 9, 1833, NA, RG 45, Letters Received, BNC.

290. Elliott to Rodgers, June 21, 1833, NA, RG 45, Letters Received, BNC.

291. Rodgers to Elliott, June 26, 1833, NA, RG 45, Letters Sent, BNC.

292. Rodgers to Elliott, November 26, 1833, NA, RG 45, Letters Sent, BNC. Bent and Company was known to be in financial difficulty, as one of the partners had recently filed for bankruptcy. Elliott to Rodgers, November 30, 1833, NA, RG 45, Letters Received, BNC.

Bent and Company were agreeable to the stipulation. On December 9 they certified that the payment of the retained percentage would in no way interfere with their finishing the other contracts in 1834.[293]

Elliott's estimate for 1834 had been for a quay wall to run to the corner of the canal and then up the left bank of the canal to site 51, then back toward the upper end of the canal to site 44, then round the corner of site 44, and north to the wall laid in front of site 43.

The commissioners, however, seemed to imply that the wall was to run to the east canal, and, after crossing an open space, to continue onto site 58 to form a quay wall on the outside of the yard.[294]

The board responded that the quay wall was to be on the side of the canal shown on the yard plan leading to site 51, so as to leave space for the lock gates.[295]

By mid-summer 1834 Commodore Elliott was reporting good progress on this wall.[296]

9. Improving and Enlarging the Timber Dock

On October 27, 1832, the board wrote Commodore Bainbridge that there was an unexpended balance of $4,952.37 from the 1830 appropriation for timber docks at Charlestown, Washington, and Norfolk. Would it be possible, the board inquired, to spend a considerable portion of this balance on the Charlestown timber docks?[297]

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293. Bent to Elliott, December 9, 1833, NA, RG 45, Letters Received, BNC.

294. Elliott to Rodgers, February 12, 1834, NA, RG 45, Letters Received, BNC.

295. Rodgers to Elliott, February 18, 1834, NA, RG 45, Letters Sent, BNC.

296. Elliott to Rodgers, August 16, 1834, NA, RG 45, Letters Received, BNC.

297. Stewart to Bainbridge, October 27, 1832, NA, RG 45, Letters Sent, BNC.

As the money appropriated for this purpose in 1832 was nearly exhausted, Bainbridge recommended that the unexpended balance cited be employed in "extending those works."[298]

The board accordingly directed Bainbridge to have Agent Broadhead draw $3,000 from the subject timber dock account.[299] When eight months passed and no action was taken, the commissioners, on July 8, called upon Commandant Elliott, Bainbridge's successor, to perfect arrangements for the early expenditure of the $4,952.37. He was to give preference to those arrangements calculated to secure the timber and to insure that it was covered at every flood tide. Any surplus could be applied to the projected wharf.[300]

The reference to a "projected wharf" was triggered by a letter from Elliott, dated June 28, noting that a balance would be left from the $6,000 allotted for construction of quay walls from wharf 60 to shiphouse H and between shiphouse H and L.

As there was need for additional wharfage at the west end of the yard, he had suggested the propriety of extending wharf 60 to the quay wall to cover site 59 on the master plan. They would have to cut away wharf 60 to permit construction of the western end of the quay wall from 60 to shiphouse H.[301]

After studying the commissioners' July 8 letter, Elliott replied that there were no walls connected with the timber docks, except the quay wall between wharf 60 and shiphouse H. The available appropriation

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298. Bainbridge to Rodgers, November 1, 1832, NA, RG 45, Letters Received, BNC.

299. Stewart to Bainbridge, November 7, 1832, NA, RG 45, Letters Sent, BNC.

300. Rodgers to Elliott, July 8, 1833, NA, RG 45, Letters Sent, BNC.

301. Elliott to Rodgers, June 28, 1833, NA, RG 45, Letters Received, BNC.

would more than suffice to complete the docks, flood the timber at high tide, and keep them in repair.[302]

The low bid for removal of the cobb wharf was $1,280. This sum would be further reduced by salvage of the old timbers and 400 to 500 tons of ballast stone, which would be used in the quay wall between shiphouses I and 39.

After the wharf's removal, it would be necessary to have gates positioned in the openings through the quay wall between site 60 and shiphouse H to keep timber from floating out into the Charles River.

White oak timber for these gates and part of the anchor hoy and tank could be purchased from Mr. Cofran, at 30 cents per foot.[303]

The department approved Elliott's arrangements for removing the 1802 wharf. Commodore Rodgers and the board, however, were of the opinion that "floats" to close the openings, providing egress and ingress into the docks from the Charles, would be more satisfactory than gates.[304]

Naval Constructor Barker, however, was satisfied that floats would not prevent timber from escaping, as it would work under them in storms and at the ebb of the tide. He believed that swinging gates, alone, could effectively protect the timber. Elliott agreed, because timber had been lost through the float at the lower entrance to the basin inside quay wall 60 to shiphouse H.

Barker had been ordered to have a swinging gate made for the lower entrance, "as the water rushes out there at the ebb of the tide with great violence."

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302. Elliott to Rodgers, July 12, 1833, NA, RG 45, Letters Received, BNC.

303. Elliott to Rodgers, March 4, 1834, NA, RG 45, Letters Received, BNC.

304. Rodgers to Elliott, March 8, 1834, NA, RG 45, Letters Sent, BNC.

This gate was nearly ready for hanging.[305]

On learning these facts, the board agreed to the use of swinging gates.[306]

10. Improvements to the Timber Sheds

Late in October 1832 the board had notified the yard that, from the 1830 appropriation for timber sheds, there was an unexpended balance of $485.54. This could be applied toward improving the sheds. If so, Commodore Bainbridge was to call on Agent Broadhead to make a requisition for that sum.[307]

Bainbridge accordingly directed Agent Broadhead to withdraw the unexpended money from the subject appropriation, and employ it as the board had directed. These funds were used to enclose the space separating the wings of shed No. 38.[308]

11. Improving and Repairing the Shiphouses

In late May 1834, Commodore Elliott examined timbers removed from the ways under Virginia, in shiphouse I, and saw they were rotten. As Cumberland's ways, in shiphouse H, had been built about the same time, he presumed they were equally decayed. He urged the board to consider removal of the timber underneath her and replacing it with a "more solid material."[309]

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305. Elliott to Rodgers, March 12, 1834, NA, RG 45, Letters Received, BNC.

306. Rodgers to Elliott, March 17, 1834, NA, RG 45, Letters Sent, BNC.

307. Stewart to Bainbridge, October 27, 1832, NA, RG 45, Letters Sent, BNC.

308. Bainbridge to Rodgers, November 1, 1832, NA, RG 45, Letters Received, BNC.

309. Elliott to Rodgers, May 29, 1834, NA, RG 45, Letters Received, BNC.

The board accordingly called for an estimate of the cost of altering the "foundations" under Virginia and Cumberland. This was to include the cost of bringing the foundations to the surface or above, so as to "merely require blocks under the keels and a thick plank under the keel of the shores."[310]

If there were sufficient funds remaining from the appropriation for "placing foundations under shiphouse I and slip," the commissioners were agreeable to employ them for repair of Cumberland's foundation.[311]

Of the many projects funded under "Improvements & Repairs" since he had become commandant, Elliott explained, only two had exceeded estimates. One of these was for the anchor hoy and the other the foundations under shiphouse 39. Because of an error in wording, the foundation had been built under shiphouse I, covering Virginia, the third house in number from the western end of the yard, and a foundaton for a shiphouse on site 39 and a slip commenced. To complete the latter, $6,000 had been drawn from the $15,000 surplus in the Improvements and Repairs account for 1833.

Then, to make it more embarrassing, the foundation and slip at site 39 had cost more than the estimate, because "the formes had to be dug much deeper and broader" than intended.[312]

As a result of the arrearage, there were no funds to repair Cumberland's foundation in 1834.

Meanwhile, Elliott had been compelled to remove the ballast from shiphouse G (Vermont's). As there was no brow, he recommended that a wall be built. Its cost could not exceed $200.[313]

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310. Rodgers to Elliott, June 14, 1834, NA, RG 45, Letters Sent, BNC.

311. Chauncey to Elliott, June 21, 1834, NA, RG 45, Letters Sent, BNC.

312. Elliott to Rodgers, August 16, 1834, NA, RG 45, Letters Received, BNC.

313. Elliott to Rodgers, July 24, 1834, NA, RG 45, Letters Received, BNC.

On August 16 Elliott transmitted J. Turner's estimates for building stone walls at the shiphouse's brow. His price for materials and labor was $250.[314] The board directed Elliott to contract with Turner.[315]

12. The Construction of a Steam Box Shed and Pitchhouse

On May 16, 1833, Commandant Elliott transmitted to the department plans for a needed steam box and pitchhouse.[316]

After reviewing the plans, the board directed that these structures be sited at the positions recommended in the estimates. Under no circumstances was the cost to exceed $3,116.65 for the steam box and $510.60 for the pitchhouse.[317]

These structures were erected during the summer.

13. Maintenance of the Brick Stores

Commodore Bainbridge in October 1832 called attention to the need to paint the brick stores and box in their cellars. New doors were likewise required. Funds for this maintenance-oriented work were included in the 1833 appropriation and promptly accomplished.[318]

On August 16, 1833, Commandant Elliott forwarded estimates for "putting in good order the Brick Store" occupied by the boatbuilder.[319]

The commissioners quickly approved this request.[320]

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314. Elliott to Rodgers, August 16, 1834, NA, RG 45, Letters Received, BNC.

315. Morris to Elliott, September 3, 1834, NA, RG 45, Letters Sent, BNC.

316. Elliott to Rodgers, May 16, 1833, NA, RG 45, Letters Received, BNC.

317. Rodgers to Elliott, May 24, 1833, NA, RG 45, Letters Sent, BNC.

318. Bainbridge to Rodgers, October 21, 1832, NA, RG 45, Letters Received, BNC.

319. Elliott to Rodgers, August 16, 1833, NA, RG 45, Letters Received, BNC.

320. Rodgers to Elliott, August 16, 1833, NA, RG 45, Letters Sent, BNC.

14. Repairs and Alterations to Yard Engines

In the winter of 1834 Engineer Butts prepared plans for improvements to the boilers and other parts of the Lester dry dock steam engine. Both Colonel Baldwin and Lester thought well of these improvements.[321]

The department was agreeable to these alterations, and Butts was directed to see that they were implemented.[322]

In November 1834 the board called for data on the condition of the small steam engine employed for pumping out the dock during construction.[323]

To repair the engine and boiler, Elliott answered, would cost about $300. Funds for this work were included in the 1835 appropriation.[324]

G. Work Begins on the Ropewalk

1. Commodore Morris Submits Plans and Estimates

The department in the autumn of 1831 called on Commandant Morris to secure information regarding ropewalks and their machinery. This data would be used to formulate a request to Congress for an appropriation to build two public fireproof ropewalks. Thus, the department was finally pushing for implementation of a project first championed by Commodore Bainbridge nearly two decades before.

Morris would also make inquiries whether the spinning machines employed at Mr. Gray's ropewalk possessed all the attributes ascribed to

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321. Elliott to Rodgers, June 17, 1834, NA, RG 45, Letters Received, BNC.

322. Chauncey to Elliott, June 21, 1834, NA, RG 45, Letters Sent, BNC.

323. Morris to Elliott, November 10, 1834, NA, RG 45, Letters Sent, BNC.

324. Elliott to Rodgers, November 14, 1834, NA, RG 45, Letters Received, BNC.

them. Specifically, the board wished to know: What was the unit cost of each machine? How many would be required in the projected ropewalks? What would be the annual cost of steam power for operating them? Gray's or the proprietor's fee for use of the patent? This information was needed to justify to Congress the economic advantage to the United States in employing machines for the manufacture of cordage.[325]

After making the necessary inquiries, Morris learned that Daniel Treadwell held the patent on the machines at Gray's ropewalk. Treadwell believed his machine for spinning hemp was an economic success. Owners of mills, where they were in use, were enlarging their facilities and purchasing more machinery.

To spin yarns for 1,000 tons of tarred cordage annually, he continued, would require 100 spinning machines, and 12 large and 8 small "roving or preparatory machines."

He refused to name a sum for which he would grant a "general privilege to the United States" for use of his machines. Treadwell would

> put up any given number of Spinning machines with all the necessary roving . . . machines, complete, for one thousand dollars for each Spinning machine; . . . this to include the right of using these machines for Government purposes only. The Government to furnish the buildings, power, and drums to connect the power with the machines.

He estimated that a 20-horsepower steam engine could propel the machinery. One hundred spinning machines would require 10 men and 6 boys; the 12 large roving frames 12 men, and the 8 small roving machines 8 boys.

Treadwell informed Commodore Morris that the building to house this machinery required an area for the steam engine and a "clear space 120 by 35 feet for the roving frames and 240 by 35 feet for the spinning

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325. Rodgers to Morris, September 26, 1831, NA, RG 45, Letters Sent, BNC.

machines." The structure(s) would have to be built in a "most firm and substantial manner to prevent injury to the machinery by any jarring motion."

The cost of spinning yarns of 20 threads to the hook in one of Massachusetts' best managed ropewalks, Treadwell continued, was $30 per ton, which would make the cost of 800 tons of yarn, to make 1,000 tons of tarred cordage $24,000. This compared to $16,426 for making 1,000 tons of cordage with his machines. This figure did not include the "first cost" of the machines, steam engine, and buildings.

Besides the cost advantage, the machine yarns were spun from the ends of the hemp, instead of the bight, which gave "the whole length of the fibre in the direction of the length of the yarn." Moreover, the yarns were spun more evenly and were "more equally twisted as the machine" regulated the size and number of turns given in any particular length.

Commodore Morris pronounced Treadwell's machine to be simple, unlikely to breakdown, and easy to operate by semi-skilled labor.[326]

Commodore Morris had Superintendent Alexander Parris prepare plans and estimates for four alternatives for a ropewalk, tarring house, etc. When Morris mailed these to Washington, he noted that "Plan A" consisted of a three-story headhouse, 70 by 60 feet; and two connecting structures--the first of three stories--with a length of 360 feet and a width of 44 feet, and the second a single story structure 44 feet by 940 feet. The headhouse was designed to accommodate on its first floor the "Steam Engines for spinning and laying up the Cordage and a space for setting up the bands of the machines." The second and third stories of the headhouse and the connecting stories of the 360-foot wing were to house the "patent spinning and preparing machinery," and the hatcheling room.

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326. Morris to Rodgers, October 25, 1831, NA, RG 45, Letters Received, BNC.

The lower story of the 360-foot structure and the 940-foot wing were for laying-up cordage. This arrangement would "bring the machines as near the power" as is convenient, but it would preclude the spinning of yarn by hand.

"Plan B" included a headhouse, similar to Plan As, and a two-story rope and spinning walk. If the Treadwell spinning machines were adopted, it was to be about 700 feet in length. Part of the second story could serve as a hemp or cordage loft. Should the "common mode of spinning be required, either from choice or necessity, accommodations would be prepared for it." Consequently, Commodore Morris considered this plan best, as it could be adapted to either mode of spinning.

The dimensions of the tarring and hemp houses would be similar, whether the yarns were spun by hand or machinery, but space arrangements would vary, because in one case the yarns were tarred in hands, and the other from one bobbin to another.

"Plan C" embraced the site designed by the 1828 master plan for the ropewalk and the contiguous area. The configuration of the proposed walks were shown in black, while those as laid down in 1828 were outlined in red. These changes had been made as a result of the advice of superintendents of area ropewalks. A walk such as the government planned, they had stated, required a "clear breadth of 40 feet besides the supporting joists in the centre, of one foot each." The length of the walk had been extended to 1,300 feet, a distance necessary for manufacture of 210-fathom cables. The site of the tarring house had been shifted. These alterations, Morris assured the department, would not injure any other of the proposed improvements, but were justified as the original dimensions had been laid down without any imput from "practical Rope Makers."

Two sets of estimates were submitted, one presuming that the ropewalk would be built of granite and the other of brick. The cost of iron window shutters--$20,396 for Plan A and $26,570 for Plan B-were high, but seemed necessary to make the structures fireproof.

Two steam engines were recommended, rather than one. When united they provided the same power. This doubled the chance of always having one ready for service, while permitting one to be employed for spinning and the other for "laying common sized Cordage, and the power of both can be used for heavy cables."

The estimated costs of a ropewalk built on Plan A, depending on types of material, were:

		If of Brick	If of Stone
For head building as per estimate .	No. 1	14,511.00	18,255.00
For spinning room and part of Walk	No. 2	36,475.00	42,065.00
For the remainder of the Walk .	No. 3	44,740.00	54,395.00
For Tarring and Yarn House . .	No. 5	4,927.00	5,500.00
Total Cost of Buildings		$100,653.00	$120,215.00
Steam Engines and all other machinery for Cordage No. 6 . . .	No. 6	30,000.00	30,000.00
Additional cost of machinery for patent spinning No. 7 . . .	No. 7	95,000.00	95,000.00
Total Cost		$225,653.00	$245,215.00

If Plan B were adopted, the cost estimates were:

		If of Brick	If of Stone
For head building, as per estimate .	No. 1	14,511.00	18,235.00
For Rope and Spinning walks . .	No. 4	100,532.00	120,220.00
For Tarring and Yarn House . .	No. 5	4,927.00	5,500.00
Total Cost of Building		119,970.00	143,955.00
Steam Engine and Machinery for laying Cordage, and spinning yards by hand .	No. 6	30,000.00	30,000.00
Total Cost for hand spinning		149,970.00	173,955.00
Add price for patent spinning .	No. 7	95,000.00	95,000.00
Total Cost if patent spinning is used		$244,970.00	$268,955.00

If the additional expense were not deemed too great, Commodore Morris urged that granite be used in preference to brick.[327]

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327. Morris to Rodgers, November 19, 1831, NA, RG 45, Letters Received, BNC.

2. Secretary Woodbury Advises Congress of the Need

After this data was submitted to Secretary of the Navy Woodbury, he informed Congress that his department was "contemplating" ropewalks at several of its yards. All "observations and experience," Woodbury continued, demonstrated that in nothing did the Navy suffer more than from inferior cordage. Imperfections in the quality of hemp, in its manufacture, and in the tar, were numerous and difficult of detection, productive of "injurious delays when identified, and when not detected, exceedingly hazardous to the safety of both ship and crew." Indeed, Secretary Woodbury informed Congress, the "reasons seem more powerful in favor of making our own cordage, than in building our own vessels, or manufacturing our own blocks and anchors."[328]

Congress, however, in 1832 ignored the secretary's call for a $140,000 appropriation to cover construction of two ropewalks of "the best materials, in the approved manner."[329]

3. Congress Appropriates $50,000

Jesse Elliott, who became commandant in May 1833, was an activist. To galvanize the department into reopening the subject and to justify an appropriation for a ropewalk, he argued that its construction would, over the long run, save the United States "enormous" sums annually. Moreover, it would assure quality cordage, at a price equal to that or below that paid to contractors.

While in command at sea, Elliott had been frequently annoyed by substandard cordage. "When we consider that the safety of a ship, and the lives of her crew are often dependent upon small cordage and cables," Elliott informed the secretary, "it seems to be right and proper that the government should take all proper measures in their power to have the articles good."

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328. "Annual Report of the Secretary of the Navy, Showing the Condition of the Navy in the Year 1831," found in American State Papers, Naval Affairs, Vol. IV, p. 7.

329. Ibid.

If the government manufactured its cordage, the quality could be guaranteed, and bear comparison with any in the world.

Such an undertaking would be attended with "much trouble and anxiety." But the public benefit and advancement of the Navy would cause most Navy men "to hail an appropriation" for construction of a ropewalk. He would cheerfully and earnestly work with the administration in urging the project "onward on its final completion."[330]

On October 2 Elliott transmitted to the board revised estimates for a ropewalk and tarring house to be erected on sites Nos. 28 and 29. Since estimates were submitted by Commodore Morris in 1831, the price of labor, brick, and stone had increased 20 to 25 percent, and would continue to do so. To escape the inflationary spiral, he urged that all or part of these structures be erected in 1834.

The enclosed estimates, he noted, were predicated upon the plans and elevations forwarded in 1831.[331] See appendix for a copy of the subject estimates.

Before the end of October, Elliott transmitted up-dated and detailed estimates. The figures for Treadwell's patented spinning equipment differed considerably from those sent on the second, as they had been prepared by the inventor.[332]

Elliott, to test Treadwell's machines, had one hauled out to the yard and set up.[333]

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330. Elliott to Woodbury, August 13, 1833, NA, RG 45, Letters Received, BNC.

331. Elliott to Rodgers, October 2, 1833, NA, RG 45, Letters Received, BNC.

332. Elliott to Rodgers, October 25, 1833, NA, RG 45, Letters Received, BNC.

333. Elliott to Rodgers, October 26, 1833, NA, RG 45, Letters Received, BNC.

Meanwhile, he had recommended that $10,051.98 be allotted to "prepare a foundation for the ropewalk . . . or in such other manner as the Commissioners may direct."[334]

The commissioners rejected this request, because Congress had failed to vote any funds for a ropewalk.

Congress now reversed itself. The second session of the 22d Congress, which convened in December 1833, appropriated $50,000 to begin construction of the ropewalk. On being advised of this, Commodore Elliott reminded the department that the Navy had three competitors for stone and would have a fourth after the War Department entered the market. When this occurred, it would alter the present situation where granite was selling at a low price, because of local demand for hard money. Consequently, now (in the late winter of 1833-34) was the time to make contracts for delivery of stone for the ropewalk and quay walls.

He desired to know whether the entire foundation of the ropewalk was to be laid first, or whether part of it was to be positioned and the building commenced on it.[335]

Elliott waited impatiently as four weeks slipped by. He then addressed another letter to the department, in which he argued that, because of the deflation, now was the time to contract for stone for the ropewalk.[336]

Six days later, on March 19, Elliott reminded the commissioners that Agent Broadhead was contracting for materials at a savings to the United States of 30 percent over those purchased in 1833. The scarcity of

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334. Elliott to Rodgers, October 19, 1833, NA, RG 45, Letters Received, BNC.

335. Elliott to Rodgers, February 12, 1834, NA, RG 45, Letters Received, BNC.

336. Elliott to Rodgers, March 13, 1834, NA, RG 45, Letters Received, BNC.

money in circulation resulting from the Jackson administration's fiscal policies had caused the cost of labor and materials to depreciate rapidly.[337]

4. Selection of and Contracting for Materials

The board finally gave Elliott the go ahead. Agent Broadhead, after being briefed, was to contract for all foundation stone and hammered Quincy granite, brick or other stone, including window caps and sills, necessary to lay the foundation and construct the walls of the ropewalk to a height of one story.

The walk was to present a granite exterior and have "stone backing or very hard burnt brick, as upon consultation with Mr. Parris may be deemed best." The walls of the lower story were to be 2 feet thick; the foundations of sufficient thickness to support such a wall, and be at least 3 feet deep.

The granite to be laid in regular courses, with the beds, builds, and ends hammered to make very close joints. The face of the work need not be "so much hammered, as that of the Engine House, but immediately between that and the face of the pillars of the timber shed last built."

Contracts could be made for necessary timber, planks, and boards for the roof and one floor, if, after executing the agreements for stone and brick, there were enough funds remaining from the $50,000 appropriation.[338]

Master Mason Job Turner and Alexander Parris were in agreement that the ropewalk could be built of stone "hammered" like the wall recently laid at the west end of the yard," with one face & close joints at

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337. Elliott to Rodgers, March 19, 1834, NA, RG 45, Letters Received, BNC.

338. Rodgers to Elliott, April 1, 1834, NA, RG 45, Letters Sent, BNC.

a saving of 50 percent more than if hammered smoother than the timber shed pillars." Such construction, they stated, was as strong and pleasing to the eye.[339]

The department was agreeable to the use of hammered stone, provided care was exercised to have "very close joints."[340]

After discussions with Captain Parris and Agent Broadhead, Elliott inserted this advertisement in the Boston newspapers:

> Proposals will be received at this office [Broadhead's] until the last day of May for furnishing the Navy Yard, Charlestown, Mass., materials of the following dimensions and descriptions, viz.--1864 cubic yards of Stone, suitable for a foundation wall, of 2 feet 8 inches; 28,700 superficial feet of hammered Granite like sample not less than one fifth the whole quantity to be headers and binders, and no stone to be less than 8 inches thick, to be dressed to a plan, and in quality of workmanship to be equal to a pattern stone which will be shown on application to the Commandant of the . . . yard.
>
> 960,000 good hard bricks.
>
> 273 window sills of 3 feet 8 inches long, 6 inches thick, 2 feet 2 inches wide.
>
> 28,700 feet rough stone, with the beds, builds and end hammered, to make close joints, the face of the stone not to be dressed more than the western [yard] wall built last season--the same proportion (one-fifth) to be headers and binders.
>
> 38,000 cubic feet of rubble stone, for backing up the walls.
>
> The delivery of all the above articles to commence on the first day of August, and to be completed by the first day of November next.
>
> The stone to be delivered on such wharf in the Navy Yard as the Commandant may direct and the bricks to be delivered and piled on the ground at the site of the contemplated Rope Walk.

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339. Elliott to Rodgers, April 1, 1834, NA, RG 45, Letters Received, BNC.

340. Rodgers to Elliott, April 7, 1834, NA, RG 45, Letters Sent, BNC.

Elliott placed the closing date on May 1, because "more advantageous 'Bids' can be taken previous to that time than afterwards." He had deleted the word "Quincy" from the advertisement, substituting "like sample," because only one individual had previously made bids for Quincy stone. This phrase would given an opportunity to bid to a number of persons, and permit the Navy to take advantage of the competition.

Offers would be received for two kinds of stone. This would enable Elliott to present the board with two sets of cost figures, especially in view of Parris' and Turner's report.

Proposals for rubble stone and brick had been solicited, in case they were needed.

In calling for proposals for supplying materials, Elliott named August 1 as the date deliveries were to begin, as the commissioners were in habit of visiting the northern yards at that time. He hoped that they would allow work on the foundations to commence, so that they would settle and be ready to receive the superstructure early in 1835.[341]

The board, on reviewing the advertisements inviting proposals, saw they lacked a "small amendment." As phrased, it appeared to require delivery of all that was enumerated, whereas the intention was to "take a certain quantity of face hammered stone and Brick, or a certain quantity of rough hammered stone and rubble stone."

When the proposals were transmitted from review and approval, they were to be accompanied by affidavits from architect Parris and Master Mason Turner, as to relative strength, solidity, and other advantages of the two modes of backing, etc., brick vs stone.[342]

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341. Elliott to Rodgers, April 5, 1834, NA, RG 45, Letters Received, BNC. Captain Parris' copies of the plans and memoranda pertaining to the ropewalk had been lost when Captain Battles, to whom they had been given, killed himself.

342. Rodgers to Elliott, April 9, 1834, NA, RG 45, Letters Sent, BNC.

Agent Broadhead, when shown the board's letter, explained to Elliott that local custom dictated that the proposals were not binding upon the government, and if they asked for one kind or the other, they might not receive "so many nor so fair offers for either." But, on calling for proposals for the entire quantity of materials, they could get many "fair bids for both kinds," and leave it to the board to "decide which should be accepted."

In any event it was too late to change the wording of the advertisements.[343]

The board accordingly approved the procedure.[344]

Meanwhile, Asa Pritchard and Moses Day had submitted a proposal to furnish rough ashlar, the beds and builds hammered, at 25 cents per superficial foot, and all faced stone for the ropewalk at 40 cents per superficial foot.[345]

Elliott, on mailing a sample of the Pritchard-Day stone to the board, noted that it was hard and handsome, and in Captain Parris' opinion makes as good-looking wall as Quincy granite. One of these men, Day, had furnished the stone for timber shed No. 38.[346]

Several of the interested parties had indicated that they preferred to make deliveries before August 1, the date specified in the announcement.

If this were permissible, Elliott recommended that he be allowed to begin the foundation as soon after the bids are in, as practicable, "as

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343. Elliott to Rodgers, April 16, 1834, NA, RG 45, Letters Received, BNC.

344. Rodgers to Elliott, April 19, 1834, NA, RG 45, Letters Sent, BNC.

345. Pritchard and Day to Agent, April 4, 1834, NA, RG 45, Letters Received, BNC.

346. Elliott to Rodgers, April 5, 1834, NA, RG 45, Letters Received, BNC.

the longer it settles the better, previous to the erecting of the superstructure."[347]

The department had no objection when the materials were received, provided they were stowed conveniently for use.

Work could be commenced on the foundations, leaving those of the headhouse to last, or until the board gave necessary orders. Great care was to be taken to insure that the foundations were sunk to guard against frost and to provide "permanent stability."[348]

By May 1 Elliott, having examined and abstracted the proposals, discussed them with Captain Parris. This schedule was transmitted to the board the next day.

In a covering letter, Elliott pointed out that he and Agent Broadhead, subject to the board's approval, had selected these contractors--Colburn & Ames for rough stone, B. Parker for bricks, and Charles Hollis for window sills.

Bids had been taken upon samples marked Nos. 1, 2, and 3, which were in the yard, and the stone chosen was similar to the kind mailed to the board, except it was a little darker. It could be secured in the quantity advertised for, from $10,000 to $12,000 less than the type of stone first recommended to the board.

Rough calculations by Captain Parris indicated that the 1834 appropriation would enable them to purchase all the necessary stone and brick, besides covering the labor cost of laying the foundations and for purchase of lumber and timber for the roof and first story.[349]

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347. Elliott to Rodgers, April 25, 1834, NA, RG 45, Letters Received, BNC.

348. Rodgers to Elliott, April 29, 1834, NA, RG 45, Letters Sent, BNC.

349. Elliott to Rodgers, May 2, 1834, NA, RG 45, Letters Received, BNC.

This information was deemed insufficient to enable the board to form an opinion as to which proposal was the most favorable.

It had been decided by the commissioners to have the "stone facing built, with the Beds, builds and ends very well hammered to make close joints . . . the face to be rough, the backing to be of the best hard burnt brick, the caps and sills of hammered granite of any kind which may be preferable." Care was to be taken to have the door and window jambs so hammered as to allow the door and iron window shutters to back easily and safely.

It was impossible for the board to determine whether the prices for rough stone (28,700 feet) were superficial or cubic measure. The column for sills said nothing about caps.

They urged that particular care be taken in deciding upon the proposals, and in framing the contracts "so as to secure the delivery of the materials precisely as they may be wanted in point of dimension and finish."

If the contractors were agreeable, Elliott was to insert a clause authorizing the United States to require and binding them to deliver additional quantities of the various materials at the same prices, provided the board should so direct.[350]

Captain Parris explained that the window caps were considered to be a part of the [illegible] and would be included with that work. The sills had been "offered" by the warden of the state prison at 55 cents and were calculated by superficial measure, i.e., "measuring the top, front, edge and under sides, making the whole breadth of 2 feet 9 inches by 3 feet 8 inches," and the length about 10.09 feet, and the price $5.56 per sill.

The contractors for the 28,700 feet of rough stone understood that it was to be measured:

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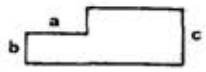
350. Rodgers to Elliott, May 7, 1834, NA, RG 45, Letters Received, BNC.

the faces, ends & revels next the doors & windows thus measuring from a [which is the revel] and is to be hammered to b from thence to c which is the face of the work & to be roughed off to make face work, no stone to be less than 8 inches thick.



The headers or binders were to be from 18 to 20 inches thick, and were to have their beds measured as well as their faces, "the whole to be calculated by superficial measures."[351]

On May 13 Commodore Elliott named Alexander Parris superintendent to oversee construction of the ropewalk, and transmitted copies of the contracts to Washington for approval.[352]

The board, unfamiliar with the technical terms, would rely on Superintendent Parris to exercise "great care that the contracts are so made as to secure the interests of the United States."[353]

The stone for the ropewalk was contracted for at 32 percent less than the estimates, and the brick, timber, and other materials at the same rate.

The cellar under the headhouse was to be dug by the contractor, who leveled the hill, for $3.25 per square. If a cellar under the main building were approved, he would do it at the same price.[354]

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351. Parris to Elliott, May 13, 1834, NA, RG 45, Letters Received, BNC.

352. Elliott to Rodgers, May 13, 1834, NA, RG 45, Letters Received, BNC.

353. Rodgers to Elliott, May 17, 1834, NA, RG 45, Letters Sent, BNC.

354. Elliott to Rodgers, August 16, 1834, NA, RG 45, Letters Received, BNC. The successful contractors were: Torrey, Colburn & Evans for stone; Edwards, Fitch & Cutter for brick; Charles Hollis for window sills; Josiah Rogers for timber; Josiah Wetherbee for cornice; Massachusetts State Prison for stone; and James Borren for slate.

The stone for the ropewalk would be quarried on Cape Ann.[355]

5. Removal of Intrusions from the Site

When they staked the approved site, Commandant Elliott saw several problems. First, there was "a quantity of shot and shells occupying a portion of the western end." These would have to be removed before the foundations were commenced. To make a platform for these projectiles east of the one extant, near the avenue in front of the ropewalk site, would require 500 running feet of edge stone.[356]

The commissioners handled this by sanctioning laying out an additional platform in the shot park.[357]

The second problem was the proximity of the ropewalk's westerly elevation to the Marines' compounds. It, as staked, would extend into the garden at the east end of the barracks, but not too close to any entrance or to interfere with the parade ground.

There was only one entrance from the Salem Turnpike at the east end of the barracks, and this was close to the structure, with a footpath to the lieutenants' quarters. This would not be obstructed by the ropewalk.[358]

Commodore Rodgers and the board had no sympathy for the Marines, as they had no right to the ground, and would not be "incommoded by taking it for the Rope Walk."[359]

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355. Elliott to Rodgers, February 11, 1835, NA, RG 45, Letters Received, BNC.

356. Elliott to Rodgers, May 2, 1834, NA, RG 45, Letters Received, BNC.

357. Rodgers to Elliott, May 7, 1834, NA, RG 45, Letters Sent, BNC.

358. Elliott to Rodgers, May 10, 1834, NA, RG 45, Letters Received, BNC.

359. Rodgers to Elliott, May 17, 1834, NA, RG 45, Letters Sent, BNC.

6. The Yard Master Plan Is Modified

Superintendent Parris had discussed with Mr. Treadwell and his associates of Boston Cordage Manufactory the location of the hemp house. They urged that it, as well as the tarring house, be sited near the walk. Parris therefore prepared a plan showing a proposed relocation for these buildings. It was planned to connect the ropewalk's cellar with the tarring house by an arched passage. Through it would pass the belts to power the tarring machinery.

The hemp house should be a 70-foot front, and match the headhouse's facade. Its depth he placed at 100 feet, while its height equalled that of the headhouse. A building of this size would cost about $30,000. Estimates and plans would be prepared, when the size of the structure was approved.[360]

On November 8 Commodore Elliott transmitted to the department a plan of the ropewalk, depicting the recommended changes.[361]

H. Thirty Eventful Months At the Marine Barracks

1. The Marines are Reinforced, the General Orders Refined, and Posts Identified

In mid-August 1832 the strength of the Marine detachment was boosted by transfer to it of Lieutenant Jacob Zeilin and the guard from the sloop Erie. On her return from service with the West India Squadron, she had been placed in ordinary. Colonel Freeman was impressed with the newcomers' "soldier-like-appearance and good order."[362]

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360. Parris to Elliott, November 7, 1834, NA, RG 45, Letters Received, BNC.

361. Elliott to Rodgers, November 8, 1834, NA, RG 45, Letters Received, BNC. According to the 1828 Master Plan, the former was to be sited parallel to and adjacent to the walk's southwest elevation and the latter southeast of the tarring house. The proposed sites would locate them in the same corresponding relation, but on ground proposed for structure No. 30, near the headhouse.

362. Freeman to Henderson, August 15, 1832, NA, RG 127, Letters Received.

Early in December the detachment was further strengthened by arrival at the barracks of Boston's Marine guard. These men had spent the last several years in the Mediterranean.

Commodore Elliott, on assuming command of the yard in May 1833, laid off the civilian guards hired by Commodore Morris, replacing them with Marines.[363] By this time, however, Colonel Freeman had seen his detachment decimated by transfers to sea duty, discharges, and desertions. During the ten days ending on July 7, eight men had gone over the wall. Because of this situation, he informed Commodore Elliott, it would be impossible for him to continue to furnish the designated number of sentinels. The number of posts would have to be reduced from five to three. Elliott was to designate the ones to be discontinued.[364]

In view of the decision to lay off the watchmen, people drawn from ordinary were detailed to man certain of the posts until such time as the Marine detachment was reinforced and able to discharge its responsibilities.[365]

Commodore Elliott, on reviewing the sentries' general orders, felt that the one concerning stopping an individual, who refused to halt, should be more explicit. As now written, the sentinels could not stop a man required to halt without firing. If they shot and killed him, the Marine(s) would face trial for murder in the first degree.[366]

He accordingly suggested to Colonel Freeman that the order be changed to read, "After challenging three times distinctly, he will hail

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363. Elliott to Rodgers, October 18, 1833, NA, RG 45, Letters Received, BNC.

364. Freeman to Elliott, July 5, 1833, NA, RG 127, Letters Received. Freeman attributed the rash of desertions to the unexpected receipt of two months' back pay by his detachment.

365. Rodgers to Elliott, October 14, 1833, NA, RG 45, Letters Sent, BNC.

366. Elliott to Rodgers, November 30, 1833, NA, RG 45, Letters Received, BNC.

the guard and use all means in his power [without firing] to take them and prevent any escape."[367]

Colonel Freeman agreed to this rephrasing of his sentries' general orders. Agreement was also reached on the five posts to be manned by the now reinforced Marines in the yard. They were: post No. 2 at the main or west gate; post No. 3 on the wharf in front of the receiving ship; post No. 4 on the wharf northeast of shiphouse I; post No. 5 on the wharf by corner of the timber shed; and post No. 6 along the wall from the Marine barracks to the closed gate at the lower end of the yard. This last post had been established to keep recruits from going over the wall at night.[368]

2. The Marines Intervene in the November 1833 Riots

On Thanksgiving evening (November 28, 1833) there was a riot in Charlestown between Irish railroaders and some townspeople. Benjamin Daniels, a blacksmith, was beaten to death and two others seriously injured.

Next evening, about 7 o'clock, a mob of about 500 assembled. They proposed to wreck the house in which the Irish had been celebrating, and from which they had sallied to kill Daniels. The mayor and selectmen, apprised of what was planned, rushed to the scene and sought to disperse the mob. One of the selectmen attempted to read the riot act, but some one blew out the candle.

The selectmen now called on the Marines for help. Lieutenant Zeilin, a future Corps Commandant, was on duty at the barracks. Turning out 30 to 40 Marines, he marched them on the double quick to the site of the disturbance. On their arrival, they found the house damaged, and the mob out of control. Deploying his Marines, Zeilin cleared two streets, and kept the throng at a distance, without receiving anything beyond

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367. Elliott to Freeman, November 30, 1833, NA, RG 45, Letters Received, BNC.

368. Freeman to Elliott, December 5, 1833, NA, RG 45, Letters Received, BNC.

shouted insults until 9 P.M., when the selectmen notified him that the mob seemed to be breaking up, and he could withdraw his men.

Soon after the Marines left, the mob, no longer cowed, became ugly and began attacking neighboring houses. Volunteers from the Charlestown Light Infantry Companies sought to intercede and protect the property. They, however, were beaten back with the loss of some of their arms and accoutrements, and the buildings wrecked. Their mission accomplished and ire momentarily assuaged, the mob scattered.

On learning what had occurred, Commodore Elliott complained, "from the particular situation in which the Marine guard is . . . I had no knowledge of their leaving the yard to quell the riot, to guard against a similar proceeding it would seem proper to pass some order on the subject."[369]

Before any instructions were received from Washington there was more trouble. On Saturday and Sunday evenings, the disturbances continued, and Commodore Elliott ordered the lieutenant of the watch to be doubly vigilant. At 10 P.M., on December 1, the lieutenant learned that a mob was gathering outside the Water Street entrance and was determined to force its way into the yard. Elliott responded with alacrity. He had Captain Thomas T. English (who with Colonel Freeman absent was in charge) withdraw his sentries from the lower yard and concentrate his Marines at the barracks, ready to move out on a moment's notice. The men on duty at the main gate were alerted. The mob, however, avoided the yard and a test of strength against the Marines.

Captain English, having felt Commodore Elliott's ire, cautioned the selectmen that, hereinafter, his Marines would be unable to intervene because: (a) he was bound to give priority to protection of the public property and the scene of the rioting was somewhat removed from the navy yard; (b) his force was understrength; and (c) the Massachusetts laws provided means for riot suppression by the police and milita.

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369. Elliott to Woodbury, November 30, 1833, NA, Captains' Letters, Microcopy M-125.

If he were to assist the state in suppressing riots, his orders would have to come from the President.[370]

3. Congress Mandates a New Role for the Corps

Congress, so far as the Marine Corps was concerned, enacted landmark legislation on June 30, 1834. This act authorized a long overdue increase in the Corps' strength to 63 officers and 1,224 enlisted men. It also settled the question of its control, by placing it under the Secretary of the Navy. In addition, it authorized the President to order the Marines into whatever action his judgement dictated, including duty with the Army.[371]

Within five weeks, Commodore Elliott employed this legislation to assert and define his authority over the Marines.

4. Commodore Elliott Tests the Legislation

Lieutenant Samuel R. Scott of the United States Revenue Marine, commanding the Revenue Cutter Hamilton, requested Commandant Elliott to remove 13 sailors from his vessel and place them in irons aboard Columbus. The recalcitrants had refused to go to sea. Scott was told by Elliott to first secure a writ from the U.S. District Attorney, and the mutineers would be arrested. A naval officer with an armed guard and a small boat was dispatched to the cutter. She was hauled to and anchored off the yard.

On the 4th the United States Deputy Marshal for Massachusetts arrived at the yard, accompanied by Lieutenant Scott, and called for a Marine detachment (a corporal and five privates) to escort the mutineers to the Suffolk County jail. Commodore Elliott ordered Colonel Freeman to

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370. English to Selectmen, November 30, 1833, NA, RG 127, Letters Received.

371. Public Statutes at Large, 33d Congress, Ist Sess., pp. 712-14. This strength broke down: 1 colonel-commandant, 1 lieutenant colonel, 4 majors, 13 captains, 20 1st lieutenants, 20 2d lieutenants, 1 adjutant, 1 paymaster, 1 quartermaster, 1 assistant quartermaster, 1 sergeant-major, 1 quartermaster-sergeant, 1 drum-major, 1 fife-major, 80 sergeants, 80 corporals, 30 drummers, 30 fifers, and 1,000 privates.

furnish the requisite guard. He declined, exclaiming, "the application should have been made to him." He, however, turned out the detail on Elliott making it a "request."

Elliott thereupon wrote Secretary Dickerson:

> This will I trust convince the Department of the extreme necessity of having but one head to an establishment, where even a call from the Marshal of the District, although properly made cannot be complied with, unless it is addressed to an inferior officer, nominally under the Command of the Commandant of the yard. I would suggest here, the propriety of bringing the case to the notice of the Executive. An early attention to the law in relation to the reorganization of this Corps, seems to be the more necessary from this proceeding.[372]

Secretary Dickerson referred Elliott's letter to Marine Corps Commandant Henderson. Writing Colonel Freeman, Henderson chided:

> Even before the passage of the late Law, placing the Corps under Naval Law, it would have been your duty to have complied with such a requisition, without hesitation, and I should have disapproved your conduct in declining to do so.

Colonel Henderson called Freeman's attention to the letter he had written him more than four years before, when he had been named to command of the Charlestown Barracks. After directing Freeman to comply with the wishes of the yard commandant, as to "the number and location of the Sentinels," he had added, "It is hardly necessary to require that you render all other cooperation with the Naval Commandant which may be beneficial to the public service." Freeman's failure to honor promptly Commodore Elliott's requisition was "a violation of the spirit, if not, the letter of that order." Consequently, Henderson could not "hesitate to disapprove of the course pursued by you in this instance; and to direct that hereafter you furnish all guards required" by the officer in charge of the yard.[373]

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372. Elliott to Dickerson, August 4, 1834, NA, Captains' Letters, Microcopy M-125.

373. Henderson to Freeman and Elliott, August 13, 1834, NA, RG 127, Letters Sent.

On learning of the tone of Marine Commandant Henderson's letter, Commodore Elliott informed Secretary Dickerson that he and Colonel Freeman were on most cordial terms, and their recent exchange was merely a difference of opinion. Indeed, Elliott continued, Freeman was not the only officer in the Corps, who was unsatisified in "his mind how far he is under the command of the Commandant of the yard."

Elliott's goal in bringing the incident to the attention of the department had not been to secure Colonel Freeman a reprimand, but to "show" the secretary that under the

> present manner of construing the old law by Marine officers, on the station, difficulties had arisen, and might arise, and that as a new law had been made by Congress which would remedy all the evils, an immediate attention to that law in this direction would be salutary in its effects both to the Navy and Marine Corps.[374]

5. The August-September 1834 Riots

On the night of August 11 there was a riot in Charlestown, and the Ursuline Convent on Mount Benedict was burned by a mob. The Sisters of Charity and their pupils lost everything but the clothes they were wearing, as they fled. Fifteen of the mob ringleaders were arrested and lodged in the jail at Lechmere Point. Fearful of continued violence, Sheriff B.F. Varnum of Middlesex County, on the night of August 27, called on Commandant Elliott for help, as he feared a mob planned to storm the jail and free his prisoners. Elliott mustered 70 Marines and 200 sailors, and sent a messenger to apprise the Adjutant General of Massachusetts of the action he had taken. The anticipated attack did not occur, and the night slipped by without any disturbance. This, Sheriff Varnum attributed to Elliott's prompt response.

The Mother Superior reestablished the convent at Brinley Place, the home of General Dearborn, in Roxbury, but intense excitment continued to grip the area until mid-September. Secretary Dickerson, in approving

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374. Elliott to Dickerson, August 19, 1834, NA, Captains' Letters, Microcopy M-125.

Elliott's action, authorized him to call on Commodore Charles G. Ridgely of the New York Navy Yard for 125 men to protect the public property at Charlestown, if it were "rendered at all insecure by the threatened violence and insurrection in that neighborhood."

> The Navy and Army, the secretary cautioned, must not interfere in insurrection and riots that may take place among the citizens of a State, unless to preserve the peace of the country, and at the request of the Executive of the State, or Sheriff of the County in which the insurrection or violence may occur.[375]

By September 10 the danger had seemingly passed, as the rioters realized that in event of further disturbance they would be "met by the U.S. Forces here in conjunction with the civil and military force of the State." The ringleaders had been transferred to the Concord jail for trial. Fearful lest there be another outbreak, followed by an attack on the yard if they were convicted, Commodore Elliott called on Commandant Ridgely for the 125 men.[376]

On the evening of the 13th Colonel Freeman called on Commodore Elliott, who "seemed little disposed" to order the Marines to assist the civil authorities in supressing the riots.[377] The situation now improved, however, and the 125 sailors rushed to Charlestown by Commodore Ridgely returned to New York.

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375. Elliott to Dickerson, August 28, 1834, and Dickerson to Elliott, September 7, 1834, NA, Captains' Letters, Microcopy M-125 and Letters Sent, Secretary of the Navy, M-149.

376. Elliott to Dickerson, September 10, 1834, NA, Captains' Letters, Microcopy M-125.

377. Freeman to Henderson, September 16, 1834, NA, RG 127, Letters Received. The Charlestown major and selectmen, fearing a riot, had called on Colonel Freeman to hold his Marines ready to give "such assistance as may be in your power." Freeman had replied that, if there was a threat to public property, he would march to the aid of the city authorities. William Snyder to Freeman, August 13, 1834, and Freeman to Snyder, August 13, 1834, NA, RG 127, Letters Received.

6. The Trial of the Seven Pirates

On December 15 Secretary Dickerson alerted Commodore Elliott that reports reaching Washington indicated that there was "great probability that riots will take place in Boston or the neighborhood of the Navy Yard."

If so, Elliott was cautioned to take no action to suppress the riots nor to enforce local laws, "except so far as necessary to defend the yard & public property."[378]

The incident to which the secretary referred had been triggered by the trial of seven Spanish-speaking sailors accused of piracy before Judge Joseph Story in the U.S. District Court. The sailors, while aboard the Spanish slaver Pinda, had captured off the coast of Brazil the American merchantman Mexico out of Salem. After robbing Captain Butman and his crew of $20,000 in specie and other valuables, the pirates locked them below deck, and set Mexico afire. Butman and his men, however, eluded death by escaping through a scuttle and extinguishing the flames, thus also saving their vessel.

Pinda was subsequently captured off the African coast by His Majesty's brig Curlew. The British sent the pirates to the United States for judgement and punishment.[379]

Commodore Elliott, fearing trouble, attended court on December 15, with a dozen of his officers. Although heavily armed, they were dressed as civilians. They listened as Judge Story sentenced the seven pirates to be executed for their crimes on March 11, 1835.

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378. Dickerson to Elliott, December 15, 1834, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

379. Niles' Weekly Review, September 6, 1834, p. 7; ibid, December 27, 1834, pp. 281-82.

When Secretary Dickerson learned of the officers' actions, he chided Elliott that the "less the military have to do with the civil authorities the better."[380]

7. The Barracks Sends Guards Aboard Three Vessels

During the Bainbridge-Elliott years only three ships were repaired, outfitted, and sent to sea from the Charlestown yard. In accordance with procedures, Colonel Freeman had provided the Marine guard for Erie. When it came time to send the guard aboard Potomac, Commodore Elliott, instead of initiating action through Marine Commandant Henderson, as heretofore, told Colonel Freeman to send the guard aboard the frigate. His manner plagued Freeman, who complained to Colonel Henderson. He wanted Elliott reminded that when sea going Marines were needed, the Navy should address its requisition to the Marine Corps Commandant. He deemed the "assumed control and authority of Commodore Elliott over the Marines in this circumstance contrary to the spirit of Colonel Henderson's instructions.[381]

Meanwhile, Colonel Henderson had written Colonel Freeman that a guard was to be sent aboard Potomac consisting of 3 sergeants, 3 corporals, 2 musics, and 44 privates. Two sergeants, 2 corporals, and half a dozen privates would be sent from Washington and 35 privates from New York and Philadelphia.[382]

The Washington detachment reached Charlestown on September 8. One of the men, Sergeant Whitcroft, had died after the vessel had sailed from Alexandria. The men ordered to join the guard from New York and Philadelphia also arrived, and were soon aboard the Potomac.[383]

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380. Dickerson to Elliott, December 23, 1834, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

381. Freeman to Henderson, September 9, 1834, NA, RG 127, Letters Received.

382. Henderson to Freeman, August 15, 1834, NA, RG 127, Letters Sent.

383. Freeman to Henderson, September 9, 1834, NA, RG 127, Letters Received.

The decision to send Constitution to sea made, Colonel Henderson, in mid-February, called on Colonel Gamble of the New York barracks to hurry to Charlestown 2 sergeants, 2 corporals, and 35 privates to enable Colonel Freeman to fill the billets. Colonel Watson at Portsmouth was to send any men he could spare, including two fifers. The guard was to consist of 3 sergeants, 3 corporals, 2 musics, and 44 privates.[384]

The New York detachment reached Charlestown on the 20th, and five days later Captain English sent aboard Old Ironsides: 3 sergeants, 3 corporals, 1 drummer, and 44 privates.[385]

8. The 1834 Repair of the Barracks and Quarters

On November 2, 1833, Colonel Freeman again submitted estimates for repair of the barracks. To justify his request, he noted that they had been built "near 30 years," and repairs were "indispensibly necessary." To provide more room for the enlisted men (there being only two squadrooms for the privates), he urged that a second story be added to the barracks.

His estimates called for:

New gutters, leading trunks, sashes for 20 windows, 7 outside doors and frames, repair of outhouses, sheds, steps, fences, slating, etc., . . .	$ 1,251
Digging, stone, laying and repairing foundations under barracks and right wing	900
10,000 bricks, and laying same	130
Repairing plaster	150
Underpinning with stone and repairing kitchen and wooden buildings attached to right wing .	150
Painting, glass, and glazing the entire barracks .	450
Total	$ 3,031

384. Henderson to Freeman, February 16, 1835, NA, RG 127, Letters Sent.

385. English to Henderson, February 20 and 25, 1835, NA, RG 127, Letters Received. Colonel Freeman was on leave and Captain English was in command of the barracks.

Additional expense to raise the enlisted men's barracks:

One story being 140 feet in length by 22 in width

Bricks and masonry	$ 1,170
Carpentry, slating, and materials and making bunks for second story	1,500
Painting and glazing the same	270
Total	$ 2,940
Grand Total	$ 5,971[386]

Meanwhile, Marine Corps Commandant Henderson was reporting to Secretary of the Navy Woodbury that the condition of the barracks at all the posts "is uncomfortable and bad, no appropriation for repairs having been made by the last Congress and the contingent fund not having been adequate to that purpose." Those at Charlestown, Portsmough, Philadelphia, and Norfolk required major repairs to "preserve them from serious dilapidation."[387]

On July 21, 1834, Colonel Freeman learned that Congress, at its recent session, had appropriated $8,000 for repair of barracks. He accordingly asked authority to undertake the repairs estimated for in November.[388]

The appropriation, Colonel Henderson replied, would permit expenditure of $1,000 for repair of the barracks. Under no circumstances would this sum be exceeded.[389]

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386. Freeman to Henderson, November 2, 1833, NA, RG 127, Letters Received.

387. Henderson to Woodbury, October 29, 1833, NA, RG 127, Letters Sent.

388. Freeman to Henderson, July 21, 1834, NA, RG 127, Letters Received.

389. Henderson to Freeman, July 26, 1834, NA, RG 127, Letters Sent.

There being only a few craftsmen in the detachment, the repairs proceeded deliberately during the autumn. In mid-December Colonel Freeman advised headquarters that, because of the lateness of the season and limited manpower, repair of the officers' quarters and the exterior painting were being deferred til spring. When the artisans were again turned out, he urged that they be allowed to undertake the repairs for which estimates had been submitted in November 1833.[390]

There, however, would be no funds for major repairs or alterations to the barracks for nearly three more decades. The thinking in Washington focused on removal of the barracks from the navy yard, in accordance with the 1828 master plan. Pressure for early removal had been generated by two factors--the condition of the barracks and construction of the ropewalk. In mid-May 1834 Commodore Elliott, in discussing with Colonel Freeman the ropewalk site, had urged that he write Marine Corps Commandant Henderson, as the western facade of that structure would extend to within 50 feet of the barracks. This problem should be promptly resolved, because it was planned to break ground for the foundations within a few days.[391]

On being informed of this situation, Colonel Henderson wrote Freeman that there was nothing the Marine Corps could do, except plan for construction of a new barracks outside the yard.[392]

Secretary of the Navy Dickerson, in December, approached Congress on this subject. The legislators were informed that the Charlestown barracks were "so decayed and dilapidated as not to be worth repairing." Moreover, they occupied a site designated for another purpose by the

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390. Freeman to Henderson, December 12, 1834, NA, RG 127, Letters Received.

391. Elliott to Rodgers, May 12, 1834, NA, RG 45, Letters Received, BNC.

392. Henderson to Freeman, May 15, 1834, NA, RG 45, Letters Sent.

1828 master plan. He had been informed that a suitable site for a new barracks, near the yard, could be purchased on reasonable terms.[393]

If the barracks were to be relocated, as suggested by the secretary, Colonel Freeman believed Bunker Hill would be a good choice.[394]

Congress was not ready to appropriate money to implement the department's proposal, and it was passed over in favor of higher priority items. It would be resurrected by future administrations, but with no more success.

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393. "Annual Report of the Secretary of the Navy, Showing the Condition of the Navy in 1835," found in American State Papers, Naval Affairs, Vol. IV, p. 591.

394. Freeman to Henderson, December 12, 1834, NA, RG 127, Letters Received.

VII. THE YARD DURING DOWNES' FIRST TERM AS COMMANDANT: 1835-42

A. Administering the Facility

1. Commodore Downes Becomes the Seventh Commandant

On February 28, 1835, the department selected Commodore John Downes, who had been campaigning for the position, to succeed Commodore Elliott as commandant of the Charlestown Navy Yard. This was a popular choice locally. The Commercial Gazette was pleased to have so accomplished an officer as John Downes as commandant. A "Boston boy," he was one of the best officers to "ever trod a quarter deck."[1]

A son of Jesse and Naomi Taunt Downes, John was born in Canton, Massachusetts, in December 1784. His grandfather was a lieutenant in the American Revolution, and one of his great-grandfathers, who emigrated to Canton from Ireland, had been a man of the sea. Entering the Navy as a waiter to his father, a purser's steward on Constitution, John was, in September 1800, appointed an acting midshipman, and in June 1802 midshipman. During the Tripolitan War, he served in the Mediterranean, and in 1803 participated in Lieutenant David Porter's attack on the foe, winning a commendation for gallantry.

In 1807 Downes was promoted lieutenant and two years later was ordered to Essex. As first lieutenant on that ship, he sailed on October 28, 1812, from the Delaware on what proved to be an exciting and memorable cruise. In April 1813, in command of Essex's small boats, he captured in the Pacific two British vessels. One of these, Georgiana, was outfitted as a cruiser and given to Downes by Captain Porter. In

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1. Army and Navy Chronicle (Washington, 1835), Vol. I, pp. 258-59. Downes had written the Secretary of the Navy that he "hoped and trusted" his years' of sea service and the fact that he had never had duty ashore would reinforce his claim to succeed Commodore Elliott, when and if he were reassigned. Secretary Dickerson had reassured Downes that, whenever such a vacancy occurred, his application for command of the Charlestown yard "shall receive respectful consideration." Downes to Dickerson, October 28, 1834, NA, Captains' Letters, Microcopy M-125, and Dickerson to Downes, November 3, 1834, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

June, near James Island, Downes and his crew captured Hector, a privateer of 11 guns and two other vessels. Meanwhile, Porter had taken Atlantic, which he renamed Essex Junior. Because she was larger than Georgiana, Downes transferred to her command. On her he cruised for several months, either alone or in company with Essex. At Nukahiva, in the Marquesas, where the squadron refitted, Downes and his sailors and Marines, while ashore, clashed on two occasions with the natives. In one of these fights, Downes' leg was broken. During the bloody fight in Valparaiso Harbor between Essex and Essex Junior and His Majesty's frigates Phoebe and Cherub, Downes, although his leg had not fully mended, was in the center of the fight. On his return to the United States, Downes was commended for his services in the Pacific by Secretary of the Navy Jones. He was promoted master commandant in 1813 and captain four years later.

In May 1815 he sailed for the Mediterranean as commander of Epervier, a vessel in Commodore Decatur's squadron. Downes, in the capture of the Algerine frigate Mashuda, conned his sloop so skillfully that he received the praise of Decatur and was soon thereafter named captain of the flagship. In 1818 he was ordered to Macedonian and took her to the Pacific on a cruise of several years. After a tour of duty on Java in the Mediterranean (1828-30), Downes sailed for the Pacific aboard Potomac. En route to the East India station, which he was to command, Commodore Downes proceeded to Quallah Batto, Sumatra, to secure satisfaction for the nation at the expense of the piratical Malays of that place, for an attack on the American vessel Friendship. Downes arrived off Quallah Batto in February 1832. Landing his Marines and sailors, Downes stormed the town. This fight, the first action in which forces of the United States participated in the Far East, resulted in two dead and 11 wounded from the personnel of Potomac to the Malays' 150 slain. President Jackson, as was to be expected, hailed Downes' action.

More than two weeks passed, however, before Commodore Downes reported for duty as commandant. On March 16, 1835, he came aboard and relieved Master Commandant Budd, who had been in charge since

Commodore Elliott had sailed for New York City aboard Constitution in the first week of March.[2]

2. Regulations Governing Wages and Hours

Commodore Downes was in Baltimore, sitting on a court martial, from mid-June to July 3, 1835. During his absence, Master Commandant Budd was in charge of the facility.

After several months, Downes made several changes in the work routine. He questioned the regulation for ringing the evening bell at 15 minutes before sunset, instituted by Commodore Elliott, to allow workmen in the lower yard time to muster at the west end, near the main gate, at sunset. Downes believed that 10 minutes, rather than 15, should be allowed.

He also changed the rules to permit the workers to have their dinner at 12 noon, throughout the year, as that was the majority's desire.[3]

The department approved these changes to yard regulations, although the latter divided the day unequally between breakfast and sunset.[4]

By early October the sun was rising noticeably later and setting earlier. With less daylight, the winter work day would soon be instituted. Less dictatorial than his predecessors, Commodore Downes discussed the situation with labor. They told him that from September 15 to March 15, they preferred to report for work half an hour after sunrise and to break off at 15 minutes before sunset.[5]

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2. Charlestown Navy Yard Journal, March 1-31, 1835, NA, RG 181; Downes to Dickerson, March 16, 1835, NA, Captains' Letters, Microcopy M-125.

3. Downes to Rodgers, September 5, 1835, NA, RG 45, Letters Received, BNC.

4. Rodgers to Downes, September 9, 1835, NA, RG 45, Letters Sent, BNC.

5. Downes to Rodgers, October 10, 1835, NA, RG 45, Letters Received, BNC.

Upon being apprised of the mechanics and laborers' desires, the board granted Downes authority to alter the working hours, provided the public's interest did not suffer.[6]

In December, in response to a plea from Commandant Downes, the commissioners sanctioned the raise of the master blockmaster's pay to $2.56 per diem on January 1, 1836. When there was no employment for master craftsmen in their trade, Downes could detail them to the other departments, without approving claims for additional pay.[7]

Early in January 1836 Downes sought a raise in pay for Master Painter Tolman from $3.25 to $3.50 per diem. On doing so, he reminded the board that Tolman had "invented" the process employed by the Navy for blackening hammock cloths and lacquering water tanks.[8]

The department reviewed and rejected the proposal to boost Tolman's pay.[9]

On March 30 Commodore Downes ordered the muster bell rung at sunset, instead of a quarter of an hour earlier. This aroused the workmen, and led to such a tumult at the evening muster that the next day the order was suspended.[10]

Master Painter Tolman and Master Joiner Pierce notified Commandant Downes, in October 1836, that unless their wages were increased, they

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6. Rodgers to Downes, October 14, 1835, NA, RG 45, Letters Sent, BNC.

7. Rodgers to Downes, December 21, 1835, NA, RG 45, Letters Sent, BNC.

8. Downes to Rodgers, January 7, 1836, NA, RG 45, Letters Received, BNC.

9. Rodgers to Downes, January 18, 1836, NA, RG 45, Letters Sent, BNC.

10. Charlestown Navy Yard Journal, March 15-31, 1836, NA, RG 181.

would leave the yard. Tolman had had a number of "advantageous offers," but having been employed for many years by the Navy he was "unwilling, at this late period, to abandon a situation which he has so long, so faithfully and so efficiently filled, if the Government will allow him barely sufficient wages to support his family."

Downes was satisfied that if Tolman and Pierce left, it would be a "serious public loss," and he doubted whether "it would be possible to procure men . . . competent to fill their places, at any price." He urged the board to raise their wages to $4 per diem, placing them on the same footing as the master mason.[11]

The commissioners either verbally vetoed the requested pay increases on their annual visit to the yard or ignored Downes' communication, because there is no record of their reply. We do know, however, that neither Tolman's nor Pierce's pay was boosted. Despite their threats to seek employment elsewhere they remained at the yard.[12]

Noah Butts, an experienced ropemaker and engineer, now asked to have his wages raised from $3 to $3.50 per day. Commandant Downes supported his application and urged that Butts be appointed chief engineer to attend to the steam engines at the dry dock and ropewalk, with an assistant at $2.50 per diem. Simultaneously, he again went to bat for Master Painter Tolman. He urged that Tolman be allowed the same wages paid to other master mechanics--$3.50 per day.[13]

The commissioners held the line. They would not raise Tolman's pay. As for Butts, his situation would be reviewed after the ropewalk had commenced production.[14]

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11. Downes to Rodgers, October 5, 1836, NA, RG 45, Letters Received, BNC.

12. Letters Sent, Board of Commissioners to Commandants, October 5-December 15, 1836, NA, RG 45, Letters Sent, BNC.

13. Downes to Rodgers, December 16, 1836, NA, RG 45, Letters Received, BNC.

14. Rodgers to Downes, December 26, 1836, NA, RG 45, Letters Sent, BNC.

In the spring of 1837 the commissioners cautioned that wage rates at the Charlestown facility seemed too high in comparison to other yards. They were to be reduced, they reminded Downes, and were to correspond to those paid at local boat and shipyards.[15]

Commandant Downes, while bringing the wage rates into line, sought to have a master mason's position established. The department, rejecting this ploy, informed him that no positions of this description were allotted to any yard, and consequently it did not come under the general regulations as applied to apprentices. All masons were to be allowed what their services' were worth.[16]

In late March 1839, after the equinox, Commandant Downes called for a revision in the regulations governing time allowed the employees for their dinner break. As presently drawn, the men were given 90 minutes to eat dinner between April 15 and May 31 and from August 15 to September 15. Downes proposed to reduce this break to one hour, and let them go home 30 minutes before sunset.

From June 1 to August 15 two hours were allowed for dinner. But, in the Boston latitude during these weeks, there were so many hours of daylight that the men, after working to sundown, had no time in the evenings for themselves. Downes proposed to give them, during these ten weeks, one hour for dinner and let them break 60 minutes before sunset.

There would not be the same objection to this arrangement at Charlestown as there would be at Norfolk, he explained to the department, where during the summer, the sun unmercifully boiled down in the heat of the day.[17]

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15. Chauncey to Downes, May 26, 1837, NA, RG 45, Letters Sent, BNC.

16. Chauncey to Downes, June 23, 1837, NA, RG 45, Letters Sent, BNC.

17. Downes to Chauncey, March 25, 1839, NA, RG 45, Letters Received, BNC.

The board, however, held that the best arrangement for the working day in the northern yards was to give a long mid-day break during the summer. Because of the many hours of daylight in the Boston latitude, in the weeks between June 1 and August 15, they authorized Downes to have the bell tolled to break off work, during these weeks, one-half hour before sunset.[18]

On April 20, 1840, President Van Buren sought to standardize the working hours of the employees at the various yards. From September 20 to March 20 the work day was to begin one hour after sunrise and continue until 12 noon; followed by an hour break for dinner; with a resumption at 1 P.M. and continuing to sundown. From March 20 to September 20 the day's work was to begin at 6 A.M., and continue to 8 o'clock, when there would be an hour off for breakfast. Work to be resumed at 9 A.M. and continued to 1 o'clock, when the men would knock off an hour for dinner, resuming work at 2 and continuing until 6 P.M.[19]

This news caused a storm of protest by the Charlestown yard mechanics and laborers, many of whom lived from a mile to a mile and one-half from the yard. These people, Commodore Downes informed the department, will be compelled to travel to and from breakfast, which would be "inconvenient, and fatiguing." Added to the 30 minutes required for roll call and returning to work in various parts of the yard, it would be disadvantageous to both labor and management.

The new schedule likewise deranged "the domestic concerns of the families of workmen, as the time for breakfasting . . . is before seven o'clock, so that their children may be sent to school, etc."

Many mechanics and laborers boarded at houses, where meals were served at established hours. Now that the yard employees required their meals at different hours from other boarders, it caused boarding house proprietors great inconvenience.

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18. Chauncey to Downes, April 1, 1839, NA, RG 45, Letters Sent, BNC.

19. Paulding to Downes, April 21, 1840, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

Men living at a considerable distance from the yard were compelled to breakfast before mustering for work. Consequently, they had only two options during the enforced break between 8 and 9--either to remain in the yard or to idle "away the time at the tippling shops in the neighborhood." Moreover, these people were compelled to go from 6 A.M. to 1 P.M., seven hours, before breaking for dinner, too long an interval for working men.

Finally, there was a problem with the boiler fires, which must be allowed to smoulder or die, while the men were breakfasting.[20]

Secretary of the Navy Paulding, taking cognizance of Downes' reasoned arguments, modified the April 21 circular. Hereinafter, the hours of work at the yard "were to be so arranged as to suit the convenience" of both employees and management. Care would be exercised to insure that all mechanics and laborers worked a full ten-hour day.[21]

On November 5, 1840, the board reviewed and established these daily wage rates for the yard's master mechanics and foremen:

foreman of carpenters	$3.50	master cooper	$3.00
master joiner	3.50	master painter	3.25
master blacksmith	3.50	master caulker	3.25
master sparmaker	3.50	master mason	3.25
master mastmaker	3.50	ropewalk superintendent	4.00
master boatbuilder	3.50	chief engineer	3.25
master block & pumpmaker	3.00	assistant engineer	3.00[22]
master gun carriagemaker	3.00		
master plumber, coppersmith & tinner	3.00		

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20. Downes to Paulding, April 27, 1840, NA, RG 45, Letters Received, BNC.

21. Circular of April 29, 1840, NA, Letters Sent, Secretary of the Navy, April 29, 1840.

22. Board to Downes, November 5, 1840, NA, RG 45, Letters Sent, BNC.

Some five months later, Commandant Downes recommended that the master caulker and master mason be placed on the same footing with the other master mechanics, and paid the same wages as the master boatbuilder and master mastmaker.

He also urged that the government purchase from Master Painter Tolman his secret for painting hammock cloths, etc. If he died or left the yard the formula would be lost.[23]

The board had no objection to the master mason and master caulker being placed on the same pay scale as the other master craftsmen. But, Downes was cautioned, their employment must depend upon whether their services were actually required.[24]

3. Seven Years and Four Executive Officers

Master Commandant Budd, the yard's executive officer, was in poor health. On October 22, 1835, Commandant Downes notified Secretary of the Navy Dickerson that, during the seven months since he had assumed responsibility for the yard, Budd, except on rare occasions, had been too ill to attend to his duties. If the department were desirous of naming a new executive officer, Downes hoped it would be "Mad Jack" Percival. He had known Percival for years, and no one could better handle this duty.[25]

The department sat on Downes' letter for nearly four months. Then, on February 13, 1836, Secretary Dickerson called for a report on Budd's physical condition, and whether it permitted his to discharge his duties.[26]

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23. Downes to Board, April 3, 1841, NA, RG 45, Letters Received, BNC.

24. Morris to Downes, April 16, 1841, NA, RG 45, Letters Sent, BNC.

25. Downes to Dickerson, October 22, 1835, NA, Captains' Letters, Microcopy M-125.

26. Dickerson to Downes, February 13, 1836, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

Commodore Downes replied that, although there had been an improvement in Budd's health, he was "still feeble, and could not bear any great exposure to severe weather." But, he confessed, the state of Budd's "health alone would not prevent him performing the duties required of him" as the yard's master commandant.[27]

On March 29 Downes tried again to dump Budd. Writing Secretary Dickerson, he noted that Budd's conduct, "in a moral point of view, is considered very reprehensible, though not such as to be readily reached by a judicial investigation."[28]

This time the department took action. Budd would be replaced as master commandant of the yard, on July 1, by Downes' choice, "Mad Jack" Percival.[29] Budd lived only 14 months after being replaced. On September 3, 1837, he died at the Massachusetts General Hospital.[30]

In October 1836, four months after Percival reported, Commodore Downes took his first leave since assuming command of the facility. He was absent 12 days.[31]

Congress, in the winter of 1836-37, enacted legislation signed into law by President Jackson, on March 3, changing certain naval

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27. Downes to Dickerson, Feburary 19, 1836, NA, Captains' Letters, Microcopy M-125.

28. Downes to Dickerson, March 29, 1836, NA, Captains' Letters, Microcopy M-125.

29. Dickerson to Downes, May 14, 1836, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

30. Downes to Dickerson, September 13, 1837, NA, Captains' Letters, Microcopy M-125.

31. Downes to Dickerson, October 8, 1836 and Dickerson to Downes, October 12, 1836, NA, Captains' Letters, Microcopy M-125 and Letters Sent, Secretary of the Navy, Microcopy M-149.

nomenclature. Hereinafter, the ranks of master commandant and sailing master were to be respectively commanders and masters.[32]

"Mad Jack" Percival served as the yard's executive officer for 22 months. On April 18, 1838, he was detached and assumed command of Cyane, then being outfitted at the yard.[33]

Commodore Josiah Tattnall succeeded Percival as the yard's executive officer. Within a year Tattnall had his fill of shore duty. On April 20, 1839, he wrote Secretary of the Navy James K. Paulding, who had replaced Dickerson on July 1, 1838, asking to be ordered to sea as captain of the sloop Marion, about to be launched from the yard.[34] Although he failed to secure command of Marion, Tattnall's days as the yard's second ranking officer were numbered. In late May, Secretary Paulding notified Commodore Joel Abbot to hold himself ready to report to Commodore Downes as his executive officer. Abbot, who was at his home in Warren, Rhode Island, acknowledged receipt of these orders on June 1. He reported for duty before the week was over. Commander Tattnall was then ordered aboard United States.[35]

Commodore Downes was absent from the yard for nearly two months in May and June 1840, sitting on a court martial in Philadelphia, While he was absent, Abbot acted as commandant. Downes returned to the yard on June 24.[36]

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32. The Public Statutes at Large of the United States of America from the Organization of the Government in 1789 to March 3, 1845 . . . edited by Richard Peters, five volumes, (Boston, 1846), Vol. V, p. 163.

33. Percival to Dickerson, April 18, 1838, NA, Commanders' Letters, Microcopy M-147.

34. Tattnall to Paulding, April 20, 1839, NA, Commanders' Letters, Microcopy M-147.

35. Abbot to Paulding, June 1, 1839, NA, Commanders' Letters, Microcopy M-147.

36. Downes to Paulding, April 1, 1840 and Downes to Board, June 24, 1840, NA, RG 45, Letters Received, BNC, and Captains' Letters, Microcopy M-125.

Abbot's tour of duty coincided with the remaining months of Downes' administration. On June 1, 1842, he was detached from the yard, being replaced by Commandant Samuel Mercer.

4. The Navy Agency As a Political Plum

Daniel Broadhead continued to serve as the Boston agent for the first two years after Commodore Downes became commandant. Then, on February 28, 1838, he suddenly resigned. John N. Todd functioned as acting agent until President Martin Van Buren could appoint a successor from among the party's faithful. His choice was Leonard Jarvis of Boston, whom he nominated for a four-year term on March 22. Jarvis was duly confirmed by the Senate.[37]

The inauguration of a Whig, William Henry Harrison, as ninth president, on March 4, 1841, doomed Jarvis. On September 20 President John Tyler, who had become chief executive on Harrison's death, named J. Vincent Browne, a Boston Whig, to replace Jarvis as local Navy agent.[38]

5. The Navy Storekeepers Come and Go

During the Downes' years, the storekeeper's position continued to be a political plum to be awarded to the party faithful. The irascible Dr. Bates, the long-time incumbent, on December 20, 1839, deserted his office in the Navy store, without making any regular transfer of the stores and files entrusted to him. Seth J. Thomas was designated to be Bates' replacement and reported for duty on January 7, 1840.[39]

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37. Dickerson to Jarvis, March 24, 1838, NA, Letters Sent, Secretary of the Navy to Commanders and Navy Agents, Microcopy M-441.

38. Badger to Browne, September 20, 1841, NA, Letters Sent, Secretary of the Navy to Commanders and Navy Agents, Microcopy M-441.

39. Downes to Paulding, January 7, 1840, NA, RG 45, Letters Received, BNC.

One week later, the department confirmed Thomas' appointment. Downes was to provide him with such instructions, in addition to those contained in the printed regulations, as were necessary to enable him to understand his duties.[40]

The election of William Henry Harrison as president, in November 1840, insured that Thomas' tenure would be brief. On April 19, 1841, seven weeks after Whig George E. Badger had replaced James K. Paulding as Secretary of the Navy, Paul Willard was named to succeed Thomas as yard storekeeper.[41]

6. Captain Parris Continues His Association

Captain Alexander Parris, one of the region's foremost architects, continued to be closely associated with the yard. His major industrial monuments during the mid- to late-1830s were the ropewalk complex and building No. 15 (today's building No. 34).

In the spring of 1835 Captain Parris offered the Navy his undivided attention as "Engineer and Superintendent of the Works," at a suitable salary. On April 3 the Board of Navy Commissioners replied:

> It is probable something may present before your existing engagements [the Ropewalk complex and building No. 15] with the public shall be finished, by which your services may be required and which the Board feels a disposition to continue. There is no law, however, authorizing a permanent appointment, for the present the Board can only employ you as occasion may arise, at your present compensation.

Until September 1836 this arrangement proved satisfactory to Parris. At that time, he notified Commodore Downes that, as of January 1, he would no longer be able to work at his present salary. He had received a "better offer and in justice to myself and family" must accept it.[42]

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40. Morris to Downes, January 13, 1840, NA, RG 45, Letters Sent, BNC.

41. Badger to Downes, April 19, 1841, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

42. Parris to Downes, September 27, 1836, NA, RG 45, Letters Received, BNC.

After reviewing the correspondence and regulations, the commissioners wrote Downes that, although they were pleased with Parris' work and "would regret" to lose him, they had no authority to boost his pay.[43]

On January 9, 1837, Captain Parris, his expectations of securing a permanent position at the yard shattered, informed Commandant Downes that he had found employment elsewhere. He, however, was desirous of completing the "several buildings and other works" planned by him. Consequently, he had made arrangements with his new employers not to begin their business until April 1.

To accomplish this, Parris proposed that his assistant since 1832, G.J.F. Bryant, be employed as an assistant draftsman at $3 per day. Bryant, under Parris' supervision, would prepare plans of the machinery being built for the ropewalk. It was important, Parris argued, that these drawings be made before the "workmen can engage in many parts of the work." The machinery was being prepared under supervision of Daniel Treadwell, "with all the improvements which have been suggested by the experience of long practice."

Parris' fee, as a consultant, would be $80 per month.[44]

Downes, on transmitting Parris' proposal to Washington, urged the importance of retaining his services to "superintend the works he had planned and commenced to their completion."[45]

The department agreed to retain Parris at his present salary until April 1. Downes was also authorized to "employ such other persons as

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43. Rodgers to Downes, October 20, 1836, NA, RG 45, Letters Sent, BNC.

44. Parris to Rodgers, January 9, 1837, NA, RG 45, Letters Received, BNC.

45. Downes to Rodgers, January 9, 1837, NA, RG 45, Letters Received, BNC.

. . . necessary to hasten" preparation of the ropewalk's "final drawings"[46] and its machinery.

Acknowledging the commissioners' letter, Captain Parris announced that, after April 1, with the department's sanction, he was prepared to supervise preparation of plans and estimates for $80 per month. Bryant would be employed as a draftsman, beginning April 1, at $3 per day, with a room fitted up in one of the buildings as an office, "where all the plans relating to the . . . navy yard can be kept." Parris would visit the yard two or three times a week to see "that the works progress agreeably to the designs and plans."

Parris recommended that Noah Butts be transferred to the ropewalk to have charge of the steam engines and machinery. Two assistant engineers would be required to tend the two engines.[47]

The board refused to go along with the Parris' scheme. Writing Commandant Downes, they approved Parris' retention at his present salary, $160 per month, till April 1. They could not agree to his "partial employment" subsequent to that date. A full time draftsman could not be allowed, but it was permissible to hire one when actually employed.

Butts had been engaged as yard engineer to attend to any duty required of him in that capacity. The question of an assistant would be reviewed when the ropewalk engines were placed in operation.[48]

Captain Parris, however, succumbed to Commodore Downes' pleas and agreed to remain on the payroll as superintendent for three or four months beyond April 1, by which time he hoped to complete the ropewalk

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46. Rodgers to Downes, January 17, 1837, NA, RG 45, Letters Sent, BNC.

47. Parris to Rodgers, January 28, 1837, NA, RG 45, Letters Received, BNC.

48. Rodgers to Downes, February 28, 1837, NA, RG 45, Letters Sent, BNC.

in all its particulars.[49] The department promptly sanctioned this arrangement.[50]

During the late spring, Parris had a change of heart and withdrew from his other engagement. On doing so, he told Commandant Downes that he wished to "serve as heretofore in giving all proper attention as Engineer and Superintendent of the Public Work" in the Navy yard.[51]

Communicating this information to the board, Downes urged that Parris be retained on the payroll "until the buildings now in progress are completed."[52]

The commissioners were agreeable to Parris' retention on the staff as long as his services were "indispensably necessary."[53]

The Panic of 1837 resulted in a drastic cutback in funds for improvements to the nation's navy yards. Captain Parris, learning that the scope of the yard's program would correspond to that of the years before 1827, suggested that he spend his time making a detailed plan of the facility. On it would be depicted all sewers, drains, watercourses, cesspools, reservoirs, etc., and those proposed. In addition, plans and estimates could be prepared for future improvements.[54]

Late in April 1838, the department authorized Captain Parris to be continued on the rolls to prepare plans of buildings, sewers, drains,

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49. Downes to Rodgers, March 16, 1837, NA, RG 45, Letters Received, BNC.

50. Rodgers to Downes, March 20, 1837, NA, RG 45, Letters Sent, BNC.

51. Parris to Downes, June 26, 1837, NA, RG 45, Letters Received, BNC.

52. Downes to Chauncey, June 26, 1837, NA, RG 45, Letters Received, BNC.

53. Chauncey to Downes, July 11, 1837, NA, RG 45, Letters Sent, BNC.

54. Parris to Downes, February 12, 1838, NA, RG 45, Letters Received, BNC.

reservoirs, the ropewalk machinery, etc., which were to be filed with the Board of Navy Commissioners.[55]

Parris spent a number of months on this project, and, in April 1840, transmitted to the board a file titled, "Plans of Buildings and Machinery Erected in the Navy-Yard Boston from 1830 to 1840." The folio contained 41 plates, many of them handsome rendered drawings of the engine house (building No. 55), the ropewalk, tarring house, reservoirs, and machinery found in the sawmill, ropewalk, and tarring house.[56] Upon completion of these drawings, Parris was dropped from the yard's payroll.

7. Finding a Home for the Naval Institute for Advancement of Science

During the winter of 1841-42, yard naval officers and other interested parties organized a society for the "advancement of Naval Science, and for mutual instruction of the members," similar to the institution recently established in New York City. A number of valuable books had been donated, and others would be forthcoming as soon as an area and shelves were ready for this reception.

The society, Commodore Downes wrote the department, had been allowed to occupy the office in the 1815 Navy store formerly used by Naval Constructor Barker, giving him the one directly above. The commandant had located his office in a room adjoining the library, formerly used by the clerk of the yard. The clerk's office was shifted into the porter's lodge.

On March 5 Commodore Downes asked the department to approve this allotment of space and to sanction "filling up" these rooms with book shelves.[57]

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55. Chauncey to Downes, April 27, 1838, NA, RG 45, Letters Sent, BNC.

56. Parris to Board, April 28, 1840, NA, RG 45, Letters Received from Miscellaneous Persons, BNC. The Parris folio is on file in the National Archives' "Treasury Room."

57. Downes to Board, March 5, 1842, NA, RG 45, Letters Received, BNC.

Abel P. Upshur, who had replaced George F. Badger as Secretary of the Navy in October 1841, at first approved and then vetoed the reassignment of space. In his second letter, dated March 20, Upshur reminded Downes that no change of "the appropriate uses of buildings, should ever be made without express authority of the Department."[58]

In mid-May Secretary Upshur reconsidered, and announced that the society was to be permitted to occupy, for the present, the room(s) prepared for it in the Navy store.[59]

8. Coping with Theft from the Yard

As under previous administrations theft from the yard continued to plague the Navy during the Downes years. One of the more interesting, but bizarre, cases involved a man named Lemon, who resided at the same house as Boatswain Baxter.

On December 31, 1838, the master coppersmith missed a "lot" of old copper which had been compressed for the furnace. Upon making inquiries, a workman reported that, while at Fernald's Boston Foundry, a lad, William Golden, who had been employed in the yard, entered and offered to sell used copper.

When told of the incident, Commandant Downes sent for Golden. Upon being questioned, Golden stated that he had been employed at the yard; that about a week after he had gone to work, Lemon accosted him outside the gate, and asked for help. Lemon told Golden that there was some old copper inside the fence of Golden's yard, which he desired to sell. Golden agreed and took the 51-1/2 pounds of copper, in a wheelbarrow, to Fernald's, where he sold it for 16-2/3 cents per pounds. He gave Lemon $5 and kept the balance.

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58. Upshur to Downes, March 15 and 20, 1842, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

59. Upshur to Downes, May 13, 1842, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

About one week later, Golden found another lot of copper in his yard. This he disposed of in a similar fashion, retaining the $11 received from Fernald.

Lemon, on learning of this story, brought suit against Golden for slander.[60]

The files contain no further information on this problem, so we do not know the outcome of Lemon's suit against Golden. If the reader wishes to pursue this subject, he should consult the local court records.[61]

9. Managing and Defending Yard Personnel

Commodore Downes' personality and mode of exercising command were diametrically opposed to those of his immediate predecessor. There were few, if any, violent clashes with his principal subordinates. He did not attempt to remold the yard and its personnel to reflect his character. Unlike Commodore Elliott, he did not manage the yard as one would a quarterback of a warship. His loyality to subordinates, some of whom were lazy or incompetent, proved a problem.

When complaints were made against key personnel, Downes habitually came to their assistance. For example, on November 6, 1839, James Martin of Boston wrote Secretary of the Navy Paulding a shocking letter concerning misuse of manpower by yard officers, both military and civilian. Commander Abbot, he charged, "who saw the mote in Com. Hull's eye but did not know he had a beam in his own," contrary to regulations, kept a "yard man to hoist the flag as a servant in his house and likewise keeps another to tend his office." Abbot also employed his son at one dollar per day. Lieutenant John Bubier kept a "man to ring the bells and employs him as a servant in his quarters." Sailing Master

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60. Downes to Chauncey, February 7, 1839, NA, RG 45, Letters Received, BNC.

61. Letters Received by the Navy Commissioners from the Commandant of the Charlestown Navy Yard, NA, RG 45.

Samuel C. Hixon kept "a man for his waiter in house who trims" the yard lamp.

Clerk of the Yard Benjamin Hawkes employed two men, the first a naval carpenter at $500 per year and the second his 14-year-old son at $1 per day. This was done at a time when there was little work in progress, and not more than 60 or 70 hands on the payroll. Master Painter Tolman used a yard painter to tend to his personal business.

Certain master mechanics, Martin continued, drawing an annual wage of between $1,400 and $1,500 were "never in the yard . . . but leave there work for the foremen."

Commodore Downs, he observed, as "an upright, just and honorable man," who believed that everybody possessed these attributes. And these characteristics, under these circumstances, had proved his undoing.[62]

Commandant Downes answered Martin's charges. The man who attended the colors also served as the commandant's messenger. Whenever ships were being outfitted for sea, a person was detailed to keep account of everything taken aboard, the stowage of the holds, etc. Commander Abbot's son had been hired for this purpose.

The individual employed to ring the muster bell also served as Lieutenant Bubier's messenger. The man who cleaned, trimmed, and lighted the lamps was not required to perform any other duty. If he ran errands for Mr. Hixon, it was voluntarily. No yard men, Downes reassured the department, were employed as officers' servants.

Clerk of the Yard Hawkes had been assisted by his son. The first year without compensation, and during the past 12 months, when the rolls had numbered nearly 600, he had been allowed a small salary. This was

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62. Martin to Paulding, November 6, 1839, NA, RG 45, Miscellaneous Letters, BNC.

erosion in the efficiency of the Charlestown yard's blockmaking department. He was satisfied that "every dollar's worth of work delivered from that Shop cost the Government three dollars." This he attributed to poor management by Master Blockmaker Beckford, who had been able to hoodwink Commodore Downes and his officers. In addition, it was common knowledge that Beckford made "free use of the bottle." It had long been a mystery why he had been "suffered to occupy the place he does so long as he has."[65]

After investigating Morse's charges, Downes reported that, although Master Blockmaker Beckford had "injured his constitution by too free a use of drink," he had never been seen "intoxicated in the yard; nor had he at any time been unable to perform all the duties devolving upon him."

Morse had formerly worked as a blockmaker but, having been caught stealing copper, had been fired.[66]

Satisfied with Downes' explanation of the affair, the board pigeonholed the charge against Beckford.[67]

10. Downes Resists Reassignment

a. Secretary Paulding Alerts Downes

On October 12, 1839, Secretary of the Navy Paulding wrote Commodore Downes that to "maintain discipline of the service and to subserve" the public interest demanded that the command of the squadrons be entrusted to senior captains. In view of his experience and distinguished service afloat, Downes was to hold himself ready for sea duty when called.[68]

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65. Morse to Board, October 31, 1840, NA, RG 45, Miscellaneous Letters, BNC.

66. Downes to Board, November 19, 1840, NA, RG 45, Letters Received, BNC.

67. Board to Downes, November 23, 1840, NA, RG 45, Letters Sent, BNC.

68. Paulding to Downes, October 12, 1839, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

the only assistance Hawkes had employed, although Etheridge, when he held this position, had an assistant. The carpenter referred to was a distinct officer, the clerk of the check, whose duty was to attend musters and serve as a check on the clerk of the yard.

Master Painter Tolman had a very "industrious laborer" to grind paint and mix putty. Occasionally, he brought Tolman his meals, as the master painter did not take a break for dinner.

There was no truth whatsoever to the charge that the master workmen neglected their duties.[63]

The board found Downes' explanation of Martin's charges generally satisfactory. They, however, deemed it their duty to remind him that:

> (a) When there were a sufficient number of officers attached to the yard or to a vessel outfitting, it was preferable to employ one of them to perform the duties accomplished by Abbot's son, rather than hiring a person.
>
> (b) The duties of ringing the bell and attending the lamps could be attended to by the same individual.
>
> (c) The clerk of the yard should receive sufficient assistance to enable him to make out and keep the pay records in time to prevent any delays in paying the mechanics and laborers.
>
> (d) There was no authority to employ a clerk of the check to check on the clerk of the yard. This duty was to be exercised by the lieutenant or master of the yard.[64]

Some 12 months later, on October 31, 1840, E.B. Morse, who was interested in being employed as a master blockmaker in any of the navy yards, except Pensacola, wrote the department. He noted that, in the years since Commandant Morris' departure, there had been a steady

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63. Downes to Chauncey, November 18, 1839, NA, RG 45, Letters Received, BNC.

64. Morris to Downes, November 30, 1839, NA, RG 45, Letters Sent, BNC.

Downes was dismayed to learn that he was slated for an early return to sea. Writing the secretary, he protested that, since entering the Navy in 1800, he had spent 25 years aboard ocean-going vessels, which gave him "more sea service than any other" senior naval officer. Moreover, he had never asked to have an order revoked nor to be relieved from an unpleasant assignment. And he would not now do so, provided the department deemed his service afloat to be in the public interest.

He, however, was unprepared to go to sea, and trusted the department would not order him away, without giving him time to make arrangement for his family.[69]

Secretary Paulding's reply was hardly reassuring. Although his presence afloat would not be immediately required, it was recommended that you "keep yourself in readiness."[70]

During the later winter of 1839-40, Commodore Downes was absent from the yard from February 22 to March 21. Captain Charles Morgan served as commandant while he was away.[71]

b. Downes Successfully Resists Returning to the Far East

During the next six months, Commodore Downes was incapacitated on several occasions by sickness. Whenever this occurred, Commander Abbot, as executive officer, assumed command of the yard.

Time seemingly ran out for Downes in the late summer of 1840. On September 15 Secretary of the Navy Paulding issued orders for

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69. Downes to Paulding, October 15, 1838, NA, Captains' Letters, Microcopy M-125.

70. Paulding to Downes, October 22, 1839, NA, Letters Sent, Secretary of the Navy, Microcopy M-149. Not so fortunate was Commodore Ridgely, who was named to command the Brazilian Squadron. He was to proceed to Boston and hoist his pennant on United States, then being outfitted at the Charlestown yard.

71. Morgan to Paulding, February 16, 1840, NA, Captains' Letters, Microcopy M-125.

Commodore Downes to hold himself ready to sail for the Orient aboard Constellation and to assume command of the East India squadron. Downes acknowledged receipt of these unwelcomed orders on the 28th. Upon doing so, he asked to be relieved of this assignment, pleading ill health. Paulding was unsympathetic. He chided Downes that the public interest demanded that he assume command of the "United States Naval Forces to be employed in the China Seas & India Ocean."[72]

Downes was disappointed, because the secretary's position left him "no alternative but to obey." He, however, urged upon the department the importance of providing him with a more suitable flagship than Constellation. Independence, then laid up in ordinary at the New York yard, was his choice.[73]

Then, on October 11, Downes had a conversation with Purser Nathaniel Wilson, just returned from Washington. While there Wilson had heard rumors that the East India assignment had been made by the Democratic Van Buren administration as a reprisal against Downes, because he had participated in the September 10 Bunker Hill Whig procession. There was no truth to this story, Downes wrote the secretary. Moreover, he believed "it improper for officers of the Navy to have anything to do with party politics." Indeed, he had never seen fit to vote in any election, whether national, state, or local.[74]

Secretary Paulding assured Downes that the story of his participation in the Whig rally had not influenced the department's decision, because until receipt of Downes' letter nothing was known of the incident. Continuing, Paulding wrote that he was disappointed that Downes could for "a moment" support that in "dealing with great public

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72. Paulding to Downes, September 15 and October 5, 1840, NA, Letters Sent, Secretary of the Navy, Microcopy M-149; Downes to Paulding, September 28, 1840, NA, Captains' Letters, Microcopy M-125.

73. Downes to Paulding, October 8, 1840, NA, Captains' Letters, Microcopy M-125.

74. Downes to Paulding, October 11, 1840, NA, Captains' Letters, Microcopy M-125.

interests," the department would "pay the slightest attention to reports," whether true or false, that could in no way affect his capacity to fulfill his assigned duties. "Be assured," Paulding chided, "that your command was not intended as a punishment, but as an honorable distinction, not so much from the amount of force, as the critical interests committed to your charge."[75]

The secretary, taking cognizance of Downes' plea of ill health and having made his point, revoked the orders assigning him to command of the East India squadron. Downes was continued in command of the yard.[76]

c. A Reorganization of the Command Gives Downes an Opportunity

Early in May 1842 Secretary of the Navy Upshur decided to name post captains or commanders afloat for the principal naval stations--Boston, Norfolk, and New York. Involved would be a "total separation" of the port captain's and commandant's duties. To effect this, Secretary Upshur called on Commodore Downes for guidance in defining the Boston Harbor limits over which their respective authority were to extend. "All ships in ordinary or requiring repairs, etc., will belong to the yard, and therefore a sufficient space to accommodate them, must be allowed," Downes was to suggest the proper limits for the yard, as opposed to those to be administered by the port captain.[77]

After studying the situation, Downes, to separate the commands, called for a line to extend from the northeast angle of the yard to Winnesemmet Ferry at the north end of Boston, to include within the yard, the Chelsea Naval Hospital and Magazine. The port captain was to

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75. Paulding to Downes, October 17, 1840, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

76. Downes to Paulding, October 22, 1840, NA, Captains' Letters, Microcopy M-125.

77. Upshur to Downes, May 10, 1842, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

have authority beyond this line, including all waters of the harbor, within Long Island, as well as the recruiting rendezvous.[78]

On May 17 Downes, in view of the department's decision to constitute the new jurisdictions and the hairbreadth reprieve from being ordered to an overseas squadron, requested to be placed in command of the Boston station.[79] Secretary Upshur was agreeable. Orders were issued assigning Commodore John B. Nicholson to be commandant of the Charlestown Navy Yard. Upon Nicholson's arrival in Charlestown from Baltimore, Downes was to regard himself as detached from command of the yard and awaiting orders. Nicholson arrived at the yard on June 1, and after 87 months the yard had a new commandant.[80]

B. Important Yard Activities and Happenings

1. Significant Happenings During Downes' First Year

a. The Navy Looks to Improvements in Local Navigation

On April 20, 1835, some four weeks after Commodore Downes assumed command as Seventh Commandant, the Board of Commissioners called on him to extend to Colonel Baldwin, who was surveying Boston Harbor, such assistance as "could be done consistently with the public interest and which will not involve the expenditure of any money."

Downes was to remind Baldwin that the Navy would probably require, at some future date, that pier or pile wharves be erected to extend from the quay walls out into the Charles River channel.[81]

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78. Downes to Upshur, May 17 and 19, 1842, NA, Captains' Letters, Microcopy M-125.

79. Downes to Upshur, May 17, 1842, NA, Captains' Letters, Microcopy M-125.

80. Downes to Upshur, May 21, 1842, NA, Captains' Letters, Microcopy M-125.

81. Rodgers to Downes, April 20, 1835, NA, RG 45, Letters Sent, BNC.

The department in this respect had shown its foresight. Before many years passed, the number of wharves extending out from the yard into the Charles were to increase from four to six.

Then, in May, by order of the department the observation of the flood and ebb of the tides commenced at the yard. Professor Duncan Bradford was placed in charge of making and recording the readings.

b. Downes Appeals Successfully for Continuation of the Band

Commodore Downes, soon after taking command, called on the department to provide funds for a band. The board rejected this proposal, because employment of men assigned to ordinary for this purpose had never been contemplated.[82]

Undaunted by this rebuff, Downes brought the subject to the attention of Secretary of the Navy Dickerson.[83] The secretary overruled the commissioners. Downes was authorized to continue the band, provided it was "not attended with an increase of expenses to the United States." Bandsmen were not to be detailed from ordinary for the "mere purpose of amusement, though no objections exist to their employment as musicians when their services are not otherwise required."[84]

c. Windstorms and Fires Cause Concern

On May 20 Surgeon Gerard Dayers, a veteran of many years' service at the yard, committed suicide at Roxbury's Norfolk House. He was buried from the yard on the 22d. Forth-eight hours later, steam ferry boats began operating between Charlestown and East Boston, the community that had grown up on Noddles Island.

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82. Rodgers to Downes, April 20, 1835, NA, RG 45, Letters Sent, BNC.

83. Downes to Dickerson, June 23, 1835, NA, Captains' Letters, Microcopy M-125.

84. Dickerson to Downes, July 9, 1835, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

On June 8 13-minute guns were fired from the saluting battery to honor the memory of Commodore John D. Henley, who had died on May 23, aboard his flagship Vandalia, in La Habana Harbor.[85]

A wild wind and rainstorm, on July 16, caused damage at the yard. Two chimneys at the blacksmith shop toppled, crashing through the roof.[86] The board directed that the damage be promptly repaired.[87]

On August 25 there was a "great fire" in Charlestown. It swept the area from the old bridge to the Salem Turnpike, destroying more than 70 houses.

The commissioners arrived at the yard for their annual inspection on September 30, and stopped off again on October 5, on their return from Portsmouth. Observing the rows of fire-blackened debris and ruins, Commodore Rodgers directed that, as a precaution against fire, the roof be removed from Columbus. The work was to be done carefully, and the timber stored for future use. Wherever feasible coal would be substituted for wood for fires aboard the receiving ship.[88]

Then, on November 10, the department authorized purchase by the yard of a fire engine and 1,000 feet of hose, to correspond with those employed by the Charlestown and Boston fire departments.[89]

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85. Charlestown Navy Yard Journal, April 1-June 30, 1835, NA, RG 181.

86. Downes to Rodgers, July 16, 1835, NA, RG 45, Letters Received, BNC.

87. Chauncey to Downes, July 20, 1835, NA, RG 45, Letters Sent, BNC.

88. Rodgers to Downes, October 5, 1835, NA, RG 45, Letters Sent, BNC.

89. Rodgers to Downes, November 10, 1835, NA, RG 45, Letters Sent, BNC.

d. The Talked About Winter of 1835-36

In the autumn of 1835 men from the ordinary lacquered the ironwork of the three ships on the ways-- Virginia, Cumberland, and Vermont.[90]

On October 27 there was a 13-gun salute to honor the memory of Commodore Wolcott Chauncey, who had died at Pensacola two weeks before.

Weather conditions were a topic of much interest that autumn and winter. On November 17 the Aurora Borealis, at 11 P.M., caused thousands to turn out. The heavens were blood red at their zenith, while bright yellows extended out to the horizon. On December 16 the mercury at sunset stood at 13 degrees below zero.[91]

The arctic-like weather continued through January 1836. February 3 was a bitterly cold day, with gusting winds. Many people, who worked outside, suffered from frostbite of their faces and ears.

Boatswain Richard Gray died and was buried on the 17th. The usual salute was fired to commemorate Washington's birthday.

On March 2 the toll was removed from the Warren Bridge, and the event was celebrated by the firing of guns and ringing of bells. Two days later, there was a "great free bridge ball" at the Charlestown city hall.[92]

2. Jackson Rattles the Saber--The French Crisis of 1835-36

President Jackson, during his second administration, moved vigorously to secure payment from France for depredations upon

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90. Rodgers to Downes, October 14, 1835, NA, RG 45, Letters Sent, BNC.

91. Charlestown Navy Yard Journal, October 1-December 31, 1835, NA, RG 181.

92. Ibid., January 1-March 31, 1836.

American commerce dating from the Napoleonic Wars. A treaty for settlement of these claims had been signed in 1831, but the Chamber of Deputies refused on several occasions to appropriate funds needed to fulfill France's commitments. Jackson accordingly, when he submitted his annual message to Congress, in December 1834, included a "thundering philippic" against France for her delinquency in meeting "the solemn obligations of a treaty." He urged the United States to seek redress if the money, lawfully due, were refused or further delayed, and asked Congress for authority to make reprisals upon French property, unless the Chamber of Deputies met its duty.

French reaction could be anticipated. The Gallic press and people clamored for war. In the winter of 1834-35, the French recalled their minister in Washington and handed the United States minister his passport. Although France might bluster, she could not afford to fight for the privilege of a public defaulter. In April the chamber passed a bill for payment of the indemnity, but attached a rider, requiring that no money be paid until "satisfactory explanations" were made of President Jackson's fiery message.

Jackson, however, was unprepared to make a bland apology. Subjected to pressure from his cabinet, he informed the Congress, when it convened in December 1835, that he, as chief executive, had the right to lay fearlessly before the legislators every situation, foreign and domestic, and he refused to apologize or to admit the right of France to ask for an explanation. But, at the same time, he denied that his 1834 message, which had given offense, was intended to menace or insult the French government.[93]

To cope with the crisis and be ready for war, the Navy Department, in January 1836, called upon its commandants for reports on the status of the ships on stocks, undergoing repair, and in ordinary, at their respective yards. Commodore Downes therefore advised the commissioners

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93. James Schouler, History of the United States of America Under the Constitution, seven volumes (New York, 1917), Vol IV, pp. 242-46.

that of the vessels in these categories at the Charlestown yard, the sloop-of-war Boston could be readied for sea in one week, upon receipt of orders; Independence in 120 days; Vermont, Virginia, and Cumberland in 160 days; and Columbus, if she were razeed, in 180 days.[94]

The number of seamen that could be recruited at the Charlestown yard in 60, 90, 120, and 180 days was dependent on the number that might arrive aboard merchantmen in Boston Harbor. At present, there were being shipped weekly at the Boston rendezvous from 12 to 25 seamen. In event of war, men might be induced to ship that would not now enlist.[95]

There was sufficient timber on hand, with exception of a set of beams for Columbus, to complete the repair of the vessels on stocks and in ordinary.

To repair Columbus, 50,000 pounds of iron were needed, 10,000 pounds of bolt copper, 4,000 sheets of sheathing copper, 6,000 pounds of sheathing and composition nails, and 7,000 pounds of lead. These could be procured from the contractors, except the lead which might be purchased in Boston.

About 70,000 pounds of lead was required for the three ships on the stocks. There was, he understood, a large quantity of lead stock-piled by the Army's Ordnance Department.

Chain cables were required for all the vessels, except Boston.[96]

The French government now seized upon Jackson's 1835 message as a means of graceful retreat. Both France and the United States were in a

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94. Downes to Rodgers, January 19, 1836, NA, RG 45, Letters Received, BNC.

95. Ibid.

96. Downes to Rodgers, February 2, 1836, NA, RG 45, Letters Received, BNC.

mood to accept the proffered mediation of Great Britain. Whereupon, President Jackson soon had the satisfaction of announcing to the country that France had paid four installments promised, under the 1831 treaty. Measures instituted by the government to ready the fleet and its support facilities and to strengthen the coastal fortifications, to meet the emergency, were now suspended.

3. Downes' Second 12 Months As Commandant

Commodore Downes' second year as yard commander found him at loggerheads with the department on a minor issue. Chaplain Walter Colton had been desirous of having services every Sunday. Several mechanics, with their wives and daughters, volunteered to form a choir. Commandant Downes had authorized purchase of "music and hymn books." only to have his vouchers disallowed by Secretary of the Navy Dickerson, because it was unprecedented.[97]

Two months later, on May 6, an intruder named Campbell was seriously injured, when he fell from Vermont's cathead to the ground 50 feet below.[98]

On June 29, 124 recruits reached the yard from New York City. They had traveled by train as far as Boston, and the one they rode had collided with a New York-bound train, demolishing several cars and severely injuring 11 of the naval personnel.

On July 1 the colors were half-masted and a salute of 21-minute gun fired in memory of former President James Madison, who had died on June 24 at his Montpelier, Virginia estate.[99]

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97. Downes to Rodgers, March 16, 1836, NA, RG 45, Letters Received, BNC.

98. Charlestown Navy Yard Journal, May 1-6, 1836, NA, RG 181.

99. Ibid., June 1-July 31, 1836; Downes to Dickerson, June 30, 1836, NA, Captains' Letters, Microcopy M-125.

By 1837 the naval hospital at nearby Chelsea had been completed and staffed. There was considerable sickness among naval personnel assigned to the yard, ordinary, and the receiving ship in late February. On the 28th there were 72 men confined to the chapel sick bay. To relieve overcrowding, Commodore Downes, with the department's approval, transferred a number of patients to the Chelsea Naval Hospital.[100]

4. The Yard Provides Support for Surveying and Charting Georges Bank

Plans were made for a survey of George Bank in the summer of 1837 by Lieutenant Charles Wilkes. There was insufficient time to build at the yard five whaleboats needed by Wilkes to accomplish his mission, so Commodore Downes rushed an officer to the south shore of Cape Cod. There, he purchased the necessary craft.[101]

On Thursday, July 6, the brig Porpoise reached Boston from Norfolk, and anchored off the yard. After Lieutenant Wilkes had reported to Commodore Downes, she was hauled alongside the wharf, and began loading whaleboats, anchors, and other specialized surveying gear.[102]

Six day later, on the 12th, Porpoise cast loose her mooring lines and made sail. She was accompanied out of the harbor by the steamboat Patent and the schooner Maria. Before departing for Georges Bank, Lieutenant Wilkes praised Commandant Downes and his staff for "their attention and assistance in forwarding his preparations."[103]

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100. Downes to Rodgers, February 28, 1837 and Rodgers to Downes, March 6, 1837, NA, RG 45, Letters Received and Sent, BNC.

101. Downes to Chauncey, June 23, 1847, and Chauncey to Downes, June 27, 1837, NA, RG 45, Letters Received and Sent, BNC.

102. Army and Navy Chronicle, Vol. V, p. 28. Porpoise had been built at the Charlestown yard the previous year, and had been employed during the winter and spring of 1837, for surveying the Gulf Coast.

103. Ibid., p. 56.

Patent's machinery soon proved "unreliable," and she was found to be unseaworthy in foul weather, because of "the quantity of water" she shipped into her holds, and the insecurity of her paddle wheel guards "in case of heavy sea striking her." Lieutenant Wilkes accordingly ordered the steamer back to Boston, where she was discharged from her contract, and a second schooner chartered as a replacement.[104]

Porpoise and her tenders returned from their late summer survey of Georges Bank on the evening of September 27. During her 9-week absence, she had grounded in Portsmouth Harbor. She was therefore docked and undocked on October 3, while a sheet of copper was repaired. On the 15th she sailed for New York City.[105]

5. The Middle Years of Downes' Administration

In the summer of 1837 Charles Sisson, former acting gunner of Lexington, was ordered to duty at the yard. He proved to be a loser, as he was seldom sober. Late in August he was arrested in Charlestown, charged with public drunkeness, and sent to the county workhouse for 30 days.[106]

On February 22, 1838, the usual salute was fired from the battery in commemoration of the nation's first president. The saluting battery, on July 4, again roared forth, as a 25-gun salute, one for each state, was fired in honor of the nation's declaration of independence.

Two weeks before, on June 19, the yard had had an important visitor, the Prince de Joinville, fourth child of King Louis Phillipe of France. The prince was "tall, swarthy, slender, blue eyes, mustachios, no whiskers, inclined to stoop, and about 20 years of age." On July 18

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104. Boyle, Knox, Marchand to Wilkes, July 21, 1834, NA, Captains' Letters, Microcopy M-125; Dickerson to Downes, August 1, 1837, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

105. Downes to Chauncey, September 28 and October 3, Chauncey to Downes, October 6, 1837, NA, RG 45, Letters Received and Sent, BNC.

106. Downes to Paulding, August 29, 1838, NA, Captains' Letters, Microcopy M-125.

Charles Davis, the charge d'affaires for Turkey, visited the yard and was received with a 15-gun salute. Then, on August 7, 13 guns were discharged in memory of Commodore John Rodgers. The long-time President of the Board of Navy Commissioners had died on August 1 at the Naval Asylum in Philadelphia. Rodgers had been succeeded as President of the Board by Commodore Isaac Chauncey in May 1837.

On Saturday morning, June 30, the Navy and yard lost a close associate, when Colonel Baldwin died at his Charlestown home. He had been felled the previous day by a stroke.

Then, on August 30, the yard lost one of its most faithful employees and a hero of Constitution's fight with Guerriere, Sailing Master Charles F. Waldo. Since January 1816 Waldo had been keeper of the yard journal.[107]

Learning of Waldo's death, Clerk of the Yard Benjamin Hawkes submitted a request that he and his family be allowed to occupy the quarters soon to be vacated by the widow and her children. Commandant Downes, however, ruled against Hawkes, and recommended that Master of Ordinary Robert Knox be assigned the quarters, because he was on call 24 hours a day.[108]

The department was agreeable to Master of Ordinary Knox moving into quarters No. 5, but cautioned that, as they were designated on the master plan to be occupied by the first lieutenant, he might be called on to vacate.[109]

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107. Charlestown Navy Yard Journal, January 1-September 1, 1838, NA, RG 181.

108. Hawkes to Downes and Downes to Chauncey, September 1, 1838, NA, RG 45, Letters Received, BNC.

109. Chauncey to Downes, September 5, 1838, NA, RG 45, Letters Sent, BNC.

On October 15, 1838, the Navy commissioners were at the yard for their annual inspection, to be met by a Marine guard and a 13-gun salute.[110]

There was a tragedy on July 14, 1839. A small boat from the yard capsized in the harbor, drowning Boatswain John McNalley and two recruits. Their bodies were recovered and returned to the yard the same evening.

To replace the capable McNalley, Commandant Downes recommended Loring Chessman, a rigger. Although he was 32 and had made only two cruises, he would make "a first rate Boatswain."[111]

On August 31 13-minute guns were fired from the saluting battery in honor of the memory of Commodore Daniel T. Patterson, late commandant of the Washington Navy Yard, who had died on the 25th. Three days later, on September 3, the northern firmament was lighted by an "extraordinary" display of the Aurora Borealis.

On September 13 Secretary of the Navy Paulding ordered that, hereinafter, not more than 5 percent of the men shipped by naval recruiters were to be black. Under no circumstances were slaves to be enlisted.

Secretary of War Joel R. Poinsett visited the yard, on September 20, and was received by a 17-gun salute. Then, on October 17, the Navy commissioners made their annual inspection of the yard.[112]

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110. Charlestown Navy Yard Journal, September 1-October 31, 1838, NA, RG 181.

111. Downes to Chauncey, July 16, 1839, NA, RG 45, Letters Received, BNC.

112. Charlestown Navy Yard Journal, August 1-December 31, 1839, NA, RG 181.

6. The December 1839 Storms and Repairing the Damage

A savage storm hammered the Boston area on December 15, 1839. It began with a wind out of the northeast, accompanied by snow, and increased in fury until midnight.[113] This blow caused havoc to shipping in Boston Harbor and Massachusetts Bay. Many vessels and lives were lost. At the yard, Concord's mooring lines parted, she broke adrift, and was slightly damaged. The bark Lloyd was lost on Nantasket Beach, with all hands, and a brig on Cape Cod.

On the 22d there was a second nor'easter, which did considerable damage to the Boston wharves. This was followed on the 27th by a sou'easter that was nearly as violent as the mid-December gale. At the yard, chimneys were blown down, windows broken, and lead and copper torn from building No. 15.

The tide rose to a great height, washing large sticks of timber over the quay wall and into the timber dock. Waves broke over the wharves flanking the dry dock, leaving seaweed and driftwood. The tide, however, did not rise above the gates. The ship Columbiana was driven through the Charlestown Bridge, and "brought up" by knocking into the Warren Bridge. Much damage was done to wharves and shipping on the Boston side; one ship and two schooners foundered.[114]

An inventory of damage to the yard and public vessels in the first two storms revealed:

Joiners' Department

Shiphouse G--part of end blown out and 3 doors smashed	$ 90.00
Shiphouse H--part of lower end blown out	55.00
Shiphouse I--lower end blown out	245.00
Blacksmith shop--roof broken in by falling chimneys	100.00
Building No. 55 (Engine House)--roof broken by falling of chimney	50.00
Timber sheds--some doors and bars broken	30.00
Columbus--larboard gallery stove in	25.00
Concord--stern hammock boards	30.00

113. Downes to Board, December 18, 1839, NA, RG 45, Letters Received, BNC.

114. Downes to Board, December 28, 1839, NA, RG 45, Letters Received, BNC; Preble, "History of the Boston Navy Yard," p. 268, NA, RG 181.

Carpenters' Department

1 new stern boat davit for Concord	
1 new warping chock for Concord	
1 new iron awning stanchion for Concord	
25 feet hammock stanchion and rail on the larboard side of Columbus requires repair	
One-third of stern plank sheer of Concord will require repair	$100.00

Masons' Department

A chimney top blown down on the roof of building No. 55 and much slating broken	
A small piece of slating ripped off Building No. 15	
Three chimney tops on blacksmith shop blown down breaking through roof and damaging slating	$350.00
Repair of damage to doors and windows, etc. . .	200.00
Total	$1,275.00[115]

The board called for repair of the damage, priority being given to those items that were most urgent.[116]

Learning that more money was needed to repair the damage, the department, in mid-February 1840, authorized Downes to draw $300 from the shiphouse No. 39 account.[117]

7. Ceremonies and VIP Visits to the Yard During the Final 17 Months

On January 29, 1840, 13 rounds from the saluting battery were fired in memory of Commodore Chauncey, the President of the Board of Navy Commissioners, who had died in Washington on the 27th. He was succeeded as president by Commodore Charles Morris. The saluting battery again roared forth on August 12 to welcome the Austrian minister to the yard.

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115. Downes to Board, December 28, 1839, NA, RG 45, Letters Received, BNC.

116. Morris to Downes, December 26, 1839, NA, RG 45, Letters Sent, BNC.

117. Morris to Downes, February 11, 1840, NA, RG 45, Letters Sent, BNC.

On September 9 Sailing Master Hixon died, and was buried, with suitable honors, under the stone chapel in Boston.[118]

On January 26, 1841, the usual salute and respects were paid to the memory of Captain Thomas H. Stevens, last commandant of the Washington Navy Yard, who had died on the 21st. Then, on April 9, funeral honors were observed for President William Henry Harrison, who had died at the White House on April 4, one month after his inauguration as ninth president.

At 1 P.M., November 24, the Prince de Joinville was again at the yard. He was received by Commodore Downes and all the naval officers, as well as an honor guard of Marines. The battery roared out a 21-gun salute.[119]

On January 5, 1842, Sir Charles Bagot, Governor of Canada, was a guest at the yard. He was received by Commodore Downes, a Marine guard, and a 17-gun salute.[120]

C. The Yard as a Ship Building Facility

1. The Nation's Economy Dictates the Construction Program

John Downes' seven years as commandant of the Charlestown yard nearly coincided with the final years of what has been referred to by the late Howard I. Chapelle, an authority on the subject, as the "Bureaucratic Navy." The Board of Navy Commissioners, so far as building and design were concerned, were in control. Since the members of the board were aging veterans of the War of 1812, "extreme conservatism was the rule."

The high cost of maintaining ships-of-the-line, once they were in service, resulted in keeping them on the stocks. This, it was argued,

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118. Charlestown Navy Yard Journal, January 1-December 31, 1840, NA, RG 181.

119. Ibid., January 1-December 31, 1841.

120. Ibid., January 1-31, 1842.

was an "economical mode of maintaining ship of the class in some readiness for war, if it should come." Consequently, during the Downes years the liners Vermont and Virginia were kept in their respective shiphouses "under construction." A similar situation governed the frigate Cumberland during most of these years.[121]

2. The Building of the Brigantine "Porpoise"

Six ocean-going vessels, ranging in class from a corvette to brigs, were built, launched, outfitted, and sent to sea from the Charlestown yard during Downes' first administration. The first of these was a brig. In 1834-35 the Navy Department determined to build two small vessels, to be an "improved edition of the schooners (the Boxer class) laid down in 1831. The new craft were to be of the same length as the earlier vessels, 88 feet, between perpendiculars, while the moulded beam was increased to 25 feet, and the hold depth to 11 feet. The revised dimensions were intended to create vessels of greater capacity than the earlier schooners. Drafts for these vessels were prepared by Chief Naval Constructor Humphreys.[122]

On August 27, 1835, the commissioners forwarded instructions for building a schooner to Commodore Downes, and one week later the drafts.[123] Some four months later, on January 14, 1836, the department alerted Downes that a schooner would be built with as little delay as possible, without interfering with the "important work" of razeeing Independence.[124]

Commandant Downes was notified in mid-February that the schooner was to be rigged as a hermaphrodite brig.[125]

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121. Chapelle, American Sailing Navy, pp. 373-74.

122. Ibid., p. 391.

123. Rodgers to Downes, August 27 and September 2, 1835, NA, RG 45, Letters Sent, BNC.

124. Rodgers to Downes, January 14, 1836, NA, RG 45, Letters Sent, BNC.

125. Rodgers to Downes, February 12, 1836, NA, RG 45, Letters Sent, BNC.

A severe snowstorm, which began on the night of January 24, interrupted the yard work schedule. The foul weather delayed laying the keel of the schooner, until mid-February. By the 24th Naval Constructor Barker had turned a large number of carpenters and laborers to in the lower yard, and the keel had been laid and the stern post raised.[126]

Rapid progress was made on the vessel's framing and planking during the next two months. Construction by mid-April had reached the point where Commodore Downes needed to know whether felt was to be employed in coppering her.[127] She was to be coppered over felt was the reply.[128]

By May 3 the deck of the hermaphrodite brig was laid, her bottom nearly caulked, her masts and spars made, and her rigging fitted. On learning of this, the department directed that she be launched as soon as she was ready.[129]

The brigantine was launched on May 31. She floated very deep, and Downes questioned whether she would need any ballast beyond her chains and tanks.[130]

The board did not agree. Six tons of ballast were to be sent aboard, and her draft reported after her tanks were filled.131

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126. Downes to Rodgers, January 25, 1836, NA, RG 45, Letters Received, BNC; Charlestown Navy Yard Journal, February 1-29, 1836, NA, RG 181.

127. Downes to Rodgers, April 16, 1836, NA, RG 45, Letters Received, BNC.

128. Rodgers to Downes, April 20, 1836, NA, RG 45, Letters Sent, BNC.

129. Downes to Rodgers, May 3, 1836, and Rodgers to Downes, May 14, 1836, NA, RG 45, Letters Received and Sent, BNC.

130. Downes to Rodgers, May 31, 1836, NA, RG 45, Letters Received, BNC.

131. Rodgers to Downes, June 14, 1836, NA, RG 45, Letters Sent, BNC.

On June 14 the department selected a name for the hermaphrodite brig. She was to be christened Porpoise.[132]

The board, in early July, directed Commandant Downes to try Porpoise in the bay under canvas.[133]

Porpoise was ready for sea on July 18, her water and provisions stowed. The powder, spare provisions, and crew could be sent aboard whenever the officers arrived at the yard to receive them.[134]

On July 27 Commodore Downes took Porpoise for a trial run down the bay to test her under sails. The wind was from the east, and they had to beat down the harbor. She out ran all vessels working their way out. At the Narrows, she touched on the north point of Lovells Island, and was unable to get off until the next flood. A lighter was brought alongside and her guns sent on board.

When a diver examined her bottom, after she returned to the yard, the only damage pinpointed was a small piece of copper rolled up on the shoe.[135]

By the first week of August, the officers were aboard and Lieutenant William Ramsay had assumed command of the 224-ton brigantine. On the 13th Porpoise was hauled out into the stream, and on the 26th she sailed for Florida's gulf coast.[136]

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132. Ibid.

133. Rodgers to Downes, July 5, 1836, NA, RG 45, Letters Sent, BNC.

134. Downes to Rodgers, July 18, 1836, NA, RG 45, Letters Received, BNC.

135. Downes to Rodgers, July 28, 1836, NA, RG 45, Letters Received, BNC.

136. Downes to Rodgers, August 24 and 26, 1836, NA, RG 45, Letters Received, BNC.

3. The Brigs "Consort" and "Pioneer" Are Built for an Expedition to Antarctica

In 1829 Edward Fanning of Stonington, Connecticut, had spearheaded an expedition to the South Pacific. This attracted considerable favorable public attention. The government in the mid-1830s organized a similar expedition eventually to be commanded by Lieutenant Charles Wilkes. The question of suitable craft for exploration being thus aroused, it was decided by the department to build three vessels for this purpose and to purchase a fourth as a tender. It was deemed that these craft, with a warship as flagship, would constitute a useful squadron. Chief Naval Constructor Humphreys was ordered by the commissioners to prepare plans to rigid requirements. He supplied a design that could be rigged as either a brig or schooner.[137]

On July 11, 1836, the commissioners accordingly called on Commandant Downes to notify the department whether a brig and schooner, or either, could be built at the yard from promiscuous live oak timber or from any moulded timbers smaller than those necessary for sloops.[138]

Two small vessels for the exploring expedition, Downes answered, could be built and outfitted at the Charlestown yard "in less time than we could build and fit one."[139]

Delighted by this forthright response, the department ordered preparations commenced for building two brigs of about 200 tons, each.[140]

On July 26 the commissioners alerted Downes that Chief Naval Constructor Humphreys was en route to Boston for the purpose of laying

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137. Chapelle, American Sailing Navy, p. 390.

138. Rodgers to Downes, July 11, 1836, NA, RG 45, Letters Sent, BNC.

139. Downes to Rodgers, July 18, 1836, NA, RG 45, Letters Received, BNC.

140. Rodgers to Downes, July 21, 1836, NA, RG 45, Letters Sent, BNC.

down and preparing moulds for the Antarctic Exploring Expedition brigs. The building of these vessels would be expedited. Downes was authorized to employ as many men upon them as can be worked to advantage. Humphreys was bringing with him necessary building instructions.

Captain A.C. Jones, who had been designated to command the expedition, also might be visiting the yard. If he did and called for special arrangements or modification of equipment, they were to be honored, provided they did not require an alteration of work already accomplished.[141]

As soon as Humphreys had briefed Barker, Commodore Downes saw that a large number of carpenters and laborers were turned out in the lower yard, the keels were laid, and by mid-September the exploring vessels were "half planked up," with most of the ceiling in place. Their small boats were "in a state of forwardness," as were the sails, masts, and spars.[142]

Enthused with this progress, the department directed that the barks be launched and equipped as expeditiously as possible.[143]

The first exploring expedition bark was launched on October 25, and her sister on the 29th.[144] Upon being advised of this, the department directed that the first one launched be named Pioneer and the second Consort.[145]

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141. Rodgers to Downes, July 26, 1836, NA, RG 45, Letters Sent, BNC.

142. Downes to Rodgers, September 12, 1836, NA, RG 45, Letters Received, BNC.

143. Rodgers to Downes, October 20, 1836, NA, RG 45, Letters Sent, BNC.

144. Downes to Rodgers, October 26 and 29, 1836, NA, RG 45, Letters Received, BNC.

145. Rodgers to Downes, November 9, 1836, NA, RG 45, Letters Sent, BNC.

By mid-December the joiners' work on the barks was finished, and the painters would be through on Friday. If all went according to schedule, Commandant Downes hoped to get them off, weather permitting, on Sunday the 18th. They were now loading beef and pork. There would be on hand, in the Navy Store, over and above what the barks could take, about 600 barrels.[146]

Downes' expectations were too optimistic. It was next to the last day of the year before Pioneer and Consort made sail and cast off for Norfolk, speeded on their way by a strong northwest wind.[147]

4. The Department Vetoes the Building of a 40-Footer

On December 30, 1836, Commodore Downes asked authority to build a 40-foot boat for the yard's use. The work could be done by the carpenters assigned to ordinary.[148]

The department, as anticipated, directed Downes to justify the need for the boat and to send a draft thereof.[149]

Downes accordingly transmitted a draft of the boat, which would be used for all "necessary purposes, at the discretion of the Commandant." There was at the yard a boat, he explained, which had been fitted with sails, and had answered this purpose "tolerable well." She had been built in the Pacific by Macedonian's carpenters in 1819. She, however, required expensive repairs.[150]

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146. Downes to Rodgers, December 14, 1836, NA, RG 45, Letters Received, BNC.

147. Charlestown Navy Yard Journal, December 1-31, 1836, NA, RG 181.

148. Downes to Rodgers, December 30, 1836, NA, RG 45, Letters Received, BNC.

149. Rodgers to Downes, January 6, 1837, NA, RG 45, Letters Sent, BNC.

150. Downes to Rodgers, January 12, 1837, NA, RG 45, Letters Received, BNC.

After reviewing the subject, the commissioners refused to sanction construction of the 40-footer.[151]

5. The Building of the Corvette "Cyane"

In 1836 plans for two sloops were commenced by the department, but they were subject to extensive revisions. When approved for distribution in 1837, they called for a corvette 132 feet 3 inches between perpendiculars and 34 feet 3 inches moulded beam. In design they were much improved and enlarged models of the 24-gun Warren class of 1825. They had much the same appearance, but they were "somewhat easier in the bilges," the run was slightly sharper and the proportions of length to displacement better suited to speed. The extensive changes in the plans of these ships were an attempt to insure better sailing qualities. Chief Naval Constructor Humphreys was probably alarmed by the criticisms leveled against the 1825 class and was insistent that the new vessels have a good turn of speed. These improvements were successful, and this class proved to be good sailers, although they were never deemed handsome crafts.[152]

On June 8, 1837, the commissioners notified Commodore Downes that preparations were to be made for building one of the two "large sloops of war" authorized by the last session of Congress.[153]

The other vessel of this class, subsequently named Levant, was to be built at the New York Navy Yard.

Humphreys' drafts of the Charlestown corvette, to be called Cyane, were mailed to Commandant Downes on June 28.[154]

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151. Rodgers to Downes, January 25, 1837, NA, RG 45, Letters Sent, BNC.

152. Chapelle, American Sailing Navy, pp. 397-99.

153. Chauncey to Downes, June 8, 1837, NA, RG 45, Letters Sent, BNC. The other vessel of the class, subsequently named Levant, was to be built at the New York Navy Yard.

154. Chauncey to Downes, June 28, 1837, NA, RG 45, Letters Sent, BNC.

The keel was laid at the lower yard ways in early July. Within 90 days the frame had been planked up outside to three strakes above the port sills, and inside to the gundeck beams. Her berthdeck had been laid and caulked, and the carpenters were framing the gundeck, and would begin laying it on October 1.[155]

On November 8 Downes wrote the commissioners that Cyane could be launched by the 15th. If they were agreeable, he would copper her in dry dock, where it could be done in 48 hours. There would be no problem as to the dock's availability, because Ohio could "be taken out to-morrow, provided the keelson" is not removed.[156]

The board was agreeable. But, before she was launched, Downes was to position sights on her to ascertain whether the hull straightened, after she floated.[157]

Cyane slid into the water at 2 P.M., on December 2, without incident. The sights were checked and no hogging found. She was accordingly docked on the 5th to be coppered. This task was completed by the 12th, and the 792-ton vessel undocked and hauled to the shear wharf, where her lower masts would be stepped and rigged. Commodore Downes was enthusiastic with her appearance, calling her "the finest sloop of war I have ever seen."[158] The Bunker Hill Aurora agreed, describing Cyane as a "model of grace and symmetry."[159]

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155. Downes to Chauncey, September 30, 1837, NA, RG 45, Letters Received, BNC.

156. Downes to Chauncey, November 8, 1837, NA, RG 45, Letters Received, BNC.

157. Chauncey to Downes, November 13, 1837, NA, RG 45, Letters Sent, BNC.

158. Downes to Chauncey, December 2, 5, and 12, 1837, NA, RG 45, Letters Received, BNC.

159. Army and Navy Chronicle, Vol. VI, p. 383.

The department, upon being apprised of this, ordered Cyane outfitted for sea, "with all possible dispatch."[160]

Four months later, on April 20, 1838, the board directed that Cyane be readied for a three-year Mediterranean cruise. By the fourth week of May, her stores were aboard and a crew shipped. On the 26th she was hauled away from the shear wharf and out into the stream. On June 7 she anchored off Boston's famous Long Wharf.[161]

Whereupon, the editor of the Boston Gazette reported that Cyane was one of the "finest vessels of her class belonging to our navy." Her model was said to be perfect, and the accommodations which "her construction affords to her officers and men, are nearly equal to those afforded by a frigate." Improvements had been made in the "design calculated to promote the comfort and health of the crew and to lighten the burden of their labor." The construction and finish of the officers' quarters were neat, but without any ostentation. He forecast that she would "prove a fine vessel, worthy of her gallant officers and her 'Yankee Crew.'"[162]

At 11 A.M., on June 24, Cyane (Commodore John Percival) sailed for Port Mahon. Commodore Downes had come aboard, and he rode her down the bay.[163] He left her at 1 P.M., six miles east of the lighthouse.[164]

6. The Building of the Sloop "Marion"

In 1838 the department determined to build a new class of sloops. They were intended to be economical sailers well suited for

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160. Chauncey to Downes, December 19, 1837, NA, RG 45, Letters Sent, BNC.

161. Chauncey to Downes, April 20, 1838, NA, RG 45, Letters Sent, BNC.

162. Army and Navy Chronicle, Vol. VII, p. 14.

163. Charlestown Navy Yard Journal, April 20-June 24, 1838, NA, RG 181.

164. Downes to Chauncey, June 25, 1838, NA, RG 45, Letters Received, BNC.

distant stations, and were to be rated as third class 16-gun vessels. They were planned for a peacetime battery of 16 32-pounder carronades, with facilities for the addition of two long guns in time of war. There was considerable difference of opinion regarding the proper size of the new class. Proposals were prepared by three of the department's naval constructors: Francis Grice submitted plans for a sloop 111 feet between perpendiculars; Josiah Barker for a much heavier displacement vessel 114 feet 6 inches in length; and John Lenthall for a sloop of the same length as Barker's but of less displacement. It was pointed out to the board that these small vessels would be unable to carry a heavy armament and still be fast, as suited their class. The board therefore considered an increase in size and finally agreed that the new class should be the same length as the 1813 classes, about 117 feet between perpendiculars.

Lenthall's design was accepted, and he was ordered to redraw it to the greater length. His final design for the new class of sloops called for vessels measuring 117 feet 7 inches between perpendiculars, 32 feet moulded beam, and 15 feet depth of hold.[165]

It was determined by the department to build one of the five sloops at the Charlestown yard. Consequently, the board, on December 27, forwarded to Commodore Downes in a tin case sections and inboard plans for a third class sloop. He was to have these preserved and strictly adhered to in building the vessel, allowing no deviation therefrom, unless first cleared with Washington.[166]

The winter was mild for the Boston area, and the sloop rapidly took shape on the lower yard ways. Learning that the hull was completed, the department directed that she be called Marion and be launched and outfitted at the first opportunity. This occurred on April 24, 1839. Commenting on the event, a newspaper correspondent noted, that Marion, a beautiful sloop of 530 tons, was launched on Wednesday, at 9 A.M.

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165. Chapelle, American Sailing Navy, pp. 400-02.

166. Chauncey to Downes, December 28, 1838, NA, RG 45, Letters Sent, BNC.

She was second rate, and pierced for 18 guns. Marion was the fifth sloop launched from the same ways within the past several years. Boston, Falmouth, Warren, and Cyane having preceded her. A large number of people, who had assembled to watch the event, pronounced "it one of the most beautiful launches they ever witnessed."[167]

On August 14 the department ordered Marion prepared for sea. By this time she had been rigged.[168] Her stores and crew were sent aboard during the next 13 weeks, and on November 10 she sailed for the Brazilian station.[169]

7. The Building of the Brig "Bainbridge"

In the early 1840s the department called for construction of four "schooners or brigs." Samuel Humphreys prepared the lines for two of these vessels. His drafts called for a sharp hull, 100 feet between perpendiculars, 25 feet moulded beam, and 11 feet depth of hold. The design was based on the successful 1836 brigantines, Dolphin and Porpoise.[170]

Consequently, on November 28, 1841, the commissioners notified Commodore Downes that preparations would be made for building a first class sloop-of-war from one of the yard's set of live oak frames. If the lumber were docked, it was to be hauled out, so that it could be removed before the dock iced over. An "accurate account" would be kept of all materials used in construction, so that such as had been procured for other purposes could be replaced.

Plans and moulds were to be furnished as soon as finalized by Chief Naval Constructor Humphreys.

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167. Army and Navy Chronicle, Vol. VIII, p. 285; Chauncey to Downes, April 12, 1839, and Downes to Chauncey, April 24, 1839, NA, RG 45, Letters Sent and Received, BNC.

168. Morris to Downes, August 14, 1839, NA, RG 45, Letters Sent, BNC; Army and Navy Chronicle, Vol. VIII, p. 413.

169. Dictionary of American Naval Fighting Ships, Vol. IV, p. 243.

170. Chapelle, American Sailing Navy, pp. 428-30.

Two days later, the board wrote Downes that the vessel to be built at Charlestown would be a brig not a sloop.[171] The brig's keel was laid on February 4, 1842, in recently completed shiphouse No. 39. For the first time in the yard's history, a vessel smaller than a frigate would be built under cover.[172]

The department, in mid-March, selected a name for the brig. She would be christened Bainbridge in honor of Commodore William Bainbridge.[173]

Work on the hull progressed rapidly, and by the end of the third week of April she was nearly ready to enter the water. Upon being apprised of this, the Board ordered her to be launched.[174]

The launch took place at noon on the 26th. There was a "very low neap tide," and as her bows left the ways, her forefoot rubbed on a plank, placed under her keel, to prevent its striking the stones, at the end of the ways. The lead and copper on the forefoot were damaged.[175]

To effect repairs, Bainbridge was hauled into the dry dock on May 6 and taken out the next morning.[176] The brig was moored at the shear wharf on June 1, 1842, when Commodore Downes turned over command of the yard to his successor.

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171. Warrington to Downes, November 28 and 30, 1841, NA, RG 45, Letters Sent, BNC.

172. Charlestown Navy Yard Journal, January 1-February 28, 1842, NA, RG 181.

173. Warrington to Downes, March 19, 1842, NA, RG 45, Letters Sent, BNC.

174. Warrington to Downes, April 22, 1842, NA, RG 45, Letters Sent, BNC.

175. Downes to Board, April 27 and May 11, 1842, NA, RG 45, Letters Received, BNC.

176. Charlestown Navy Yard Journal, April 1-May 15, 1842, NA, RG 181.

8. The Launching of "Cumberland"

On the last day of November 1841, the department directed that preparations be made for launching and completing Cumberland.[177] It was decided that her launching would precede her coppering.[178]

On May 13, 1842, the department ordered the frigate, which had been on the ways for 16 years, to be launched "when ready." But, on the 24th the commissioners changed their mind. Writing Commandant Downes, President of the Board Commodore Warrington cautioned that the bleak financial situation probably did not allow for outfitting Cumberland. He would therefore discontinue preparations for the launch, "placing her in a state of safety & carefully storing all the supplies & articles of equipment that may have been procured."[179]

The telegraph had not been perfected, and about the same time as Warrington was drafting his stop order, Cumberland was sliding down the ways and into the Charles River. Upon learning of the board's action, Downes, to preserve the hull, had 60 tons of kentledge sent aboard. This brought her draft forward down to 12 feet 10 inches and aft to 16 feet 5 inches. He would "pay" her spar and gundecks with several coats of turpentine to preserve them from injury by the summer sun. Her hatches would be covered to keep out the rain.

More weight would have to be sent aboard, however, to keep her from hogging.[180]

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177. Warrington to Downes, November 30, 1841, NA, RG 45, Letters Sent, BNC.

178. Warrington to Downes, February 18, 1842, NA, RG 45, Letters Sent, BNC.

179. Warrington to Downes, May 13 and 24, 1842, NA, RG 45, Letters Sent, BNC.

180. Downes to Board, May 24 and 27, 1842, NA, RG 45, Letters Received, BNC.

D. Repairing, Outfitting, and Rebuilding Public Vessels

1. Changes Wrought by Technological Advances and the Need to Economize

During the years 1835-42, the Charlestown facility, as was to be expected of one of the nation's three most important navy yards, continued to play a vital role in the repair, rebuilding, and outfitting of public vessels. In 1839 the yard serviced its "first" steam-propelled warship. Although the day of the ironclad was a generation in the future, the use of iron in the Navy was increasing. This was reflected in May 1839, when Commandant Downes reminded the department that the vessels being sent to the yard for repair had more ironwork than heretofore. To meet this challenge, there was need for an engine lathe capable of turning pieces of ironwork up to 12 inches in diameter and weighting 1,000 pounds, with an attachment for cutting screws. Until the yard acquired a lathe of this character, he warned, heavy ironwork would have to be farmed out, with consequent delays and higher costs.[181]

Funds for a lathe of this description were included in the 1840 allotment for "Improvements" to the yard.

The costs of maintaining and repairing wooden vessels were high. In January 1842, as an economy measure, the department directed that, hereinafter, in repairing or building vessels, the commandants were to: (a) permit no carving, except for figureheads of ships-of-the-line and billetheads for smaller craft; (b) sterns and galleries were to be finished with mouldings; (c) the carpenters', blacksmiths', and riggers' work was to be "done in the most simple and plain manner, consistent with its strength, durability, and the purposes for which it is intended." No leather would be employed in the rigging, and all blockstays were to be fitted with short splices; (d) the inboard joiners' work, i.e., doors and bulkheads, were to be white pine. Furred balusters were to be substituted, wherever feasible, for "venitian or lattice work." in the upper panels of doors and bulkheads. Ladders and grating slats were to

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181. Downes to Chauncey, May 24, 1839, NA, RG 45, Letters Received, BNC.

be white ash. No longer would hatch combing be framed with white ash. Neither warping chocks nor gratings for the bow or stern sheets of boats were to be fitted. Binnacles were to be black walnut. Accommodation ladders were to be "straight without platforms," except in ships-of-the-line; (e) single-decked vessels were to have galleys fitted between the fore and main hatchways; (f) black and white were to be the only colors used on a vessel's interior, except for a primer coat of Spanish brown on the ironwork. Inboard paint colors could be white, straw, or green, as the captain preferred. Coal tar could be employed on the ironwork but not on the cordage; (g) cabin and wardroom quarterdeck rails could be brass or composition, but without any frills. Composition sheaves were allowed for catheads and catblocks. Sheaves for the topmasts and lower yards of ships-of-the-line were to be cast iron. All others to be wood; (h) except for the boxes and saucer for the spindles, no other brass or composition castings were to be allowed in the capstans. Iron or lignum vitae was to be substituted, when necessary, for brass and composition; (i) lead cups would, hereinafter, be used instead of brass caps to cover the carronades' elevating screws. Aprons for the gun locks would be lead; (j) use of composition, brass, or copper for "any purposes of ornament on any part of a ship of war or her boats" was henceforth forbidden.[182]

2. The Repair of "Boston" and a Boisterous Cruise

On April 8, 1835, the department instructed Commodore Downes to proceed with the sloop Boston's repair. Downes had anticipated the board.[183] Five days earlier, she had been taken out of dry dock and hauled under the masting shears.[184]

Thirteen months later, in mid-May 1836, the department called for Boston to be prepared for sea with all possible dispatch. She was to be

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182. Board of Commissioners to Commandants, January 19, 1842, NA, RG 45, Circular Letters, BNC.

183. Rodgers to Downes, April 6, 1835, NA, RG 45, Letters Sent, BNC.

184. Downes to Rodgers, April 8, 1835, NA, RG 45, Letters Received, BNC.

supplied with necessary slop clothing for the tropics, because she was to proceed to the West Indies.[185]

Boston would be ready for sea on the 22d, Commodore Downes reported, with all provisions aboard, except powder of which none was on hand. This, however, did not extend to the crew, as there were only 50 recruits at the yard. There was scant prospect of getting more, because only two men had been shipped during the past fortnight.[186]

Downes' people made him look good as a prophet. By nightfall, on May 21, Boston was ready to sail, with six months' provisions and 20,000 gallons of water aboard. No powder had yet been received.

During the mid-1830s six months' provisions for a sloop consisted of: 91 barrels beef, 78 barrels pork, 26 barrels flour, 850 pounds bread, 650 pounds butter, 1,950 pounds cheese, 82 bushels beans, 5,200 pounds rice, 325 gallons of vinegar, 2,275 gallons of whiskey, 15 boxes candles, $120 of pickles, and $140 of raisins.[187]

On July 1 Boston (Master Commandant Bladen Dulaney) was hauled out into the stream, her officers and crew aboard. As soon as the powder arrived from Norfolk, her sails would be bent and she would put to sea.[188]

The powder was received and sent aboard on Thursday, the 7th, and on July 10 she sailed for the Caribbean.[189]

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185. Rodgers to Downes, May 13 and 16, 1836, NA, RG 45, Letters Sent, BNC.

186. Downes to Rodgers, May 16 and 17, 1836, NA, RG 45, Letters Received, BNC.

187. Downes to Rodgers, May 21, 1836, NA, RG 45, Letters Received, BNC.

188. Downes to Rodgers, July 1, 1836, NA, RG 45, Letters Received, BNC.

189. Downes to Rodgers, July 9, 1836, NA, RG 45, Letters Received, BNC; Army and Navy Chronicle, Vol. III, p. 13.

The outbound voyage was ill-omened. Winds were strong and the seas boisterous. Both officers and men "suffered much from the uncomfortable state & manner in which she behaved." By the 17th there was so much water slopping around the berthdeck that Captain Dulaney had it "scuttled" and 150 32-pound projectiles jettisoned to lighten Boston, as she was "labouring very heavily & rolling her Hammock nettings under to the windward." This momentarily relieved the distress. But, on the 18th, the winds being stronger, she "rolled so heavily . . . that her starboard quarter boat and davits were carried away." One of the Marines threw himself overboard and was lost.

Satisfied that the improper stowage and quantity of ballast was the cause of their difficulties, Captain Dulaney shaped a course for St. Thomas, in the Danish West Indies. Boston sailed into the harbor on July 29 and dropped anchor. All hands were turned to breaking out and restowing the hold, while Captain Dulaney wrote the department, describing and complaining of his difficulties.[190]

The department accordingly asked Commodore Downes for an explanation. Boston, at the time of her departure from the yard, Commodore Downes reported, had aboard 30 tons of kentledge, while her water tanks weighed another 30 tons. She also carried provisions to last for six months. The stowage of her hold had been supervised by Sailing Master Samuel C. Hixon, but how it had been stowed, when she arrived at the yard in 1832 and as to the weight of ballast carried then, it had been impossible to ascertain.

Upon studying Captain Dulaney's account of his difficulties, Commandant Downes concluded they had been caused by "bad management" of Boston, rather than by "the quantity or storage of the ballast." Dulaney had written that he had no wind, which could be called a gale, but he had reduced his sail and allowed "his ship to roll her weather hammock nettings into the water." Moreover, it was noted that 4,800 pounds of shot had been thrown overboard to lighten Boston on the

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190. Dulaney to Dickerson, July 29, 1836, NA, Commanders' Letters, Microcopy M-147.

17th, two days after Dulaney had first complained of the sloop's "great laborings."

Downes enclosed with his comments a draft of Boston's hold, showing how the ballast, tanks, etc., were stowed.[191]

3. "Lexington" Spends Four Weeks at the Yard

Secretary of the Navy Dickerson, upon learning that Columbus had cleared the dock, ordered that the sloop-of-war Lexington be brought down from the Portsmouth Navy Yard to have her bottom examined and to be supplied with a set of tanks.[192]

Lexington arrived at the yard at 2 P.M., on July 22, 1837, and was hauled to the wharf, preparatory to placing her in dry dock. She was docked on the 24th, and taken out on the 25th. While high and dry on the shores, a few sheets of copper on her bottom were replaced and the shoe repaired. Her water casks were replaced by iron tanks after she left the dock.[193]

By August 10 Lexington was ready to depart for the South Atlantic, but she was detained for more than a week by adverse winds. Finally, on the 19th, her captain had her towed out to sea by the steamboat Portsmouth.[194]

4. "Erie" Is Docked, Repaired, and Sails

Some three weeks later, on Friday evening, September 15, the sloop-of-war Erie (Commodore James B. Renshaw) arrived from the South Atlantic. The next day she was hauled to the shear wharf and her

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191. Downes to Rodgers, August 24, 1836, NA, RG 45, Letters Received, BNC. Copies of the subject drafts are on file at the Boston NHP.

192. Chauncey to Downes, July 14, 1837, NA, RG 45, Letters Sent, BNC.

193. Downes to Chauncey, July 21, 24, and 26, 1837, NA, RG 45, Letters Received, BNC.

194. Downes to Chauncey, September 18 and 22, 1837, NA, RG 45, Letters Received, BNC.

powder landed. Commodore Renshaw explained to Commandant Downes that Erie had grounded on the Grand Rip, while crossing Nantucket shoals. To lighten her, the crew had jettisoned 500 shot and had stove in the water casks.

On the 20th she was docked. An inspection revealed that the copper on her shoe was broken fore and aft, and about 6 feet of the latter, forward, had been chaffed off by the chain cables. Within 48 hours the shoe and copper had been repaired, and she was taken out of the dock at 11 A.M., on the 22d.

The board, meanwhile, had ordered Erie's crew paid off and the vessel surveyed.[195] By the last day of September, Commandant Downes reported the survey under way, and the probability that needed repairs would be limited.[196]

Erie's stay at the yard was brief. The first session of the 25th Congress, soon after convening in December 1837, enacted legislation authorizing President Van Buren to have the public vessels cruise the Atlantic Coast during the winter to aid vessels in distress. Accordingly, Secretary Dickerson, on January 21, ordered Erie assigned to this duty. As soon as she was outfitted, equipped, and manned she was to put to sea.[197]

Commodore Downes responded to this order with his customary vigor. By the end of the month, the sloop had been taken out of ordinary and a crew shipped. While she was being hauled out into the stream on the 31st, there was an accident. Her stern fasts parted, and her foreyard and jibboon crashed into mighty Ohio and were carried

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195. Chauncey to Downes, September 16 and 18, 1837, NA, RG 45, Letters Sent, BNC.

196. Downes to Chauncey, September 30, 1837, NA, RG 45, Letters Received, BNC.

197. Dickerson to Downes, January 21, 1838, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

away. The damage was promptly repaired, and Erie sailed on the morning of February 10 on her humanitarian mission.[198]

5. "Ohio" Is Docked, Repaired, and Outfitted As Flagship of the Mediterranean Squadron

There was no dry dock at the New York Navy Yard, a situation which plagued the Navy in repairing its liners. One of these was Ohio. The big 74 had been launched at the New York yard in 1820, and had been moored there until 1837 before being rigged and outfitted. She had been overhauled from the waterline up, but with no dry dock it became necessary to order her to either Charlestown or Norfolk to be docked and have "such of her bottom and keel repaired as could not be reached while afloat."[199]

To expedite repair of her bottom, Commandant Charles G. Ridgely of the New York yard mailed to Commodore Downes data concerning needed work, along with a drawing of her keelson. The latter would enable Downes and Naval Constructor Barker immediately to ascertain "the nature and extent of the defects in the keelson, as reported from New York, and the kind of pieces necessary to replace them." As she had recently been repaired, it was important to preserve her lines. When she was taken into dock, Barker was to determine carefully the shape of the keel, and the lay of the blocks in the dock conformable thereto.[200]

A skeleton crew was to bring the 74 up from New York. But with a shortage of manpower at Commandant Ridgely's facility, it would be necessary for Commodore Downes, to expedite the move, to send 100 seamen under Lieutenant W.S. Walker, to New York City. This enabled Captain Lawrence Kearney to flesh out his crew. Even so, when she sailed, she was short one-half her complement.

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198. Downes to Chauncey, February 1 and 10, 1838, NA, RG 45, Letters Received, BNC.

199. Army and Navy Chronicle, Vol. V, p. 238.

200. Chauncey to Downes, September 9 and 15, 1837, NA, RG 45, Letters Sent, BNC.

On Thursday, October 12, Ohio was towed down the harbor by the tugs Rufus King and Hercules, and came to anchor off Southwest Spit, the winds and tides being unfavorable. Since there was no armament on board, she drew 22 feet of water, the largest ship that had heretofore anchored in the Hudson. On Sunday she was towed through the Narrows. Beyond Sandy Hook, the fasts were cast off, and Ohio proceeded under her own power.

She entered Boston Harbor on Thursday, the 19th, with a wind from the east. Ohio was a sight to remember, as she advanced up the harbor "in fine style with a large portion of her sail set." As she neared the city, one by one the sails were reefed. By the time she veered by the wharves toward the Charlestown shore only her three topsails and a jib were spread.[201]

Ohio was docked on October 25. When the water was pumped out of the dock, her bottom was found to be sound, but because of the "unskilful manner in docking her, the blocks having been laid with nearly a foot crowning," it was feared that she had "been somewhat hogged." As the keel was laid bare, it was seen that the centre blocks, which were to sustain the great weight of the ship, were crushed, while the forward and aft part missed touching their blocks by several inches.[202]

On November 29, her keelson and copper repaired, Ohio was floated out of the dock and moored in the Charles, alongside and offshore of Columbus.[203] If necessary, Commandant Downes wrote the department, his people could have the liner ready to sail for New York in six weeks.

Ohio would not be returning to New York immediately. Secretary of the Navy Dickerson decided that she was to remain at the Charlestown

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201. Army and Navy Chronicle, Vol. V, pp. 249, 285.

202. Army and Navy Chronicle, Vol. VI, p. 1; Downes to Chauncey, October 19, 1837, NA, RG 45, Letters Received, BNC.

203. Downes to Chauncey, November 29, 1837, NA, RG 45, Letters Received, BNC.

yard for the present. Commodore Downes was to "land and carefully preserve her cabin and other furniture, and such other articles as will be exposed to injury by remaining on board." Since it was desirable to keep her hull "well down in the water," her tanks were to be nearly filled.[204]

Some eight months later, in mid-August 1838, instructions were issued by the department that Ohio and Columbus were to be caulked. To complete this project before the stormy season, Downes was to engage a "strong force."[205]

Then, in the first week of September, orders came to have Ohio outfitted for sea with all practicable dispatch. To do so, Commodore Downes was to employ as "many men as can be advantageously engaged."[206] She, however, would be unable to proceed directly to the Mediterranean, because she must return to the New York yard to take aboard her armament and other equipment, which had been left there the previous year.[207]

While Ohio was fitting out her officers and crew were accommodated aboard the receiving ship Columbus. As the flag officer (Commodore Isaac Hull) might decide to occupy separate quarters from her captain, Downes was to have two suites of furnishings readied. Only one set would be sent aboard, pending discussions with the officers involved.[208]

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204. Chauncey to Downes, December 11, 1837, NA, RG 45, Letters Sent, BNC.

205. Chauncey to Downes, August 14, 1838, NA, RG 45, Letters Sent, BNC.

206. Chauncey to Downes, September 4, 1838, NA, RG 45, Letters Sent, BNC.

207. Chauncey to Downes, September 12, 1838, NA, RG 45, Letters Sent, BNC.

208. Chauncey to Downes, September 11, 1838, NA, RG 45, Letters Sent, BNC.

Large numbers of men were soon swarming over the big liner, and in mid-September Commodore Downes notified the board that she would probably be ready to receive her officers and men by October 5.[209]

Downes' deadline held. On October 11 Commodore Hull hoisted his broad pennant on the 74, and it was saluted by 13 guns from the yard's battery. Five days later, on the 16th, Ohio was hauled out into the stream and sailed for New York Harbor.[210]

6. "Pioneer" Returns to the Yard

During the winter of 1837-38, the brig Pioneer was assigned to cruise the coastal shipping lanes to afford relief to distressed vessels and seamen. She sailed from the New York Navy Yard on January 30. The next four weeks were spent at sea. On February 27 Lieutenant Commander William D. Newman took his vessel into Boston Harbor. In approaching the navy yard, the brig beat her way "through thick draft ice." She was moored to the wharf, and on March 1 she received on board fresh beef and vegetables.

The next day, the fasts were cast loose and Pioneer returned to sea. On the 4th the brig, while cruising Long Island Sound, ran afoul of a ledge of rock off Norwalk Island. After the crew had lightened ship, Pioneer, assisted by the steamer Fulton (which had hastened to her assistance), was refloated. Fulton then towed her to the New York Navy Yard for examination and repair.[211]

7. Providing Small Boats for the Polar Expedition

In mid-May 1838 the department called on the yard to send to Norfolk small boats for the sloops-of-war Vincennes and Peacock. These vessels were being outfitted for the Antarctic Expedition.[212]

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209. Downes to Chauncey, September 12, 1838, NA, RG 45, Letters Received, BNC.

210. Charlestown Navy Yard Journal, October 1-16, 1838, NA, RG 181.

211. Charlestown Navy Yard Journal, January 1-March 15, 1838, NA, RG 181; Pioneer's Log, 1837-38, NA, RG 24.

212. Chauncey to Downes, May 12, 1838, NA, RG 45, Letters Sent, BNC.

Acknowledging receipt of this order, along with one from Lieutenant Wilkes describing the particulars of the craft desired, Commodore Downes called on the board to designate the appropriation to be charged for this expense.[213] The boats, the board answered, would be charged to "repairs."[214]

The small boats were taken by ship to Norfolk and arrived well before Wilkes' expedition put to sea in mid-August.[215]

8. The Repair and Outfitting of "Concord" and "United States"

a. "Concord" and "Constellation" Arrive from the Gulf

Two warships sailed into Boston Harbor on Wednesday, October 24, 1838. The sloop-of-war Concord (Lieutenant John L. Saunders) anchored off the navy yard at 1 P.M., and the frigate Constellation (Captain James McIntosh) hove to at 4 P.M. Veterans of the West India squadron, the vessels had come north from Pensacola. Lieutenant Sanders told an amazing story. Concord, he stated, during her three years in the Caribbean and Gulf, had not lost a man from sickness. This was a heartwarming and encouraging statistic. The only deaths aboard his ship had been a suicide and a man falling out of the tops to the deck below.[216]

Upon being apprised of the arrival of Concord and Constellation at the Charlestown yard, the department ordered Commandant Downes to have them surveyed and to report the results.[217] By November 3 the

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213. Downes to Chauncey, May 16, 1838, NA, RG 45, Letters Received, BNC.

214. Chauncey to Downes, May 22, 1838, NA, RG 45, Letters Sent, BNC.

215. Army and Navy Chronicle, Vol. VI, p. 142. In addition to the sloops Vincennes and Peacock, these vessels constituted the "exploring squadron," the schooners Sea Gull and Flying Fish.

216. Army and Navy Chronicle, Vol. VII, p. 285.

217. Chauncey to Downes, October 30, 1838, NA, RG 45, Letters Sent, BNC.

vessels had been stripped of their stores and equipments, excepting a small portion of their kentledge, and the crews sent aboard the receiving ship Columbus. The masts and bowsprit of Constellation had been taken out. As it would take time to examine and survey the ships, Downes suggested to the board that Concord be taken into dock immediately and coppered, so she would be out of the way when United States arrived.[218]

b. "United States" Returns from the Mediterranean

The department was agreeable. As soon as Concord was taken out of the dock, United States was to enter.[219] About 48 hours after this message reached the yard, United States (Captain Jesse Wilkinson) reached Boston on Thursday, November 8. She had sailed from Port Mahon on September 23 and from Gibraltar on October 8.[220] In accordance with procedures, she was surveyed, and the prerequisite report submitted.[221]

c. "Concord" Is Docked and Repaired

Concord entered the dock on November 14, and when the water was pumped out, her bottom was "found thickly coated with oysters."[222] While her hull was being cleaned and recoppered, United States was made ready to enter the dock. Concord was hauled out on November 28, and United States was docked on the 30th. Naval Constructor Barker, on examining the frigate's hull, was delighted to see that the only damage suffered when she had recently stranded was to rub the copper sheeting from the bottom of the shoe.

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218. Downes to Chauncey, November 3, 1838, NA, RG 45, Letters Received, BNC.

219. Chauncey to Downes, November 7 and 21, 1838, NA, RG 48, Letters Sent, BNC.

220. Army and Navy Chronicle, Vol. VII, p. 314.

221. Chauncey to Downes, November 14, 1838, NA, RG 45, Letters Sent, BNC.

222. Downes to Chauncey, November 15, 1838, NA, RG 45, Letters Received, BNC.

Concord had been taken from the dock to the shear wharf. When removing her mainmast, which was in need of repair, the "Purchase parted." The mast fell, '"breaking it short off," and smashing the rail next abaft, snapping the forerigging on the larboard side, splintering three deck planks abaft the capstan. Fortunately, no one was injured.[223]

On February 4, 1839, the department called for outfitting Concord for a three-year cruise on "distant service."[224] The yard had anticipated this order. Replying, on the 9th, Commandant Downes announced that the sloop had been prepared for a three years' cruise and was ready for reception of her officers and crew. Requsitions had been made on the contractors for such provisions as were required, but they had not been received.[225]

Concord was still at the yard on October 24, when she was again docked. Her bottom was cleaned, examined, and found to be sound. She was taken out of the dock to clear the structure for reception of Fulton.[226]

Early in January 1840 Commodore Downes notified the department that Concord was ready for sea.[227]

Concord was at the yard in September, when Erie, having been condemned, arrived from Portsmouth. As Erie had been under orders to

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223. Downes to Chauncey, November 15 and December 1, 1838, NA, RG 45, Letters Received, BNC.

224. Chauncey to Downes, February 4, 1839, NA, RG 45, Letters Sent, BNC.

225. Downes to Chauncey, February 9, 1839, NA, RG 45, Letters Received, BNC.

226. Downes to Board, October 24, 1839, NA, RG 45, Letters Received, BNC.

227. Downes to Chauncey, January 8, 1840, NA, RG 45, Letters Received, BNC.

proceed to the Brazilian station, the board determined to replaced her with Concord. She was to receive Erie's personnel and be docked before sailing to New York City, where her captain would report to Commodore Shubrick.[228]

Concord re-entered dry dock on the 14th. Her bottom was cleaned and the copper repaired at the waterline, where it had been "eaten, or worn through." Her outside was painted, while her inside above the deck would be finished by quitting time on the 17th. Stores and provisions were aboard, and she would be ready for sea as soon as a crew reported. Erie's complement, except for 22 sailors, had accompanied Commodore Shubrick.

On October 5, her billets filled, Concord cast off for New York City.[229]

d. The Repair of "United States"

Ice in the Charles River prevented taking United States out of dock at the beginning of February. The weather then turned mild, and she was hauled out on the 15th, and moored at the lower wharf.[230]

To facilitate her repair, the commissioners authorized removal of her poop.[231] By mid-May, Downes was able to inform the department that the vessel's foremast was ready to take in and the rigging prepared to go over the mast heads.[232]

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228. Board to Downes, September 10, 1840, NA, RG 45, Letters Sent, BNC.

229. Downes to Board, September 17, 1840, NA, RG 45, Letters Received, BNC; Charlestown Navy Yard Journal, September 1-30, 1840, NA, RG 181.

230. Downes to Chauncey, February 12 and 16, 1839, NA, RG 45, Letters Received, BNC.

231. Chauncey to Downes, February 16, 1839, NA, RG 45, Letters Sent, BNC.

232. Downes to Chauncey, May 17, 1839, NA, RG 45, Letters Received, BNC.

e. "United States" and "Marion" Go to Sea

On August 14, 1839, the department directed Commodore Downes to see that United States and Concord were prepared for immediate sea service. The latter vessel, at this time, was lying at the shear wharf, in beautiful trim.[233]

A newspaper reporter, visiting the yard at this time, informed his readers that there were four vessels being prepared for sea--Columbus, United States, Concord, and Marion. There were a large number of recruits aboard the receiving ship Columbus, as well as a school for boys apprenticed to the Navy. The 40 apprentices received "a good English education, and were instructed in seamen's duties." This school had been in operation about one year. It was anticipated that Columbus would soon be hauled out into the stream and anchored near Long Wharf. United States, having been refitted, was at the lower end of the yard.[234]

With all this activity, the yard had many Sunday visitors, who enjoyed the grounds, vessels, and dock. On Thursday, September 2, Secretary of the Navy Paulding spent the day at the yard, being received by a 17-gun salute and a Marine guard.[235]

Three days later, on the 5th, the secretary directed that the outfitting of United States and Marion be expedited, so they would be ready to sail by October 1 to relieve Independence and Fairfield on the Brazilian station.[236]

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233. Morris to Downes, August 14, 1839, NA, RG 45, Letters Sent, BNC; Army and Navy Chronicle, Vol. VIII, p. 413.

234. Army and Navy Chronicle, Vol. IX, p. 37. For additional details concerning Columbus and the apprentices, the reader is referred to Section F, of this chapter. Details on Marion are found in Section C.

235. Ibid., p. 189.

236. Morris to Downes, September 5, 1839, NA, RG 45, Letters Sent, BNC.

On September 10 Commandant Downes advised the department that Marion was ready to receive her complement, while United States would be prepared for sea by October 1.[237]

Marion's crew, provisions, and stores were aboard by October 7, and she was hauled out into the stream to await the outfitting of United States. On the 25th, the day Fulton was docked, United States was taken from the lower wharf and anchored off the East Boston ferry slip. Known as "Old Wagon," when in proper trim, she was one of the Navy's fastest sailers. She now mounted 52 guns and had been "completely refitted" during her 11 months at the yard.[238]

On November 9, on a "fine wind" out of the northwest, United States (Captain Lawrence Kearney) and Marion weighed anchor and put to sea. Captain Kearny shaped a course for New York Harbor, where a brief stop was planned to load additional stores.[239]

f. The Repair and Outfitting of the Frigate Results in a Row

Captain Kearny soon found fault with the frigate. Putting in at the New York Navy Yard, he wrote the department that United States had encountered rough seas. She had "leaked about the bow, the water passing into the sick bay and berth deck." Although she was tight in "smooth weather," he hesitated to make a lengthy cruise until the leak was pinpointed and sealed.

The rudder band, he continued, had become very loose from shrinkage of the rudder head, and must be tightened.

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237. Downes to Chauncey, September 10, 1839, NA, RG 45, Letters Received, BNC.

238. Downes to Board, October 25, 1839, NA, RG 45, Letters Received, BNC; Army and Navy Chronicle, Vol. IX, pp. 293-94.

239. Charlestown Navy Yard Journal, November 1-30, 1839, NA, RG 181.

He also urged that the storerooms and sick bay be altered. The latter should be modified to adapt it to a warm climate "by removing the bulkhead a few feet, so as to include a small scuttle now in the deck above to admit a windsail."

The sails also required alterations, "being roped too tight and sitting badly, bagging very much."

Kearny, having learned that the transom was rotten, mailed to the commissioners several cores bored from that structure.[240]

On November 23 the board transmitted to Downes a copy of a report from Commandant Renshaw of the New York yard, commenting adversely on the Charlestown facility's role in repair of and outfitting United States. Downes was asked for an explanation of the complaints, and to note whether Captain Kearny or any of his officers had called any defects to his attention before she left the yard.[241]

After studying the Renshaw report, Downes replied. He was unable to account for the leak forward, because the frigate had been "faithfully and thoroughly repaired." Perhaps, he speculated, "an auger hole left open or some other slight oversight might have been the cause." The commissioners must be aware, he added, that such "oversights often occur both in building and repairing vessels."

He was at a loss to know what repairs her capstan required, because it had been "unshipped and thoroughly examined," and necessary adjustments made. Her trysails had been deemed sufficient for a three-year cruise.

He could not understand why her shot should be condemned, because they were the best on hand, though some might have more

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240. Kearny to Navy Commissioners, November 1839, found in Carroll S. Alden, Lawrence Kearny: Sailor Diplomat (Princeton, 1936), pp. 109-10.

241. Chauncey to Downes, November 23, 1839, NA, RG 45, Letters Sent, BNC.

windage than desirable. Although the carronades were "very rough, and looked badly," Downes had heard no complaints as to their efficiency. While the vent holes may be larger than the ideal, he questioned whether their size would affect their firing.

In justice to his master mechanics, Downes was certain that vessels are "as well repaired & fitted here as at any other yard." though he acknowledged to a landsman, it might appear otherwise, because the "ships fitted here have little or no carved work or gilding on them, while those fitted at New York have a superabundance."[242]

Soon after he posted this letter, Downes learned that "the greater part of the water said to have been in the sick bay & which required the scuttling of the lower parts of bulkhead to let it off, entered at the Air Ports, and not from any defect in the Bows." A proper closing and dogging of the air ports, he reminded the board, rested with the ship's officers and not with yard personnel.[243]

The department, on being apprised by Captain Kearny of discovery "of decay in the Main Transom," ordered the frigate surveyed by a five-man board (Commandant James Renshaw, Captains John D. Sloat and Matthew C. Perry, and Naval Constructors Samuel Humphreys and John Lenthall). They were to report on the sufficiency of the repairs recently made upon United States, "and whether she is now in a state to perform a cruise on the Brazil Station for three years," and return in safety.

If the Charlestown yard's official report on the repairs had not been finalized, Downes was to order Naval Constructor Barker, or some other equally competent person, to the New York yard to verbally provide the survey board with the desired information.[244]

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242. Downes to Chauncey, November 26, 1839, NA, RG 45, Letters Received, BNC.

243. Downes to Chauncey, November 27, 1839, NA, RG 45, Letters Received, BNC.

244. Chauncey to Downes, December 7, 1839, NA, RG 45, Letters Sent, BNC.

Barker was accordingly ordered to New York "to give the Surveying Officers such information as they may require in relation to the repair" of United States.[245]

The survey was held as scheduled. On December 23 the department transmitted to Downes, for comment, copies of the reports filed by the five-man blue ribbon board. Although they waffled on whether the frigate could safety proceed to the Brazilian station, they went on record that she had been imperfectly repaired. Downes' attention was called to their problem in securing satisfactory information from Constructor Barker. This lent credence to a story that the yard's carpenters' foreman had superintended the frigate's repair at Downes' suggestion, and with Barker's acquiescence.

Several of the 24-pounders were found to be "much honeycombed and to have scores of considerable depth in their bores between the outer reinforce ring and muzzle," while several of the carronade fighting and naval bolts were badly fitted. Some of the carronades' bores were rust encrusted.

As these "alleged defects" had caused much inconvenience and delay, the commissioners called on Downes to answer these questions: (a) whether any, and if any, what parts of the ship's planking had been removed; (b) whether any, and if so, what part of the frame was bored; (c) whether the transom, apron, and stemson were examined, and in what manner; and (d) the nature and extent of repairs and particularly whether the rudder was unhung, and the braces, pintles, and hoops on the head examined.

He was to provide the department with the name of the officer or officers who had inspected the guns, carronades, and their carriages, and had selected the shot sent aboard.

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245. Downes to Chauncey, December 10, 1839, NA, RG 45, Letters Received, BNC.

He was to state the length of time intervening from Captain Kearny's assumption of command and the date United States sailed, and whether Kearny or any of his officers called attention to alleged defects or deficiencies.

Downes was to report whether Barker had been excused from superintending the frigate's repair, and, if so, to cite his reason for ignoring Naval regulations on this important matter.[246]

Commodore Downes replied that, when the frigate had been surveyed at the Charlestown yard, her "transom, stern-post, stem, stemson & apron, etc." had been bored. Before her repair was commenced, she was "sufficiently opened" to ascertain the nature and extent of her defects. The transom had been "completed exposed," a small defect identified, and a new piece put in. Barker's attention had been called to this part of the frame, and he held that to remove the transom and replace it with a new stick would weaken that section of the vessel.

A number of "defective spots in the frame were identified, but none of such magnitude, as to justify the removal of any stick, especially the main transom, stemson, or apron." Her frame, it was seen, "was much cut by borings for previous repairs, and it was believed, that in any future repairs, she would require new topping." It was not improbable, Downes admitted, that some defective wood may have been found by the transom borings, but he questioned whether it was sufficient to impair United States' efficiency.

He refused to concede that she had been so imperfectly repaired as to make her incapable of "performing, in safety, a three year cruise." A survey, such as was made at New York, could not determine this, unless the ship was ripped to pieces.

Turning next to the complaints about her armament, Downes believed that her long guns were the same as those carried in the War of 1812. It

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246. Chauncey to Downes, December 23, 1839, NA, RG 45, Letters Sent, BNC.

was "scarcely possible that any perceptible change" can have taken place in them during the last 15 years. The same could be said for the shot. Moreover, no reports had been made of any defects in her armament while at the yard, by those who had "exercised these guns for the last dozen years." The only complaint regarding the ship's battery had been that the "main deck guns were of unequal length, and the Carronades were rough."

The rudder had not been unhung, although the two upper hoops had been reset. Neither had the hoop through which the tiller passed. While at the yard, the tiller had been taken out, and the rudder examined. The rudder, pintles, and braces were pronounced in perfect order. If something were now wrong with the rudder, Downes speculated that it must have been injured on the passsage to New York City.

Captain Kearney had reported to Commodore Downes on November 3, and had taken the frigate to sea six days later. During this period, neither Kearney nor any of his officers had called attention to any "defects, or deficiencies in the repair, armament, or equipment" of United States. Kearney had mentioned several unimportant items he would have liked, and Downes had told him they could be obtained at the New York yard, where he was taking his frigate to complete her equipment.[247]

If it became necessary "to open" the frigate to ascertain the extent of the defects cited by Captain Kearney and the five-man board, and should she be docked to discover the extent of the damage suffered when she stranded off New York Harbor, Downes trusted that she would be returned to Charlestown. Then, if there had been any negligence or inattention to duty on the part of the men charged with repairing and outfitting her, "let it be known here on the spot." Only then would the delinquency be apparent to all. On the other hand, if she had been "faithfully repaired and fitted in proper matter, the evidence of it will be before our own eyes."

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247. Downes to Chauncey, December 30, 1839, NA, RG 45, Letters Received, BNC.

Focusing his ire on Captain Kearney, Commodore Downes challenged his right to "set himself up as an inquisitor, and to have the vessel torn to pieces to safisfy his surmises and suspicions as to her fitness for him to sail in or not." If this were to be permitted, the Navy had "arrived at a deplorable state."

When he had assumed command of Potomac in 1831, Downes continued, he was aware that she was defective in many parts of her hull. But, unlike Kearney, he had not carped. To the contrary, he had "cheerfully" taken her to sea, because he knew that the department desired that he sail as early as possible. On the passage to the Pacific, he had seen that extensive repairs were made to her waterways and some parts of her decks. Had Potomac undergone the "same inquisitorial examination" to which United States had been subject, "she would have been found more defective" than Kearney's frigate.[248]

United States, the commissioners explained, could not be ordered back to Charlestown to complete her repairs, because Secretary of the Navy Paulding had already ordered her to Norfolk. Her examination was to be completed at the Virginia yard. If he wished, Downes was to send a representative to be present at the Norfolk survey.[249]

An investigation by Commodore Downes identified the source of his problems as David Marples and Naval Constructor Barker's grandson, William Barker. He found that it was Marples who had reported that the frigate was leaking very badly about the bows. Commandant Renshaw had forwarded this information to the board. Surgeon William J. Powell had scotched this story embarrassing Captain Kearney, when he reported that the water had entered at the air ports.

Meanwhile, Marples had stopped off at William Barker's Brooklyn store, and had told him that United States leaked very badly, and that he understood that the main transom was rotten.

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248. Ibid.

249. Chauncey to Downes, January 7, 1840, NA RG 45, Letters Sent, BNC.

After the ship had been examined at the New York yard, a Mr. Brett dropped in at Barker's store and told him that the transom, apron, wood ends, and other parts were rotten. Soon thereafter, Master Carpenter Samuel C. Hartt sent for Barker and closely questioned him respecting the repair of the frigate during the time she was in the Charlestown dry dock.

This satisfied Downes that there was a conspiracy to embarrass Naval Constructor Barker. Writing the commissioners, Downes noted that Marples had been, for more than a year, the "carpenter" of the yard's ordinary before being ordered to United States. A number of years before, he had been an apprentice to Naval Constructor Barker, who had fired him for being unfaithful and negligent. After several years, Marples had returned to the yard as a third rate carpenter. He was found to be incompetent and was again discharged.

Although William Barker was the naval constructor's grandson, they were not friendly. The grandfather, following a misunderstanding over "dissipation," had fired William from the yard.[250]

Nathaniel Croaker, a yard master mechanic, took issue with a number of statements made by William Barker to Hartt. He and Naval Constructor Barker had examined the transom, while United States was docked. Both were of the opinion that, although it was "slightly defective," it was sufficiently strong to hold the fastenings. Croaker had no recollection of the apron or that his attention had been called to the keelson. The foremast had been taken out to be repaired, and a defect in the step discovered and replaced.

In repairing United States, Croaker continued, it had been understood that her "repairs were to be made sufficient for a three year cruise," and vouched that they were "equal to the object."[251]

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250. Downes to Chauncey, January 24, 1840, NA, RG 45, Letters Received, BNC.

251. Croaker to Downes, undated, NA, RG 45, Letters Received, BNC.

Provided one fourth of the statements attributed to the grandson were true, Commodore Downes informed the department, he could offer no excuses for Naval Constructor Barker, who was responsible for the frigate's repair. He, however, had utmost confidence in his naval constructor. Barker was among the first to enter the yard in the morning, and the last to leave in the evening. Consequently, he could have no "no interest in slighting his work."[252]

Bostonians, as was to be expected, rallied to defense of the Charlestown yard. It was pointed out in the press that United States, while there, had been thoroughly examined; taken into dry dock; her bottom stripped, caulked, and sheeted with new copper; her masts lifted, studied, and replaced. "Every part of the ship was considered to be in good order for the service for which she was designed, and that she was completely fitted no one can doubt, who knows the high standing, both as a seaman and naval commander of Com. Downes." The same could be said of Lieutenant Louis Goldsborough who had prepared her for sea.

"It was doing great injustice to these officers," the editor of the Daily Advertiser chided, "and many others . . . as well as to the mechanics who are employed at this Naval Station to give currency to such anonymous charges." What should be apparent to all was that the ship was "needlessly exposed to the risk . . . of going into New York, drawing 26 feet of water." On doing so, she had struck a shoal.[253]

United States sailed from New York for Chesapeake Bay on February 13, and reached Norfolk four days later. A survey confirmed the worst. Before going on a foreign cruise extensive repairs were necessary. Captain Kearney and most of the crew and stores were transferred to Potomac, which was ordered outfitted for sea. On May 12, six months after he had sailed from Boston, Captain Kearney departed Norfolk aboard Potomac finally bound for the Brazilian station.

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252. Downes to Chauncey, January 15, 1840, NA, RG 45, Letters Received, BNC.

253. Army and Navy Chronicle, Vol. IX, p. 414.

9. The Repair and Outfitting of "Constellation"

a. Docking the Frigate

When United States was hauled out of the dock down on February 18, 1839, another frigate was standing by ready to enter. Commodore Downes and his people would not chance another cold wave sending temperatures plunging and covering the Charles to a sheet of ice.

At 11:30 A. M., on February 16, Constellation was hauled in and the gates closed.[254] She was to undergo extensive repairs. Consequently, by mid-June the frigate was still in the dock and finally ready to be coppered. She will, the Bunker Hill Aurora, boasted, soon emerge from the dock equal to a new ship. Two of her decks had been rebuilt, and some of her planking. "Her beautiful model" had been retained, and she would "prove one of the finest ships in our navy.[255]

By July 16 Constellation had been coppered and caulked and was ready to be taken out of the dock. But, unless needed for another vessel, Commodore Downes desired to keep her docked until after she had been painted.[256]

Constellation could remain where she was until painted, the board decided, unless some other vessel arrived at the yard for docking.[257]

b. The Nation's Economy Affects the Yard's Program

As an aftermath of the Panic of 1837, the Congress drastically slashed expenditures for the nation's defenses. Consequently, on August 14, 1839, the commissioners wrote the yard that, as soon as work on the frigate's hull was finished, she would be hauled out of the dock. She, however, would not be masted and rigged, nor should stores be collected until further orders. In view of outstandinging claims

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254. Downes to Chauncey, February 16, 1839, NA, RG 45, Letters Received, BNC.

255. Army and Navy Chronicle, Vol. VIII, p. 413.

256. Downes to Chauncey, July 16, 1839, NA, RG 45, Letters Received, BNC.

257. Chauncey to Downes, July 22, 1839, NA, RG 45, Letters Sent, BNC.

against the appropriation for "Repairs," Commodore Downes was to make "no expenditures for other objects" unless they were deemed "indispensable for the immediate wants of the public service, or to fulfil existing contracts."

He was to pare the employee to the "smallest number which may be compatible with sound economy" in accomplishing authorized projects. Care would be exercised to insure that wage rates did not exceed the "usual prices paid for similar labour" in the area.

There were at the yard, the board noted, twice as many machinists and coppersmiths as at the Washington facility, where most of the Navy's metalwork was fabricated.[258]

Responding to this criticism, Commandant Downes pointed out that on his returns, the term machinist was used as a generic to include carpenters, patternmakers, etc. There were, in the "limited sense," only three machinists at the yard, one at the sawmill and two at the ropewalk. A similar situation existed in regard to coppersmiths. There was but one coppersmith, and he had, with a tinplater, done all the copper, tin, and sheet ironwork for the various vessels built or repaired at the yard during the past two years.

During the same period, the yard had accomplished all kinds of metallic work, except forging and iron casting, for different vessels. This included brass and composition founding, repairing arms, casting and fitting-up force and lifting pumps, coaks and sheaves, copper and tin work, manger stoppers, and plumbing.[259]

Next, Downes prepared and submitted a schedule documenting the number and class of the various mechanics and laborers to be retained on the yard payroll after September 1, together with the established wage rates:

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258. Morris to Downes, August 14, 1839, NA, RG 45, Letters Sent, BNC. Congress in 1839 had appropriated $1,000,000 for repairs to vessels in ordinary and the repair and wear and tear of vessels in commission.

259. Downes to Chauncey, August 27, 1839, NA, RG 45, Letters received, BNC.

Pay per Day

	No. Employed	2.51	2.25	2.24	2.00	1.88	1.76	1.60	1.58	1.52	1.40	1.32	1.22	1.20	1.16	1.00	.88	.60
Carpenters	10						10											
Carpenters laborers	15														15			
Joiners	28			2			20			4					2			
Sparmakers	2				1	1												
Sparmaker apprentices	2									1								1
Boatbuilders	2				1		1											
apprentices	2												1					1
Blacksmiths	28			1			8	8				11						
Painters	6						2		3			1						
Ropemakers	58	1			7		9			35			2			4		
Coopers	4						4											
apprentices	1																1	
Masons	2				1						1							
helpers	2													2				
Machinists	5				1		2	1		1								
Coppersmiths	12				2		7			3								
apprentices	2																2	
Laborers	1														1			
Blockmakers	7				1		4			2								
apprentices	2																2	
	192	1	—	3	14	1	67	9	3	46	1	12	3	2	18	4	5	2[260]

260. Downes to Board, September 1, 1839, NA, RG 45, Letters Received, [illegible]C.

The board raised no objections, and Downes implemented his proposal governing the number of employees, their trades, and pay schedules.[261]

c. Work Is Resumed and the Frigate Is Readied for Sea

Constellation was therefore permitted to remain in the dock until October 22, when she was hauled out to clear the structure for Fulton, which was momentarily expected to arrive from New York. When she emerged, it was reported that the "Yankee Race Horse" was as sound as when she was launched in 1797. Her lower timbers had been found to be well preserved, while her upper works had been rebuilt.[262]

In January 1840 Commodore Downes reported Constellation moored at the lower wharf and, in accordance with instructions, all work on her suspended.[263]

On March 7 the department ordered work resumed on Constellation by a sufficient force to enable her to put to sea by June 1.[264] This deadline was met, and by May 26 the frigate was ready to receive her officers and crew.[265]

But another ten weeks slipped by before the department acted on this information. Then, on August 5, Commandant Downes was directed to prepare Constellation, with all practicable dispatch for a three-year cruise in the East Indies and China Seas.[266] Downes responded that she

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261. Letters Sent, Board of Naval Commissioners to Commandants of Navy Yards, undated NA, RG 45, BNC.

262. Army and Navy Chronicle, Vol. IX, p. 293; Downes to Board, October 24, 1839, NA, RG 45, Letters Received, BNC.

263. Downes to Chauncey, January 8, 1840, NA, RG 45, Letters Received, BNC.

264. Morris to Downes, March 7, 1840, NA, RG 45, Letters Sent, BNC.

265. Abbot to Board, May 26, 1840, NA, RG 45, Letters Received, BNC.

266. Board to Downes, August 5, 1840, NA, RG 45, Letters Sent, BNC.

was "momentarily" ready for her complement. Her water tanks were filled and the salted provisions aboard.[267]

Whereupon, the department issued orders assigning officers to the frigate and for shipping a crew.[268]

d. The Samuel Colt Contract

Samuel Colt called on the commandant, in October, to ascertain whether any of his patented firearms were wanted for Constellation. They were, and requisitions were made on Agent Jarvis for 50 carbines and 25 pistols by Commander Abbot, as acting commandant.[269]

The department, upon being apprised of Abbot's action, was dismayed. Members of the board could not recollect sanctioning the purchase of firearms, until such time as they had been satisfactorily tested. Moreover, information was desired as to Colt's price for the pistols and carbines.[270]

The weapons had cost $3,297.50, Downes reported, and the company had refused to permit the government to return them.[271] Hereinafter, the board chided, when articles not allowed by regulations were requested, Downes, before making any engagements, was to refer the matter to the department.[272]

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267. Downes to Morris, August 8, 1840, NA, RG 45, Letters Received, BNC.

268. Paulding to Stover, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

269. Downes to Board, November 27, 1840, NA, RG 45, Letters Received, BNC.

270. Board to Downes, December 1, 1840, NA, RG 45, Letters Sent, BNC.

271. Downes to Board, December 14, 1840, NA, RG 45, Letters Received, BNC.

272. Board to Downes, December 18, 1840, NA, RG 45, Letters Sent, BNC.

e. She Casts Off for the Orient

The question of what to do with the firearms, however, had become academic. At 10:30 A.M., on December 9, 1840, Constellation (Captain George W. Stover) sailed from the yard for the Orient.[273]

f. Commodore Kearney Again Questions the Yard's Repair Capabilities

Proceeding to Rio de Janeiro, Constellation rendezvoused with the sloop-of-war Boston. She also took aboard Captain Kearney, who had been named to command the East India squadron, after Commodore Downes had successfully avoided the assignment. Once again, Commodore Kearney found fault with a frigate repaired and outfitted at the Charlestown yard. Before sailing for Cape of Good Hope, it would be necessary to overhaul and refit Constellation. Not wishing to detain Boston, she sailed on February 12 for the Far East. Meanwhile Commodore Kearney had Captain Stover turn all hands to preparing the frigate for sea. So far as her hull, spars, and canvas were concerned, Kearney hoped she would be ready to weigh anchor by March 1.

There were also problems with her armament. Satisfied that it, especially some of the great guns, were "dangerous to our own men and to the safety of the ship," he had them sent below.[274]

On March 5, four days later than anticipated, Constellation sailed from Rio for the Cape of Good Hope. Before getting underway, Commodore Kearney wrote the commissioners reporting that it had been necessary to overhaul and refit the rigging and sails, the roping of the latter having stretched so much as to endanger the canvas. The hull had been recaulked outside from stem to stern. The galley, which was on the berthdeck, "created much heat and steam for want of ventilation, and

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273. Downes to Board, December 9, 1840, NA, RG 45, Letters Received, BNC.

274. Kearney to Paulding, February 25, 1841, NA, Captains' Letters, Microcopy M-125.

rendered those in sick bay" very uncomfortable. The beams and deck were but 8 inches clear of the galley, "being so much heated, the galley could be calculated to rot or burn them." To cope with this problem and to secure access to the boilers to clean them, the galley was relocated onto the gundeck. The cabin or small galley replaced the other on the berthdeck, "and answers all the purposes of keeping the air below pure and healthy."

Taking cognizance of the complaints of the wardroom officers, Kearney had found it necessary "to do something to guard against water coming into the rudder port at sea."

Kearney also complained about the failure of the Charlestown yard to provide guns for the small boats. Neither had the yard furnished means for carrying them nor "with anything to anchor them with." He trusted that, from what he had written, the ship's outfit, when we take into consideration the nature of the service she is expected to perform, has not been duly attended to, being deficient in battery, shot, and small-arms, and the boats being inadequately equipped.[275]

Constellation made the run from Rio to Table Bay, Cape of Good Hope, in 28 days, dropping anchor on April 5. Some of the mizzen standing rigging had parted soon after leaving Brazil and had to be renewed at sea. Upon arrival at Table Bay, a survey was held on the fore and main rigging, including topmasts and stays. All were condemned. Since it was impossible to secure needed cordage in Capetown, Commodore Kearney and his people were obliged "to fit a new gang out of our cables." The rudder being loose, quantities of water had been shipped through the opening between the rudder and the stern post into the wardroom. Kearney determined to correct this situation before proceeding farther.

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275. Kearney to Board, March 4, 1841, NA, RG 45, Letters Received, BNC.

The next three months were spent in Saldanha Bay, a safe anchorage 70 miles to the northwest. There, the rudder was unhung and other necessary repairs effected.

On the last day of July 1841, Constellation finally rounded Cape of Good Hope and shaped a course to the northeast.[276]

Some five months later, on January 11, 1842, the commissioners mailed to Commodore Downes a number of documents filed by Constellation's officers, regarding problems encountered on her passage from Boston to Cape of Good Hope, by way of Rio de Janerio. After studying and commenting on them, they were to be returned.[277]

Upon reviewing the documents, Commandant Downes wrote the department that, while Constellation was being outfitted at the yard, there had been a "determination" on the part of most of her officers not "to go to sea in her if they could avoid it." Nothing about the ship satisfied them. They reported her mainmast rotten, the rigging spliced, and that she had no rudder coat, etc. After every complaint, Downes had ordered a survey held by the most experienced officers on station. Upon examining the mainmast, it was found sound; the rudder coat was on and neatly fitted; and the rigging had not been spliced. The rigging had been tested by a four-man board and pronounced sound.[278]

He called attention to the section of the report, citing that "part of the rigging which was new when the Constellation left here was condemned with the rest, though it is well known that better rigging was never made than is manufactured at this yard."

This was the first instance within his knowledge where a ship had been stripped on a foreign station, and her rigging cut to pieces for the

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276. Alden, Lawrence Kearney: Sailor Diplomat, pp. 125-26.

277. Warrington to Downes, January 11, 1842, NA, Letters Sent, BNC.

278. Downes to Board, January 21, 1842, NA, RG 45, Letters Received, BNC.

sole purpose of testing its strength, unless there had been previous complaints. There did not appear to have been any evidence of its being defective, although it must have been severely tested in the "numerous settings up given it, and the carrying away of chains, chain plates, and deadeyes."[279]

One can well understand Commodore Downes' defensive attitude, because this was the third occasion since the winter of 1839-40 that serious deficiencies had been found in vessels repaired at the yard. In October 1840 the sloop-of-war Concord had been compelled to abort her run down the coast from New York Harbor to reinforce the West India station and put into Norfolk to be dry docked and repaired. This was less than a year after United States had been ordered to Norfolk to make her seaworthy, after having undergone "heavy repairs" at the Charlestown yard.

10. Docking the Navy's First Side-Wheel Steam Warship

Early in the summer of 1839, the department made plans to send Fulton, its steam-powered warship up from the New York yard to be dry docked. Before doing so, the commissioners called on Commandant Downes for vital data. He was informed that Fulton's "breadth" at the paddle wheels was 61 feet 8-1/2 inches, while her guards were 4 feet 2 inches from the water. They therefore desired to know whether these dimensions would prevent her docking.[280]

Downes, after checking with Engineer Noah Butts, wrote the Board that at no time since June 24 had the tide risen to within 5 feet 3 inches of the top of the dock gates. During full spring tides, the water edged to within 2 feet of the top of the dock. The width of the dock, at the

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279. Downes to Board, February 25, 1842, NA, RG 45, Letters Received, BNC.

280. Downes to Chauncey, July 6, 1839, NA, RG 45, Letters Received, BNC.

entrance, was 61 feet, which was 8-1/2 inches less than the "breadth" of the steamer boxes, so there should be no difficulty in hauling her in.[281]

On October 17 the department notified Downes that Fulton had been ordered to proceed to Boston for docking. She was to have her "blow off pipe" examined and repaired. Such additional alterations were to be made as desired by her commander, Captain Matthew C. Perry. The side-wheel steamer was to be docked on the first suitable flood tide after her arrival, consequently Constellation would be immediately removed from the dock, where she had been under repair for months.[282]

Fulton entered the harbor on the 22d, and anchored off the yard that evening. The steamer, it was reported in the Boston press, displaced about 1,000 tons, and was the "oddest looking fish we ever set our eyes on; the model of her bottom is nearly the same, stem and stern, being very sharp, which gives her the appearance of being what the sailors call very lean in the bows, so much so, that we should think that in a heavy sea, she would be nearly buried." Her officers, however, spoke well of her. She was, they said, a "rapid, easy boat in smooth water, 14 knots being frequently got out of her." But, in rough seas, she was a clumsy sailer. This was understandable as she was designed for harbor defense. More than one-half her armament had been left at Sandy Hook, so she only carried four guns--one long 64-pounder, two long 32s, and one 6-pounder. Her complement was 158 officers and men.[283]

Two days were spent clearing her holds and awaiting a proper tide. On Friday morning, October 25, water was admitted to the dock, and by 11:30 it was level with that in the Charles River. At noon the gates were opened, and in less than 60 minutes Fulton was secured inside, and

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281. Downes to Chauncey, July 6, 1839, NA, RG 45, Letters Received, BNC.

282. Morris to Downes, October 17, 1839, NA, RG 45, Letters Sent, BNC.

283. Army and Navy Chronicle, Vol. IX, pp. 293-94.

the gates closed. The dock was pumped dry, and at the end of another 120 minutes, Fulton rested on her blocks. It was a "rub and go" as she entered, because her side wheels missed the lower altars by only a few inches. The tide was uncommonly high, otherwise her guards would not have cleared the dock.[284]

Fulton was removed from the dock at 8 A.M., on November 1, with 24 leagues under her bilge. Even then, she had only 2 inches of "clearage," with the tide at "the lowest neap." She sailed for New York City six days later.[285]

11. "Columbia" and "John Adams" Return from the Far East, Are Repaired, Outfitted, and Return to Sea

In mid-June 1840 two warships reached the New England coast, after having served for several years in the East India squadron. On the 13th the frigate Columbia (Commodore George E. Read) entered Boston Harbor, anchoring below the lighthouse. Three days later, the sloop-ofwar John Adams (Commodore Thomas W. Wyman) arrived, and by dusk both vessels were moored off the yard.[286]

Upon being notified of their arrival, the board directed that they be surveyed and their crews discharged.[287]

The surveying officers were delighted with what they saw. Never had ships returned from a "long and trying service" in better condition. They were equally impressed with the crews, commenting on their "fine appearance, and quiet and orderly conduct."

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284. Ibid.; Downes to Board, October 24 and 25, 1839, NA, RG 45, Letters Received, BNC.

285. Downes to Board, November 1, 1839, NA, RG 45, Letters Received, BNC.

286. Abbot to Board, June 15 and 16, 1840; Charlestown Navy Yard Journal, June 1-30, 1840, NA, RG 45, Letters Received, BNC. Columbia, while on this cruise had circumnavigated the globe, one of the Navy's first vessels to do so.

287. Morris to Downes, June 24, 1840, NA, RG 45, Letters Sent, BNC.

The crews, except those transferred to the receiving ship, were discharged on the 27th. Stores and provisions were landed, and the ships stripped, except for the lower masts. The armament would be landed and the holds cleared. Columbia was at the lower wharf, while John Adams was moored at the dry dock entrance.[288]

On September 3, 1840, the department ordered John Adams repaired and prepared for sea. Commodore Downes, on checking with his staff, found that 30 to 40 days would be required to meet this target, provided the undermanned sailmakers' and sparmakers' departments were reinforced.[289]

As of July 1, Downes explained, there had been 177 men employed at the yard, while on August 31 there were 218, making an increase of 41 mechanics and laborers. This recruiting had been "steady and gradual."

While one department lost strength, another had increased its gang, "both being governed by the work to be done and the exigencies of the occasion." For example, on July 1, the decks of Columbia and John Adams had to be paid and sandblasted. Four caulkers were engaged for that purpose, and when it was finished they were laid off. On July 31 caulkers were again required for Macedonian, and when this job was finished, they were discharged on August 14. Again on August 21, 15 caulkers were taken on, and after caulking Grampus six were laid off on the 31st, and nine retained.

Except in the carpenters' and caulkers' departments, the various master mechanics established the numerical strength of their gangs.[290]

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288. Abbot to Downes, June 18 and Downes to Board, June 27, 1840, NA, RG 45, Letters Received, BNC.

289. Board to Downes, September 3, 1840, and Downes to Board, September 7, 1840, RG 45, Letters Sent and Received, BNC.

290. Downes to Morris, September 5, 1840, NA, RG 45, Letters Received, BNC.

On September 24 John Adams was docked, where she remained until November 11. She was then hauled to the shear wharf, where her holds were stowed, and her topmasts and yards positioned. By December 9 her outfitting was in such a state of forwardness, as to permit sending her to sea inside of ten days. Her stores and provisions were ready to send aboard.[291]

Upon being apprised of this, the department ordered Commandant Downes to suspend preparations for sending John Adams to sea.[292]

It was mid-January 1841 before the department called on the yard to examine Columbia, and to report on the repairs required to ready her for foreign service.[293]

Some three months after work was suspended on John Adams, the department, now having a mission for the sloop, called on the yard to resume her outfitting. Responding on April 1, Commodore Downes proudly announced that she had been repaired and could be outfitted for sea in ten days, if required.[294]

In late August Secretary of the Navy George E. Badger decided that John Adams and Columbia would be placed in commission and prepared for sea, "with all convenient dispatch."[295] After checking with Naval Constructor Barker, Commodore Downes advised the commissioners that Columbia will require considerable repair to outfit her for sea, but John

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291. Downes to Board, December 9, 1840, NA, RG 45, Letters Received, BNC.

292. Board to Downes, December 14, 1840, NA, RG 45, Letters Sent, BNC.

293. Morris to Downes, January 19, 1841, NA, RG 45, Letters Sent, BNC.

294. Morris to Downes, March 29, 1841, and Downes to Board, April 1, 1841, NA, RG 45, Letters Received and Sent, BNC.

295. Warrington to Downes, August 27, 1841, NA, RG 45, Letters Sent, BNC.

Adams was ready for her officers and crew, and could sail as soon as they reported.[296]

Columbia will be assigned to the Home squadron, the board answered, so it would not be necessary to give her as thorough an examination and as extensive repairs as if she were proceeding to a foreign station.[297]

On September 27 Commodore Downes notified the commissioners that Columbia's copper had been examined as far down as possible and found to be badly worn. She therefore must be recoppered. Erie had been coppered and could be taken out of dock at any time. Would the board, he inquired, permit him to dock Columbia and recopper her?

Although her ballast was on board and her tanks stowed, he did not believe she would be subject to any undue strain by taking her into the dock fitted and equipped for sea, provided she was well shored.[298]

The board approved Downes' proposal, and on October 21 Erie was hauled out of the dock, and next day Columbia taken in, as soon as the water was pumped from the dock.[299] Downes saw that Columbia's forefoot was broomed, and from its appearance he presumed it had been damaged, during her 1836 launch at the Washington Navy Yard.

On November 6 Downes wrote Washington that Columbia will be out of dock and be ready to receive her officers and crew by the 20th. If personnel were available, she should proceed directly from dry dock into

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296. Downes to Board, August 31, 1841, NA, RG 45, Letters Received, BNC.

297. Warrington to Downes, September 4, 1841, NA, RG 45, Letters Sent, BNC.

298. Downes to Board, September 27, 1841, NA, RG 45, Letters Received, BNC.

299. Warrington to Downes, October 1, 1841 and Downes to Board, October 23, 1841, NA, RG 45, Letters Received and Sent, BNC.

the stream, because there was no space at the yard, where she could be moored without grounding at low tide, unless placed outside Columbus and Ohio currently moored at the shear wharf.[300]

Columbia was hauled out of the dock on the 15th. Not having received an answer to his letter, Downes advanced another argument for mooring the vessel in mid-stream. If manned and anchored as suggested, there would be fewer desertions and the receiving ship's facilities less crowded.[301]

It was the New Year before Columbia received the last of her crew and stores. On January 4, 1842, she left the yard, dropped down the harbor, and anchored at Columbus' moorings off Long Wharf.[302]

Five weeks later, on February 11, John Adams, all hands aboard, was hauled out into the stream. At 4 P.M., on March 4, Columbia (Captain F.A. Parker) cast loose from her moorings and sailed for Hampton Roads. She was followed to sea four days later by John Adams (Commodore T.A. Conover) bound for the Brazilian station.[303]

12. "Preble" Is Docked and Sent to the Mediterranean

In late March 1840 the department wrote Commodore Downes that Commandant Crane of the Portsmouth Navy Yard had been authorized to call on him for such articles of provisions, surgical instruments, slop clothing, and powder as were needed for outfitting the sloop Preble for sea. He would also provide navigating instruments and charts, causing those not on hand to be purchased. Charts of the

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300. Downes to Board, November 6, 1841, NA, RG 45, Letters Received, BNC.

301. Downes to Board, November 15, 1841, NA, RG 45, Letters Received, BNC.

302. Downes to Board, January 4, 1842, NA, RG 45, Letters Received, BNC.

303. Downes to Board, February 11 and March 4, 8, 1842, NA, RG 45, Letters Received, BNC.

Atlantic coasts of the United States and Canada, the locale of Preble's cruise were desired.[304]

By late April Downes had purchased and forwarded to Portsmouth the compasses, sextants, glasses, charts, etc., requisitioned by Commandant Crane.

Within eight months Preble was compelled to put into Boston Harbor for repairs. She had gone aground on the Labrador coast, and had injured her bottom. She reached the yard on the evening of November 4, and was docked on the 14th. Workmen spent several days repairing the damaged copper on her shoe. She was taken out of the dock on November 17.[305]

During the fourth week of November orders reached the yard from Washington to send another 20,000 pounds of ballast aboard Preble, and to ready her for immediate Mediterranean service.[306]

This was accomplished during the next six weeks, and at 10 A.M., January 12, 1841, Preble, having taken aboard the United States Charge' de Affairs to Portugal, John Kavanaugh, departed the yard en route to Lisboa and the Mediterranean Sea. She proceeded out of the harbor, speeded on her way by a strong breeze from the west.[307]

13. The Yard Expedites the Docking and Repair of "Macedonian"

In mid-July 1840 the commissioners alerted Commandant Downes to the early arrival of three warships of the West India

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304. Morris to Downes, March 30, 31, 1840, NA, RG 45, Letters Sent, BNC.

305. Downes to Board, November 5, 9, 1840, and Board to Downes, November 7, 1840, NA, RG 45, Letters Received and Sent, BNC.

306. Board to Downes, November 20, 23, 1840, NA, RG 45, Letters Sent, BNC.

307. Downes to Board, January 12, 1841, NA, RG 45, Letters Received, BNC.

squadron--the frigate Macedonian (Commodore William B. Shubrick), and the sloops-of-war Levant (Commodore Joseph Smoot) and Erie (Commodore William V. Taylor). Arrangements were to be perfected for docking the frigate, without delay, following her arrival. Columbus was to receive Macedonian's crew while she was docked. It was hoped that she would not be detained more than ten days at the yard.[308]

The flotilla entered the harbor and anchored off the yard on the last day of July. Macedonian was hauled into dock at 2 P.M., on August 3, and a cast of barnacles, one-half inch thick, scraped from her bottom. Several sheets of copper and 2 feet of the fore part of her shoe were replaced. She was in the dock about 25 hours.[309]

During the next six days, workmen swarmed over the frigate from sunup to sunset. They caulked her outside from the "gundeck ports up." Her holds were partly broken out and cleansed, 26 tons of kentledge sent aboard, the holds restowed, and her outside painted. The repairs were completed by the morning of the 10th, when she left the yard and was hauled across the Charles and anchored off Long Wharf.

At 11:30 A.M., on August 3, Macedonian, Levant, and Erie weighed anchor, hoisted canvas, and sailed for Eastport, Maine.[310]

14. "Erie" Is Rebuilt as a Storeship

Erie soon returned to the yard. Condemned by a survey board held at the Portsmouth Navy Yard, as unseaworthy, she reentered Boston Harbor on September 8.[311]

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308. Morris to Downes, July 16, 1840, NA, RG 45, Letters Sent, BNC.

309. Downes to Morris, July 31 and August 4, 1840, NA, RG 45, Letters Received, BNC.

310. Downes to Board, August 10, 13, 1840, NA, RG 45, Letters Received, BNC.

311. Downes to Morris, September 8, 1840, NA, RG 45, Letters Received, BNC.

Upon being apprised of this, the commissioners ordered Concord readied for reception of Erie's officers and crew, so that she could proceed at once to join Commodore Shubrick at New York City. To facilitate transfer of personnel, Erie was moored to the west side of the shear wharf. Upon learning this, the board called for her to be stripped and surveyed, and the cost of repairing her reported.[312]

On October 26, after evaluating the report submitted by the survey board, the commissioners directed that, after the carpenters were finished with John Adams, they were to be turned to on Erie.[313]

The dry dock would soon be clear and plans were made to haul the sloop in and repair her on the blocks. On November 18, the day after Preble was hauled out, the floating gate (caisson) was taken in, and, after undergoing some slight repairs, was removed on the 21st. Erie was then docked.[314]

After removing the copper and a few planks, Naval Constructor Barker proposed to rebuild Erie. He would extend her bow 6 feet. The frame in this area, he explained, was "considerably decayed," and much of it would have to be replaced, if Erie were repaired without the proposed alterations.

Commandant Downes supported Barker's proposal, because the alterations to her bow would make her one of the fastest sloops in the Navy.[315]

The board, on reviewing the proposal, deemed it expedient to suspend repair of Erie, pending a further examination by a five-man

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312. Board to Downes, September 22, 1840, NA, RG 45, Letters Sent, BNC.

313. Board to Downes, October 26, 1840, NA, RG 45, Letters Sent, BNC.

314. Downes to Board, November 21, 1840, NA, RG 45, Letters Received, BNC.

315. Barker to Downes and Downes to Board, December 14, 1840, NA, RG 45, Letters Received, BNC.

team--Captains John Downes, John D. Sloat, and Joseph Smith, and Naval Constructors Josiah Barker and Samuel Pook.[316]

After reviewing the report prepared by the five-man board, the commissioners, noting the extent and high costs involved, cancelled orders for Erie's repair.[317] Then, in mid-April 1841, they determined to have Erie rebuilt as an armed storeship. The work would be done substantially, but with the least expense consistent with the object. The officers' quarters were to be finished in pine and without any ostentation.[318]

Progress was slow. Fifteen or twenty more carpenters could be employed with advantage, Downes wrote the department on July 2, but in view of the board's instructions to proceed with her "repair without any increase in force," he did not feel authorized to hire any more hands.[319]

The board, however, saw no need to increase the number of carpenters to expedite Erie's repair.[320]

Erie remained in the dock for 11 months. On October 21 the rebuilt vessel was taken out and hauled to the lower yard.[321] Work continued on the vessel throughout the winter, and on April 4, 1842, she was reported repaired and ready for service.[322]

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316. Board to Downes, December 19, 1840, NA, RG 45, Letters Sent, BNC.

317. Morris to Downes, January 22, 1841, NA, RG 45, Letters Sent, BNC.

318. Morris to Downes, April 24, 1841, NA, RG 45, Letters Sent, BNC.

319. Downes to Board, July 2, 1841, NA, RG 45, Letters Received, BNC.

320. Warrington to Downes, July 6, 1841, NA, RG 45, Letters Sent, BNC.

321. Downes to Board, October 23, 1841, NA, RG 45, Letters Received, BNC.

322. Downes to Board, April 4, 1842, NA, RG 45, Letters Received, BNC. The rebuilt vessel's dimensions were: length 117 feet 11 inches, extreme beam 32 feet 9 inches, and hold depth 4 feet 6 inches.

15. "Grampus" Visits the Yard Twice Within 18 Months

At 4 P.M., on July 21, 1840, the schooner Grampus (Lieutenant Commander John S. Paine) anchored in the Charles. She had left Monrovia on the African coast on June 6. Commander Paine notified Commandant Downes that his vessel was in need of repairs, before she could return to sea.[323]

Upon being apprised of the schooner's arrival, the commissioners directed that she be surveyed and prepared for a 12-month cruise.[324]

On August 5, less than 24 hours after Macedonian left the dry dock, Grampus was hauled in.[325] Soon, thereafter, orders reached the yard to suspend her repair, and calling for a detailed description and estimate of work required.[326]

Downes advised the board by return mail that Grampus was in such condition as to preclude her removal, until she was so far repaired as would enable her to float. The carpenters and caulkers would be finished with her by the end of the week. Downes had directed them to continue, so she could be removed from the dock, in event it was wanted for Levant or Erie.[327]

Grampus was taken out of the dock in early September and on Saturday, October 24, hauled off from the yard and anchored in the stream.[328] On November 13 she sailed for the Gulf of Guinea, having

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323. Downes to Board, July 21, 1840, NA, RG 45, Letters Received, BNC.

324. Morris to Downes, July 27, 1840, NA, RG 45, Letters Sent, BNC.

325. Charlestown Navy Yard Journal, August 1-31, 1840, NA, RG 181.

326. Board to Downes, August 12, 1840, NA, RG 45, Letters Sent, BNC.

327. Downes to Morris, August 17, 1840, NA, RG 45, Letters Sent, BNC.

328. Abbot to Board, October 26, 1840, NA, RG 45, Letters Received, BNC.

been detained 14 days in the Charles by "gale like winds out of the northeast."[329]

The schooner was absent only nine months. On August 14, 1841, she again anchored off the yard. On learning of Grampus' return, the department ordered her to be readied for sea as soon as practicable.[330]

Commander Paine, soon after his return, complained that the running rigging, made at the ropewalk, had "rotted with astonishing rapidity, that it did so on both cruises, and that the rope purchased from vessels on the coast of Africa did not rot." He attributed the rapid decay "to the small quantity of tar in the rope made" in the Charlestown yard. He also protests that the yard manila "swelled" to such a degree that he was compelled to substitute other rope; and finally the "green hide" rope has not "worn well."

Upon investigating, Commandant Downes found that Grampus' standing rigging did not suffer from the tropics, although it had less tar in it than the running rigging. The bolt rope, which also had less tar in it than the running rigging, had held up. This led to the conclusion that there must be some other cause for the rapid decay of the running rigging.

Only those sections of the running rigging had rotted that were kept coiled on deck. This led Downes to conclude that rotting must be "peculiar to the climate" in which Grampus had cruised, with its heavy tropical rains and great heat. An awning had been spread over the deck, causing the lower ends of the running rigging to lay coiled in a damp condition. The same remarks applied to the manila. Downes suggested that, to avoid decay, the rope be shipped end for end, thus keeping the entire rope, at times, "on the stretch and in a drying situation."

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329. Downes to Board, November 13, 1840, NA, RG 45, Letters Received, BNC.

330. Downes to Board, August 14, 1841 and Warrington to Downes, August 24, 1841, NA, RG 45, Letters Received and Sent, BNC.

Moreover, the quantity of rope purchased by Commander Paine from vessels off the African coast was limited, and had not been used until Grampus was about to "sail from the Guinea coast."

Downes contradicted Paine's statement about the hide rope. That which had been rove while at the yard or soon after Grampus' departure wore well, while that stowed below and "rove a long time after it had been on board, did not wear well."

Hide rope manufactured at the yard required a considerable period to become thoroughly dry. As rawhide was a perishable commodity, if put on board and stowed in a damp state, it rapidly putrified.

To obviate this objection, it was necessary to manufacture hide rope long enough before hand to insure it was thoroughly dry before it was sent aboard a vessel. Consequently, Downes had ordered Superintendent Whitmore to have sets of hide rope made up and suspended in a dry place, so that when called for they will be neither liable to rot nor to "stretch down" to a smaller size.[331]

By mid-December Grampus had been made ready for sea. She was anchored in the Charles, her complement, excepting one lieutenant, aboard.[332] Nearly two months, however, passed before she weighed anchor, and, on February 14, 1842, put to sea en route to join the Home squadron at Norfolk.[333]

16. "Ohio" Returns to the Yard

At 11 A.M., on July 17, 1841, the big ship-of-the-line Ohio bearing Commodore Isaac Hull's broad pennant, returned from 30 months in the Mediterranean, and dropped anchor in President Roads.

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331. Downes to Board, August 26, 1841, NA, RG 45, Letters Received, BNC.

332. Abbot to Board, December 16, 1841, NA, RG 45, Letters Received, BNC.

333. Downes to Board, February 14, 1842, NA, RG 45, Letters Received, BNC.

The next day she entered Boston Harbor and anchored off the navy yard.[334]

Upon being apprised of the liner's arrival, the department directed that, as soon as she was turned over to the yard, she be made ready for "sea service, as expeditiously and as economically as practicable."[335]

A three-man survey board (Captain Joseph Smith, Commander Joel Abbot, and Lieutenant John Pope), in accordance with procedures, inspected Ohio and found her guns and breechings in good condition, except for three gun carriage axles on her lower gundeck, which would have to be replaced. Her carronades were mounted too high for the ports, and although the rail had been cut at the ports 3 inches or more, the beds and carriages had to be lowered to permit the guns to be worked with effect. There was a want of uniformity in the gun sights, as well as the locks. Her small arms were unfit, except for the pistols and a number of cutlasses. In all other respects, Ohio was in first rate order and condition.[336]

When he relayed this information to the department, Commodore Downes inquired, whether it was intended to have her lower and topmost rigging overhauled and the water tanks and ballast broken out, the holds cleansed, and restowed. These housekeeping functions had not been attended to since she sailed for Europe in December 1838.[337]

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334. Downes to Board, July 17, 1841, NA, RG 45, Letters Received, BNC.

335. Warrington to Downes, July 24, 1841, NA, RG 45, Letters Sent, BNC.

336. Smith, Abbot, and Pope to Downes, July 28, 1841, NA, RG 45, Letters Received, BNC.

337. Downes to Board, August 3, 1841, NA, RG 45, Letters Received, BNC.

Presuming that the holds and rigging were in "good order," the board hesitated to order Downes to breakout the one and to overhaul the other. But being on-site, Downes could best judge these matters.[338]

On December 8 the department decided that Ohio would not be returning to sea in the immediate future. Orders were accordingly issued to suspend her outfitting.[339]

17. "Macedonian" and "Warren" Call At the Yard

On July 28, 1841, ten days after Ohio had anchored in the Charles, the frigate Macedonian (flying Commodore James Wilkinson's broad pennant) and the sloop Warren arrived at the yard from the West Indian Station.[340] These vessels remained at the yard for six weeks, sailing for Norfolk on September 13.[341]

E. The Razeeing of "Independence"

1. The Yard Docks Its First 74

In the spring of 1835, the Navy Department determined to repair Independence, the nation's first 74, which had been at the yard in ordinary for many years. But before doing so, Commodore Downes was directed to have her frames examined. To accomplish this, her orlop deck waterways, strake of the spirketing on the two gun decks, and two strakes of cribbing plank between the ports of these decks were to be removed.[342]

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338. Warrington to Downes, August 6, 1841, NA, RG 45, Letters Sent, BNC.

339. Warrington to Downes, December 18, 1841, NA, RG 45, Letters Sent, BNC.

340. Downes to Board, July 27 and 28, 1841, NA, RG 45, Letters Received, BNC.

341. Downes to Board, September 13, 1841, NA, RG 45, Letters Received, BNC.

342. Rodgers to Downes, April 30, 1835, NA, RG 45, Letters Sent, BNC.

The big 74 was hauled alongside the shear wharf, and the designated timbers removed by Naval Constructor Barker. He found that, although the ceiling abaft the orlop was rotten, the frame, with the exception of four timbers, was sound.[343]

On June 30 the commissioners, reassured by what Barker had seen, directed that Independence be readied to enter the dry dock for a thorough repair. Part of the ballast could be broken out at once, but sufficient should be left aboard, until she was ready to be docked, to prevent her hogging while being stripped.

As it was desirable to keep the dock free as long as possible to meet emergencies, Commodore Downes was to have Independence stripped of her "decayed materials, as far as can be done with safety, carefully preserving such as will answer future use, particularly her cabin bulkheads and her knees."[344]

By July 22 the liner had been stripped of as much plank as Barker deemed advisable. Writing the board, Commodore Downes announced that, if there were no objections, she would be docked on the 28th.[345] The commissioners, however, had no opportunity to suggest alternative dates, because Downes' letter was not mailed through someone's oversight.[346]

On the designated day, Tuesday, the 28th, a large crowd gathered to watch Independence enter the dry dock. She was the fourth vessel, but the first 74 to be docked at Charlestown. She entered with ease, "without the occurrence of the slightest accident, more than two hours in anticipation of high tide." This was better than expected, "and it was

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343. Downes to Rodgers, May 30, 1835, NA, RG 45, Letters Received, BNC.

344. Rodgers to Downes, June 30, 1845, NA, RG 45, Letters Sent, BNC.

345. Downes to Rodgers, July 22, 1835, NA, RG 45, Letters Received, BNC.

346. Downes to Rdogers, August 1, 1835, NA, RG 45, Letters Received, BNC.

doubted whether the same could have been accomplished at any other United States navy yard."[347]

On the last day of July, Commandant Downes mailed to the board a draft of Independence, as built. Her stern frame, he reported, seemed sound. Indeed, all her framing timbers appeared to be, with the exception of a few which were "slightly defective." The copper had been removed and her bottom was in a good state of preservation.[348]

Much to his dismay, Downes now found his letter of the 22d. He therefore dashed off a message, explaining what had happened. He trusted the board would forgive his docking of Independence before receipt of additional instructions.[349]

On August 3 the board, ignoring the failure in communications, inquired, how far had Independence been "stripped of decayed materials," and "what is the state of the frame?"[350]

Commodore Downes, after checking with Naval Constructor Barker, replied, that all orlop deck beams, knees, and clamps; all breast hooks below the orlop; the steps of masts; the pumps; about two-thirds of the plank; some one-half the beams, knees, etc., of the lower gundeck had been removed; along with the head and cutwater, the chains and channels, and rudder.

The frame, excepting 12 timbers, was sound. The after keelson and keelson knee were defective and would have to be replaced. The head of the stern post was rotten and required a new piece about 10 feet long.

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347. Army and Navy Chronicle, Vol. I, pp. 258-59.

348. Downes to Rodgers, July 31, 1835, NA, RG 45, Letters Received, BNC.

349. Downes to Rodgers, August 1, 1835, NA, RG 45, Letters Received, BNC.

350. Morris to Downes, August 4, 1835, NA, RG 45, Letters Sent, BNC.

Barker believed she should be built up to the lower gundeck, before removing the main and spardeck beams.

Her roof was still in position, and could be retained as a shelter for workmen, until the new gundeck was laid and caulked.[351]

Because some time might elapse before the board reached a decision as to the nature and extent of repairs, the beams and other materials for the gundecks were to be dressed, whether the ship was to be altered or not. Such other preparations, the commissioners directed, were to be made as might be accomplished without, "incurring risk or waste, whether these alterations are made or not."

Barker's proposal to leave the main and spardeck beams in position to preserve the liner's form was approved.[352]

2. The Department Determines to Razee the Liner

The "alteration" referred to was whether Independence should be cut down into a 54-gun frigate. This would make her a "razee," a term applied to ships-of-the-line that had been cut down into frigates or two decked ships. Such a practice was not novel. The British had razeed a number of liners into frigates during the Napoleonic Wars, and the French had also cut down a few of their ships. This practice had been confined to either old ships whose upper works were weakened by rot and age, or to 74s that had displayed lack of stability or which did not have sufficient displacement to carry their lower deck guns high enough above the load waterline to be satisfactory.

These defects were all too evident in the first four 74s commissioned into the U.S. Navy--Independence, Franklin, Columbus, and Washington. Of these, Columbus was the best and Independence the worst. In fact,

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351. Downes to Rodgers, August 3 and 13, 1835, NA, RG 45, Letters Received, BNC.

352. Morris to Downes, August 17, 1835, NA, RG 45, Letters Sent, BNC.

Independence was useless as a 74, because she showed but 3 feet 10 inches of freeboard between waterline and sill of her lower gundeck ports amidships, when loaded with war complement and six months' provisions. Even the best of the class, Columbus, displayed only as much as the smaller British 74s, despite being a larger and more powerful ship.[353]

If it were intended to razee Independence, Commodore Downes advised the department, the maindeck ports should be dropped to the height that it is intended she carry her guns, and the lower deck ports "stopped up," as they are not placed correctly for the main deck battery of a frigate. Downes trusted her new maindeck ports will be "placed at least two feet higher, than the present position of the lower deck ports." This would give her less hold depth than Cumberland.[354]

The editor of the Boston Journal was delighted to learn that Independence might be razeed. She would, he informed his readers, "be a noble double banked frigate, mounting sixty-two guns . . . , and a match either in sailing or fighting for any two decked vessel that ever was launched." It was to be regretted, he continued, that all our line-of-battle ships, "some of which are stuppendous (sic) and clumsy hulks," like Columbus are not to be razeed. If they were, they would be much more serviceable in time of war. They would then be capable of engaging an enemy 74 with "tolerable prospect of success."

Independence, he wrote, either owing to the weight of guns on her upper deck or to the improper stowage of her ballast, had enjoyed the reputation of being a "crank." She sat so low in the water that she could not fight her lower guns, unless she enjoyed the weather gauge or the seas were calm. Her bottom, however, was "beautifully modelled," and she was considered with perhaps one exception, the frigate United States, the fastest in the Navy.[355]

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353. Chapelle, American Sailing Navy, pp. 315, 393-94.

354. Downes to Rodgers, August 19, 1835, NA, RG 45, Letters Received, BNC.

355. Army and Navy Chronicle, Vol. I, pp. 243-44.

3. The Commissioners Transmit a Draft and Instructions

On the last day of August 1835, the commissioners forwarded a draft and instructions to guide the repair and razeeing of Independence into a frigate. Her hold depth was to be increased from 19 feet 6 inches to 22 feet 6 inches clear of the timber strake. The lower gundeck was to be raised 2 feet 6 inches and the port sills 2 feet 4 inches above their present height. The port sills of the upper deck were to be 2 feet above the deck. The height between the underside of the lower gundeck beams, and the top of the berthdeck was to be 5 feet 10 inches, while the height between the underside of the upper deck beams, and top of the lower gundeck plank was to be 6 inches.

All counter timbers were to be removed. Naval Constructor Barker was to lay down on the floor of the mould loft, the midship counter timbers and "half breadth lines on the draught for rounding the stern, and make moulds to them." The counter timber moulds would show the increase of length required in the stern post.

This work would be accomplished upon the assumed depth of the hold. Where short timbers were under the ports, they were to be taken out, and replaced by timbers of proper length. Long timbers under the ports could be scarphed to reach the new port sills. All after hoods fastening to the main transoms were to be taken off.

The position of the ports with respect to distance from the perpendicular was to be unchanged. No alterations were to be made, except raising them. Other parts of the work, i. e., the clamps for the berthdeck, part of the lower gundeck clamps and ceiling, and part of the wales could be put in. The timbers under the ports could be put in. "Stuff" for the capstan, cutwater, and coamings, and headledges for hatchways, could be got out in season, and the stern post scarphed. Before these were completed, the commissioners would "determine upon the alterations necessary for the stern."

If the shear of Independence were identical to Virginia's, the decks were to be laid with the old shear. If they varied more than 4 inches,

they were to be laid with Virginia's sheer, "according to the length of the two ships."

These instructions and the draft would enable Constructor Barker to progress with her repair, except for rounding the stern, which would not be done until after the commissioners' annual visit to the yard, scheduled for mid-September.

If Independence were hogged, she was to be "straitened on her blocks before her repairs are commenced."

As it was possible a topgallant forecastle might be added to the height of the poop and extending to the foremast, all timbers involved were to be left their present height to make that arrangement.

The catheads, in case of such arrangement, would be raised above the places marked on the draft.[356]

4. The First Six Months in the Dry Dock

Naval Constructor Barker soon had a large force turned out. By September 25 all lower gundeck beams had been taken out, above the after piece of the keelson and keelson knee. The upper piece of the stem, apron, stemson, fourth futtock, under the lower gundeck ports, had been removed and replaced.

The steps of the fore and mainmasts; the break hooks, below the berthdeck; the ceiling in hold; nearly all the berthdeck clamps; and part of two strakes of bottom plank had been renewed. All the berthdeck beams, and part of the beams, waterways, coamings, etc., for the other decks had been gotten out.[357]

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356. Rodgers to Downes, August 31, 1835, NA, RG 45, Letters Sent, BNC.

357. Downes to Rodgers, September 25, 1835, NA, RG 45, Letter Received, BNC.

On November 2, to provide light to repair the orlop, Barker had the carpenters cease laying the berthdeck.[358]

To enable work in the bowels of the ship to proceed during the winter, the commissioners, in mid-November, transmitted plans for the foreward and after magazines, and the fore orlop. The foreward magazine bulkhead was to be 2-inch plank, tongue and groove, coppered on the outside with thin copper, and on the inside to a point 1 foot above the height of the orlop. Standard precautions were to be taken to make the lower part watertight, in event it became necessary to drown the powder.

The interior of the after magazine and filling room would be coppered and waterproofed. The foreward bulkhead to be "double lath on the inner one, then plank, then lay the outer one against it." The latter to be of 2-inch plank.[359]

On November 20 the board inquired, will her carriages answer after she is razeed, particularly if the trucks are changed? If not, were there any other carriages at the yard that could be substituted?[360]

Independence's gun carriages, Downes replied, could not be used on a razee. They were for medium weight 32-pounders, and were about 2 inches too narrow and some 4 inches too short for long 32-pounders. Although they could be altered, the cost of doing so would be considerable, while the "guns would not be well mounted."

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358. Downes to Rodgers, November 2, 1835, NA, RG 45, Letters Received, BNC.

359. Rodgers to Downes, November 20, 1835, NA, RG 45, Letters Sent, BNC.

360. Rodgers to Downes, November 20, 1835, NA, RG 45, Letters Sent, BNC.

There were on hand carriages belonging to these ships on stocks (Vermont, Virginia, and Cumberland) and to Columbus, any of which would answer for Independence.[361]

No carriages were to be built, the department decided, the deficiency being resolved by transfer.[362]

By mid-December Independence had been planked up on the outside to the sills of the gundeck ports, and inside to the gundeck beams, but not kneed.

The orlops had been laid, the fore orlop caulked, and workmen were caulking the after orlop. The berthdeck had been laid.

During the past fortnight, the weather had been severe, with several snowstorms. The roof, however, kept out the snow and permitted work to continue.[363]

The commissioners, in view of the progress reported, gave necessary instructions for finishing the upper works. She was to have a light poop and forecastle deck, "to range of the same heights at which the poop deck is marked on the draft."

The after beam of the forecastle was to be "just forward of the foremast," the plank to project "over a little to protect the beam and hollowed out round, the mast if necessary to have space for the rigging to lead down clear." The cabin bulkhead to be abaft the mizzenmast, halfway between the second and third after port.

Independence was to carry heavy 32-pounders on her gundeck and medium 32-pounders on the spardeck.

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361. Downes to Rodgers, November 26, 1835, NA, RG 45, Letters Received, BNC.

362. Rodgers to Downes, December 19, 1835, NA, RG 45, Letters Sent, BNC.

363. Downes to Rodgers, December 14, 1835, NA, RG 45, Letters Received, BNC.

Anchor cables and rigging were to be of the dimensions required for second class ships-of-the-line. Sails, beyond those already provided, were to be made of the same number canvas as prescribed in the "Book of Tables." All her old sails, which could answer, were to be used.

Commodore Downes was to push the work as fast as practicable, reporting when she was ready to leave the dock.[364]

For a list of the "furniture" to be sent aboard the ship, when she was outfitted, Downes was referred to the "Book of Allowances."[365]

"The dimensions for the masts and spars" of the vessel, the board wrote, would be:

Name	Length Ft. in.	Diameter inches	Masthead ft. in.	Remarks
Foremast	105	33	18	
Foretopmast	63	21	9 6	
Foretopgallant mast	37 6	12	5 6	
Foreroyal mast	22	8-3/4	6 pole	
Mainmast	115	36-1/2	19	
Maintopmast	70	21-1/2	12	
Maintopgallant mast	41	12	6	
Mainroyal mast	24	9	6 pole	
Mizzenmast		26	16	Head to be level with mizzentop when stopped
Mizzentopmast	53	16	8 6	
Mizzentopgallantmast	33	9-1/2	4 6	
Mizzenroyalmast	20	7	5 pole	

364. Rodgers to Downes, January 12, 1836, NA, RG 45, Letters Sent, BNC.

365. Rodgers to Downes, January 4, 1836, NA, RG 45, Letters Sent, BNC.

Yards

	Length Ft. in.	Diameter inches	Masthead Ft. in.	Remarks
Foreyard	90	21	4	
Foretopsailyard	67	15	5 6	
Foretopgallantyard	45	9	2	
Foreroyalyard	30	5-1/2	X 10	
Mainyard	105	23-1/2	5	
Maintopgallantyard	50	10	2	
Mainroyalyard	35	7	1	
Crossjackyard	80	15	7	
Mizzentopsailyard	50	11-1/3	3 9	
Mizzentopgallantyard	32	7	1 6	
Mizzenroyalyard	25	4-1/2	X 9	
Bowsprit	72	36-1/2 bid	2/3 outboard	
Jibboom	54	16-1/2 gaming		
Flying jib	56	11		
Spanker boom	65	13-1/2		
Gaff	45	10		
Spritsailyard	50	11-1/3		

The studding sail booms and yards were to be as directed for a second class ship-of-the-line in the "Book of Tables."[366]

Commodore Downes, studying the dimensions, saw that the fore-, main-, and topmasts were to be the same length as those of a first rate liner, but the mast heads were to be 2 feet shorter. This gave her topsails 2 feet more hoist, than any ship in the Navy.[367]

Upon being alerted to this, the board realized that there had been an error. Her topmasts were to be left as they were, 70 feet with the same mastheads as other ships-of-the-line. The head of the maintopmast was to be shortened from 10 to 12 feet.[368]

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366. Rodgers to Downes, January 12, 1836, NA, RG 45, Letters Sent, BNC.

367. Downes to Rodgers, January 18, 1836, NA, RG 45, Letters Received, BNC.

368. Rodgers to Downes, January 22, 1836, NA, RG 45, Letters Sent, BNC.

5. Requisitioning Stores, Chains, Flax, etc., and Assembling a Set of Tanks

By mid-January 1836, work had progressed to a point where Commandant Downes requisitioned 83 pair of composition hinges. Only one-half this number would be required, if the upper deck were not to be hung with hinges.[369]

The board was also notified that, to outfit Independence, these gunners' stores were required: 320 boarding pikes, 41 boarding axes, 200 cutlasses, 83 muskets and bayonets, 80 pistols, 2 musket moulds, 4 blunderbusses, 60 passing boxes (32-pounders), 83 musket cartridge-boxes with belt and buckle, 62 tube boxes with belts and buckets, 62 fire buckets, 20 powder horns, and 80 battle lanterns.[370]

The commissioners, replying, directed that the hinges be manufactured locally, while Downes was to make requisitions on the commandant of the New York yard for muskets, pistols, and cutlasses. The other articles enumerated would be made at the Charlestown yard or procured through Agent Broadhead.[371]

Commandant Downes next needed to know if the razee would be furnished with iron water tanks or wooden casks. If the latter, they should begin their manufacture.[372]

Independence, the board directed, was to be supplied with frigate tanks.[373] Pursuing this subject, the commissioners inquired, can a set of

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369. Downes to Rodgers, January 14, 1836, NA, RG 45, Letters Received, BNC.

370. Downes to Rodgers, January 23, 1836, NA, RG 45, Letters Received, BNC.

371. Rodgers to Downes, January 18 and 22, 1836, NA, RG 45, Letters Sent, BNC.

372. Downes to Rodgers, January 18, 1836, NA, RG 45, Letters Received. BNC.

373. Rodgers to Downes, February 1, 1836, NA, RG 45, Letters Sent, BNC.

tanks be made up from those on hand for either Vermont or Virginia, and if not can Cumberland's be made "to fit properly and hold enough water for the ground tier by having a tier of square tanks made to fit on each side of keelson?" If these alternatives were unworkable, Downes was to have a set of models built and sent to the Washington yard.[374]

Several weeks of snow and rain turned much of the yard into a sea of mud, and delayed an examination of the tanks stored in the shed to ascertain if there was a set that "will answer" for Independence. Because of the shed's limited space, the tanks had to be taken outside to be overhauled. After several days' hard and tedious work a set of tanks for the razee was assembled.[375]

On January 28 Downes had written the department that 140 bolts of No. 1 flax canvas were required for her sails, none of which could be secured in Boston. No. 2 flax could be obtained, provided the board deemed it a proper substitute.[376]

The department therefore had the New York yard ship to Charlestown 140 bolts of No. 1 and 200 bolts of No. 2 flax canvas for Independence's sails. Canvas not needed for the razee was for "general purpose of repairs."[377]

On January 23 the commissioners had notified Commodore Downes that Independence's chain and other pumps would be similar to those ordered for Constitution, and were to be supplied by the Washington Navy Yard.[378]

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374. Rodgers to Downes, March 14, 1836, NA, RG 45, Letters Sent, BNC.

375. Downes to Rodgers, April 6, 1836, NA, RG 45, Letters Received, BNC.

376. Downes to Rodgers, January 23, 1836, NA, RG 45, Letters Received, BNC.

377. Rodgers to Downes, March 11 and 24, 1836, NA, RG 45, Letters Sent, BNC.

378. Rodgers to Downes, January 23 and February 1, 1836, NA, RG 45, Letters Sent, BNC.

She would be provided with two chain cables of 150 fathoms each, and two hemp cables.[379] This caused a problem, because there were on hand at the yard only these cables: one old chain 2-1/8-inch cable, 102 fathoms; one new chain 2-1/8-inch cable, 120 fathoms; and one old chain 2-inch cable, 82 fathoms.

Constitution, Commodore Downes explained, had sailed with one 2-inch cable. Consequently, there were no chains of proper size for Independence. The two old chains were being used as moorings for Columbus.[380]

The board quickly resolved this problem. Commandant Gallagher at the Washington Navy Yard was directed to ship to Boston 300 fathoms of 2-1/8-inch chain cable.[381]

6. The Final Six Months in the Dry Dock

By the fourth week of January 1836, Independence's gundeck had been laid, and she was planked to within two strakes of the upper port sills. Her old spardeck beams had not yet been removed.[382] On February 9 there was a fatality, when William Basset, a workman, fell from the staging.[383]

Because of the frost in the wood, it was deemed best to leave uncaulked a dozen seams on each side of the keel, until they dried out, Commodore Downes advised the board in early March.

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379. Rodgers to Downes, January 27, 1836, NA, RG 45, Letters Sent, BNC.

380. Downes to Rodgers, February 1, 1836, NA, RG 45, Letters Received, BNC.

381. Rodgers to Downes, February 6, 1836, NA, RG 45, Letters Sent, BNC.

382. Downes to Rodgers, January 25, 1836, NA, RG 45, Letters Received, BNC.

383. Charlestown Navy Yard Journal, February 1-29, 1836, NA, RG 181.

Workmen were now laying the spardeck, and as soon as it was caulked the roof would be removed. The bowsprit was taken in on Monday, March 7.[384]

The commissioners sanctioned Downes' actions. Caulking would be deferred until she was in a "proper state for it," and the roof would not be removed until it was "absolutely necessary" to finish the razeeing.[385]

By April 9 Independence's gun and spardecks were laid and caulked; the poop and forecastle deck beams in and partly planked; cutwater, head, and channels on; and galleries partly finished.[386]

By mid-April the men had caulked the bottom, and were nearly ready to begin coppering. Writing the board, Downes inquired, "will felt be employed in coppering Independence?" The copper, he explained, had been originally put on "the naked wood, or, with only a coat of turpentine under it." He hoped the department would allow her to be coppered on wood, because it gave a much smoother bottom.[387]

She was to be coppered over felt, the commissioners answered.[388]

By May 3 she was half coppered and the remainder could be put on in a few days, if required. Carpenters were finishing the galleries and head. The joiners' work in the wardroom, steerage, storerooms, magazines, etc., was nearly completed, and "stuff" for the cabin

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384. Downes to Rodgers, March 10, 1836, NA, RG 45, Letters Received, BNC.

385. Rodgers to Downes, March 14 and 26, 1836, NA, RG 45, Letters Sent, BNC.

386. Downes to Rodgers, April 9, 1836, NA, RG 45, Letters Received, BNC.

387. Downes to Rodgers, April 16, 1836, NA, RG 45, Letters Received, BNC.

388. Rodgers to Downes, April 20, 1836, NA, RG 45, Letters Sent, BNC.

bulkheads was being got out. The masts and spars were finished, as were the sails, excepting the foresail and mantopsail.[389]

Independence had been coppered by May 10 and could be hauled out of the dock whenever the board gave the word. But, Downes cautioned, much of the remaining work would progress more rapidly if she remained on the "shores."[390]

On May 14 the department authorized Downes to keep Independence in the dock until work on her hull was completed.[391]

A local newspaper, the Bunker Hill Aurora, now noted that she was nearly finished. Although her model was unchanged, her cabin was now on her upper deck, leaving the gundeck clear, fore and aft. She had been newly coppered, and was ornamented with a "very handsome carved fiddle head."[392]

On June 6 the commissioners alerted Downes that the cabin bolts for the razee's fore and main masts were to be secured with forelocks, excepting the preventers, which could be riveted on rings.[393]

Commodore Downes assured the department that the ship's chain bolts were secured by forelocks.[394]

In rigging Independence a considerable quantity of parceling was required. To meet this deficiency, Downes suggested utilizing several

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389. Downes to Rodgers, May 3, 1836, NA, RG 45, Letters Received, BNC.

390. Downes to Rodgers, May 10, 1836, NA, RG 45, Letters Received, BNC.

391. Rodgers to Downes, May 14, 1836, NA, RG 45, Letters Sent, BNC.

392. Army and Navy Chronicle (Washington, 1836), Vol. II, p. 349.

393. Rodgers to Downes, June 6, 1836, NA, RG 45, Letters Sent, BNC.

394. Downes to Rodgers, June 11, 1836, NA, RG 45, Letters Received, BNC.

worn sails from Constitution left at the yard when she had sailed for New York City, 16 months before.[395]

If upon survey, the board answered, Constitution's sails were found fit for further service, "sufficient quantity" was to be used as parceling.[396]

By June 26 the joiners had finished below the gundeck, but the cabin bulkheads had not been completed. The gundeck ports were being filled, and the painters were aboard. Upon being notified of this, a local newspaper informed its readers that Independence was nearly ready to leave the dry dock. Repairs seemingly completed, painters were hard at work. It was forecast that she would be "one of the fastest--if not the very fastest--vessel in the navy."[397]

Independence required a new galley, the old one being unfit.[398] The department was agreeable to sending the frigate galley, then at the yard, aboard the razee.[399]

This was promptly accomplished.[400]

On July 21 Commodore Downes reported that Independence was not ready to receive the recruits, as her cabin bulkheads were not in place and the painters were working on her inboard.[401]

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395. Downes to Rodgers, June 22, 1836, NA, RG 45, Letters Received, BNC.

396. Rodgers to Downes, June 27, 1836, NA, RG 45, Letters Sent, BNC.

397. Army and Navy Chronicle, Vol. III, p. 13.

398. Downes to Rodgers, July 13, 1836, NA, RG 45, Letters Received, BNC.

399. Rodgers to Downes, July 19, 1836, NA, RG 45, Letters Sent, BNC.

400. Downes to Rodgers, undated, NA, RG 45, Letters Received, BNC.

401. Downes to Rodgers, July 21, 1836, NA, RG 45, Letters Received, BNC.

7. The Razee Leaves the Dock

The board, on August 10, directed that Independence be taken out of dock. First, however, 35 tons of ballast would be stowed. After she was hauled alongside the shear wharf, another 160 tons of ballast, to include both kentledge and water, was to be sent aboard. Priority would then be given to outfitting her.[402]

On Friday, the 19th, the crowd assembled to see Independence taken out of the dock and hauled around to the wharf to receive her masts. Governor Edward Everett and family joined Commandant Downes aboard the ship. Hundreds of spectators thronged Columbus.

At 11:30 A.M., two small vents were opened in the dock gates, and two others near the bottom of the dock, and "suddenly the waters leaped in, at each aperture, like bounding animals, each counter current gushing against the others till the whole body of water was lashed into a milk white foam." At 12 o'clock the shores began to drop one by one from their positions, and glide alongside. As soon as the water within and outside the dock was level, the bridge above the gates were cleared of onlookers. The gates then opened, and the frigate floated out without "perceptible motion."[403]

8. Outfitting the Vessel for a Lengthy Cruise

When Independence left the dock, she carried 35 tons of ballast under the main hatch. By mid-September her tanks, having a capacity of 48,799 gallons and weighing 189,890 pounds, had been stowed. Her topgallantmasts were pointed, her rigging rattled down, and the yards rigged.[404]

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402. Rodgers to Downes, March 16 and August 10, 1836, NA, RG 45, Letters Sent, BNC.

403. Army and Navy Chronicle, Vol. III, p. 141.

404. Downes to Rodgers, August 18 and September 12, 1836, NA, RG 45, Letters Received, BNC.

While she was being outfitted during the autumn of 1836, it was discovered that the yard had no anchors of suitable weight fitted with shackles for chain cables.[405]

The board accordingly directed Commodore Downes to have rings cut from the anchors on hand, and have them fitted for Independence's chain cables. Arrangements were to be made to insure that the anchors could be used with either hemp or chain cables.[406]

On December 19 Commandant Downes notified Washington that Independence was finally ready to receive her officers and crew.[407]

Neither the secretary nor the board responded to this communication.[408]

During the late winter and early spring of 1837, the outfitting continued. The board approved a separate galley for her captain. Commodore Downes in mid-March called for one night glass, two azimuths, four telltale compasses, and a turning lathe. For general use, hammock and bag stuff was needed.[409]

Requisitions would be made on Agent Broadhead for the enumerated articles, excepting the telltale compasses. Independence, having been razeed, was allowed two not four compasses, the commissioners reminded Downes.[410]

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405. Downes to Rodgers, November 7, 1836, NA, RG 45, Letters Received, BNC.

406. Rodgers to Downes, November 9, 1836, NA, RG 45, Letters Sent, BNC.

407. Downes to Rodgers, December 19, 1836, NA, RG 45, Letters Received, BNC.

408. Letters Sent, Secretary of the Navy, Microcopy M-149; Letters Sent, Board of Navy Commissioners to Commandants for Navy Yard, NA, RG 45, BNC.

409. Downes to Rodgers, March 15 and 22, 1837, NA, RG 45, Letters Received, BNC.

410. Rodgers to Downes, March 20, 1837, NA, RG 45, Letters Sent, BNC.

On March 27 the department alerted Commandant Downes that Independence was needed for a lengthy cruise and "every exertion must be made to hasten the preparations." If supplies ordered by the agent did not arrive by the time the crew was ready, "deficiencies must be purchased at the risk and expense of the Contractors, and the difference between their costs, and the contract price, if they should cost more, must be charged to the contractors."[411]

Independence's first mission as a razee would be to transport George M. Dallas, the newly appointed U.S. Minister to Russia, and his suite to Kronstadt. She would then proceed to Brazil and become flagship for the South Atlantic squadron.

In preparing quarters for Minister Dallas, Downes was to be guided by the secretary's letter to the board of June 4, 1833, and March 31, 1837. Secretary of the Navy Dickerson was "anxious that these arrangements be completed as early as practicable."[412]

She was to be supplied with drying stoves, iron for a trawl, such instruments as allowed by regulations, and all charts, "which her destination renders necessary."

The percussion locks were to be fitted, and primers and priming cases furnished.

The sounding machine, shipped to the board by the United States Consul at Liverpool, was to be sent aboard and tested on the Russian voyage.[413]

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411. Rodgers to Downes, March 27, 1837, NA, RG 45, Letters Sent, BNC.

412. Rodgers to Downes, April 1, 1837, NA, RG 45, Letters Sent. BNC.

413. Rodgers to Downes, April 7 and 10, 1837, NA, RG 45, Letters Sent, BNC.

9. The Razee Sails for the Baltic

On April 8 Commandant Downes transferred command of the ship to Captain John B. Nicolson. Notifying the board of his action, Downes reported that several days would be required to prepare the ship for Minister Dallas' reception.[414]

Independence was hauled from the navy yard on Friday, the 21st, and anchored in the stream, where she presented a "noble and majestic appearance." Many citizens, including ladies, visited the vessel, where they were received by the officers with "utmost politeness, and were exceedingly gratified in examining" a great warship, and witnessing preparations for a long cruise.[415]

Commenting on the razee, the editor of the Boston Post informed his readers that she was

> one of the most elegantly modelled, commodious, and efficient ships in the Navy. She had a battery of 60 32 pdrs., viz. thirty long guns on her main deck, and an equal number of medium guns on her spardeck. She is pierced for 64 guns, and her stern ports, may in an exigency be converted into a battery by changing the position of the aft and bow guns. The aggregate weight of the guns on the maindeck is 1767 cwt. and on the spar 1505 cwt. Her length 200 feet, beam 52, depth from spardeck to hold, depth between beams and maindeck 6 ft. 1 inch, an amount of space which will be of the greatest utility during an engagement. Mainmast 115, the mainyard 105, and the same suit of sail, she carried when a 74. Her draft at present 22 feet, 5 inches, and she, carried 600 men including the marines. She is probably the finest ship of her class in the world.[416]

On May 5, 1837, Independence anchored off Long Wharf, and at 11 A.M., on the 20th, with a fresh breeze from the west, she put to sea.[417]

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414. Downes to Rodgers, April 8, 1837, NA, RG 45, Letters Received, BNC.

415. Army and Navy Chronicle, Vol. IV, p. 266.

416. Preble, "History of the Boston Navy Yard," p. 262, NA, RG 181.

417. Downes to Chauncey, May 20, 1837, NA, RG 45, Letters Received, BNC.

Independence reached Portsmouth, England, in 23 days from Boston. The British found her "clumsy in appearance, and heavily and tawntly rigged." The crew, more than one-half of whom were boys and landsmen, and small of stature bore out the complaint often heard from naval officers that there was a "want of seamen."

Her armament was "described as powerful," and while listed at 2,200 tons, the British believed she was much heavier. She was 50 feet across the beam, but tumbled "home very much on the quarterdeck and forecastle."

While at Portsmouth 22 of the crew deserted and Captain Nicolson was only able to ship four British seamen to take their places. According to the English, this was because of the severe discipline aboard the United States warships, of which "our seamen" are aware.[418]

She sailed from Portsmouth on June 13, called at Kobenhavn, and, entering the Baltic, reached Kronstadt on July 29. There, she was visited by Tsar Nicholas I. Two days later, a steamboat arrived at the big Russian naval base to transport Minister Dallas and his family to St. Petersburg. After receiving "marked social courtesies" from the Tsar's government, Independence departed Kronstadt on August 13 for Rio de Janeiro.[419]

10. "Independence" Returns to Boston

On May 17, 1842, after a 60-month absence, Independence returned to Boston Harbor, dropping anchor in President Roads. Next morning she came up the harbor and, at 7 A.M., anchored off the yard.

She was flying a broad blue pennant, and Commandant Downes, presuming that Commodore Charles Stewart was aboard, had the crew of the receiving ship Ohio haul down the blue and run up the red pennant,

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418. Army and Navy Chronicle, Vol. V, pp. 80, 160.

419. Dictionary of American Naval Fighting Ships, Vol. III, p. 424.

and fire the customary salute, called for upon arrival of a senior officer. Downes was miffed to learn that Commodore Stewart had left the razee at New York City. Writing the department, he complained, "it appears to me that when a flagship proceeds to sea having the Commodore on shore, that his flag aught not to remain flying aboard her."[420]

The department concurred, and since then this matter of etiquette has been regulated in accordance with Downes' protest.[421]

Independence had been sent to Charlestown to be dry docked, so her bottom could be examined and her copper repaired. On June 1 she entered the dock.[422]

F. The Boston Station's Receiving Ship

1. Downes' Search for a Temporary Receiving Ship

On June 1, 1836, the department, recognizing that the razeeing of Independence was in its final stages, directed Commodore Downes to begin stripping Columbus, preparatory to docking her for general repair. The big 74 had been laid-up in ordinary at the yard since her return from the Mediterranean in July 1821. On doing so, it would be kept in mind that she was to be used as a receiving ship, until Independence was ready to receive her crew.[423]

When Independence was outfitted, Downes reminded the department, the yard would no longer have a receiving ship. If Guerrière were not going to be repaired, he suggested, she be sent from Norfolk to Charlestown and employed as the station receiving ship.[424]

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420. Downes to Upshur, May 18, 1842, NA, Captains' Letters, Microcopy M-125. Independence had arrived to New York Harbor from the Brazilian Station on March 30, 1840, to be laid-up in ordinary until May 1842.

421. Preble, "History of the Boston Navy Yard," p. 276, NA, RG 181.

422. Warrington to Downes, May 12, 1842, NA, RG 45, Letters Sent, BNC.

423. Rodgers to Downes, June 1, 1836, NA, RG 45, Letters Sent, BNC.

424. Downes to Rodgers, June 9, 1836, NA, RG 45, Letters Received, BNC.

The board, however, had other plans, and Guerrière remained in ordinary at Norfolk until broken up in 1841. As a temporary measure, the chapel was employed as the receiving ship. But, by early December, there was such an influx of recruits that accommodations in that structure would not suffice, and they were sent aboard Independence.[425]

2. The Liner's 1836-37 Repair

Meanwhile, Naval Constructor Barker and his people had "opened up" Columbus. They found that all timbers, as well as the plank, below the lower gundeck ports seemed satisfactory. Above them, the planks were defective but the frame sound. Sailors were turned to landing the iron ballast, and by late June had sent ashore about 500 tons of the estimated 1,200 tons. When and if the recruits were reassigned, this work would be slowed, because there were only a limited number of men in ordinary.[426]

The editor of the Boston Mercantile Journal had harsh things to say about the decision to repair Columbus. She was considered "one of the worst models in the service, and a dull sailer and unmanageable in heavy weather owing to her fulness aft." Such a ship, he continued, was "not deserving of repairs--she will do well enough for a receiving ship or a sheer hulk, and would doubtless do her duty in regular line of battle." But on a cruise or in a ship-to-ship engagement she was not calculated to enhance the reputation of the Navy, "or place a wreath of victory on the brows of our gallant officers."

Columbus' ribs were sound, so she would be repaired. This, however, was poor economy, the editor charged, for we want "no such ships" as Columbus. "Our public vessels, in beauty and utility, should be second to none in the world; and while we can build such vessels" as Independence, Pennsylvania, United States, and Constitution, it would be

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425. Downes to Rodgers, December 5, 1836, NA, RG 45, Letters Received, BNC.

426. Downes to Rodgers, June 24, 1836, NA, RG 45, Letters Received, BNC.

"well to let the Columbus be at her moorings, or sell her to the Canadians for a huge timber ship."[427]

Chief Naval Constructor Humphreys, while at the yard in late July, in conjunction with preparing moulds for the Antarctic Expedition brigs, assisted Naval Constructor Barker in another examination of the liner. Between them, they were to determine her condition and extent of necessary repairs.[428]

Following their return to Washington from their annual inspection of the northern yard, the commissioners, on September 29, ordered Columbus docked and repaired. According to the report of the Survey Board, this would not involve more than two or three beams. Such parts as were found defective were to be replaced. As she was said to be "rather crank" on her first cruise, her bulwarks above the spardeck at her waist were to be rebuilt.

Arrangements were to be made for stowing 300 fathoms of chain cable and three hemp cables. The magazines and breadrooms were to be arranged as formerly.

A plan of her orlop deck would be sent to the board, after which instructions would be given regarding its arrangement. Her cabin and poop were to be as heretofore.

Commodore Downes was at liberty to alter her cutwater and head to improve her appearance.[429]

On October 18, 1836, the liner was docked. Upon being advised of this, the department directed that she be provided with only those water casks that could be used with tanks. Models of the needed tanks were to

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427. Army and Navy Chronicle, Vol. III, p. 13.

428. Rodgers to Downes, July 26, 1836, NA, RG 45, Letters Sent, BNC.

429. Rodgers to Downes, September 29, 1836, NA, RG 45, Letters Sent, BNC.

be sent to the Washington yard. Then, in mid-November, the board changed its mind. Special tanks would not be required.[430]

The department, in November and December, made additional decisions regarding repair of Columbus. She was to be provided with a new set of masts and spars, while the beams of her bow magazine were to be raised to bring the deck flush with that part to its forward.[431]

The board now mailed to Downes a deck plan, showing the arrangements to be made on the orlop. There would be no wing stanchions, except in the sail room and wing passages. There were to be no "fixtures against ship's sides which will present free access to them, for using short plugs."

In arranging shot lockers and coal holes, the latter were to be directly under the fore hatch, with a shot locker abaft the fore hatch and one forward of the main hatch. Arrangements were to be made for stowing three hemp cables, hawsers, and messengers below the orlop, and 300 fathoms of chain cable near the main hatch.[432]

By mid-December the carpenters had made considerable progress. Columbus had been planked up outside to the maindeck ports on the larboard side, and to within two strakes on the starboard. Her bottom had been caulked. Repair of the main and lower gundecks was nearly completed. As soon as the maindeck was caulked, the spardeck would be removed.[433]

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430. Downes to Rodgers, October 18, 1836; Rodgers to Downes, October 29 and November 14, 1836, NA, RG 45, Letters Received and Sent, BNC.

431. Rodgers to Downes, November 9 and 14, 1836, NA, RG 45, Letters Sent, BNC.

432. Rodgers to Downes, December 2, 1836, NA, RG 45, Letters Ssnt, BNC.

433. Downes to Rodgers, December 14, 1836, NA, RG 45, Letters Received, BNC.

The New England winter was comparatively mild, and a large force continued to swarm around and over the liner. They had by the last day of January planked her on the outside to the plank sheer and caulked to the upper deck ports. The upper and lower gundecks had been repaired and partly caulked; the spardeck waterways were in and the spardeck partially laid; the poop deck beams were in and the spardeck partially laid; the poop deck beams were in and ready to be planked; the cutwater and channels were finished and ready to put on; and the rudder repaired and ready to be rehung.[434]

The department, satisfied with the manner in which the project was proceeding, placed certain restrictions on her outfitting. Columbus was authorized only one suit of sails, while no perishable items were to be collected.[435]

Before Columbus was taken out of dock, 40 tons of ballast were to be sent aboard. After she was afloat, another 235 tons, including the tanks, would be stowed.

To weigh her down, while she was in ordinary, one layer of water tanks would be replaced with kentledge. The chain and shot lockers would be filled.[436]

Upon learning that Columbus did not have a set of tanks, the board sanctioned appropriation of a set belonging to either Vermont or Virginia.[437]

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434. Downes to Rodgers, January 31, 1837, NA, RG 45, Letters Received, BNC.

435. Rodgers to Downes, January 18, 1837, NA, RG 45, Letters Sent, BNC.

436. Rodgers to Downes, January 28, 1837, NA, RG 45, Letters Sent, BNC.

437. Rodgers to Downes, February 6, 1837, NA, RG 45, Letters Sent, BNC. Since 1827 seven vessels (Boxer, Constitution, Porpoise, Boston, Pioneer, Consort, and Independence) had been supplied with tanks from the yard. Downes to Rodgers, April 28, 1837, NA, RG 45, Letters Received, BNC.

By the fourth week in April, Columbus had been coppered, and the carpenters were nearly finished with their work. They were now engaged on the head and galley, while the joiners were also making rapid progress. If the dry dock were required for another vessel, she could be taken out, although Commandant Downes preferred that she be left there, to facilitate the remaining repairs.[438]

The department was agreeable to the liner remaining docked as long as necessary.[439]

On June 17, 1837, there was an accident, when a Mr. Nickerson, an employee, fell to his death from Columbus' figurehead.[440]

Commodore Downes, on June 26, notified the board that, if it had no objection, Columbus would be taken out of dock next week. By then the outside painting, as well as that on both gun decks, would be finished, and the joiners nearly through with their work. The masts were ready to "take in" as soon as she was hauled alongside the shear wharf. Her spars had been shaped.[441]

The department accordingly gave Downes permission to haul the ship out of the dock whenever convenient.[442]

Columbus was scheduled to be undocked on July 7. Workmen began letting water in at 12:30 P.M., and within a few minutes the ship was afloat. At 1:20 the gates were opened, "and this large and noble-looking ship was hauled around to the end of the quay, where she was anchored

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438. Downes to Rodgers, April 24, 1837, NA, RG 45, Letters Received, BNC.

439. Rodgers to Downes, April 28, 1837, NA, RG 45, Letters Sent, BNC.

440. Charlestown Navy Yard Journal, June 1-30, 1837, NA, RG 181.

441. Downes to Chauncey, June 26, 1837, NA, RG 45, Letters Received, BNC.

442. Chauncey to Downes, June 24, 1837, NA, RG 45, Letters Sent, BNC.

at 2 o'clock. One of the masts was immediately unslung, ready to be stepped."[443]

3. Outfitting the Vessel

By early September, Commodore Downes could report that Columbus was again in use as a receiving ship, and that she would be ready to receive her officers within a few days.[444]

Before another three weeks had passed, Downes notified the department that she was now ready to receive her officers. By mid-October the officers were "messing on board without furniture, or anything to make them comfortable."[445]

This problem continued to plague the receiving officers throughout the winter.[446]

In late March 1838, the department wrote the commandant that Columbus' cabin would be provided with such furniture as allowed a sloop-of-war.[447]

To make the officers' quarters more comfortable, a temporary bulkhead was erected on Columbus' main deck, taking in two ports on

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443. Army and Navy Chronicle, Vol. V, p. 28. While Columbus was in dry dock, it had been discovered that a large section of her false keel had been started, probably by striking against something when she was launched at the Washington Navy Yard in 1819. This piece had been forced into a position "athwart ships," and may have been the reason Columbus was considered a "crank."

444. Downes to Chauncey, September 2, 1837, NA, RG 45, Letters Received, BNC.

445. Downes to Chauncey, September 20 and October 16, 1837, NA, RG 45, Letters Received, BNC.

446. Letters Sent and Received, October 15, 1837-March 15, 1838, NA, RG 45, BNC.

447. Chauncey to Downes, March 26, 1838, NA, RG 45, Letters Sent, BNC.

each side. This cabin was divided by a fore and aft bulkhead, the lieutenants taking one side and the midshipmen the other. The lieutenants, however, were dissatisfied and asked for the entire cabin, urging that other arrangements be made for the midshipmen.

If Columbus was to remain a receiving ship, suitable accommodations could be prepared for them by taking in two ports on each side of the main deck, and making staterooms for the lieutenants, and putting a bulkhead forward of the gunroom on the starboard beam for the midshipmen.

The orlop, Commodore Downes explained, was too damp for sleeping quarters.[448]

In the spring of 1839, the department rejected a plea made by Commodore Downes on behalf of the ship's officers to purchase books and to provide the vessel with a library. Commandant Downes was reminded that receiving ships were not allowed libraries, because the officers assigned to them had access to the yard's library. Three months later, the department reversed itself, and a library was sent aboard.[449]

4. Mooring the Receiving Ship Off Long Wharf

On July 24, 1839, Secretary of the Navy Paulding ordered the receiving ship removed from the yard and anchored off Boston's Long Wharf. Henceforth, this was to be deemed her station. She could, however, be moved whenever it was necessary to exercise her crew or to shelter her from ice, as the commandant may direct.[450]

The department, however, did not intend that Columbus be anchored off Long Wharf, until she had a crew of sufficient size to take care of

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448. Downes to Chauncey, June 12, 1838, NA, RG 45, Letters Received, BNC.

449. Chauncey to Downes, May 6 and August 12, 1839, NA, RG 45, Letters Sent, BNC.

450. Paulding to Downes, July 24, 1839, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

her. When that time came, it would be best to moor her with her own anchors. Moreover, it was not intended that a crew be shipped for duty "specifically" for the liner. She was to be "employed for all recruits for general service who may be enlisted in and around Boston," who were to be "examined and practiced in their various studies until their services shall be required for sea-going vessels, and also for the reception of such men belonging to our public vessels," returning to Boston from foreign cruises, who have more than three months remaining to serve on their enlistments.

Until such time as she had on board two-thirds of her complement, she was to remain at her present navy yard anchorage.[451]

Her officers' quarters were to be furnished identical to vessels of her class commissioned for sea service, and all temporary quarters were to be removed so as not to interfere with the guns.[452] If her carronades had not been recently reamed, others of the proper weight were to be sent aboard.[453]

While these measures to outfit Columbus were being implemented, recruits slowly augmented her complement. But it was mid-November before the number of recruits, seamen, and apprentices reached the number designated to permit the vessel taking her new station. Consequently, Secretary of the Navy Paulding, taking cognizance of the lateness of the season, ordered that the receiving ship remain at the yard until spring.[454]

In mid-March 1840, with spring in the air, Commodore Downes advised the board that the receiving ship would soon be hauled from the

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451. Chauncey to Downes, August 12, 1839, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

452. Chauncey to Downes, August 5, 1839, NA, RG 45, Letters Sent, BNC.

453. Morris to Downes, August 12, 1839, NA, RG 45, Letters Sent, BNC.

454. Paulding to Downes, November 18, 1839, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

yard and moored off Long Wharf. The department then wrote Downes to confer with the municipal authorities, before moving the big liner, regarding the whereabouts of the new anchorage.[455]

By April 14 preparations had been completed, the cooperation of the city fathers secured, and Columbus was moored off Long Wharf.[456]

5. The 1840-41 Repairs and Improvements

In mid-March, Commandant Downes asked the board to allow him to put "a chain sheet-cable" aboard Columbus instead of "making one of hemp which in a few years would dry rot."

Moreover, before she was hauled to her warm weather anchorage, Downes noted, "considerable work is required." As this would be charged to "Repairs," he did not feel authorized to accomplish it without reference to the department.[457]

The commissioners could not sanction these repairs unless they were supported by a description and estimate. If they were to act on his request, it must be documented by facts and figures.[458]

To prepare the 74 for "sea service," Downes reported, necessitated finishing the shot lockers around the mainmast; positioning graving pieces in the main and lower decks; fitting messenger rollers and billboards; leading pipes for back stays, etc.; securing bolts for leading blocks, etc.; round houses and quarters' galleries; repairing the ports and gun carriages; making mess tables, benches, lockers, and seabag racks;

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455. Downes to Board, March 13, 1840, and Morris to Downes, March 19, 1840, NA, RG 45, Letters Received and Sent, BNC; Paulding to Downes, March 20, 1840, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

456. Charlestown Navy Yard Journal, April 1-30, 1840, NA, RG 181.

457. Downes to Board, March 14 and 16, 1840, NA, RG 45, Letters Received, BNC.

458. Morris to Downes, March 23, 1840, NA, RG 45, Letters Sent, BNC.

tinning the breadroom; and positioning shelving in storerooms. Involved would be work charged to these departments: blacksmiths', caulkers', painters', carpenters', joiners', boatbuilders', plumbers', and sparmakers'.[459]

The board agreed that the proposed carpentry and joiners' work, excepting that relating to the wardroom and steerage, could be accomplished, along with needed caulking. Plans showing the current arrangements for accommodation of the officers, with proposed changes, were to be submitted.

If there were no sails at the yard answering for a second suit, sewing on them could be commenced, omitting for the present the roping. Painting was to be limited to that necessary for preservation and good appearance.

Because of the expense, no more tanks of less than 200-gallon capacity would be manufactured. The 18 wing tanks for which moulds had been forwarded to the Washington Navy Yard would not be fabricated.[460]

Downes evidently did not interpret this letter in the manner the commissioners intended, because, on April 23, he reminded them that Columbus had only one suit of sails fit for sea service, exclusive of those for harbor duty. There were suits of sails each for Vermont and Virginia (the two liners on the ways) which only required roping. At a small expense they could be fitted for Columbus. He recommended that, in an emergency, one of these be taken for Columbus rather than make her a new suit.[461]

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459. Downes to Board, April 7, 1840, NA, RG 45, Letters Received, BNC.

460. Morris to Downes, April 15, 1840, NA, RG 45, Letters Sent, BNC.

461. Downes to Board, April 23, 1840, NA, RG 45, Letters Received, BNC.

The department approved Downes' sail proposal.[462]

Most of these repairs; however, could not be accomplished until after Columbus returned to the yard. On November 25, 1840, to provide for her security during the "stormy season" and to facilitate repairs, the big receiving ship was hauled back to the yard.[463] Soon thereafter, the department also authorized construction of quarter galleries to communicate with her poop. The "height and breadth" of these galleries would be not more than to give "good and sufficient room to the occupants."[464]

Receiving ship personnel now urged that halfports of 2-inch pine planks with several lights of glass be fashioned for the lower deck. This would enable them to keep the ports triced up, the guns run out, and the deck light and comfortable.

The department reviewed and sanctioned this proposal.[465]

6. "Columbus" Becomes a School for Apprentices

In 1837 Congress authorized the Navy to recruit an indefinite number of apprentices between the ages of 13 and 18 to serve until their majority, and to be paid $7 per month. At first, it was not planned to have schools for the apprentices at each receiving station. During the winter of 1837-38, a school for apprentices was established at the New York Navy Yard aboard the receiving ship Hudson. Commodore Downes was directed to send to New York, in charge of a proper officer, those apprentices shipped by the Boston rendezvous.[466]

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462. Morris to Downes, April 28, 1840, NA, RG 45, Letters Sent, BNC.

463. Downes to Board, November 28, 1840, NA, RG 45, Letters Received, BNC.

464. Board to Downes, December 16, 1840, NA, RG 45, Letters Sent, BNC.

465. Smith to Downes, January 16, 1841, and Board to Downes, January 20, 1841, NA, RG 45, Letters Sent and Received, BNC.

466. Dickerson to Downes, March 27, 1838, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

Some nine months later, it was determined by the department to activate a school aboard Columbus for those apprentices enlisted by the Boston station.[467] To provide for their education and moral uplift, the board directed that each apprentice ordered to the receiving ship Columbus be allowed: one Bible to cost 50 cents; one Newcomb's Questions on the Bible (15 cents); one Book of Common Prayer (25 cents); one Youth Moral Instructor (28 cents); one Murray's English Reader (18 cents); one Town's Spelling Book (10 cents); one Dilworth Dictionary to six boys; one Smith's Practical Arithmetic (30 cents); one Smith's Geography & Atlas (70 cents); one Hewitt's Practical Writing Instructor (15 cents); one Wright's Practical English Grammar (75 cents); and slate pencils and stationery.[468]

7. The Yard Builds the Training Craft "Apprentice"

Captain Joseph Smith of the receiving ship now proposed that, when the liner was returned to her warm weather anchorage, it would be good policy to exercise the apprentice seamen by having them stand watches, according to their number, in sailing, steering, heaving, etc., upon a small craft rigged with sail.[469]

If there were an old boat, not required for other purposes, it could be outfitted and rigged by boys, the department replied.[470]

The only craft suitable at the yard was the cutter formerly belonging to Constitution. She was 31 feet between perpendiculars and 7-1/2 feet of beam, and therefore not large enough to rig as a brig. Authority was accordingly requested by Commodore Downes, to have the carpenters build a 45 footer, with a good beam to give her stability.[471]

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467. Morris to Downes, December 5, 1839, NA, RG 45, Letters Sent, BNC.

468. Ibid.

469. Smith to Downes, January 16, 1841, NA, RG 45, Letters Received, BNC.

470. Board to Downes, January 20, 1841, NA, RG 45, Letters Sent, BNC.

471. Downes to Board, January 29, 1841, NA, RG 45, Letters Received, BNC.

Consequently, the board approved building of such a craft for training from materials not suitable for other purposes by the receiving ship carpenters.[472]

The craft, which was named Apprentice, was built at the yard and launched. During the summer of 1841, the little brig was commanded by Sailing Master F.W. Moores and employed in teaching the apprentices seamanship.[473]

8. "Ohio" Replaces "Columbus" As the Station Receiving Ship

Columbus, the repairs completed, returned to her anchorage off Long Wharf in March 1841. Seven months later, on October 29, with a chill in the air heralding the approach of winter, she returned to the yard.[474]

In January 1842, the department alerted Commodore Downes to see that the big 74 was readied for "service" by early spring. If she were to be prepared for sea, Downes reminded Washington, she could not "conveniently" be continued as the Boston receiving ship.[475] When two weeks passed and nothing more was heard on the subject, Downes wrote the department that he did not feel at liberty to transfer the recruits and apprentices from Columbus to Ohio without an order from the board or the secretary. If Ohio were to be designated the receiving ship, would any of her outfit be transferred to Columbus?[476]

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472. Morris to Downes, February 4, 1841, NA, RG 45, Letters Sent, BNC.

473. Charlestown Navy Yard Journal, April 1-September 30, 1841, NA, RG 181.

474. Abbot to Board, October 29, 1841, NA, RG 45, Letters Received, BNC.

475. Warrington to Downes, January 8, 1842 and Downes to Board, January 17, 1842, NA, RG 45, Letters Received and Sent, BNC.

476. Downes to Board, January 29, 1842, NA, RG 45, Letters Received, BNC.

This goaded the commissioners into action. On February 2 they replied that seamen and boys awaiting assignment will be sent aboard Ohio, and she will be retained as a receiving ship. Such articles belonging to her as could be "economically and advantageously used" in outfitting Columbus were to be transferred.[477]

On March 9 the recruits and apprentices were transferred from Columbus to Ohio. The poop deck of the former and one of her beams were to be replaced, while she was to be caulked throughout. To examine her bottom and repair her copper would necessitate a trip into dry dock.[478]

Columbus was docked on March 25, and her copper found to be very defective. Several decayed planks, both above and below the copper, were also pinpointed. Six weeks were required to recopper the hull and effect repairs. On May 5 she left the dock.[479]

Seventy-two hours earlier, Ohio was hauled from the yard and moored off Long Wharf.[480]

G. The Department Contracts for Stores, Provisions, and Slops

1. The 1839 Contracts

The board, during the late 1830s, continued to advertise and contract for stores and provisions for delivery to the seven navy yards. On January 15, 1839, the commissioners notified Commandant Downes that these firms had been awarded contracts for supplying stores and provisions to the yard in 1839:

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477. Warrington to Downes, February 2, 1842, NA, RG 45, Letters Sent, BNC.

478. Downes to Board, March 10, 1842, NA, RG 45, Letters Received, BNC.

479. Downes to Board, March 31, 1842, NA, RG 45, Letters Received, BNC.

480. Downes to Board, May 2, 1842, NA, RG 45, Letters Received, BNC.

FIRM	ITEM	PRICE
Phelps, Dodge & Co.	Copper	2-1/2 cents per pound
J. Jackson & Son	Iron	5 cents per pound
T.T. Sawyer	White lead	10 cents per pound
T.T. Sawyer	Linseed Oil	90 cents per gallon
F. Dodge, Jr.	Flour	$8.50 per barrel
F. Dodge, Jr.	Kiln dried flour	$10.00 per barrel
Henry Henderson	Biscuits	$5.45 per 100 pounds
David Stewart	Whiskey	48 cents per gallon
T.T. Sawyer	Spermaceti candles	34 cents per pound
Gilbert Davis	Butter	25 cents per pound
Gilbert Davis	Cheese	14 cents per pound
E.J. Higgins	Molasses	37 cents per gallon
E.J. Higgins	Vinegar	18 cents per gallon
E.J. Higgins	Rice	5-1/4 cents per pound
E.J. Higgins	Beans	$1.47 per barrel[481]

By mid-February the commissioners had contracted with Briggs & Co. and John Travers for canvas.[482]

2. The Use of Samples for Quality Control

Numerous complaints were received, during the spring and summer by the commissioners, concerning the shoddy quality of the slop clothing supplied by the Boston contractors. To check on and control this situation, they called on Commandant Downes to have the contractors make up six of each of these items: pea jackets; bluecloth jackets; bluecloth trousers; white flannel shirts; long flannel drawers; short flannel drawers; duck frocks; duck trousers; shoes of two kinds, one stout for common use and one light and thin for dress or dry weather; woolen stockings; woolen socks; blankets; and black silk handkerchiefs.

All woolen items, except blankets, were to be of American manufacture. The dye was to be indigo, with all similar articles to be alike in quality and workmanship. This was to permit their use as samples. One of each item was to be sent to the board.[483]

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481. Chauncey to Downes, January 15, 1839, NA, RG 45, Letters Sent, BNC.

482. Chauncey to Downes, February 9, 1839, NA, RG 45, Letters Sent, BNC.

483. Morris to Downes, August 20, 1839, NA, RG 45, Letters Sent, BNC.

On November 30 Downes was directed to forward one each of these items to the Portsmouth, New York, Philadelphia, and Baltimore Navy yards as samples for 1840: blankets; pea jackets; bluecloth jackets; bluecloth trousers; flannel shirts; long flannel drawers; pair of stockings; and black silk handkerchiefs.

Simultaneously, there was ordered from the New York Yard to the Charlestown facility as samples: bleached German linen frocks trimmed with blue; bleached Russia duck pantaloons; bleached German linen pantaloons; several leather shoes, and sewed leather pumps.[484]

3. The 1840 Contracts

On March 27, 1840, the board forwarded to Commodore Downes copies of contracts entered into for supplying the yard during the year with: Samuel Reeve, iron; Gilbert Davis, butter; Thomas Brown, ship biscuits; J.H. Barney, molasses, vinegar, rice, and beans; J. Davis, copper; A.J. Bergen, spermaceti candles; David Stewart, whiskey; and Francis Dodge, sperm oil and superfine flour. Downes received from the board, early in April, copies of contracts the department had signed with these people for supplying the yard with these specified number of items: Samuel Reeve, with paint as required; David Myerle for 200 tons of American hemp; T.T. Sawyer for 25,000 pounds of white lead; Robert Dickson for 1,500 gallons linseed oil; and James Mahoney for 2,000 pairs of woolen stockings and for shoes and pumps as required.[485]

4. The 1841 Contracts

In December 1840, the department advertised for and contracted with these companies and individuals to supply the Navy in 1841:

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484. Morris to Downes, November 30, 1839, NA, RG 45, Letters Sent, BNC.

485. Morris to Downes, April 3, 1840, NA, RG 45, Letters Sent, BNC.

Crocker Brothers & Co.	cold, rolled copper	.25 per pound
Ulster Iron Co.	round, flat, and square iron	.04 per pound
Middleton & Buell	superfine flour	$5.65 per barrel
Thomas Brown	ship biscuits	$3.70 per 100 pounds
Alex J. Bergen	whiskey	.30 per gallon
Robert Cruet	butter	.21 per pound
Alex J. Bergen	molasses	.31 per pound
Alex J. Bergen	vinegar	.10 per pound
Alex J. Bergen	rice	.04 per pound
Alex J. Bergen	white beans	$1.70 per bushel[486]

H. Charlestown's Role in Supplying Other Yards and Overseas Stations

1. The Scope of This Activity

During the Downes years, the Charlestown Navy Yard continued to order through the local navy agent, stockpile and transfer slops, stores, and provisions to the overseas squadrons and the Pensacola Navy Yard. This role it shared with the New York and Norfolk Navy yards. As the contractor(s) for slop clothing was/were usually in the Boston area, the Charlestown yard continued to be the Navy's principal entrepot for these items. A typical contract was the one signed by the department in 1840 with Jacob Sleeper of Boston to deliver at the Navy store: 600 pea jackets; 1,600 bluecloth jackets; 2,000 bluecloth trousers; 2,000 white flannel shirts; 2,000 white flannel drawers; 2,000 linen frocks; 800 duck trousers, 1,000 German linen trousers; and 500 black silk handkerchiefs.[487]

Beginning in the late spring of 1838, the yard with the ropewalk in production, began shipping cordage to the other six yards and the overseas stations.

Commodore Downes had been on duty only two weeks when he was introduced to this facet of his responsibilities. On March 30, 1835, the

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486. Board to Downes, December 23, 1840, NA, RG 45, Letters Sent, BNC.

487. Downes to Chauncey, June 30, 1840, NA, RG 45, Letters Received, BNC.

board directed him to ship 100 barrels of pork to the Pensacola yard, provided shipping arrangements could be promptly made. Downes, as was customary, had Agent Broadhead advertise in the local newspapers, calling for proposals from interested ship captains bound for the Gulf of Mexico.

When no response was received by mid-April, Downes advised the department that no opportunity had presented itself for shipping the pork to Pensacola.[488]

2. A Typical Year: 1837

In the first quarter of 1837, a large consignment of provisions and stores for the South Atlantic squadron was handled through the yard. First, however, Commodore Downes oversaw shipment to the New York yard of 2,000 barrels of beef and to the Norfolk yard of 1,000 barrels of pork; 1,500 pair bluecloth trousers; 1,500 duck frocks; 2,000 pair duck trousers; 1,500 flannel shirts; 1,500 pair of socks; 1,000 pair of shoes; and 2,000 blue silk handkerchiefs.[489]

Then, on February 4, the department called on Downes to ready for shipment to Rio de Janeiro for the South Atlantic squadron:

450 barrels of beef	500 bluecloth trousers
450 barrels of pork	500 flannel drawers
150 barrels of flour	1,000 flannel shirts
1,500 pounds of butter	1,000 duck frocks
4,000 pounds of cheese	1,000 duck trousers
1,000 pounds of candles	500 pair of stockings
10,000 pounds of rice	500 pair of socks
7,500 gallons of whiskey	2,000 pair of shoes
1,500 gallons of vinegar	500 silk handkerchiefs
	100 pea jackets[490]

488. Rodgers to Downes, March 30 and Downes to Rodgers, April 15, 1835, NA, RG 45, Letters sent and Received, BNC.

489. Rodgers to Downes, February 2, 1837, NA, RG 45, Letters Sent, BNC.

490. Rodgers to Downes, February 4, 1837, NA, RG 45, Letters Sent, BNC.

Before all these items had been stockpiled and the slops baled, Downes was directed to add these stores to the shipment: 1,000 fathoms 18-thread ratline; 1,000 fathoms 21-thread ratline; 1,000 fathoms 2-inch rope; 1,000 fathoms 2-1/2-inch rope; 1,000 fathoms 3-inch rope; 500 fathoms 4-inch rope; 50 pounds sewing twine, 60 gallons turpentine; 2,000 feet pine boards; 1,000 feet oak boards for boats; and 2,600 feet oak plank.[491]

Commodore Downes, meanwhile, had advertised for proposals for transporting the provisions, slops, and stores from Charlestown to Rio de Janeiro. After abstracting the bids, he examined the vessels involved, and found Sea Eagle a proper ship in which to embark the stores. The department was agreeable, and, in late March, Sea Eagle was hauled alongside the wharf and the supplies sent aboard.[492]

On September 28 the department called on Commodore Downes to be ready to ship to Rio de Janeiro for the vessels in the Brazilian squadron: 500 barrels of beef; 500 barrels of pork; 150 barrels of flour; 4,500 pounds of butter; 5,000 pounds of cheese; 14,000 gallons of whiskey; 1,500 gallons of vinegar; 2,500 pounds of candles; 12,000 pounds of rice; 1,500 gallons of molasses; 200 bluecloth jackets; 200 bluecloth trousers; 1,000 duck frocks; 500 duck trousers; 100 pea jackets; 1,000 pair of shoes; 1,000 blue silk handkerchiefs; 500 pair of wool socks; 500 pair of wool stockings; 10 bolts each of Nos. 1-4 flax canvas; and 5 bolts each of Nos. 5-8 flax canvas.

The vessel to transport these stores was to be at the yard and ready to take aboard cargo on November 1.[493]

Proposals were solicited, and the commissioners accepted the offer by J.P. Wheeler and W.A. Rae for charter of the bark Avon to take the

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491. Rodgers to Downes, March 7, 1837, NA, RG 45, Letters Sent, BNC.

492. Downes to Rodgers, March 10, 1837 and Rodgers to Downes, March 18, 1837, NA, RG 45, Letters Received and Sent, BNC.

493. Chauncey to Downes, September 28, 1837, NA, RG 45, Letters Sent, BNC.

stores to Rio de Janeiro, provided the vessel passed inspection by a board of officers designated by Commodore Downes.

The board convened and found Avon to be a "substantial vessel, five years old, was new coppered six months since, stood a No. 1 at the insurance office one year since," while nothing had occurred subsequently to change her character.[494]

After having received the board's approval, the bark arrived at the yard, on November 2, and began loading stores the next morning. She had finished and hauled off on the 10th. The whiskey and bread requisitioned, on October 3, were not delivered until November 7. While awaiting these items, the bark had taken aboard a "considerable quantity of other cargo."[495]

In mid-November the department, in view of his service in the Orient, asked Commandant Downes for advice as to what provisions and other supplies could be obtained in the Far East for the squadron operating there, and what articles it would be advisable to send out from the United States.[496]

Commodore Downes wrote the board that, while he was in the East Indies, molasses, rice, gin, and arrack were abundant in Batavia. The latter, he cautioned, should never be drunk by seamen until it had been aged. Bread, flour, beef, pork, butter, and cheese should be shipped from the states, to be landed in Batavia, Macao, or Singapore.[497]

The department would keep this in mind, whenever calls were made for provisions for vessels cruising far eastern waters.

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494. Morris to Downes, October 13, 1837 and Downes to Chauncey, October 26, 1837, NA, RG 45, Letters Sent and Received, BNC.

495. Downes to Chauncey, December 1, 1837, NA, RG 45, Letters Received, BNC.

496. Chauncey to Downes, November 18, 1837, NA, RG 45, Letters Sent, BNC.

497. Downes to Chauncey, November 22, 1837, NA, RG 45, Letters Received, BNC.

3. Three Hectic Months: April-June 1838

In April, May, and June 1838, there was feverish activity in and about the Navy store. On April 25 there was shipped to New York City for transshipment to Valparaiso for the South Pacific squadron: 300 bluecloth jackets; 400 bluecloth trousers; 1,500 flannel shirts; 2,000 duck frocks; 1,800 duck trousers, 500 pairs of stockings; 1,500 pairs of shoes; and one package of buttons.[498]

Before another week had passed, Commodore Downes received instructions to send aboard California, a vessel laying at the yard under charter to the Navy: 350 barrels of beef; 350 barrels of pork; 750 bluecloth jackets; 750 bluecloth trousers, 750 flannel shirts; 400 flannel drawers; 1,000 duck frocks; 1,000 duck trousers; 750 pair of stockings; 250 pair of socks; and 800 pair of shoes. After stopping at the New York yard, California was to proceed around Cape Horn to the Pacific.[499]

Meanwhile, on May 1, Commodore Downes had sent to the New York facility, aboard the schooner Jasper for the South Atlantic squadron based at Rio de Janeiro, 500 bluecloth jackets; 1,000 flannel shirts; 1,000 duck frocks; 500 bluecloth trousers; 1,000 duck trousers; 400 flannel drawers; and one package of buttons.[500]

Jasper stranded on the east end of Block Island. Her cargo was salvaged and landed in a damaged condition at Newport, from where it was to be returned to Boston. Downes accordingly ordered another shipment of the same character to be made up and placed aboard California then lying at the yard. This was done and the vessel sailed for New York City in the third week of May.[501]

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498. Downes to Chauncey, May 4, 1838, NA, RG 45, Letters Received, BNC.

499. Chauncey to Downes, May 1, 1838, NA, RG 45, Letters Sent, BNC.

500. Downes to Chauncey, May 4, 1838, NA, RG 45, Letters Received, BNC.

501. Downes to Chauncey, May 14, 1838, NA, RG 45, Letters Received, BNC.

The year's supply of slops for the Mediterranean squadron was sent aboard the sloop-of-war Cyane, which was being outfitted for a three-year cruise in that region.[502]

In the fourth week of May, the department called on Commandant Downes to prepare for shipment to the East India squadron at these ports: at Singapore 300 barrels of beef; 300 barrels of pork; 7,500 gallons of whiskey; 350 barrels of kiln-dried flour; 500 bluecloth jackets; 500 bluecloth trousers; 500 flannel shirts; 1,000 pair of hose; and 1,000 pair of shoes; at Macao, 150 barrels of beef; 150 barrels of pork; 3,750 gallons of whiskey; and 150 barrels of kiln-dried four; and at Manila, 150 barrels of beef; 150 barrels of pork; 3,750 barrels of whiskey; and 170 barrels of kiln-dried flour.

These stores were to be consigned to the respective United States consuls at Singapore, Canton, and Manila.[503]

The bark Francis Stanton was engaged to carry these provisions and slops to the Orient. She was hauled alongside the wharf in mid-June and, having taken aboard her cargo, sailed on June 23.[504]

4. The Diversity of Supplies Stockpiled and Shipped

In October 1839 the brig Wallace was hauled to the shear wharf and took aboard provisions and slops for the South Atlantic squadron. On the 14th she sailed for Rio de Janeiro.[505]

The importance and diversity of the stores and provisions stockpiled or handled through the yard is illustrated by the manifest covering items

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502. Ibid.

503. Chauncey to Downes, May 24 and 25, 1838, NA, RG 45, Letters Sent, BNC.

504. Downes to Chauncey, June 23, 1838, NA, RG 45, Letters Received, BNC.

505. Downes to Board, October 24, 1839, NA, RG 45, Letters Received, BNC.

shipped to the Pensacola Navy Yard in the summer of 1840. Included were: 2,000 fathoms 2-1/2-inch rope; 1,000 fathoms 2-3/4-inch rope; 1,000 fathoms 3-inch rope; six dozen 6-inch single blocks; four dozen 5-inch single blocks; four dozen 4-inch single blocks; one dozen 6- by 4-inch bullseye blocks; one dozen 7-1/2- by 4-1/2-inch bullseye blocks; one gross nail gimlets; one dozen brass padlocks; 1-1/2 dozen two-fold rules; two sets firmer chisels; one dozen 3-inch brass drawer locks; one dozen 3-inch iron cupboard locks; 50,000 copper cut tacks; 50,000 iron cut tacks; one dozen screw drivers; one dozen hand vices; 12 dozen shoe awls; six dozen stabbing awls; one-half dozen heavy butcher cleavers; ten pounds 1/16-inch brass wire; six dozen boathooks; 200 pounds 6-inch spikes; 200 pounds 8-inch spikes; 200 pounds beeswax; 200 pounds putty; 200 pounds sewing twine; 50 pounds fish lines (assorted); one dozen claw hammers; two pieces (40 yards) green baize; five gallons spirits of wine; 500 pounds bar soap; two dozen side lanterns; two glass cabin lamps; four dozen spades, four dozen shovels, 100 pounds asphaltum, 20 sides bellows leather; 36 caldrons Liverpool coal; one-half dozen boatswain's whistles; 100 gallons linseed oil; one complete set of gunners' apparatus for the magazine; measures, cooper's tools, etc.; 350 barrels of beef; 350 barrels of pork, 300 barrels of white beans; 1,500 gallons vinegar; 5,000 pounds pineapple cheese; 2,500 pounds butter; 6,000 gallons of whiskey; 300 gallons of spermaceti oil; 2,000 pounds of spermaceti candles; and 200 bales of hay.[506]

Many of these items were on hand, while others would have to be secured from the contractors or ordered through Naval Agent Jarvis. Stockpiled in the Navy store were: 1,414 barrels of beef and 1,511 barrels of pork. The former had been packed in the winter of 1838-39 and 1,500 barrels of pork in 1839-40.[507]

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506. Morris to Downes, June 15, 1840, NA, RG 45, Letters Sent, BNC.

507. Thomas to Abbot, June 11, 1840, NA, RG 45, Letters Received, BNC.

There was room in the Navy store at this time for these provisions:

Space Allotted	On Hand	Unused Space For
6,000 barrels salt provisions	3,000 barrels	3,000 barrels
400 barrels whiskey	250 barrels	150 barrels
1,200 barrels bread	575 barrels	625 barrels
300 barrels flour	37 barrels	263 barrels
400 barrels beans	100 barrels	300 barrels
200 barrels rice	10 barrels	190 barrels
100 barrels vinegar	61 barrels	39 barrels
25 barrels butter	6 barrels	19 barrels
20 barrels sperm oil	4 barrels	16 barrels
100 barrels linseed oil	45 barrels	55 barrels
400 boxes candles	100 boxes	300 boxes[508]

5. The Yard's Preeminent Role in Supplying Naval Vessels Operating in Far Eastern Waters

Because of the near monopoly enjoyed by Boston and Salem ship captains and merchants of trade with the Orient, it is not surprising that the Charlestown Navy Yard, rather than the New York or Norfolk facility, handled shipments to naval vessels in that far away but wonderous part of the world.

In mid-July 1835, four months after he assumed command of the yard, Commandant Downes was directed to ship to Canton for the sloop-of-war Peacock: 20 barrels of pork; 50 barrels of beef; and 20,000 pounds of bread packed in tight, dry, iron-hooped spirit casks. His recent experience as commander of the East India squadron led Downes to take special interest in this facet of the yard's responsibility.[509]

Each year thereafter, the yard was given this responsibility. In mid-September 1840 the commissioners, for example, called on Commandant Downes to ship to Singapore for provisioning the Wilkes expedition to the Antarctic and South Pacific: 300 barrels of superfine kiln-dried flour; 200 barrels of beef; 200 barrels of pork; 100 barrels of whiskey; 500

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508. Downes to Board, July 1, 1840, NA, RG 45, Letters Received, BNC.

509. Rodgers to Downes, July 16, 1835, NA, RG 45, Letters Sent, BNC.

gallons of pickles; 100 boxes or 4,000 pounds of spermaceti candles; and 2,500 pounds of butter to be packed two kegs to a cask filled with brine.[510]

To enable the yard to meet these demands, the board contacted the contractors. F. Dodge was to ship from Georgetown to the Charlestown yard 500 barrels of flour to be ground from kiln-dried wheat. David Stewart was to forward 4,000 gallons of whiskey and Gilbert Davis 2,000 pounds of butter. A breach in the Chesapeake and Ohio Canal made it unlikely that Dodge would be able to ship more than 314 barrels of flour.[511]

Recalling his days in the Orient, Downes recommended to the board that these additional items be included in the consignment, 1,500 pounds of preserved cranberries and 20 half barrels of pickles.[512]

Pickles, the commissioners agreed, would be supplied to Constellation, while the cranberries were to be put up in tight barrels filled with fresh water. Suitable quantities of these items would also be sent to Singapore with the other stores.[513]

On October 30, 1841, the board forwarded to Downes a list of provisions to be prepared and shipped to either Singapore or Manila for the East India squadron.[514]

To meet this responsibility, Commodore Downes made a requisition on Baltimore contractor Barney for bread as there was none on hand at the yard fit for shipment. There was no beef in the Navy store that had

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510. Board to Downes, September 12, 1840, NA, RG 45, Letters Sent, BNC.

511. Morris to Downes, October 15, 1840, NA, RG 45, Letters Sent, BNC.

512. Abbot to Board, October 19, 1840, NA, RG 45, Letters Received, BNC. Downes was ill and Joel Abbot was in command of the yard.

513. Board to Downes, October 24, 1840, NA, RG 45, Letters Sent, BNC.

514. Warrington to Downes, October 30, 1841, NA, RG 45, Letters Sent, BNC.

been delivered later than 1839, so he purchased the quantity desired for the East India squadron from Messrs. Winchester.

By December 11 the consignment had been assembled, inventoried, and sent aboard the ship Lowell, which had been chartered to transport it to the Orient.[515]

Seven months later, in mid-May 1842, the department alerted Commodore Downes to stockpile and prepare for shipment to the East India squadron at either Singapore or Manila these provisions: 300 barrels of kiln-dried flour; 250 barrels of beef; 22 barrels of pork; 5,000 pounds of cheese; 5,000 pounds of bread; 2,000 pounds of butter; and 6,400 gallons of spirits.[516]

I. The Search for Waterproof Equipment and Slops

In the winter of 1836-37, the board desired to order from the manufacturer of India Rubber Cloths, studding sail covers, tarpaulins, boat covers, division bags, sponge cape, boat bags, and cloth bags for Independence and Boston, which were being outfitted at the yard.[517]

After Commodore Downes had placed the order, he chanced to meet several officials of the Lowell Railroad Station. Knowing they had purchased India Rubber Cloth for their cars, he questioned them about its attributes, upon being exposed to inclement weather. They told him that, as a covering for their cars, it had failed. At the end of six months, it had "become entirely rotten, and worn out," and the cars had to be recovered with other materials.

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515. Downes to Board, November 3 and December 11, 1841, NA, RG 45, Letters Received, BNC. The document listing the provisions, as well as the bill of lading, is missing from the files.

516. Warrington to Downes, May 17, 1842, NA, RG 45, Letters Sent, BNC.

517. Rodgers to Downes, February 26, 1836, NA, RG 45, Letters Sent, BNC.

Consequently, Downes concluded that the rubberized fabric would not answer for hammock cloths, studding sail covers, or for any purpose on a ship, where exposed to foul weather. Orders were issued suspending the manufacture of these items until the board could review the subject.[518]

The commissioners commended Downes' initiative. Hammock cloths, studding sail covers, etc., were to be made in the customary manner and of the usual materials.[519]

Four years later on May 4, 1840, the department determined to test the claims made by certain manufacturers of having perfected a formula for waterproofing clothing. The board accordingly called on Acting Commandant Abbot to procure through the slops contractor 60 each of these items--bluecloth trousers, bluecloth jackets, and pea jackets--and have them waterproofed. If they could be secured in time, 15 of each were to be sent to Portsmouth for use aboard Preble. Similar numbers were to be shipped to the New York and Norfolk yards for issue to the receiving ship's crews. The commandants were to report to the board the results of the trials of this clothing.[520]

The cost of waterproofing each item of slop clothing, Abbot found, would be about 50 cents, whether it was done before the cloth was made up or afterwards. Mr. Curtis, who held the patent, was of the opinion it would be more practicable to send the cloths ready made. Curtis did not believe it would be a "fair experiment" to make the pea jackets of a looser texture, as the better the cloth the more perfect his waterproofing process.

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518. Downes to Rodgers, April 12, 1836, NA, RG 45, Letters Received, BNC.

519. Rodgers to Downes, April 18, 1836, NA, RG 45, Letters Sent, BNC.

520. Morris to Abbot, May 4, 1840, NA, RG 45, Letters Sent, BNC.

Slop clothing stockpiled at the yard could be sent to Curtis' factory and be returned waterproofed in about one week.[521]

By early June, Acting Commandant Abbot had secured the waterproofed slops and had sent 15 items of each to the Navy yards at New York and Norfolk, and 13 to Portsmouth. Seventeen sets had been retained at Charlestown to be tested aboard Columbus.[522]

Preble's purser was favorably impressed with the waterproof clothing provided his ship. He found them "very far preferable to any similar articles furnished for the service, as they are perfectly impervious to water and wear well."[523]

It was October 2 before the waterproofed slops were sent aboard Columbus. As soon as the trials were completed, Commodore Downes promised to forward to the board a report on this subject. He, however, failed to do so.[524]

In May 1841, the board agreed to purchase at $500 each from Captain George W. Taylor six suits of his "submarine exploring apparatus," to be delivered at the Charlestown yard.[525]

In April, Captain Taylor had successfully demonstrated his "exploring armor" and underwater rockets at the Charlestown facility.

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521. Abbot to Board, May 8, 1840, NA, RG 45, Letters Received, BNC.

522. Abbot to Board, June 6, 1840, NA, RG 45, Letters Received, BNC.

523. Wilson to Downes, December 7, 1840, NA, RG 45, Letters Received, BNC.

524. Downes to Board, December 26, 1840, NA, RG 45, Letters Received, BNC.

525. Morris to Downes, May 4, 1841, NA, RG 45, Letters Sent, BNC.

Three of the suits were delivered during the late summer and the remainder in the winter of 1841-42.[526]

J. The Long-Term Timber Contracts

The commissioners continued to control the contracting for timber for building and repair of public vessels. In January 1836, after calling for, receiving, and reviewing proposals for supplying the yards with live oak timber, they awarded a long-term contract to Palmer & Ferris of Jacksonville, East Florida, to deliver to the yard four sets of keelson pieces for a ship-of-the-line, three sets of keelson pieces for a first class frigate, and a set of keelson pieces for a first class sloop.

Some 60 months later, in February 1842, the department announced plans to maintain the white oak and pine stockpiled at the Charlestown yard at 60,000 cubic feet of each.[527]

By late March, Palmer & Ferris in the months since June 1838, had landed at the yard 46,883-11/12 cubic feet of live oak timber. On their contract, they had been paid 90 percent of the value--$61,593.52.[528]

Palmer & Ferris, in early May, landed another cargo of live oak, which except for one piece, fulfilled their contract of January 1, 1836.

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526. Browne to Board, April 16, 1842, NA, RG 45, Letters Received, BNC; Warrington to Taylor, May 4, 1841, NA, RG 45, Miscellaneous Letters Sent, BNC.

527. Warrington to Downes, February 5, 1842, NA, RG 45, Letters Sent, BNC.

528. Downes to Board, March 29, 1842, NA, RG 45, Letters Received, BNC. Vessels involved and delivery dates were: schooner Harriet, June 1, 1838, 3,141-2/12 cubic feet; schooner Marie Estell, July 25, 1838, 4,193-2/12 cubic feet; schooner Motion, August 7, 1838, 1,827-10/12 cubic feet; brig Henry Clay, January 2, 1839, 3,252-11/12 cubic feet; brig Androscoggin, February 8, 1839, 4,296-6/12 cubic feet; schooner Saunders, March 11, 1839, 3,145-9/12 cubic feet; brig Cashier, April 24, 1839, 2,516-11/12 cubic feet; brig Nimrod, May 10, 1839, 5,220-11/12 cubic feet; schooner Saunders, June 11, 1839, 3,966-9/12 cubic feet; schooner Lucy, June 22, 1839, 3,206-1/12 cubic feet; schooner Undine, April 3, 1840, 4,098-9/12 cubic feet; and schooner Rochambeau, June 11, 1840, 4,629-4/12 cubic feet.

They also delivered a surplus of eight pieces of live oak orlop deck beams for a 74 and 296-6/12 cubic feet of live oak promiscuous timber for a 44, a sloop, and a schooner.[529]

Upon being apprised of this, the board directed that all live oak necessary to complete the contract was to be received, provided it passed inspection.[530]

Late in 1838 the commissioners had advertised and contracted for a large quantity of knees and timber to be delivered to the Navy yards. Commodore Downes was duly notified that Palmer & Ferris, William Doughty, and Samuel Guice would be landing at the yard "any number of live oak knees, to side 7 inches and upward." In addition, there was to be received from each of these contractors, not to exceed 5,000 cubic feet of promiscuous live oak timber for ships-of-the-line, at $1.10 per cubic foot; 6,500 at $1.05 for frigates; 5,000 feet for sloops-of-war at $1.00; and 1,000 feet for schooners or smaller vessels at 87-1/2 cents a cubic foot.

One-half the quantity of each class of promiscuous timber and one-half the knees were to be received and paid for from the appropriation for "Repairs" and the balance from the appropriation for "Gradual Improvements."[531]

Early in February 1842 the board determined to procure such timber as was required by open purchase "at certain prices to be fixed upon, with reference to the prices usually given under former contracts." It was believed that this would be less expensive. Timber delivered at the yard under this program would be subject to "the same inspection,

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529. Downes to Board, May 9, 1842, NA, RG 45, Letters Received, BNC.

530. Warrington to Downes, May 12, 1842, NA, RG 45, Letters Sent, BNC.

531. Chauncey to Downes, December 31, 1838, NA, RG 45, Letters Sent, BNC.

restrictions and provisions as when procured under contract." The maximum price to be paid at Charlestown was to be 37 cents for oak and 35 cents for pine per cubit foot.[532]

K. The Yard's Role in Arming the Fleet

1. The Development of the Bubier Carriage

In January 1838 the board directed Commodore Downes to have a 32-pounder gun carriage made in accordance with the plan of the yard's Lieutenant John Bubier. This carriage was to be employed for testing its advantages.[533]

More than two years later, on April 1, 1840, the commissioners reminded Downes that they had received no information on the tests to be made on Lieutenant Bubier's carriage.[534]

Downes informed the board that the carriage had been built. Since then, however, Lieutenant Bubier had made several improvements that should be incorporated into the carriage, which had been sent aboard Columbus.[535]

The department directed that the improvements be added and the carriage tested.[536]

Bubier's carriage was tested in late May by a five-man board. On doing so, they found that it possessed several important advantages over those in general use. A gun mounted on the Bubier carriage, "being confined by the slide to a central position in the port," could be loaded,

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532. Circular Letter, February 3, 1842, NA, RG 45, Circular Letters, Sent, BNC.

533. Chauncey to Downes, January 25, 1838, NA, RG 45, Letters Sent, BNC.

534. Morris to Downes, April 1, 1840, NA, RG 45, Letters Sent, BNC.

535. Downes to Board, April 4, 1840, NA, RG 45, Letters Received, BNC.

536. Morris to Downes, April 9, 1840, NA, RG 45, Letters Sent, BNC.

run out, and aimed "to any practicable point of bearing, in the shortest possible time," without use of handspikes. The recoil of the gun always left it in a "favorable situation for immediate sponging, loading, & running out again in a direct line with the object to be fired on." This resulted in a marked saving of time. The reduced recoil being about one-half that of the ordinary carriage would "effectively preserve the breechings & bolts, from the danger arising from too violent a concussion by which they are liable to be carried away."

The carriage, the board reported, included these improvements: (a) the tongue or center slide, the outer end of which was bolted to the middle of the port sill, maintained the carriage "in the most eligible position for service"; (b) the square iron bolt inserted underneath and through the centre of the forward axle answered the purpose of a preventer, eliminating the need for breeching; and (c) an iron bolt secured the gun against the rolling motion of the ship.[537]

The department, to follow-up on the board's report, called for the manufacture at the yard of two or more of Bubier's 32-pounder carriages.[538]

Two carriages were completed by mid-April 1841, at a cost of $537.34. This sum breakdown:

	Labor	Materials
Carpenter's Department	$134.40	$63.70
Smith's Department	119.68	79.35
Blacksmith's Department	15.74	3.50
Plumber's Department	40.30	73.92
Painter's Department	3.50	2.25

537. Montgomery to Abbot, June 4, 1840, NA, RG 45, Letters Received, BNC. Members of the testing board were: Commander J. B. Montgomery, Lieutenants G.J. Van Brunt and Robert Handy, and Masters John Robinson and J.B. Hull.

538. Board to Downes, February 17, 1841, NA, RG 45, Letters Sent, BNC.

Bubier's 32-pounder carriage weighed 2,070 pounds, outweighing a carriage of ordinary construction by 610 pounds.[539]

2. Care and Preservation of the Heavy Ordnance

On June 3, 1839, Lieutenant John S. Chauncey began inspecting and marking all the 32- and 42-pounders in the gun park and on the Boston Station.[540] Nine weeks later, Cyrus Alger of South Boston contracted with the department to ream out the yard's 32- and 42-pounder carronades for $15 and $20 respectively.[541]

By January 1, 1840, Alger had reamed forty-six 42-pounder carronades, and Commodore Downes was called upon to send an officer to the foundry to gauge them. He designated Commander Abbot.[542]

Abbot traveled to South Boston where he checked to see that the reamed out bores corresponded with established diameters. The reaming contract was long term. In early June, Alger rebored to 8 inches and returned to the yard sixteen 42-pounders. Five of these pieces had cracked breeching rings.[543]

Replying to this report, the board informed Downes that Alger was to be paid $40 for each 42-pounder "reamed up" and returned to the yard. This included those with the cracked breeching rings.[544]

Orders reached the yard in 1840 for Downes to place all armament and projectiles under the "particular care" of the second lieutenant of the

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539. Downes to Board, April 16, 1841, NA, RG 45, Letters Received, BNC.

540. Preble, "History of the Boston Navy Yard," p. 267, NA, RG 181.

541. Morris to Downes, August 14, 1839, NA, RG 45, Letters Sent, BNC.

542. Morris to Downes, January 2, 1840 and Downes to Chauncey, January 7, 1840, NA, RG 45, Letters Sent and Received, BNC.

543. Downes to Board, July 2, 1841, NA, RG 45, Letters Received, BNC.

544. Warrington to Downes, July 7, 1841, NA, RG 45, Letters Sent, BNC.

yard, when two lieutenants were attached, or of the lieutenant, when there was but one. This officer was to be responsible for the care and preservation of the ordnance.[545]

Soon thereafter, bins were installed in timber shed No. 33 for storage of shot.[546]

3. Arming the Public Vessels

During the winter of 1841-42, measures were taken to mount heavier guns on the 74s and frigates moored at the yard. On December 11 Commodore Downes was instructed that when Congress and Cumberland were outfitted, they were each to carry four 8-inch Paixhan guns on their maindeck, in addition to the usual carronades. Four "reamed up" 42-pounders were to replace lighter cannon on the lower gundecks of Columbus and Ohio. Then, on December 21, the department partially reversed itself. Columbus would be given four 8-inch Paixhans, rather than four reamed up 42-pounders.[547]

For "ordinary service" each Paixhan was to be provided with 25 explosive shells, five solid shot, and three stands of grape.[548]

The four 8-inch Paixhans, with 32-pounder chambers, sent aboard Congress had been cast at Alger's foundry.[549]

Cyrus Alger, on January 28, 1842, had contracted with the board to cast at his foundry twenty-six 32-pounder chambered guns; thirty-four 32-pounders without chambers; 800 shells for 42-pounders; 6,000 solid

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545. Preble, "History of the Boston Navy Yard," p. 270, NA, RG 181.

546. Ibid.

547. Warrington to Downes, December 11 and 21, 1841, NA, RG 45, Letters Sent, BNC.

548. Warrington to Downes, December 28, 1841, NA, RG 45, Letters Sent, BNC.

549. Downes to Board, March 17, 1842, NA, RG 45, Letters Received, BNC.

shot for 32-pounders; and 160 solid shot for reamed up 42-pounders. The shells were to be prepared for fuses, and the guns were to weigh about forty-one hundredweight each.[550]

In late March, the department directed Alger to deliver these cannon at the Charlestown yard. Commandant Downes would then see that twenty 32-pounders were shipped to the Portsmouth Navy Yard for arming the frigate Congress, then being outfitted for a Mediterranean cruise.[551]

Then, in mid-April, the commissioners decided to mount eight, rather than four 8-inch Paixhans on Congress' spardeck. Downes accordingly sent these guns to Portsmouth.[552]

Commodore Downes meanwhile learned that there were in the gun park only twenty-six 32-pounder carronades of which eight were of a uniform weight and moulding, having been rebored to correspond with long 32-pounders. Since they were without breechrings, most of the other 18 had been condemned. Thus it would be impossible to provide from the carronades on hand a uniform battery for Bainbridge, then outfitting at the yard.[553]

The board regretted that it would be impossible to send aboard Bainbridge a battery of "uniform size and weight, from the carronades on hand." Downes, from the available armament, would provide "an efficient battery," for the brig, keeping in mind the importance of uniform size and weight.[554]

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550. Warrington to Alger, January 10 and 22, 1842, NA, RG 45, Miscellaneous Letters Sent, BNC.

551. Warrington to Downes, March 29, 1842, NA, RG 45, Letters Sent, BNC.

552. Warrington to Downes, April 22, 1842, NA, RG 45, Letters Sent, BNC.

553. Totten to Downes, March 18, 1842, NA, RG 45, Letters Received, BNC.

554. Warrington to Downes, March 23, 1842, NA, RG 45, Letters Sent, BNC.

4. The Yard As an Armory

The yard also served as an armory for outfitting public vessels and the Boston Station. During the winter of 1839, the Philadelphia yard shipped to the Charlestown facility 500 muskets and an equal number of bayonets.[555]

In December 1841 the department contracted with the Ames Manufacturing Co. for 4,000 swords, 1,000 of which would be delivered to the yard. Commodore Downes was to send one of his lieutenants to Springfield to be present when the swords were proofed.[556] Upon reaching Springfield, Davis found that Major James W. Ripley, the arsenal commander, was absent. At Ames' foundry, he was shown 500 swords and scabbards that were ready for inspection and delivery.

Davis proceeded to examine the mountings, compare the swords with the patterns, tried the scabbards, and applied the gauges. Several blades, not mounted, were subjected to the proofs specified by the Army--the blades being bent over a 35-inch diameter cylinder, and then struck on both sides and the edges to "try the toughness and temper of the metal."

Satisifed that the swords and scabbards conformed to patterns and were of faithful workmanship, Davis receipted for them, and directed Ames to see that each of the swords was stamped U.S.N. to distinguish them from those not inspected.[557]

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555. Chauncey to Downes, February 26, 1839, NA, RG 45, Letters Sent, BNC.

556. Warrington to Downes, December 29 and 30, 1841, NA, RG 45, Letters Sent, BNC.

557. Davis to Downes, January 10, 1842, NA, RG 45, Letters Received, BNC.

5. The Introduction of Copper Tanks

On January 11, 1842, the commissioners wrote Commandant Downes soliciting his views as to the substitution of copper tanks for barrels for storage of powder.[558]

Replying, Commodore Downes announced that he was satisfied that the proposed change would be of great advantage to the Navy, both in safety and economy. A set of copper tanks would last 20 to 30 years, whereas magazines were rebuilt every five to six years. Powder in tanks could also be transported in fair or foul weather between magazines ashore and the ship.

He believed that there might be an objection to tanks with a capacity of more than 100 pounds, because it would be difficult for one man to handle them.[559]

L. Programming and Funding Improvements and Repairs

1. The $99,500 1835 Program

During Commandant Downes' first administration major new construction at the yard included the ropewalk complex, storehouse No. 15, shiphouse No. 39, a paint and oil house, an addition to building No. 55, an extension of the quay wall into the lower yard, refacing the lower yard quarters to front on the Salem Turnpike, and first repair and then replacement of the masting shears.

Some four weeks before Downes reported as commandant, Congress, on February 13, appropriated for the Charlestown Navy Yard in 1835:

for completing Ropewalk	$50,000
for building storehouse No. 15	26,000
for extending quay wall east of masthouse . .	9,000
for making arrangement preparatory to changing the fronts of the officers' quarters in the lower yard	6,000
for repair of dock, wharves, and building . .	8,500
	$99,500

558. It has been impossible to locate a copy of this letter.

559. Downes to Board, January 25, 1842, NA, RG 45, Letters Received, BNC.

As of February 1, 1835, there was still available in the Treasury $12,698.60 from the 1834 appropriation. Three thousand dollars having been remitted on Agent Broadhead's requisition, the aggregate unexpended balance for yard improvements was $109,198.60.[560]

2. The Liberal 1836 Program

The department, on submitting a budget to the first session of the 24th Congress, proposed a major boost in expenditures to fund improvements to the yard in 1836. A major share was earmarked for continuing construction of the ropewalk and its dependencies, and for purchase of equipment for spinning and laying-up cordage. Congress was generous, and, on May 14, President Jackson signed into law an act appropriating $199,595 for "Improvements and Repairs" at the Charlestown Navy Yard in 1836. This sum was apportioned:

Ropewalk	$ 63,000
Tarring House	9,000
Steam engine and machinery for laying-up cordage	30,000
Spinning machinery	15,000
Hemp House	38,000
Storehouse No. 15	35,275
Repair and replacement of masting shears	3,575
Yard wall at northeast corner	1,500
Completing change of front of lower quarters	1,225
Repair of docks, wharves, and buildings	3,000
	$199,575

As the spinning machinery and tarring apparatus had been contracted for from Daniel Treadwell, the department would take measures to procure the steam engines and any other necessary machinery. The available funds, it was trusted, would enable Commodore Downes to complete the enumerated projects. In no case "must these sums be exceeded nor could they be applied to any other purpose," without sanction of the board.

There was on hand in the Treasury, the commissioners reminded, $24,516.29 in unexpended funds from former appropriations.[561]

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560. Rodgers to Elliott, February 25, 1835, NA, RG 45, Letters Sent, BNC.

561. Rodgers to Downes, June 1, 1836, NA, RG 45, Letters Sent, BNC.

3. The 1837 Program Funds a Number of Projects

The second session of the 24th Congress, by an act signed into law by President Jackson, on March 3, 1837, appropriated $124,000 for "Improvement & Repairs" to the yard.

Upon auditing the yard's returns for December 1836, the commissioners found that Commodore Downes had reported $119,974.28 in unexpended appropriated funds. The Treasury, at the same time, listed this figure as $89,356.17. Added to the $24,434.44 charged to the agent and purser, this gave a total of $113,790.61, leaving $5,873.67 to account for.

As expenditures must be limited to "available sums," including former "available balances," the allotments for the different objects, beginning January 1, 1837, had been adjusted by the department to read:

1.	for building Ropewalk	$180,000
2.	for steam engines, rope, and tarring machinery	30,000
3.	for spinning machinery	29,500
4.	for tarring house from 1834-37	22,500
5.	for storehouse No. 15 from 1835-37	76,275
6.	for addition to building No. 55	34,500
7.	for extending quay wall at lower end of yard	22,000
8.	for freshwater reservoir	2,000
9.	for hemp house	38,000
10.	for repairing masting shears	3,575
11.	for all other repairs from January 1, 1837	6,186

Although items Nos. 1-4 were listed separately, and reports of expenditures were returned individually, they related to a common object, the ropewalk, and any excess in one could be transferred to supply a deficit in another. This did not apply to the other seven projects.

Downes was to be governed by these allotments, and under no circumstances would he authorize any expenses beyond the sums listed, unless he received prior approval of the board. Should the appropriated sum be insufficient, the project must be suspended.[562]

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562. Rodgers to Downes, March 23, 1837, NA, RG 45, Letters Sent, BNC.

Commandant Downes, after studying the department's letter and his books, discovered that there was "one object for which there has been expenditures under the head of navy yard, that is not embraced in the reports, viz, for Docking Timber."[563]

The item for "Timber Docks" was special and did not fall under the general appropriation for "Improvements & Repairs," and was not to be returned to them, the board informed Commandant Downes.

In ascertaining the sums available for the yard, this allotment, along with those for the Chelsea magazine and hospital, had been excluded. This gave the $114,590.61 figure.[564]

4. The Department Plays Games with the 1838 Program

The Naval Appropriations' Bill enacted by the second session of the 25th Congress, and signed into law by President Martin Van Buren, on May 31, 1838, made appropriations for these improvements and repairs at the yard:

Completion of storehouse No. 15	$12,000
Building shiphouse No. 39	50,000
Drains for reservoirs	2,000
Repairs for all kinds	10,000
	$74,000

Congress had failed to include a line item for purchase of recommended additional machinery for the ropewalk, so the board suggested and Secretary of the Navy Dickerson approved the acquisition of the machinery with $25,500 of the funds estimated for shiphouse No. 39. This made it "impracticable" to erect that structure in 1838. Downes would, however, take steps to purchase the materials to be delivered, but take care not to obligate more than $20,000.[565]

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563. Downes to Rodgers, March 28, 1837, NA, RG 45, Letters Received, BNC.

564. Rodgers to Downes, April 5, 1837, NA, RG 45, Letters Sent, BNC.

565. Chauncey to Downes, June 20, 1838, NA, RG 45, Letters Sent, BNC.

5. The Nation's Economic Woes Affect the 1839 Program

The third session of the 25th Congress, in view of the Nation's bleak financial situation, resulting from the panic of 1837, appropriated only $26,000 for "Improvements & Repairs" in 1839. This sum brokedown:

Steam sawmill and machinery	$ 8,500
Additional machinery and boilers for Ropewalk	12,000
Repairs of all kinds	5,500
Total	$26,000

Upon reviewing their books, the commissioners found that, as of February 18, there was in the Treasury, an unobligated balance of $12,923.23 from former appropriations for "Improvements & Repairs." Consequently, they recommended to Commodore Downes that the available $35,923.23 be employed: (a) to retire all outstanding claims; (b) to complete the Ropewalk and its dependencies; (c) for the masting shears; (d) for reservoir drains for supplying steam engines; (e) for indispensable repairs of all kinds; and (f) for completing the sawmill machinery.

The construction of shiphouse No. 39 would be deferred for another year.[566]

Commandant Downes, keeping these guidelines in mind, suggested that the money be budgeted:

Due on timber for shiphouse site No. 39	$12,951.11
Other claims	100.00
Total	$13,051.11
Available after paying claims	$25,872.12
To be distributed:	
For engine house site No. 55	$10,576.02
For repairs of all kinds	5,500.00
For masting shears	1,500.00
For drains and reservoirs	1,500.00
For laying-up machinery	4,000.00
Total	$23,076.32
Leaving a balance of	$ 2,796.10[567]

566. Chauncey to Downes, March 25, 1839, NA, RG 45, Letters Sent, BNC.

567. Downes to Chauncey, April 10, 1839, NA, RG 45, Letters Received, BNC.

The board, after reviewing Downes' program, approved these expenditures and allotments:

	Sum Allotted	Balance on March 1, 1839
Ropewalk and its dependencies	$334,000.00	$ 5,831.60
Storehouse No. 15	85,393.64	000.00
Building No. 55 and machinery	40,500.00	10,744.82
Drains and reservoirs	4,500.00	1,631.17
Repairs of masting shears	5,075.00	1,573.96
Shiphouse No. 39	17,000.00	13,415.10
Repairs for year	6,041.00	5,726.58
	Total	$ 38,923.23[568]

6. A Bleak 1840 Program

Congress, on July 20, 1840, appropriated a mere $17,000 for "Improvements & Repairs" during the year. The board, in calling on Commodore Downes for a program for expenditure of this sum, cautioned that care must be taken to control disbursements because allotments had exceeded the 1839 appropriations.[569]

Replying, Downes noted that these repairs to existing facilities were mandatory to prevent greater injury:

Joiners' Department

Shiphouses G and I--repair of damage caused by the storms of December 17 & 27, 1839	$ 700.00
Naval Store--repair of floors	100.00
Timber sheds and masthouse	400.00
Total	$1,200.00

Painters' Department

Lacquering iron shutters of Ropewalk and storehouse No. 15. When built they had been given one coat and it had worn off in a number of places	$ 600.00
Repair of windows in shiphouses and other structures	350.00
Total	$ 950.00

568. Chauncey to Downes, April 17, 1839, NA, RG 45, Letters Sent, BNC.

569. Board to Downes, July 17, 1840, NA, RG 45, Letters Sent, BNC.

Masons' Department

Repointing part of dry dock		$ 600.00
Repair of flagstones and paving around dry dock . .		400.00
Repair of fire boxes under boilers, grates, etc. . .		500.00
Repair of slating on several buildings		250.00
	Total	$1,750.00

Carpenters' Department

Piles for securing timber in timber docks . . .		$ 300.00
Driving and mortising same		200.00
Necessary repair of bridge over timber dock . . .		500.00
	Total	$1,000.00
	Grand Total	$4,900.00

The blockmakers' shop in the new wing of building No. 55, Downes continued, required installation of drums, etc., to drive the machinery. Fixtures for the shop had been on hand six months, but $1,500 was needed to put the shop into operation.

Thus sixty-four hundred dollars was "the lowest amount," the appropriation could be reduced to without harm to the public interest.[570]

Secretary of the Navy Paulding, after reviewing the situation, authorized these expenditures from the $17,000 appropriation:

For machinery in engine house building No. 55 . .		$ 4,500
For necessary improvements and repairs		6,500
	Total	$11,000

Under no circumstances would this sum be exceeded without "special authority" of the department. The balance of the appropriation ($6,000) was not to be expended until further instructions were given by the board.[571]

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570. Downes to Morris, August 10, 1840, NA, RG 45, Letters Received, BNC.

571. Board to Downes, August 28, 1840, NA, RG 45, Letters Sent, BNC.

7. The 1841 Program Enables the Navy to Fund Several Major Improvements

President Van Buren, in the late winter of 1841, signed into law a bill appropriating $42,000 for "Improvements & Repairs" of the Charlestown facility during the next 12 months. Writing Commandant Downes, the department informed him that, as of March 1, there was in the Treasury for improvements of the Charlestown yard:

Available from former appropriations		$ 9,034.71
In Agent Jarvis' hands		869.37
Appropriated for 1841		42,200.00
	Total	$52,104.08

It had been determined to allow this money:

For completing shiphouse No. 39		$35,000.00
For construction of oil house		2,500.00
For machinery building No. 55		1,691.01
For miscellaneous repairs		12,417.85
For overpayment of purser		295.22
	Total	$51,904.08

The board desired the shiphouse completed before autumn, while they planned to locate the oil house in the near future.[572]

M. Improvements and Repairs to the Yard

1. The Construction of Storehouse No. 15

Early in April 1835, Congress having appropriated $26,600 for construction of storehouse No. 15, the commissioners reviewed Alexander Parris' preliminary plans and estimates. The 1828 master plan had called for a large building, fronting on two roadways, with a central court. Because of heavy expenditures for the ropewalk, it was decided to employ available funds to build the northwest one-half of the structure now and the other one-half in the future.

Fears were voiced by the commissioners that the laying of foundations would be difficult because of the nature of the ground, which

572. Morris to Morgan, March 19, 1841, NA, RG 45, Letters Sent, BNC.

under the subsoil was marshy. No cellar would be built at this time, but to facilitate its future construction, they proposed to lay the foundations, both of the exterior and the brick partition walls, 2 feet below the level necessary for a cellar, 6 feet deep in the clear. All foundation walls were to be laid upon piles well capped, the mortar containing sufficient hydraulic lime to insure its hardening firmly, and the outer walls to be at least 30 inches thick. Walls of the first and second stories were to be 2 feet, and the remaining portion 21 inches. The height of the lower story to be 11 feet, of the second and third stories 10 feet in the clear, while above the third story the walls were to rise from 3 to 4 feet to insure a useful attic.

The "solid partition walls" were to be two and one-half bricks thick on the lower story, and two bricks thick above. Each of the six end rooms of the wings were to have flues built in the partition walls for stoves or ventilation. A range of piles were to be driven and capped halfway between the side and partition walls, upon which supports were to be laid for the lower floor.

The front, facing the avenue, was the one to be erected. The passage marked on Parris' plan as the entrance to the court was to be built with its "proper and permanent arch." But, as it would not be needed as a passageway for many years, the "doors and other arrangements" were to be made to allow the southern half to be used as a storeroom, and the north one-half as a covered way for loading and unloading materials.

On the lower story, the rooms of one wing and one of the rooms of the other wing were to be divided by cross partitions, and left full size for storing cables and other large articles. The other room of one of these wings was to be fitted up as the distributing store and office for the storekeeper and clerk.

Rooms on the other floors were to be divided by cross partitions and the particular arrangement determined in the future.

Two temporary windows were to be made in each wing to provide light for the rooms that "on the original plan of the whole quadrangle would be without them."

Plate iron doors were to be hung in the entrance and wherever they were connected with solid partitions. Plate iron window shutters would be hung at all windows.

The board had explained its desires to Architect Parris, on his recent Washington visit. It now wished Downes to submit separate estimates--one for a structure built of hammered stone like the engine house and the other for rough stone similar to the ropewalk.[573]

Commandant Downes gave Architect Parris a copy of the board's comments and directions to revise the plans and estimates as directed. When Parris returned them to Downes, on April 18, Parris noted that he had calculated the cost of digging out and removing earth for a cellar, because it would be inconvenient to do this after the structure was erected. Not knowing how many rooms would be required, he had included "a round sum for wood partitions."[574]

On April 22 Downes transmitted to the board, Parris' revised plans and estimates of the storehouse. As directed, there were two sets of estimates, one covering cost of a structure built of hammered stone and the other set for rough stone. Downes favored the latter, because it had "a finer appearance for buildings of this character and description."

He also suggested the propriety of having a door in each wing, as marked in pencil, because the storekeeper would probably occupy the front corner room of the south wing, because of the better lighting. To

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573. Rodgers to Downes, April 5, 1835, NA, RG 45, Letters Sent, BNC.

574. Parris to Downes, April 18, 1835, NA, RG 45, Letters Received, BNC.

approach his office from the center, through three storerooms, would be inconvenient.[575]

Three days later, Downes mailed the board an amended set of estimates. Parris, in preparing his figures, had errored in his calculations, having predicated one set on the coarser kind of hammered stone, not like that used in the engine house. This type would cost 5 percent more per superficial foot.[576]

The board viewed with concern the estimates, because they were higher by nearly 60 percent than the 1833 features, upon which the data provided Congress was predicated. Thus, the sum appropriated for 1835 would only cover one-third the estimated cost of building No. 15. It, therefore, was incumbent that the $26,000 be spent to the best advantage.

If the cellar could be excavated without greatly increasing the expense, it would be done. As the foundations and cellar would cost about $8,000, they could be completed in 1835.

Rough dressed stone was preferred. Assuming a price of 45 cents per cubic foot, this stone and the stone cornice would cost about $1,300. This would leave approximately $5,000 for timber, joists, and boards.

Although it seemed judicious to contract for all the stone, Downes, after consulting Parris, was to use his discretion whether to contract for all the stone or part of it.

Since it was intended to have no exterior doors, excepting those through the arches and from the interior to the court, the board disapproved the doors proposed by Downes.[577]

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575. Downes to Rodgers, April 22, 1835, NA, RG 45, Letters Received, BNC.

576. Downes to Rodgers, April 25, 1835, NA, RG 45, Letters Received, BNC.

577. Rodgers to Downes, April 30, 1835, NA, RG 45, Letters Sent, BNC.

Downes accordingly had Captain Parris prepare an updated schedule of materials required for erecting the north front of building No. 15. It read:

Cellars Including Labor

For digging out and removing 317 squares of earth @ $3.50	$ 1,109.50
For 750 piles, drove complete for foundations @ $3.50	2,625.00
For 50 tons timber for capping @ $10.00	500.00
For 450 yards cellar stone, laid in hydraulic cement @ $6.00	2,700.00
For 200,000 bricks for partitions in cellar, laid complete @ $13.00	2,600.00
Total cost of cellar to first floor	$ 9,534.50

From First Floor

For 21,000 feet rough stone for arches @ $17.00	$ 3,570.00
For 1,770 cubic feet of stone, suitable for cornices in rough @ $25.00	442.50
For 500,000 bricks @ $7.00	3,500.00
For 600 flooring joists 23 feet long 14 x 6 For 300 flooring joists 23 feet long 14 x 4 For 300 flooring joists 24 feet long 14 x 3 154,000 feet @ $20.00	3,080.00
For 32,000 feet reduced 2 inch pine planks For 20,000 feet reduced 1 inch pine plank 52,000 feet @ $25.00	1,300.00
For 70,000 feet reduced 2 inch hard or yellow pine @ $30.00	2,100.00
Total	$13,992.50
Grand Total	$23,527.00

This schedule had been prepared on assumption that the stone would be delivered in the rough and hammered at the yard.[578]

Mailing this schedule to the commissioners, Commodore Downes called it to their particular attention. If they looked at the figures closely, they would see that the schedule for the north front of building No. 15 did not exceed the 1833 estimate as much as had been apprehended. The partition walls had not been contemplated when the initial estimates were prepared.

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578. Parris to Downes, undated, NA, RG 45, Letters Received, BNC.

Superintendent of Public Buildings Parris hoped to break ground for the cellar on June 1.[579]

Meanwhile, Agent Broadhead had advertised for materials. He called for:

> 750 spruce piles from 16 to 20 feet in length and not less than 10 inches in diameter
>
> 1800 feet of 12 x 12 inches pine timber in lengths of 20 to 30 feet
>
> 450 yards cellar stone in blocks suitable for a wall 2 feet 6 inches thick
>
> From 200,000 to 300,000 good bricks

The piles and timber were to be delivered by the first of July, the stone by the first of August, and the bricks by the first of September, next.

Also to be delivered from time to time, as named, so as to have the whole delivered by July 1, 1836, 20,000 feet of rough stone suitable for walls of building similar to the Engine House.[580]

The board, satisfied by Downes' explanation, approved the proposal to purchase rough stone for building No. 15, and to have it hammered at the yard, as outlined in Parris' schedule.[581]

Contracts for materials had been signed and approved by early July, and a large force of laborers turned to at the site. While excavating for the cellar, they encountered a large drain which had to be kept open. A new drain would have to be built at a cost of about $700.[582]

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579. Downes to Rodgers, May 16, 1835, NA, RG 45, Letters Received, BNC.

580. Parris to Downes, May 16, 1835, NA, RG 45, Letters Received, BNC.

581. Rodgers to Downes, May 21, 1835, NA, RG 45, Letters Sent, BNC.

582. Downes to Rodgers, July 11, 1835, NA, RG 45, Letters Received, BNC.

There was more trouble on July 16. A wind storm and cloudburst caused flooding. The berm of the cellar caved, as did the drain which had been excavated to a considerable distance.[583]

The commissioners, meanwhile, had ordered the expense of the new drain charged to "General Improvements & Repairs."[584]

By the last week of September, the cellar had been excavated, two-thirds of the piles driven, and one-third of the cellar walls laid.[585]

Workmen by the first week of December, with freezing weather on hand, had completed and covered the cellar. Notifying the board of this, Commodore Downes called for a decision whether the exterior walls of the structure were to be built of rough stone or coarse hammered stone. He trusted it would be rough stone, like those of the ropewalk. Besides looking better, it cost about 30 cents per foot less.[586]

The board preferred that stone for building No. 15 be "fair hammered," but not so "fine hammered" as that for the Engine House.[587]

By early May 1836, Commodore Downes reported that stone had been stockpiled and was being hammered, but the masons had not commenced laying it. They were held up by lack of timber for the lower flooring. The timber was delivered during the month.[588]

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583. Downes to Rodgers, July 16, 1835, NA, RG 45, Letters Received, BNC.

584. Rodgers to Downes, July 15, 1835, NA, RG 45, Letters Sent, BNC.

585. Downes to Rodgers, September 25, 1835, NA, RG 45, Letters Received, BNC.

586. Downes to Rodgers, December 7, 1835, NA, RG 45, Letters Received, BNC.

587. Rodgers to Downes, December 21, 1835, NA, RG 45, Letters Sent, BNC.

588. Downes to Rodgers, May 3 and June 1, 1836, NA, RG 45, Letters Received, BNC.

Slight progress was made on the structure in June, because of slow deliveries of stone and lumber. Carpenters by the 24th finally began positioning the lower floor joists.[589] The situation improved in July and by August the walls had been raised to the second story.[590] During the next five weeks, the walls were laid up to the level of the third floor.[591] By mid-December the walls were finished and joiners were putting on the roof. If the weather continued favorable, the roof would be ready for slating within a week.[592]

By January 31, 1837, storehouse No. 15 was closed in and slated, and the upper floors were being laid.[593]

Balancing the books, upon completion of the structure, it was found that storehouse No. 15 had cost $2,834.26 more than the $76,275 appropriated. This arrearage had occurred in July 1837, while the iron doors and shutters were being hung and the cellar floor laid. To have ceased work would have "left the Store in such a state as to have been entirely useless," Commodore Downes explained.[594]

The department ruled that if the liabilities for the ropewalk, hemp house, and tarring house, taken collectively, would allow for the transfer of funds, Downes was to utilize such sums as necessary to pay J.M. Pond's account for purchase of the iron doors and shutters.[595]

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589. Downes to Rodgers, June 24, 1836, NA, RG 45, Letters Received, BNC.

590. Downes to Rodgers, August 6, 1836, NA, RG 45, Letters Received, BNC.

591. Downes to Rodgers, September 12, 1836, NA, RG 45, Letters Received, BNC.

592. Downes to Rodgers, December 14, 1836, NA, RG 45, Letters Received, BNC.

593. Downes to Rodgers, January 31, 1837, NA, RG 45, Letters Received, BNC.

594. Downes to Chauncey, December 16, 1837, NA, RG 45, Letters Received, BNC.

595. Chauncey to Downes, December 19, 1837, NA, RG 45, Letters Sent, BNC.

While Downes wrestled with the books, Pond, in mid-January 1838, billed the board for $4,775.48, the cost of the iron doors and shutters. They referred Pond to Commandant Downes. If the contract had been fulfilled, he was to approve payment, provided the allotments belonging to the ropewalk and its dependencies would sustain the transfer, without inconvenience or injury to claimants upon those funds.[596]

On April 23 the department directed Downes to approve for payment of Pond's vouchers.[597]

2. Extending the Quay Wall to Front the Mystic

In late June 1835, the department took up with Commandant Downes the extension of the quay wall for which there was a $9,000 appropriation. Downes was to see that the new structure commenced where the old terminated at the masting shed, and extend it in the same direction that the yard wall ran, until its top intersected a line drawn parallel to the masthouse, and 25 feet from it. It would be continued on that line until it intersected the outer line of the next exterior face of the timber dock. These lines differed slightly from those shown on the master plan, and had been varied to conform to the agreement with the Salem Turnpike and Chelsea Bridge Company, and to leave the corporation enough of their present wharf to permit convenient passage through the bridge's draw. After the quay was "sufficiently advanced," Downes was to have the yard wall continued across the end of the masting shed and around it on the northeast side, as far as the northeast corner of the masthouse, provided it could be accomplished with the appropriation.[598]

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596. Chauncey to Downes, January 18, 1838, NA, RG 45, Letters Sent, BNC.

597. Chauncey to Downes, April 23, 1838, NA, RG 45, Letters Sent, BNC.

598. Chauncey to Downes, June 25, 1835, NA, RG 45, Letters Sent, BNC.

Upon receipt of these instructions, work began. By late September, 300 feet of seawall had been laid, in the lower yard, fronting the Mystic River.[599]

Workmen by early December had completed the quay wall as directed by the department, but the surmounting stone wall had not been commenced.[600]

Many months slipped by before the contractors began delivering stone for the wall.[601] With the stone on hand, the masons, in August 1836, began laying the wall.[602]

Expenditures for the wall exceeded the sum allotted, because of inflated labor and material costs. Moreover, considerable difficulty in "getting at the place" resulted in "great delays and embarrassments."[603]

In May 1837 piledrivers were driving piles for the wall at the northeast part of the yard, and by late September this section of the wall was nearly finished.[604]

This project resulted in an overrun. The wall had been contracted for at $4.50 per cubic yard. When the work was measured, it was found

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599. Downes to Rodgers, September 25, 1835, NA, RG 45, Letters Received, BNC.

600. Downes to Rodgers, December 7, 1835, NA, RG 45, Letters Received, BNC.

601. Downes to Rodgers, August 6, 1836, NA, RG 45, Letters Received, BNC.

602. Downes to Rodgers, September 12, 1836, NA, RG 45, Letters Received, BNC.

603. Downes to Rodgers, January 26, 1837, NA, RG 45, Letters Received, BNC.

604. Downes to Chauncey, May 25 and September 30, 1837, NA, RG 45, Letters Received, BNC.

that about 250 more cubic yards of wall had been built then estimated for. This cost an additional $1,128.53.[605]

The board directed Commandant Downes to employ funds for the allotments for construction of the ropewalk complex to cover the deficit.[606]

3. Altering the Lower Quarters to Front on the Pike

On June 24, 1835, the commissioners took up with Commandant Downes the expenditure of the $6,000 allotted "for making arrangements preparatory to changing the fronts of the officers quarters in the lower yard." They suggested to Downes that he employ this sum to purchase iron and stone for the fence to front the Salem Turnpike and to replace the present wall; to relocate the outbuildings to the southeast side of the block; and to change the quarters' staircases.[607]

Commodore Downes accordingly had Captain Parris frame the necessary estimates. When submitted, they called for:

Masonry

New stone steps for fronts	$ 280.00
Setting the same & preparing foundation	100.00
Altering doors, resetting, digging vaults, etc.	900.00
Mending, plastering & fixing drains	350.00
	$1,630.00

Joiners' Work

Materials & labor	$2,585.00

605. Downes to Chauncey, December 16, 1837, NA, RG 45, Letters Received, BNC.

606. Chauncey to Downes, December 19, 1837, NA, RG 45, Letters Sent, BNC.

607. Chauncey to Downes, June 25, 1835, NA, RG 45, Letters Sent, BNC.

Blacksmith's Work

115 feet of iron fence, including stone @ $6.99 per foot	$ 803.85
Large and small gates	400.00
Putting up fence	15.00
4 lamp irons	60.00
	$1,278.85

Painting

Materials & labor	$ 430.00
	$5,923.85[608]

On transmitting these figures to the department, Downes noted that they included replacing 115 feet of stone wall by a cast iron fence.

As the quarters would be much exposed, if the wall were removed first, Downes recommended that it be allowed to stand until the block had been reoriented.[609]

If it could be done without dispossessing the families, the board answered, Downes could make the necessary changes in the fronts of the quarters, before removing the wall. It was presumed that the only alterations to the interiors would involve reversing the staircases "to throw them towards the new rear of the houses."[610]

Upon receiving Downes' assurance that no families would be compelled to move, the board directed him to proceed with the alterations to the quarters, but to do nothing this time to the wall fronting the Salem pike.[611]

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608. Parris to Downes, July 16, 1835, NA, RG 45, Letters Received, BNC.

609. Downes to Rodgers, July 16, 1835, NA, RG 45, Letters Received, BNC.

610. Chauncey to Downes, July 20, 1835, NA, RG 45, Letters Sent, BNC.

611. Morris to Downes, July 25, 1835, NA, RG 45, Letters Sent, BNC.

Workmen in the summer and autumn of 1835 relocated the outbuildings and made necessary structural changes to the block of quarters enabling them to front on the Salem Turnpike, instead of the yard.

On August 6, 1836, Commandant Downes wrote the board that the iron fence was being cast.[612] Before another six weeks passed, the fence was delivered and the wall taken down. The iron fence was then positioned.[613]

4. The Masting Shears Are Rebuilt and Then Replaced

In the summer of 1835, the masting shears were examined by the mastmaker, and he concluded they could be safely used for another three years. It would be prudent, however, to get out and begin seasoning timber for the new shears. The defects identified were principally in the sections made of white pine.[614]

The board, on learning this, called on Commodore Downes to submit an estimate for a masting shears to be included in the 1836 program.[615]

This was done, and Downes called for $3,575 for "repair and replacement" of the masting shears. The money was allotted from the 1836 appropriation for "Improvements & Repairs," and in the summer of 1837 the masting shears were rebuilt. To expedite construction, yellow pine stock was taken from the timber dock. It was to be replaced by other timber delivered at the yard.

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612. Downes to Rodgers, August 6, 1836, NA, RG 45, Letters Received, BNC.

613. Downes to Rodgers, September 12, 1836, NA, RG 45, Letters Received, BNC.

614. Harding to Downes, July 28, 1835 and Downes to Rodgers, July 31, 1835, NA, RG 45, Letters Received, BNC. Edward Harding was a master sailmaker.

615. Morris to Downes, August 4, 1835, NA, RG 45, Letters Sent, BNC.

Two years later, in late October 1839, a new masting shears was raised on the "shear wharf."[616]

5. The Construction of a Sawmill Addition to Building No. 55

a. The Addition Is Funded and Built

During the weeks following Secretary Woodbury's late June 1833 visit to the yard, Commodore Elliott devoted much thought to introduction of labor saving machinery for sawing timber and plank. The expensive steam dry dock engine, unless employed for other purposes, would be idle much of the time. In the interest of economy, it ought to be employed for powering a mill for sawing timber and turning and making blocks. This he urged despite Commodore Rodgers' injunction that all blocks were to be made at the Washington yard and then be sent to the other yards. Elm timber, from which blocks were made, could, Elliott reminded the department, be procured cheaper in Massachusetts than on the Potomac.

If the dry dock engine were to be used to power a mill, several thousand dollars would erect a suitable building for this purpose, Elliott wrote.[617]

By early October, his thoughts on the subject had jelled, and plans and estimates were prepared by Leister and Parris for completing building No. 55 and equipping part of it as a sawmill. These were mailed to Washington on the 11th.[618]

Although the concept was approved by the department, it was 1837 before Secretary of the Navy Dickerson allotted $34,500 for construction

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616. Charlestown Navy Yard Journal, October 1-31, 1839, NA, RG 181.

617. Elliott to Woodbury, August 13, 1833, NA, Captains' Letters, Microcopy M-125.

618. Elliott to Rodgers, October 11, 1833, NA, RG 45, Letters Received, BNC. Leister was responsible for the plans of the machinery and Parris for the drawings and specifications of the structure.

of a sawmill addition to building No. 55. By then Commodore Downes had replaced Elliott as commandant.

Work was commenced on the addition in the spring of 1837. By late May a cellar had been excavated, and masons were ready to begin laying the foundations.[619] During the summer the walls were raised to the cornice.[620]

b. Planning for and Securing Necessary Machinery

With the addition almost finished, attention was focused on the sawmill machinery. Upon further study, Captain Parris encountered great difficulty in perfecting a mode for conveying necessary power from the dock engine to the saw frames. After discussions with Daniel Treadwell and several mechanics, it was concluded that separate engines, arranged to operate on each saw gate, would be the most convenient arrangement. They would be distinct from each other and the adjacent machinery, and could be worked independently, at different speeds.

The plan had been to belt up to the upper story, but there were objections to this method. The greatest was the shocks given by the reaction of the saw frames on the building's timber framing. The answer was a separate steam cylinder to each saw gate. Installation of such a "steam apparatus" would cost about $1,200 per saw gate.

Other parts of the machinery would be unchanged. If belts and drums were put up to drive the saws, the cost would be about $600 to each gate, so that "steam cylinders directly applied will cost about $600 more than the other gearing."[621]

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619. Downes to Chauncey, May 25, 1837, NA, RG 45, Letters Received, BNC.

620. Downes to Chauncey, September 30, 1837, NA, RG 45, Letters Received, BNC.

621. Parris to Downes, November 21, 1837, NA, RG 45, Letters Received, BNC.

But, before the board made its decision on the proposed machinery for the sawmill, it wished to know whether additional firemen and superintendents would be required. If so, it might be more economical to continue sawing timber by hand in the pits.[622]

On December 4, Captain Parris informed the department that it was intended to draw the steam for the cylinders from the four boilers used for the dry dock engine. Each boiler had a separate fire, and was capable of being worked individually, so there would be no need for more firemen.

One sawyer would be in charge of all the saws, no matter which mode was adopted. Each saw gate would be powered by a separate steam cylinder, and they could be operated alone or together, at the sawyer's option.

A 7- or 8-horsepower engine would suffice to drive a single saw through such plank stock as were cut at the yard, while a 10- to 12-horsepower engine was deemed capable of driving a gang of saws.

Obviously a 7- or 8-horsepower engine would require less steam to drive it than needed to propel a 50-horsepower engine. The capacity of the dock engine was such that there would be a conservation of steam by the proposed arrangement, as well as a saving of fuel. If one saw gate were to be employed, only one boiler would be fired. But if his system of belts and drums were opted for, whether one or both saws were employed, the larger engine must be used.[623]

The board reserved judgement on this question. Authority was given to continue working on the building, but no measures were to be

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622. Chauncey to Downes, November 27, 1837, NA, RG 45, Letters Sent, BNC.

623. Parris to Downes, December 4, 1837, NA, RG 45, Letters Received, BNC.

taken for "sawing by steam, nor for proving or putting up any of the necessary machinery for that purpose."[624]

Naval Constructor Barker, when called upon for his opinion, stated that one saw gate, with a single saw, was sufficient. This arrangement would cost about $3,000, leaving $3,349 in the account for completing the Engine House. The balance would be applied to putting up a line of shafting with drums and belts for the blockmakers' and armorers' shops. The shafting in use had been taken from that employed in draining the dry dock, while it was under construction, and put up in a "temporary manner." It was crowded, inconvenient, and almost useless.

Captain Parris proposed to take the two upper stories of the addition for the blockmakers, assigning the armorers to the two upper stories of the old building. The line of shafting was calculated to drive all machinery needed for these two departments.

Parris estimated the cost of this proposal:

For saw gate with all necessary machinery, carriages, etc., for a single saw	$3,000.00
For a line of shafting, belts, chains, etc., suitable for blockmakers' and armorers' shops . .	2,084.00
For contingencies	508.40
Total	$5,592.40[625]

On April 8, 1839, the board made its decision for one saw gate. A second could be installed sometime in the future, if it were needed. The gate was to be connected with the engine in accordance with the Parris plan.[626]

Necessary funds were allotted, and a single saw gate installed, along with a line of shafting for the blockmakers' and armorers' shops.

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624. Chauncey to Downes, December 8, 1837, NA, RG 45, Letters Sent, BNC.

625. Parris to Downes, June 6, 1838, NA, RG 45, Letters Received, BNC.

626. Chauncey to Downes, April 8, 1839, NA, RG 45, Letters Received, BNC.

Finally, in 1840, using a $4,500 allotment, Commodore Downes was able to complete and put the blockmakers' and armorers' shops into operation.[627]

c. The Manufacture of Sheaves and Blocks

During the autumn of 1838, experiments at the yard had demonstrated that composition 3-inch sheaves could be manufactured for 30 percent less than those of coaked lignum vitae. Both weighed the same, but those of composition were more durable, could be bushed when worn at the pinhole, and recast when not worth repairing. The master blockmaker was satisfied that sheaves up to 6 inches could be advantageously made of composition.[628]

The department was delighted by this display of initiative, and the master blockmaker would continue the experiments, with trials of other sizes in addition to the 3 inch.[629]

By the spring of 1841, these experiments resulted in William Creed, a yard blockmaker, building a machine for fabricating coaking sheaves superior to Brunell's. The latter only coaked one side of a sheave at a time, and it required that the wood to be coaked have the hole for the pin drilled by a separate machine. Creed's invention, however, cut the cavities for the coak on both sides simultaneously, besides drilling the hole, so that the piece of lignum vitae was prepared to receive the composition coak before being taken from the machine. The entire operation involved about one minute per sheave.

Creed had been offered $500 for his machine but had demanded more money.[630]

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627. Chauncey to Downes, April 1, 1839 and Downes to Morris, August 10, 1840, NA, RG 45, Letters Sent and Received, BNC.

628. Downes to Chauncey, January 1, 1839, NA, RG 45, Letters Received, BNC.

629. Chauncey to Downes, January 7, 1838, NA, RG 45, Letters Received, BNC.

630. Downes to Board, May 13, 1841, NA, RG 45, Letters Received, BNC.

The price for Creed's coaking machinery, the department found, was greater than could be justified at a facility where blocks were made, when time was too short to permit their being requisitioned from the Washington Navy Yard. Moreover, the Creed coaks were found to have a higher unit cost.[631]

Downes did not agree, and ordered his master blockmaker to make a cost study. Upon its completion, Downes advised the board that the yard's blockmaking shop, with its machines, could manufacture blocks cheaper and of better workmanship than the Washington Navy Yard. He estimated that with this machinery, the savings in fitting out a 74 would be at least $4,000. A review of production costs and invoices documented that blocks were fabricated at his facility for 30 percent less than the price charged by the Washington yard.

For example, a fiddle block made and turned in the Charlestown shop cost $5 for materials and labor, while the Washington facility charged $9.93 for a similar block. Moreover, the local block was elm, while the Washington product was spongy ash, liable to decay or easily broken.

The Creed machine for making and coaking sheaves was equal to the one in use at Britain's great Portsmouth Navy Yard. It had enabled the master blockmaker to reduce his gang from 25 to 10.

The yard's plumbing and coppersmith departments likewise were equipped to manufacture pump boxes, chambers, force pumps, etc., at less cost than the Washington Navy Yard.[632]

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631. Board to Downes, May 18 and June 12, 1841, NA, RG 45, Letters Sent, BNC.

632. Downes to Board, May 28, 1842, NA, RG 45, Letters Received, BNC.

The board referred copies of Downes' letter to both Secretary of the Navy Upshur and the commandant of the Washington Navy Yard. The commandant's attention was called to the statement on "how much better and cheaper . . . blocks, etc. can be made in the Boston yard, than in that at Washington."[633]

6. The Construction of Shiphouse No. 39

Fifty thousand dollars were allotted by the commissioners in 1838 for construction of shiphouse No. 39. But, because of urgent needs for $25,000 to purchase additional machinery for the ropewalk, Secretary of the Navy Dickerson approved a reallocation of funds. This made it "impracticable" to erect the shiphouse in 1838. Measures, however, would be taken to purchase materials, taking care not to obligate more than $20,000 for that purpose.

When the shiphouse was erected, Commodore Downes was to "adopt the mode of placing the windows in the roof which has been used in the new" Portsmouth shiphouse, and such other alterations and additions as were deemed improvements. The general form for the houses already built in the yard would be retained.[634]

Agent Jarvis, therefore, contracted with Greenleaf Batchelder to deliver at the yard, by May 1, 1839, all the white pine timber needed for shiphouse No. 39. By that date, Batchelder had delivered 100,000 feet of timber, but owing to the "backwardness" of the growing season in reference to sawing, he had been unable to complete his contract. The remainder of the timber was either en route or being sawed, he informed Agent Jarvis, to justify an extension of his contract.[635]

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633. Warrington to Downes, June 1, 1842, NA, RG 45, Letters Sent, BNC.

634. Chauncey to Downes, June 20, 1838, NA, RG 45, Letters Sent, BNC.

635. Downes to Chauncey, May 6, 1839, NA, RG 45, Letters Received, BNC.

Batchelder continued to encounter difficulties in meeting his commitments. Nine months later, in mid-winter 1839-40, he was still short 29,000 feet of plank. When pressed by Jarvis, he promised delivery by mid-May, at the latest.[636] It was mid-July 1840, however, before Batchelder made his final delivery, and submitted a bill for the retained percentage of his contract.[637]

In March 1841, the board, having allotted another $35,000 for the structure, called for its immediate construction. After checking with the master joiner, Commandant Downes assured the department that shiphouse No. 39 could be completed during the summer, provided operations were commenced by April 1.[638]

The structure was finished by the winter of 1841-42, and the keel of the brig, destined to be named Bainbridge, was laid in the new shiphouse on February 4, 1842.[639]

7. The Yard Expands Its Paint Manufacturing Facilities

a. The Yard Gets an Oil (Painters' Boiling) House

In mid-February 1839, the department, by circular letter, notified the commandants that they were to make arrangements for preparation of "oil and mixture of paints" in their yards.[640]

Master Painter Tolman, Commandant Downes replied, had "long been desirous" of having facilities for boiling oil, and "making of varnishes,

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636. Downes to Board, February 13, 1840, NA, RG 45, Letters Received, BNC.

637. Downes to Board, July 13, 1840, NA, RG 45, Letters Received, BNC.

638. Downes to Board, March 23, 1841, NA, RG 45, Letters Received, BNC.

639. Charlestown Navy Yard Journal, January 1-February 28, 1842, NA, RG 181.

640. Chauncey to Downes, February 13, 1839, NA, RG 45, Letters Sent, BNC.

japan, lacquer, etc." Tolman was satisfied that a "suitable place" for this activity would save the United States more in one year than it cost. Heretofore, the boiling and mixing of paints had been undertaken at a great disadvantage, because it had to be "done in the open air upon temporary furnaces."[641]

Downes was called upon to advise the board what facilities were necessary for "boiling oils, making varnishes, etc.," and where he intended to place them.[642]

Commodore Downes assigned this problem to Captain Parris. By March 1 Parris had prepared plans and estimates for a "painters boiler house" to be erected on the wharf, west of shiphouse G. Parris placed the cost of the structure at:

Masons' Work

Digging for foundation	$ 25.00
Piling	180.00
20 yards stone laid @ $5 per yard	100.00
30,000 bricks laid @ $15.00 per m.	450.00
Total	$ 755.00

Blacksmith's Work

Iron rafters	$ 60.00
Covering of sheet iron	120.00
Cast Iron	10.00
Labour	150.00
Total	$ 340.00
	$1,095.00
Contingencies	109.50
Total	$1,204.50

These plans and estimates were mailed to the department for approval.[643]

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641. Downes to Chauncey, February 19, 1839, NA, RG 45, Letters Received, BNC.

642. Chauncey to Downes, February 23, 1839, NA, RG 45, Letters Sent, BNC.

643. Downes to Chauncey, March 1, 1839, NA, RG 45, Letters Received, BNC. Copies of the subject plans are on file at the Boston National Historical Park.

Twenty months later, in the autumn of 1840, the commissioners identified a new area, in the angle formed by the wings of building No. 55, as a possible boiling house site. Upon investigating this location, Commodore Downes saw that there was sufficient room against the brick building housing the steam box, where the oil could be boiled by steam.[644]

The department failed to reply to Downes' communication, and the board accordingly allotted $2,500 and in 1841 the oil (painters' boiling) house was erected.[645]

b. Other Navy Yards Are Supplied from Charlestown

Meanwhile, in 1839, the yard had expanded its paint manufacturing capability. On September 11 Commandant Downes notified the board that facilities were adequate to grind in oil by steam power, at small expense, any quantity of paint required, not only in Charlestown, but for the entire Navy.[646]

The department, on reviewing its files, found that white lead had been purchased at 13-1/2 cents a pound, while there was a contract to supply all that was needed at 10 cents a pound. Downes was asked for an explanation.[647]

German white lead, Downes answered, had been purchased, because it was much whiter, more durable, and more economical than common white lead, and had been used for finishing the cabins, wardrooms, spardecks, and other parts exposed to weather of Constellation and United States.

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644. Board to Downes, November 11, 1840 and Downes to Board, November 17, 1840, NA, RG 45, Letters Sent and Received, BNC.

645. Morris to Morgan, March 19, 1841, NA, RG 45, Letters Sent, BNC.

646. Downes to Chauncey, September 11, 1839, NA, RG 45, Letters Received, BNC.

647. Morris to Downes, September 18, 1839, NA, RG 45, Letters Sent, BNC.

Two coats of common white lead were first applied, followed by a coat of German white.[648]

On February 6, 1840, the department directed that 5,000 pounds of ground white lead, in one-to-two pound increments be shipped to Norfolk. The yard carried out this assignment with alacrity. On the 11th Commandant Downes notified the board that the white lead had been ground and would be shipped at the first opportunity. He now wished to know if all the white lead recently delivered to the yard should be ground in oil and stockpiled for ready issue.[649]

The department was agreeable to this procedure, because white lead, after being ground in oil, improved with age.[650]

8. The Commandant's Quarters in the Downes Years

a. Rehabilitating the Structure and Repairing and Replacing Furnishings and Utensils

Upon assuming command of the yard, Commandant Downes, in March 1835, named a board to examine and report on the condition of the furniture in his quarters. The board found:

one set dining tables, half worn, requiring repairs;
one breakfast table, quarter worn, requiring repairs;
two tea tables, half worn, requiring repairs;
one sideboard, very much worn, unworthy of repairs;
one sofa, very much worn, unworthy of repairs;
three bedspreads, quarter worn, requiring repairs;
2 bureaus, very much worn, unworthy of repairs;
2-1/2 dozen parlor chairs, very much worn, unworthy of repairs;
two dozen chamber chairs, very much worn, unworthy of repairs;
one center lamp, good;
one passage lamp, very much worn, unworthy of repairs;
two marble glasses, very much worn, unworthy of repairs;

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648. Downes to Chauncey, September 20, 1839, NA, RG 45, Letters Received, BNC. The German white lead was purchased from Henshaw Ward & Co. of Boston.

649. Morris to Downes, February 6, 1840 and Downes to Morris, February 11, 1840, NA, RG 45, Letters Sent and Received, BNC.

650. Morris to Downes, December 17, 1840, NA, RG 45, Letters Sent, BNC.

two sets of andirons, one good and the other worn out;
three shovels and tongs, good;
one-hundred and sixty-nine and three-ninths yard painted floor cloth, half worn;
sixty-one yards of carpet, half worn; and
one-hundred and thirty-two and two-ninths yards painted floor cloth, half worn.

The kitchen, the board found, contained these items:

Item	Condition	Value
one pair kitchen andirons	good	$ 1.50
one dutch oven	bad	.25
one large tin kitchen	bad	.30
one small tin kitchen	bad	.30
one iron soup pot	good	$ 1.00
two small iron pots	good	.20
three sauce pans	bad	.20
three flesh forks, ladle, and strainer	bad	.25
one small iron pot	good	.20
one copper tea kettle	good	.20
one large iron pot	good	$ 1.00
one stand for tea kettle	bad	worn out
one skillet	good	.25
one frying pan	bad	.50
one waffle iron	good	.75
one griddle and shovel	bad	worn out
three spiders	bad	.30
one furnace		.25
one marble mortar	good	.20
one coffee mill	bad	.67
one pepper mill	bad	.25
one toaster	bad	worn out
one dripping pan	bad	.20
one bread grater	bad	worn out
one oil cannister	bad	worn out
one axe and saw	bad	worn out
three pair pot hooks and racks	good	$ 1.00
twelve kitchen chairs	bad	worn out
one set dish covers	bad	worn out
	Total	$ 9.77

Upon forwarding the Board of Survey's report to the commissioners, Commodore Downes recorded that he trusted they would be allowed to replace the "worn-out and not worthy of repair items."

There was a Wilton carpet, which when new, had cost 80 cents a yard, but it was now unfit. The Wilton carpet in the entry was in reasonably good condition.

If the board would allow Brussels carpets, he trusted he would be promptly notified, as he and his family hoped to get into the house at an early date.[651]

The quarters, as well as furnishings, had been allowed to deteriorate. To rehabilitate them, Downes reported, required:

Painter's estimate

House	
Interior	$230
Repair of Windows	25
Hanging paper	35
Total	$290

Joiner's estimate

Lumber, nails, locks, etc.	$ 50
Labor	100
Total	$150

Mason's estimate

Taking down and topping chimneys	$ 65
Repairing brickwork and plastering	55
Repairing slating with slate and lead	25
Whitewashing and coloring house	40
Total	$185
Grand Total	$625

The paper in the estimate, Downes explained, was for the east room, and it was to be "plain for painting on," because the paper now in place was torn and hanging loose, as a result of leakage.

651. Downes to Rodgers, March 18, 1835, NA, RG 45, Letters Received, BNC.

The slater had reported that the only way the roof could be made watertight was by stripping it, as the slates required more lapping.[652]

To lead water from the well and cistern into the kitchen through lead pipe would cost about $80.[653]

The commissioners, on reviewing Downes' want list, determined to allot funds for repair of the quarters, provided the costs did not exceed estimates. A decision upon the plea to "conduct" water from the well cistern into the kitchen would be deferred until the commissioners' annual visit.[654]

Some six weeks later, the commissioners acted on the Board of Survey's report on furnishings and kitchen utensils. Commodore Downes was authorized to have repaired one set dining tables, one sideboard, one breakfast table, three bedsteads, two tea tables, and two fire screens.

Storekeeper Bates was to make requisitions on Agent Broadhead for: one sofa, not to exceed $30; two bureaus, not to exceed $20 each; thirty parlor chairs, not to exceed $3.20 each; twenty-four chamber chairs, not to exceed $25 a dozen; one set of andirons, not to exceed $15; one griddle and shovel; one toaster; one bread grater; one oil cannister; one axe; one saw; twelve kitchen chairs, not to exceed 75 cents each; and one set of dish covers, not to exceed $10.

If there were no "oil floor cloth" in the parlors, a carpet could be purchased at a price not to exceed $2 per yard.

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652. Downs to Rodgers, March 18, 1835, NA, RG 45, Letters Received, BNC.

653. Downes to Rodgers, March 20, 1835, NA, RG 45, Letters Received, BNC.

654. Rodgers to Downes, March 22 and 23, 1835, NA, RG 45, Letters Sent, BNC.

Downes was to return to Storekeeper Bates all items for which new ones were authorized to be advertised and sold at public auction.[655]

After studying the board's communication and discussing the situation with his family and Storekeeper Bates, Downes noted that, if there were no objections, he would retain the old parlor chairs for his chambers, instead of purchasing new ones. He would also keep 12 old chamber chairs for the kitchen, purchasing new ones for the parlors.

The price allowed for a sofa, he found insufficient. A decent sofa cost $60 to $70. If the board would not allow this figure, he would have the old sofa repaired. A similar situation applied to the sideboard.[656]

The commissioners reminded Downes that the furnishings allowed must not exceed individually or collectively the prices listed in the allowance tables, nor could any articles be substituted. The price of the sofa was accordingly $40.

Satisfied that the substitution of the designated chairs would be more advantageous to the United States than their sale, it was sanctioned.

Downes was reminded that the department could not allow money in lieu of kitchen furniture to "make up its supposed deficient value." If the enumerated utensils were unfit for use, they could be repaired or replaced by similar items.[657]

Replying, Downes requested to be allowed to purchase new kitchen utensils, inasmuch as the old ones had been condemned.[658]

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655. Rodgers to Downes, April 30, 1835, NA, RG 45, Letters Sent, BNC.

656. Downes to Rodgers, May 5, 1835, NA, RG 45, Letters Received, BNC.

657. Rodgers to Downes, May 9, 1835, NA, RG 45, Letters Sent, BNC.

658. Downes to Rodgers, May 16, 1835, NA, RG 45, Letters Received, BNC.

Meanwhile, the department had issued a circular letter encompassing a ruling by the second comptroller, holding that "no articles of furniture other than fixtures in the legal acception of the term, can be purchased for the Houses allotted to officers." Fixtures were defined as part and parcel of the quarters, and could be provided the same as any other repairs. Articles of furniture could not be purchased for officers' quarters, the comptroller continued, because they were: (a) not authorized by law; and (b) they were prohibited by the second section of the act of March 3, 1835, to regulate the pay of the Navy of the United States.[659]

The June 1 circular placed Downes in an embarrassing situation, because he had purchased certain furniture, heretofore considered as fixtures and had had other articles repaired.[660]

The department held that the June 1 circular was paramount and must be "strictly adhered to." The authority granted by the board, on April 30, was the result of a chance conversation between two of the commissioners and the secretary. These officers were now absent and action on Downes' June 5 letter must be deferred until their return. Commodore Rodgers would then present the question to the entire board. Meanwhile, the subject bills must remain unpaid.

On July 24 the board finally sanctioned payment of the bills for purchase or repair of the furniture.[661]

b. The Installation of Central Heating

On October 2, 1841, Commodore Downes complained to the department that his quarters, during the winter, were cold and

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659. Circular Letters, Navy Commissioners, June 1, 1835, NA, RG 45, BNC.

660. Downes to Rodgers, June 5, 1835, NA, RG 45, Letters Received, BNC.

661. Rodgers to Downes, June 9 and Chauncey to Downes, July 24, 1835, NA, RG 45, Letters Sent, BNC.

difficult to heat. A furnace would add much to the occupants' comfort.[662]

The commissioners were sympathetic and authorized purchase and installation of a furnace at a cost not to exceed $150.[663]

9. The Repair of the Timber Dock Bridge

In April 1838 the wooden bridge leading from the dry dock to the blacksmith shop, across the timber dock, was repaired.[664]

10. A Frame Shed Is Erected Near the Dry Dock

Seven months later, in November 1838, a temporary shed was erected on the northeast side of the dry dock.[665]

11. The Press Calls Attention to the Tree-Lined Avenue

In the summer of 1839, the Bunker Hill Aurora called attention to the "spacious avenue, which runs the . . . length of the yard, bordered with young and thriving elms."[666]

12. The Lower Yard Gets a Frame Shed

In late April 1840, Commandant Downes notified the department that, as there was "desperate need" for another shed, he should be given authority to erect a temporary structure, employing the hurdles removed and stockpiled from Columbus. It would be sited between the quay wall and the east elevation of timber shed No. 38.[667]

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662. Downes to Board, October 2, 1841, NA, RG 45, Letters Received, BNC.

663. Warrington to Downes, October 13, 1841, NA, RG 45, Letters Sent, BNC.

664. Downes to Chauncey, May 15, 1835, NA, RG 45, Letters Received, BNC.

665. Charlestown Navy Yard Journal, November 1838, NA, RG 181.

666. Army and Navy Chronicle, Vol. VIII, p. 413.

667. Downes to Board, April 29, 1840, NA, RG 45, Letters Received, BNC.

If necessary, the board answered, the shed could be built. Downes was to apprise them of the intended use.[668]

Downes failed to reply to this request.[669]

N. The Ropewalk Complex Is Built and Proves Itself

1. The Ropery Takes Shape

The major improvement to the yard undertaken and completed during Commodore Downes' administration was construction of the ropewalk complex. Planning for this project had been underway for years, but it was the spring of 1835 before it was finalized, funds appropriated, and ground broken on the ropery, which was to consist of a 70- by 60-foot three-story headhouse and basement, and a laying-up ground 1,300 feet by 45 feet, 200 feet of which were to be two stories. There would be a 200- by 19-foot tarring house, with projections at the center to provide space for stairs to the second story. A short distance northeast of the headhouse would rise a 140- by 160-foot, two-story hemp house, calculated to hold 1,200 tons of hemp. Both the hemp and tarring houses were to have basements.

The slight changes to the ropewalk proposed by Commodore Elliott on November 8, 1834, were finally approved by the department. None of the others could be authorized. In constructing the foundation walls of the ropewalk, "the proposed archway marked on the plan, as leading to the Tarring House" could "be turned and carried so far out as to allow its continuance should it hereafter be wanted."

As the proposed projection and pediment on the east front of the headhouse might be more expensive than a plain and uniform front, Commodore Downes was to take up the subject with Captain Parris. If the board's opinion were correct, and if their omission will result in a savings of $500 or more, they will be eliminated and the front made "plain."

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668. Morris to Downes, May 1, 1840, NA, RG 45, Letters Sent, BNC.

669. Letters Sent by Commandant of the Charlestown Navy Yard, 1840-41, NA, RG 45.

In building the foundations, care must be "taken to provide for all the necessary partitions in the head building to accomodate (sic) the Steam Engine and other machinery." It was of primary importance to have the steam machinery, boilers, fires, etc., "placed and enclosed so as to prevent so far as possible, any danger to the rest of the Establishment from the fires." Arched roofs of brick or stone floors on iron rafters were commended.[670]

By early June 1835, work on the ropewalk was progressing rapidly. Trenches and cellars had been excavated, and the foundations and cellar walls completed. About 500 feet of the western part of the building had its walls, and they had been raised to the roof, and 300 feet of roof placed and slated. Three courses of the outer walls of the headhouses had been laid, requisite brickwork done, and door dressings set. Flooring timbers of the section, 200 feet in length, intended for "the spinning and laying up machinery," were positioned, and the necessary piers built up. The first and second course of stone of the exterior wall had been laid.

Workmen were now engaged on the headhouse and the 200-foot two-story section. If all went according to schedule, Captain Parris forecast, these sections would be up, roofed, and slated by winter.[671]

By September 25 the west 500 feet of the ropewalk was slated, and the headhouse raised to the cornice, part of which was set. The 200-foot section, immediately west of the headhouse, was up, the roof framed, and nearly ready for slating.[672]

A correspondent for the Boston Commercial Gazette, visiting the yard, was impressed with the ropewalk, which he described as "one of

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670. Rodgers to Downes, April 30, 1835, NA, RG 45, Letters Sent, BNC.

671. Parris to Downes, June 8, 1835, NA, RG 45, Letters Received, BNC.

672. Downes to Rodgers, September 25, 1835, NA, RG 45, Letters Received, BNC.

the greatest improvements that . . . has ever taken place in the establishment." It was large and commodious. The outside material was "Quincy granite, filled in with brick and mortar, with no other woodwork about it from one end to the other, than barely sufficient to support the roof, which, without being boarded, is simply to be covered with the largest slate." The decision to make it fireproof, he commented, was dictated by the "frightful ravages that have taken place in every part of the United States in buildings of this description upon old construction." Those who recalled the "almost instantaneous demolition of the extensive ranges formerly situated at the bottom of the Commons," would be fully able to appreciate the advantages of the present improvement.

Commodore Downes had boasted that the ropewalk, when finished, would be capable of furnishing sufficient cordage for the entire Navy.[673]

Contractors Edward and Fitch Cutter now called for the 10 percent retained by the United States on the price of the 960,000 bricks delivered. They claimed no responsibility for supplying bricks for the drain.

Captain Paris stated that another 150,000 bricks would be required to complete the exterior of the ropewalk.

There had been used for a drain for the cellar about 50,000 bricks.[674]

The board held that the Cutters' contract required them to supply all bricks necessary to complete the ropewalk, of which the drain was a part, although not specifically stipulated. If the Cutters agreed to this interpretation, the board would approve payment of the 10 percent retained on the 960,000 bricks designated in the contract.[675]

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673. Army and Navy Chronicle, Vol. I, p. 259.

674. Parris to Downes and Downes to Rodgers, November 2, 1835, NA, RG 45, Letters Received, BNC.

675. Rodgers to Downes, November 6, 1835, NA, RG 45, Letters Received, BNC.

Edward and Fitch Cutter accepted this decision.

By the first week of December 1835, the 200-foot, two-story section of the ropewalk was nearly slated, and a few more days of mild weather would enable workmen to finish slating the headhouse. The chimneys were up and would soon be capped.[676]

2. Deciding Upon and Contracting for Engines

Assisted by Daniel Treadwell, Captain Parris had progressed with arrangement plans. But information was needed regarding the number of spinning and tarring machines required, because the size of the shafts, wheels, and connections must be apportioned to the load they carried. The laying-up machinery was less important, because they knew the size of the cables and ropes to be laid, and this determined the strength of the equipment through which the operation was performed.[677]

Upon transmitting this information to Washington, Commodore Downes noted that the "machinery ought to be capable of tarring and spinning any quantity that might be required without reference to the present demand of the Navy."[678]

Replying, the commissioners directed Downes to predicate his estimates for machinery on spinning, tarring, and laying-up 1,000 tons of hemp per year. He would consult with the most competent authorities on the subject. He would also ascertain whether the engines and machinery could be manufactured in Boston, their cost, and date of installation.[679]

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676. Downes to Rodgers, December 7, 1835, NA, RG 45, Letters Received, BNC.

677. Parris to Downes, January 4, 1836, NA, RG 45, Letters Received, BNC.

678. Downes to Rodgers, January 11, 1836, NA, RG 45, Letters Received, BNC.

679. Rodgers to Downes, January 13 and 18, 1836, NA, RG 45, Letters Sent, BNC.

Downes delegated these tasks to Captain Parris.

After checking into the situation, Parris ascertained that the building would be ready to receive the steam engines and other machinery by September 1, 1836. In his opinion they could best be manufactured locally.

Assisted by Treadwell and personnel of the Boston Cordage Co., Parris formulated necessary estimates:

For 2 steam engines, one of 30- and the other of 15-horsepower, with boilers set up and ready to operate	$12,000
For 2 equalizing machines, one at $600 and one at $400	1,000
For 1 large and 1 small laying-up jack	2,000
For 2 joiner travelling machines, one for $2,000 and the other at $500	2,500
For 2 small worming machines	500
For 2 sets tubes and shells	200
For 2 gauge plates	100
For 2 bobbin frames	1,000
For 2 windlasses, breastboards, etc.	500
For 8,000 bobbins, at 25 cents each	2,000
For leveling pulleys, boards, etc.	500
For 2 top slides	200
For 20 tops	100
For 5 oak reels for reeling cordage.	150
For rawhide belts, barrels, etc.	1,000
For laying shafts, drums, etc.	4,000
For blocks & tackle for stretching, etc.	500
Total	$28,250
Contingencies	4,282.50
Total	$32,532.50

These estimates were predicated upon laying-up 1,000 tons of hemp annually.

The steam engines, Parris stated, could be in position and ready to fire within six months of the date the contract was signed. The other machinery, Treadwell forecast, will require 12 months "to complete . . . in the best manner and without extraordinary exertion."[680]

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680. Parris to Downes, January 25, 1836, NA, RG 45, Letters Received, BNC.

Forwarding Parris' report, Commandant Downes observed that the ropewalk could be readied to receive the machinery by June 1, while the building might be completed by August 1, if required.[681]

It was late September 1836 before the board authorized Downes to call upon Agent Broadhead to contract, upon the "best terms in his power, for the steam engines for the Ropewalk," and all machinery, not heretofore, purchased.[682]

The specifications and drawings were finalized, reviewed, and approved. Proposals were then solicited, abstracted, and contracts awarded to Daniel Treadwell for the spinning machinery, J.M. Davis for the "rope laying machinery," and T. Ashcroft for the steam engines.[683]

On March 3, 1837, the department called on Commodore Downes for a report on the money needed to complete the ropewalk, steam engines, laying-up machinery, installation of spinning machinery, connecting machinery, and the tarring house and associated machinery. Also desired was data on the sums in the hands of the purser and agent as of March 1.

This information was needed to enable the commissioners to determine whether they could contract with Treadwell for additional spinning machines.[684]

Downes placed the cost of completing and equipping the ropewalk complex at:

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681. Downes to Rodgers, January 26, 1836, NA, RG 45, Letters Received, BNC.

682. Rodgers to Downes, September 29, 1836, NA, RG 45, Letters Sent, BNC.

683. Rodgers to Downes, February 25, 1837 and Downes to Rodgers, March 2, 1837, NA, RG 45, Letters Sent and Received, BNC.

684. Rodgers to Downes, March 3, 1837, NA, RG 45, Letters Sent, BNC.

The structure	$27,075
Steam engines	7,800
Installation	3,000
Laying-up machinery	18,533
Connecting machinery	3,000
Tarring house and machinery connected with both buildings, including the balance to be paid Mr. Treadwell for all the tarring machinery and the 20 spinning machines, complete	27,000
Total	$86,408[685]

After studying these figures, the commissioners authorized Agent Broadhead to contract with Treadwell for 20 spinning machines, in addition to those heretofore ordered.[686]

3. Kyanizing the Flooring

Meanwhile, the commissioners had directed Commodore Downes to see that the flooring of the walk was of such materials as would be "most for the interests of the United States."[687]

Before another four weeks passed, the board suggested the possibility, if the costs were not prohibitive, of providing for preservation of the floor sleepers and plank by immersion in a solution of corrosive sublimate. Downes would determine the cost of using the process of preserving "vegetable substances from decay" patented in Great Britain in 1832 by John H. Kyan, and whether it could be prepared in time to prevent delay in placing the walk in production.[688]

Downes gave Captain Parris the task of collecting data and formulating estimates. On the last day of February, Paris submitted

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685. Downes to Rodgers, March 16, 1837, NA, RG 45, Letters Received, BNC.

686. Rodgers to Downes, March 22, 1837, NA, RG 45, Letters Sent, BNC.

687. Rodgers to Downes, January 18, 1836, NA, RG 45, Letters Sent, BNC.

688. Rodgers to Downes, February 13, 1836, NA, RG 45, Letters Sent, BNC.

estimates for Kyanizing the flooring timber. A tank for immersing timber in the corrosive sublimate was to be 65 by 42 by 6 feet, with a 2,000 gallon cistern. Downes, upon looking at the figures, found the cost to be:

for plank, cistern, pump, etc. . . .	$775.00
for corrosive sublimate for 3,000 gallons. .	750.00
for labor	500.00
Total	$2,025.00[689]

When he transmitted these estimates to the board, Downes added that it would take more than four months to prepare the heavy timber, because in Kyan's book of direction, 15 days appeared to be the shortest time named for it to remain immersed.

The flooring, if there were no complications, could be completed before the machinery was manufactured.[690]

On March 8, 1836, the commissioners gave Downes the go ahead. He was to make preparations for immersing timbers, etc., to floor one-half the ropewalk.[691]

The tank for Kyanizing the flooring was ready by mid-May.[692] Three hundred pounds of corrosive sublimate were needed for the tank, but the major problem was the failure by the flooring contractor to deliver planks and joists. Although it was doubtful if he would make deliveries, he must be given until June 1, the board cautioned, before measures were taken to secure plank elsewhere. Meanwhile, Downes was to see if he could locate an alternate source.[693]

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689. Parris to Downes, February 29, 1836, NA, RG 45, Letters Received, BNC.

690. Downes to Rodgers, March 1, 1836, NA, RG 45, Letters Received, BNC.

691. Rodgers to Downes, March 8, 1836, NA, RG 45, Letters Sent, BNC.

692. Downes to Rodgers, May 3, 1836, NA, RG 45, Letters Received, BNC.

693. Rodgers to Downes, May 7, 1836, NA, RG 45, Letters Sent, BNC.

The contractor, threatened by loss of this business, came through. By June 1 the flooring was delivered, and the tank completed and ready to receive timber for Kyanizing.[694]

The operation commenced July 7, and was completed in late December. Before it was finished, the weather turned cold, and the solution froze in the copper pipe, which returned the liquid to the tank. The pipe burst when a thaw occurred. Before the leak was discovered, about 1,800 gallons of sublimate were lost.

During these five months, there were Kyanized:

2-inch white pine plank for flooring . .	22,550 ft.
6 x 6-inch white pine joists	18,540 ft.
88 white oak stake heads	5,750 ft.
55 yellow pine posts (10" x 11" x 2') . .	550 ft.

The flooring plank was immersed for six days, the yellow pine for 11 days, the white pine joists seven days, and the white oak stake heads 18 days. Pumped into the tank were a total of 5,083 gallons of soft water, while 725 pounds of corrosive sublimate were used in solution.[695]

By mid-December 1836, Captain Parris had a large force laying flooring.[696]

4. The Ropewalk Is Completed

Retarded by the bitter cold which gripped New England in January 1836, it was Saturday, the 23d, before workmen finished slating the two- and three-story sections of the ropewalk.[697] Spring-like

694. Downes to Rodgers, June 1, 1836, NA, RG 45, Letters Received, BNC.

695. Downes to Chauncey, August 16, 1838, NA, RG 45, Letters Received, BNC.

696. Downes to Rodgers, December 14, 1836, NA, RG 45, Letters Received, BNC.

697. Downes to Rodgers, January 25, 1836, NA, RG 45, Letters Received, BNC.

weather favored the project in March and April. By May 3 another 300 feet of walls had been set, and Commandant Downes reported that the remainder would probably be completed and roofed by the end of the month.[698]

Downes was disappointed, however. It was late June before the last of the wall granite was laid. But the roof of the recently completed section was not on, because it had been necessary to employ the joiners on a project deemed of greater importance. The demand for artisans in the local building trades were heavy, and few were available.

Masons were now turning the arches in the headhouse's boiler rooms, while bricklayers were building a cistern at the northeast corner of the headhouse, because it was believed that the well sunk there would not supply enough water for the walk's power system.[699]

On August 6 Commandant Downes advised the department that, since the first of the year, 300 feet of the ropewalk had been readied for slating and of this only 100 feet had been slated. The remaining 200 feet would be slated next week. Another 300 feet of the roof had not been framed.[700]

By mid-September only about 100 feet of the ropewalk remained to be covered. At the moment, no slate could be procured in the area. The joiners were laying floor sleepers.[701]

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698. Downes to Rodgers, May 3, 1836, NA, RG 45, Letters Received, BNC.

699. Downes to Rodgers, June 24, 1836, NA, RG 45, Letters Received, BNC.

700. Downes to Rodgers, August 6, 1836, NA, RG 45, Letters Received, BNC.

701. Downes to Rodgers, September 12, 1836, NA, RG 45, Letters Received, BNC.

Construction lagged during the autumn. In January 1837, the department, anxious to get the ropewalk into operation, called on Downes to see that work was accelerated.[702]

There was at this time a large force of joiners busy putting down the Kyanized flooring. If the unseasonably mild weather continued, Downes planned to have the building finished within several weeks, except for the plastering, which would not be applied until spring.

Work on such of the machinery, as was under contract, was progressing slowly.[703]

By late May 1837, Commodore Downes notified the commissioners that the structure had been completed, and workmen were now fitting up driving wheels, gearing, drums, etc.[704]

5. The Tarring House Is Built to Revised Plans

In the spring of 1836, Captain Parris revised his plans and estimates for the tarring house. He, as usual in a project of this character, was assisted by Daniel Treadwell. The structure was enlarged by adding a second story, to be used for reeling yarns, i.e., running them from the tarring bobbins on which they were wound single.

This story would also serve as a convenient storage area for empty bobbins. There would be a cellar, "with an open area, the width of the projection on the westerly wing, for light & air. In this part of the basement" was to be "placed the steam tar boiler for heating the tar vents." The projections at the center of the building were believed necessary as an entranceway and stairs to the second story, and as a place for the foremen to retire to when handling their paperwork. Yarns and machinery would occupy the remainder of the tarring house.

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702. Rodgers to Downes, January 17, 1837, NA, RG 45, Letters Sent, BNC.

703. Downes to Rodgers, January 31, 1837, NA, RG 45, Letters Received, BNC.

704. Downes to Chauncey, May 25, 1837, NA, RG 45, Letters Received, BNC.

Dr. Treadwell was "decidely of the opinion" that the structure should be two storied. But, if the board thought otherwise, the reeling could be done in one of the other buildings, although not so conveniently.[705]

Parris' estimate for a two-story tarring house, 200 by 19 feet, of undressed stone, backed by brick, with 2-foot walls, called for:

Masons' Work and Materials

1,420 cubic yards excavating cellar @ .30¢	$ 426.00
350 cubic yards cellar stone, laid in mortar @ $5.00	1,750.00
10,000 feet undressed stone @ 50¢	5,250.00
2,016 feet dressed stone @ 75¢	1,512.00
500 running feet cornice & capping @ $2.50	1,250.00
250,000 bricks laid in mortar @ $15.00	3,750.00
46 squares slating @ $15.00	598.00
1,500 pounds lead @ 80¢	120.00
462 running feet copper gutters @ $1.75	808.50
80 feet water conductor @ 55¢	44.00
48 iron window shutters @ $25.00	1,200.00
5 iron doors @ $60	300.00
Total	$17,008.50

Carpenters' Work & Material

42,000 feet lumber @ $22.50	$ 1,012.50
62 squares of framing for floors @ $2.50	155.00
62 squares of tongue and grooved flooring @ $10	620.00
46 squares roof framed & boarded @ $3	138.00
48 windows, complete @ $15	720.00
14 cellar windows, complete @ $10	140.00
Ironwork for roof, nails, etc.	250.00
Labor & materials for ventilation	200.00
Total	$ 3,235.50
Total	$20,244.00
Contingencies	2,024.40
Total	$22,268.40

If built to one-story, deduct . . . . . $ 4,926.90[706]

On June 25, 1836, Commandant Downes transmitted to Washington the revised plans and estimates of the tarring house. In doing so, he

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705. Parris to Downes, June 25, 1836, NA, RG 45, Letters Received, BNC.

706. Ibid.

explained, that when Captain Parris prepared his initial documents, they had not known "precisely what description of building would be erected."[707]

The board, on reviewing the papers, was disappointed to discover that the estimates exceeded by more than $13,000 Parris' 1833 estimate, the one on which the appropriation had been made. But, as it was desired that the "best arrangements should be adopted," Downes was to proceed on the proposed plan. He would "use every practicable economy," and the board hoped that sufficient savings could be effected on the ropewalk or other structures associated with the complex to fund the increased expense of the tarring house.

The commissioners, as a possible economy, suggested that the plates for the iron doors and windows of the ropewalk complex could be secured at reduced cost, if their exact dimensions were listed in the advertisements.[708]

President Jackson, in accordance with the law, now approved the suggested changes in the site plans of the tarring house, hemp house, paint store, and timber shed No. 31.

Construction was commenced in the autumn. By late May 1837, the first story of one wing and the center pediment of the structure had been raised, while the walls of the other wing were being rapidly laid. No lumber for the flooring or roof had been delivered.[709]

Four months later, on September 30, Commandant Downes proudly notified the department that the tarring house and its machinery were nearly completed.[710]

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707. Downes to Rodgers, June 25, 1836, NA, RG 45, Letters Received, BNC.

708. Rodgers to Downes, June 30, 1836, NA, RG 45, Letters Sent, BNC.

709. Downes to Chauncey, May 25, 1837, NA, RG 45, Letters Received, BNC.

710. Downes to Chauncey, September 30, 1837, NA, RG 45, Letters Received, BNC.

6. The Hemp House Causes No Complications

The ropewalk completed, construction began on the hemp house in the spring of 1837, and by late May the cellar walls were finished.[711] Work was pushed during the next four months. On September 30, Commodore Downes wrote the department that the walls were up, the roof frame raised, and the slaters ready to begin slating.[712]

By the first week of November, one-half of the house was ready for stowage of hemp, while the entire structure would be finished by December 1.[713]

7. Stephen Whitmore Becomes the Walk's First Superintendent

On May 13, 1837, Commodore Downes suggested to the department that now was the time to name a superintendent for the ropewalk. Such action would enable that individual to devote full time to "fitting up" the machinery. Stephen Whitmore of nearby Salem was a well qualified applicant for the position. Downes was impressed with his vigor and general appearance.[714]

Before making a decision, the board wished to know when the walk and its dependencies will begin operation. They also desired to know how much Whitmore expected to be paid.[715]

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711. Downes to Chauncey, May 25, 1837, NA, RG 45, Letters Received, BNC.

712. Downes to Chauncey, September 30, 1837, NA, RG 45, Letters Received, BNC.

713. Downes to Chauncey, November 4, 1837, NA, RG 45, Letters Received, BNC.

714. Downes to Chauncey, May 13, 1837, NA, RG 45, Letters Received, BNC.

715. Chauncey to Downes, May 20, 1837, NA, RG 45, Letters Sent, BNC.

Whitmore told Downes that he was willing to take the superintendency at $4 per day, and leave it to the board to determine whether it ought to be increased or not, after the walk was in production. Downes believed that $1,500 per annum would be fair compensation.[716]

Since it would be a number of months before all the machinery was delivered and the tarring and hemp houses completed, the department deferred action on the subject.

Downes, after anxiously waiting three months, in mid-September again urged the board to name a superintendent, because the machinery is in such a "state of forwardness, as to render his presence important."[717]

By this time, there was another highly qualified applicant for the position - Benjamin Whipple.

After reviewing their credentials, Secretary of the Navy Dickerson named Stephen Whitmore, master ropemaker, to be the walk's first superintendent.[718]

The walk being readied to spin its first yarns, Commodore Downes notified the board that responsibility for overseeing its engines, along with the one at the dry dock, was too demanding for one individual. An engineer should be named for the walk, and he was pleased to nominate Mr. Hicks to the position. Hicks had impressive credentials, having built and driven engines, and would take the position for $3 per day.[719]

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716. Downes to Rodgers, June 3, 1837, NA, RG 45, Letters Received, BNC.

717. Downes to Chauncey, September 12, 1837, NA, RG 45, Letters Received, BNC.

718. Dickerson to Downes, October 5, 1837, NA, Letters Sent, Secretary of the Navy, Microcopy M-125.

719. Downes to Chauncey, November 18 and December 1, 1837, NA, RG 45, Letters Received, BNC.

The board vetoed Downes' proposal. It held that the dock engineer should have general supervision over all yard engines. There would be no objection, however, to employment of an assistant engineer at the ropewalk.[720]

8. Balancing the Books and Juggling the Accounts

Early in December 1837, Commodore Downes signed a requisition for $14,900 to pay Daniel Treadwell for machinery. According to the department's figures, this exceeded the balance in the treasury by $3,778.12. As the board was desirous of paying Treadwell the sum to which he was entitled, Downes was admonished to confine his expenditures to the balances in the hands of the agent and purser.[721]

In an effort to reconcile the figures, Downes advised the commissioners that, as of December 1, there remained in the account for construction of the ropewalk, tarring house, spinning machinery, and steam engines $20,081.29, and he had accordingly approved payment of Treadwell's $14,900 bill.

The board, Downes continued, had not included the hemp house in the "common account." There was logic, however, for its inclusion. If it were, the unexpended balance on December 1 would have been $28,470.45. If the board sanctioned this view, there would be sufficient funds to pay all liabilities for articles engaged but not paid for, "on account of the Ropewalk and its dependencies." But, if not, there will be a deficit to meet the engagements contracted for.

To enable the board to comprehend the situation, Downes submitted a statement of the balance on hand for the five objects, together with the bills approved to December 16, and the sum of the liabilities for articles engaged but not paid for:

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720. Chauncey to Downes, November 22 and December 5, 1837, NA, RG 45, Letters Sent, BNC.

721. Chauncey to Downes, December 11, 1837, NA, RG 45, Letters Sent, BNC.

Balance remaining unexpended:	
On Ropewalk, December 1	$18,981.62
On Spinning Machinery	2,000.00
On Hemp House	8,399.16
Total	$29,380.78
Deduct monies paid on laying and tarring machinery	$ 910.33
Unexpended balance on December 1	$28,470.45
Bills approved up to December 16:	
For Ropewalk	$ 201.77
For laying-up machinery	1,101.04
For tarring house	8,750.00
For spinning machinery	1,050.00
For hemp house	4,437.38
	$15,540.19
Balance to pay all existing engagements	$12,930.26
Articles engaged but not paid for on account of the five common objects:	
For bobbins	$ 1,750.00
For hide boards	1,000.00
For cast-iron pipes	1,200.00
Floors of east one-half of hemp house	1,500.00
Pond's bill for doors and shutters on tarring house	2,700.00
Pond's bill for doors and shutters on hemp house	2,000.00
Alger's bill for castings	1,100.00
Davis' bill for machinery	1,200.00
Monthly average of wages on Ropewalk and appendages	3,000.00
Total free balance	$15,450.00
Agent had on hand December 16	3,333.27
Purser had on hand December 16	15,547.83
Total money on hand	$18,881.10
From which deduct amount of articles engaged but not paid for	$15,450.00
Balance	$ 3,431.10[722]

722. Downes to Chauncey, December 16, 1837, NA, RG 45, Letters Received, BNC.

If the liabilities for the ropewalk, tarring house, and hemp house, taken collectively, allowed of their transfer without inconvenience, the board was agreeable to utilizing such monies as was necessary to discharge Pond's bills for iron doors and shutters.[723]

Unless the department agreed to incorporation of the allotment for the hemp house, as "one of the common objects," Downes now cautioned, installation of the machinery must be suspended.[724]

The board accordingly approved inclusion of the hemp house "as one of the common objects connected with the Rope Walk." Any surplus remaining after its completion was to be applied to other authorized ropewalk improvements, or its dependencies most requiring it.

Money in the hands of the purser, after deducting the sums required for payment of the laborers, was to be turned over to Agent Broadhead.[725]

9. The Walk Begins Production

In the spring of 1837, Commodore Downes employed a Mr. Carr, a competent machinist, to oversee construction and outfitting of the driving wheels, drums, and all connecting machinery for spinning, tarring, and laying. This was a time consuming operation. Carr was urged to push the work, but he replied that only a small number of men could be employed. It would be October, at the earliest, before it was completed.[726]

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723. Chauncey to Downes, December 19, 1837, NA, RG 45, Letters Sent, BNC.

724. Downes to Chauncey, December 16, 1837, NA, RG 45, Letters Received, BNC.

725. Chauncey to Downes, December 19, 1837, NA, RG 45, Letters Sent, BNC.

726. Downes to Chauncey, May 25, 1837, NA, RG 45, Letters Received, BNC.

On September 30 commandant Downes was able to inform the department that the manufacture and installation of the machinery was progressing to his satisfaction. If there were no unexpected problems, he forecast, that, although the ropewalk complex would not be completed, they could probably begin making rope by mid-November.[727]

The department, on the last day of October, called on Downes for information. It needed to know the answers to two questions: When would the spinning machinery be put into operation, and when would he be prepared to tar and "lay yarn into rigging?"[728]

The spinning machinery, Downes answered, could be put into operation on November 15, and the tarring machinery on the 20th. The laying-up machinery would be ready as soon as yarns can be prepared. But, to test the machinery, he noted, hemp was needed.[729]

The board accordingly directed Downes to purchase, through Agent Broadhead, five tons of superior quality hemp to test the machinery. He was to inform the board the quantity that could be conveniently stowed in the yard.

The hemp must be examined and pronounced satisfactory by a master ropemaker before any was purchased.[730]

Agent Broadhead, upon checking out the brokers, found that locally there was about 300 tons of hemp available, of which 200 tons were first quality St. Petersburg and Riga Rein, and the remainder "old and bad

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727. Downes to Chauncey, September 30, 1837, NA, RG 45, Letters Received, BNC.

728. Chauncey to Downes, October 31, 1837, NA, RG 45, Letters Sent, BNC.

729. Downes to Chauncey, October 31 and November 4, 1837, NA, RG 45, Letters Received, BNC.

730. Chauncey to Downes, November 7, 1837, NA, RG 45, Letters Sent, BNC.

quality." In New York City there was about 200 tons, not more than 125 tons of which was fair quality. Exports of hemp from St. Petersburg, Riga, and Archangel to the United States were only three-quarters of what they had been in 1836. The price ranged from $215 to $225 per ton.[731]

When he relayed this information to Washington, Downes reported that about 800 tons of hemp could be conveniently stowed in the nearly completed hemp house.[732]

The board, after discussing the subject, directed Downes to requisition from Agent Broadhead 35 tons of hemp, in addition to the five tons previously authorized.[733]

On Tuesday, December 16, 1837, the long awaited moment arrived. Engines were fired, and the ropewalk began spinning yarns. The editor of the Boston Transcript hailed the day, and informed his readers that the facility did "honor to the Government, and credit to the Commissioners of the Navy, under whose direction it was built." This was one step, he was "glad to see towards permanent economy, and we most sincerely hope it will not be the last."[734]

Commandant Downes, on reporting this significant step to the department, noted that the ropemakers had began work upon the five tons of hemp brought for testing the machinery. He had concluded that the testing labor be charged to the General Appropriation of Navy Yards. But, in testing, several tons of cordage would be manufactured which belongs to "Repairs."[735]

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731. Broadhead to Downes, November 21, 1837, NA, RG 45, Letters Received, BNC.

732. Downes to Chauncey, November 21, 1837, NA, RG 45, Letters Received, BNC.

733. Chauncey to Downes, November 27, 1837, NA, RG 45, Letters Sent, BNC.

734. Army and Navy Chronicle, Vol. V, p. 377.

735. Downes to Chauncey, January 5, 1838, NA, RG 45, Letters Received, BNC.

All labor at the yard, the commissioners answered, was to be paid for from the appropriation for which it was performed. Downes would have the labor costs of the ropemakers', heretofore debited against the yard, charged accordingly.[736]

10. Downes Employs Initial Production Figures to Project Annual Costs

The board anxiously called for information on the state of the ropewalk machinery, and whether it was ready to begin full-scale production. Also desired was data on the quantity of hemp that could be spun and laid-up during the next 12 months.

Information was likewise required on the proportion of tow that ought to be hatchelled from "good hemp, for yarns intended to be used in cables, standing rigging, breechings, bolt rope" and other first class items, and the quantity for cordage and secondary class items.

Downes was to have the hemp, previously stockpiled, spun into yarns of sizes, heretofore, employed for standing and running rigging, and have the yarns tarred and laid-up for such rigging as may be ordered.[737]

On January 17, 1838, Downes accordingly reported that the spinning, tarring, and laying-up machinery on the "South ground" is operating successfully. The "Large ground," intended for cables and the largest cordage, was ready for immediate use, excepting a few minor details.

The spinning machinery was functioning perfectly, although speed was not as great as desired. Daniel Treadwell had hoped to give the drawing rollers 60 revolutions per minute. This could be increased by

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736. Chauncey to Downes, January 7, 1838, NA, RG 45, Letters Sent, BNC.

737. Chauncey to Downes, January 10, 1838, NA, RG 45, Letters Sent, BNC.

enlarging the drum, which will boost productivity in the ratio of 50 to 60 or 20 percent.

The tarring apparatus was winding 80 bobbins of two yarns each, and was sufficient for three times the amount of yarns that could be spun with the 40 spinning frames in operation.

The steam engines were adequate. The large 30-horsepower engine could drive twice the number of frames now running, as well as the machines on the "large ground." The 15-horsepower engine will handle tarring, reeling, hauling down, and laying-up on the south ground.

Shafting and drums for driving 80 spinning machines, with the proper complement of hackling and roving machines, were positioned and ready for bands.

Since the spinning machinery constituted the heart of the operation, care had been taken to ascertain production. Figures for the first 24 days revealed:

Date December	Hours running	Spindles at work	Number of men	Yarns #20 cable	# 26 coil pounds	# 32 shroud	# 40 bolt rope	Spun yarns
16	5	25	6		742			
18	6-1/2	29	9		905			
19	5-1/2	35	9		904			
20	6-1/2	38	9		1,228			
21	6-1/4	37	9		1,161			
22	6-1/4	37	9		1,147			
23	5-1/2	37	9		985			
26	6-1/2	38	9		1,200			
27	6-1/2	40	9		1,350			
28	6-1/2	40	9		1,364			
29	6-1/2	40	9		1,228			
30	5	40	9		972			
12 days	72-1/2				13,186 pounds			
January								
1	6-1/2	40	9		1,255			169
2	6-1/2	40	9		1,242			169
3	6	39	9		1,134			156
4	5	40	9		928			143
5	6-3/4	40	9		1,286			169
6	5	40	9		1,090			143
8	6	39	9		1,160			143
9	6-1/2	40	9		661		377	195
10	6-3/4	39	9				1,147	169
11	6-3/4	40	9	81			1,053	28,182
12	6-3/4	40	8	94			1,000	84,195
13	5	40	8	41			960	156
12 days	73-1/2			216	8,756		4,537	113,989

Analyzing these figures, Commodore Downes found that, in the first 13 days of the new year, they had spun 15,610 pounds of yarns. Moreover, at this season of the year, limited hours of daylight restricted the workday. But, as the season advanced, working time will increase. It was believed that the average number of hours throughout the year would be 9-1/2, resulting in a proportionate boost in production.

In addition, there was another consideration--the proposed increase in speed of the spinning machines by a ratio of 50 to 60.

Turning to the question of how much hemp could be spun in a year, Downes noted that it would vary with the "time of running and the number of machines" in daily operation. Employing production figures for the first fortnight of January, 15,610 pounds, and multiplying it by 26 gave a figure of 405,860 pounds for the year. If, however, allowances were made for increased productivity, resulting from a 9-1/2-hour day and a faster spindle speed, this figure would zoom to 752,258 pounds of yarns. This was predicated on assumption of all 40 spindles being in "uninterrupted operation, without stopping for repairs, or for other unforeseen contingencies."

To this 752,258 pounds of yarns will be added 17 percent of tar to increase the cordage by 127,833 rounds, making the annual total 879,141 pounds or about 439 tons.

To manufacture this quantity of yarns, and work it up into cordage, required this number of operatives:

No. of Men	Wages	Cost
1	@ $4.00	$ 4.00
1	@ $2.52	$ 2.52
5	@ $2.00	$10.00
3	@ $1.76	$ 5.28
7	@ $1.52	$10.64
5	@ $1.24	$ 6.28

Wages of spinners, tarrers, & layers per day $38.72.

To which was to be added the cost of the engineers, firemen, etc.:

No. of Men	Wages	Cost
1	@ $3.00	$3.00
1	@ $2.00	$2.00
3	@ $1.25	$3.75

Daily cost of engineers & firemen $8.75.

Added to these figures would be the price of fuel. Nova Scotia coal, costing $9 per chaldron, was used to fire the boilers. Consumption was a chaldron per day, with both engines running.

This made the cost of a day's operation:

Wages of ropemakers, spinners, tarrers, and two machinists for wear & tear . . .	$38.72
Engineers & firemen	8.75
Fuel	9.00
Total	$56.47

At $56.47 per day, a fortnight of 12 working days cost the United States $677.64.

Upon reviewing these figures, Downes recommended that 40 spindles be added to those already in production.

The ropewalk could, he continued, manufacture cordage at a figure below that of private contractors. This was because private operators included in their costs interest on capital invested in improvements, commissions, and profits, which were not incurred at the public walk.[738]

Ropewalk Superintendent Whitmore provided the department with required data on the hemp used. It was sorted and divided into three classes.

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738. Downes to Chauncey, January 15, 1838, NA, RG 45, Letters Received, BNC.

The first with long, heavy, and clear fibres was employed for cables and standing rigging; the second with clear, straight, and superior fibre was for bolt rope; and the shorter staple of inferior quality was for common cordage and ropes of secondary class.

Yarns for standing rigging, breechings, and other important uses were 32 yarns to the hook; for cables 30 threads to the hook; for bolt rope 40 threads to the hook; and for common cordage 26 threads to the hook.[739]

11. The Department Acts to Increase Production

The 40 tons of hemp purchased for the ropewalk were nearly expended by January 25, and would be in another week to ten days. When it was, Superintendent Whitmore cautioned, production would cease.[740]

The department accordingly directed Commodore Downes to call on the naval agent to purchase another 60 tons of quality hemp. The board preferred that no more be bought at a time, unless payment could be deferred until Congress had acted on the appropriation bills, because funds voted for "Repairs" in 1837 were nearly exhausted.[741]

In mid-February, Commodore Downes filed another progress report. Although the "North ground" had been completed, it had not been tested, because there was no "rope to make of the proper size for the purpose."

All the machinery had been installed, but considerable work remained to be done on the ropewalk. As was to be expected, "trifling alterations" were needed almost daily to the machinery.

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739. Whitmore to Downes, January 15, 1838, NA, RG 45, Letters Received, BNC.

740. Downes to Chauncey, January 25, 1838, NA, RG 45, Letters Received, BNC.

741. Chauncey to Downes, January 29, 1838, NA, RG 45, Letters Sent, BNC.

There were on hand about 3,000 bobbins for winding tarred yarns. These would be sufficient for the walk, provided the laying-up of rope was carried on simultaneously with spinning and tarring. If, however, all the hemp on hand was to be spun and tarred, before any was laid-up into rigging, this would require 6,000 additional bobbins, at a cost of $2,000.[742]

The commissioners, desirous of conserving space and wishing to economize, countered with the suggestion that all yarns not wanted immediately be put on large reels. This subject had been discussed at length with Captain Parris, who would detail to Downes the department's thinking on this subject on Parris' return to Boston. Meanwhile, should more bobbins be required, Downes was to "procure them to the extent of the actual wants of the yard."[743]

Large reels, as Downes understood, were capable of holding several hundred pounds of yarns each. Reels designed for 300 pounds of yarns were as large as could be conveniently handled, so this size would be most advantageous. But, he cautioned, they will be "incompatible with the extant machinery and arrangement of the laying-up ground, and tarring and reeling apparatus."

There were, Downes explained, two sizes of bobbins or reels in use. The smaller was adapted to the spinning machinery, and a small number were required to carry on this operation, because the yarns were soon removed in the tarring operation and placed on larger bobbins. As the yarns were tarred in double threads, it became necessary, before they could be laid-up into cordage, to separate the yarns, so there would be one yarn to a bobbin. This was accomplished by a transferring machine, which wound eight bobbins at a time.

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742. Downes to Chauncey, February 14, 1838, NA, RG 45, Letters Received, BNC.

743. Chauncey to Downes, March 9, 1838, NA, RG 45, Letters Sent, BNC.

The single-yarn bobbins were then placed in bobbin frames in front of the hauling down machinery, and the bobbins were taken together. The number being determined by the size of the rope.[744]

The commissioners backtracked. As Downes was satisfied that small reels would reduce rather than increase the expense, he could employ them.[745]

To complete the ropewalk complex, Commodore Downes called for another appropriation. Needed were:

Paving around headhouse, tarring house, and hemp house		$ 2,000
Rain water reservoir for steam engines		3,000
Ventilators in roof over laying-up ground		1,000
Fixtures for rattling machinery	$ 300	
Wheel for making housing & all white work	200	
One wheel-cutting engine for repair of spinning machinery	200	
Two laying-up machines of medium size for large ground & patterns	1,600	2,300
Total		$ 8,300

If 44 spinning machines were added to Ropewalk, the cost would be:

44 machines at $625 each	$27,500
1 roving machine	500
2 drawing machines	1,000
2 hackling machines	1,000
Contingencies	3,830
Total	$42,130[746]

Replying, the board noted that it had already asked Congress for $25,000 for the ropewalk in 1838 and could not increase this sum. When

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744. Downes to Chauncey, March 16, 1838, NA, RG 45, Letters Received, BNC.

745. Chauncey to Downes, March 23, 1838, NA, RG 45, Letters Sent, BNC.

746. Downes to Chauncey, February 15, 1838, NA, RG 45, Letters Received, BNC.

he prepared his estimates for 1839, Downes should remind the department of this problem.[747]

A mid-June review by the department of the yard's returns revealed that, as of the first of the month, there was available from previous appropriations:

Ropewalk	$10,628.39
Spinning Machinery	950.00
Hemp House	3,141.70
Total	$14,720.09

There were these arrearages:

Engines and machinery	$11,671.17
Tarring House	2,511.69
Total	$14,182.86

Leaving a surplus of $ 537.23

Congress, in 1838, ignored the department's request and struck the $25,000 for the ropewalk from the Navy's annual appropriations. To enable the board to purchase and install necessary machinery (including the additional 44 spinning machines), Secretary Dickerson approved the transfer of $25,000 from another line item for the yard.[748]

12. Bartholomew Licenses His Suspension Railway

In mid-February 1838, E. Bartholomew contacted Commandant Downes and explained that he held a patent on the suspension railways employed above the two laying-up grounds. They ran nearly the entire length of the walk and carried the drag. Through their use, one man could lay-up five ropes simultaneously, thus eliminating two positions. Bartholomew accordingly expected the government to pay him a fee for the use of this invention.[749]

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747. Chauncey to Downes, February 19, 1838, NA, RG 45, Letters Sent, BNC.

748. Chauncey to Downes, June 20, 1838, NA, RG 45, Letters Sent, BNC.

749. Downes to Chauncey, February 17 and March 16, 1838, NA, RG 45, Letters Received, BNC.

The board regretted to learn that "a patented machine was introduced into the Yard," without previous agreement with the patentee, as to terms upon which he will license its use. By doing so, Downes had placed the department in Bartholomew's power, in relation to his fee.

Downes would determine, if feasible, the terms upon which Bartholomew had licensed his suspension railway to other ropewalks. As the patent had but a short time to run, it was hoped that the "price should in justice be proportionally reduced."[750]

To establish an equitable compensation for use of the suspension railway, Downes talked with owners of local walks, where the system was employed.[751] Meanwhile, Superintendent Whitmore and Daniel Treadwell submitted affidavits that Bartholomew's "Apparatus" was a great improvement to the machinery for laying-up cordage, and the $800 fee required for its use was reasonable.[752]

The department, after much discussion, directed Downes to consult Agent Broadhead and see that Bartholomew's claim was adjusted on the best possible terms, not to exceed $800.[753]

13. The October 1838 Fire

On the night of October 24, 1838, the fireman left his post at the ropewalk's north engine house. While he was absent, the fire from the furnace ash hold spread to "a wooden box placed near it" holding coal. Before the blaze was discovered, the box and a wooden railing

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750. Chauncey to Downes, March 9, 1838, NA, RG 45, Letters Sent, BNC.

751. Downes to Chauncey, March 16, 1838, NA, RG 45, Letters Received, BNC. The Bartholomew drag was contrived so that by pressing a lever, the entire weight of pig iron was transferred from a sled to the wheels of the drag, which was then easily returned to the place preparatory to laying-up another rope.

752. Treadwell to Downes, February 2, 1838, NA, RG 45, Letters Received, BNC.

753. Chauncey to Downes, April 13, 1838, NA, RG 45, Letters Sent, BNC.

were in flames. The alarm was sounded and the fire quickly extinguished.

Anticipating the board reaction to this news, Commandant Downes discharged the fireman for dereliction of duty.

To preclude a recurrence of such an incident, the rails were replaced by iron ones, the coal box with one of sheet iron, and the rope bands and pully with hide ropes.[754]

14. A July 1839 Storm Damages the Hemp House

During a thunderstorm on the evening of July 31, 1839, several beams supporting the northeast corner of the hemp house yielded and crushed the heads of the posts, supporting the rafters. The roof settled in the middle, but not enough to break the slates.

Captain Parris attributed the accident to the weight of the hemp, which had been stowed to the height of the ridge pole. As the hemp below settled, the beam took the weight of the hemp above.

The damage, he reported, could be repaired without taking off the roof.[755]

The board called for the structure's prompt repair. Henceforth, care would be exercised to insure that "too much weight be not put in any of the buildings."[756]

By August 12 the roof had been repaired at a cost of $200.[757]

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754. Downes to Chauncey, October 27, 1838 and Chauncey to Downes, October 31, 1838, NA, RG 45, Letters Received and Sent, BNC.

755. Downes to Chauncey, August 3, 1839, NA, RG 45, Letters Received, BNC.

756. Morris to Downes, August 8, 1839, NA, RG 45, Letters Sent, BNC.

757. Downes to Chauncey, August 12, 1839, NA, RG 45, Letters Received, BNC.

15. The Walk Gets a Wrought Iron Main Shaft

The "main shaft" for the walk ran through the headhouse from "side to side," and was so constructed that either engine or both could drive the machinery. Superintendent Whitmore found it necessary to employ maximum power from both engines to drive the works, when both laying-up grounds were in operation. During February 1839 the machinery was "fully tested," revealing a weakness of the main shaft, and "the injudicious arrangement of connecting the Spinning with the laying-up grounds, especially when heavy work is on hand." This led to great irregularity in the spindles, sometimes retarding them, and, when the laying-up ceased, accelerating them to high speeds. The slowing of the spindles cut production 15 to 20 percent. Whitmore did not believe this evil could be corrected by an increase in power.

More horsepower, he reasoned, will only lead to a fracturing of the main shaft, which had been found to possess weak gudgeons. There had been a breakdown on February 20, 1839, but fortunately it had occurred at the outer end of a gudegon, so that when the shaft fell, it lodged on a stone collar in the wall through which it had passed, and was kept off the floor. As the main shaft revolved 120 times a minute, and carried a cam 10 feet in diameter, the breaking of the inner axle would have been "very destructive." Nevertheless, it had taken eight days to repair the broken gudgeon. But, as the main shaft was constructed in three pieces, only one-half the ropewalk machinery had to be stopped.

To guard against a similar future shutdown, Superintendent Whitmore proposed to prepare a wrought iron shaft. Should the board call for a more powerful engine, a stronger shaft, one that could be depended upon, was mandatory.

The laying-up grounds could lay five tons per day, while the tarring apparatus could handle from four to five tons in the same period, but the spinning machines, Whitmore reported, had fallen short of their anticipated production.[758]

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758. Downes to Chauncey, March 15, 1839, NA, RG 45, Letters Received, BNC. The cast iron shaft was 3/4 of an inch thick and 14 inches in diameter. The journals were cast iron and 4 inches in diameter. Whitmore to Downes, March 8, 1839, NA, RG 45, Letters Received, BNC.

The board, after reviewing the subject, authorized purchase of a wrought iron main shaft of sufficient strength to "sustain any power that may be used in the works." If such a shaft could not be manufactured in Boston, it will be requisitioned through the New York agent, where they are in the habit of fabricating large shafts for steamers.[759]

16. Improving the Machinery's Operation with Babbit Boxes

In the summer of 1840, the board called on Commodore Downes to examine several Babbit boxes and report whether they could be used with advantage in the "arrangement" for the ropewalk engines, and, if so, the cost. The boxes to be examined were being shipped to Charlestown from the Washington Navy Yard.[760]

Whereupon, Downes informed the board that Babbit's patented boxes, lined with soft metal retained in its place in the pinhole by flanges, had been used with great advantage in the ropewalk machinery for nearly a year. They had been tried in areas where there was great stress and wear and tear. The ropewalk engineer, satisfied of their success, proposed to employ them to line the pistons of his steam engines.[761]

17. The Department Vetoes Downes' Plan to Enlarge the Complex

In March 1839 Commodore Downes and his staff proposed an improvement to the ropewalk complex, which would eliminate difficulties arising from the connection of the spinning machinery with the laying-up grounds. To accomplish this, it would be necessary to remove the spinning machines from the loft now occupied to another building to be sited southwest of the hemp house. By locating the spinning machinery in a new two-story structure, all operations connected with the spinning, tarring, and laying-up departments would be expedited. The new

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759. Chauncey to Downes, March 22, 1839, NA, RG 45, Letters Sent, BNC.

760. Board to Downes, August 4, 1840, NA, RG 45, Letters Sent, BNC.

761. Downes to Morris, August 15, 1840, NA, RG 45, Letters Received, BNC.

building, being near the hemp house, hemp would be passed from the preparing room directly to the spinning room, and from there through the tarring house, to the laying-up grounds.

The relocation of the spinning machines from the second floor of the ropewalk, above the laying-up grounds, would make that area available for stowage of bobbins of tarred yarns, ready to be laid-up.[762]

The department was cool to this proposal. Downes was reminded that the recommended improvements to the ropewalk could only be authorized by President Martin Van Buren, and would involve an expenditure far exceeding present means. Before considering such an outlay, the board would need detailed estimates, plans, and a statement documenting their need.[763]

Downes, seeing that his superiors had little or no enthusiasm for his proposal, pigeonholed it.

18. The Commissioners Decree Guidelines and Quality Controls

On March 23, 1838, three months after the first yarns were spun, the department drafted guidelines to be observed in manufacture of cordage. The goal would be to "provide the best quality of hemp that can be purchased, and to have it prepared, spun, tarred and laid-up in such manner as will secure the greatest practicable degree of strength and durability," thereby securing a reduction in the size and weight of rigging.

Until such time as measures could be perfected for obtaining sufficient supplies of hemp by importation, there would be a difference in quality of the staple. When this occurred, Commodore Downes was to see that prime hemp was reserved for cables, messengers, standing rigging,

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762. Downes to Chauncey, March 30, 1839, NA, RG 45, Letters Received, BNC.

763. Chauncey to Downes, April 6, 1839, NA, RG 45, Letters Sent, BNC.

bolt rope, breechings, cat and fish falls, yard and bolt tackles, and running rigging, upon which safety of a ship depended. Rigging of less than 3 inches, hawsers, towlines, and cordage, upon which neither human life nor the spars and sails were dependent, could, in emergencies, be made of inferior hemp.

Yarns for bolt yarn were to be spun 40 to the hook. The standing rigging, lanyards, messengers, breechings, cat and fish falls mast pendents, tackles, tyes, halyards, shear tacks, clewlines, breastlines, yards, and boat tackle were to be spun 32 threads to the hook. For other running rigging, there were to be 28 threads to the hook, while for cables, hawsers, and towlines, 20 threads to the hook will suffice.

At least 15 percent will be hand-hatchelled from the best quality hemp, before being put into the machine shackle. Superintendent Whitmore was to exercise discretion in taking a greater proportion to provide strength to the rigging. Tow thus removed could, with advantage, be hatchelled again to provide material for small cordage, worming, and spun yarns.

The board was desirous that yarns be stored for some months after being tarred, before they were laid-up into rigging. Downes would accordingly "endeavor to arrange them for meeting the probable demands of the present season in these proportions: 4/16ths for standing rigging, 8/16ths for running rigging, 3/16ths for cables and hawsers, and 1/16th for bolt rope."[764]

To check on complaints received regarding cordage manufactured at the ropewalk, the department decided to provide a means of identification. A white yarn was to be put into all tarred cordage made at the navy yard.[765]

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764. Chauncey to Downes, March 24 and May 5, 1838, NA, RG 45, Letters Sent, BNC.

765. Chauncey to Downes, March 14, 1839, NA, RG 45, Letters Sent, BNC.

Replying, Commodore Downes reminded the board that from the first, every rope, tarred as well as white, had a white yarn twisted the contrary way through the centre of the strand. Cable laid rope had one in every strand. Ratlines and spun yarns were not handled in this fashion.[766]

19. The Department Calls for Data to Establish Production Goals and Needs in 1838

On January 9, 1838, the commandants of the Charlestown, New York, and Norfolk Navy Yard were called upon for estimates of the number of tons of rigging of each size required at their facilities in 1838, in addition to any currently on hand. This data was needed to enable the board to make arrangements for supplying needed rigging from its new ropewalk.[767]

Some two weeks later, Commandant Downes forwarded the desired estimates of the quantity of rigging, along with various sizes, needed for outfitting a frigate and two sloops-of-war on their return from cruises. This had been somewhat of a problem, because so much depended upon contingencies. For example, the standing rigging on one craft may have been fitted out and in use only three years, and be found capable of another voyage, while another vessel's cordage might have been in use for two cruises, totalling six years, and have to be replaced. Much would likewise depend on how it had been treated.

The quantity of sea stores to make up the deficiency would vary. The outfits in the estimates were predicated on the assumption that little of what was in use on the ship's return will be "admitted to be fit to go out in a ship again."

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766. Downes to Chauncey, March 18, 1839, NA, RG 45, Letters Received, BNC.

767. Chauncey to Downes, Ridgeley, and Warrington, January 9, 1838, NA, RG 45, Letters Sent, BNC.

He had, therefore, presumed that the returning frigate might need one-half a gang of rigging and one of the sloops a new gang of standing rigging, and that both would want a new set of running rigging, and about three-fourths of the full quantity to round out her sea stores.[768]

The estimate of cordage needed at the Charlestown yard was prepared in accordance with these guidelines and called for:

Rigging Required for a First Class Frigate

No. of Fathoms	Size (inches)	Pounds
14	17	945
9	16	538
14	12-1/2	510
17	12	571
4	11	113
248	10-1/2	6,381
14	10	327
26	9	491
254	8-1/2	4,282
475	8	7,092
196	7-1/2	2,510
55	7-1/4	614
312	7	4,252
715	6-1/2	7,050
96	6-1/4	876
970	6	8,148
8	5-3/4	62
535	5-1/2	3,777
1,384	5	8,069
611	4-3/4	3,214
1,617	4-1/2	7,632
300	4-1/4	1,266
2,537	4	9,463
1,710	3-3/4	5,609
3,541	3-1/2	10,027
1,006	3-1/4	2,475
2,741	3	5,756
1,104	2-3/4	1,943
3,655	2-1/2	5,336
659	2-1/4	778
1,264	2	1,230
679	1-3/4	482
2,691	1-1/2	1,399
1,216	1-1/4	438
768	1	184
		113,840 pounds

768. Downes to Chauncey, January 27, 1838, NA, RG 45, Letters Received, BNC.

Pounds	Type
290	18-thread ratline
764	15-thread ratline
375	12-thread ratline
513	9-thread mooring
475	6-thread mooring
304	4-thread mooring
84	5-yarn spun yarns
254	4-yarn spun yarns
436	3-yarn spun yarns
660	2-yarn spun yarns
154	Hawseline
195	Marline
100	Hambroline

The Quantity of Rigging Required for Two 1st Class Sloops-of-War

Fathoms	Size (inches)	Pounds
19	12-1/2	793
13	12	437
13	10	303
14	9-1/2	294
7	9-1/4	139
603	8	9,003
17	9-1/4	238
54	7	617
135	6-3/4	1,435
151	6-1/2	1,489
77	6-1/4	707
145	6	1,218
72	5-3/4	555
380	5-1/2	2,683
141	5-1/4	907
730	5-1/8	4,475
364	5	2,122
149	4-7/8	827
449	4-3/4	2,362
144	4-5/8	720
640	4-1/2	3,021
714	4-1/4	3,013
586	4-1/8	1,536
656	4	2,447
266	3-7/8	934
762	3-3/4	2,498
600	3-5/8	1,844
1,026	3-1/2	2,934
739	3-3/5	2,107
1,541	3-1/4	3,791
1,616	3-1/8	3,685
2,841	3	5,966
624	2-7/8	1,204

Fathoms	Size (inches)	Pounds
1,862	2-3/4	3,278
1,237	2-5/8	1,992
1,886	2-1/2	2,756
672	2-3/8	887
1,044	2-1/4	1,232
962	2-1/8	1,038
2,213	2	2,168
484	1-7/8	411
1,814	1-3/4	1,288
195	1-5/8	121
1,356	1-1/2	705
132	1-3/8	58
1,664	1-1/4	599
332	1-1/8	100
1,686	1	405
230	3/4	40
34,057		83,328 pounds

This estimate did not include cables, hawsers, or towlines.

900 pounds 18-thread ratline
960 pounds 15-thread ratline
600 pounds 12-thread ratline
590 pounds 9-thread mooring
525 pounds 6-thread mooring
300 pounds 4-thread mooring
521 pounds 4-yarn spun yarns
604 pounds 3-yarn spun yarns
685 pounds 2-yarn spun yarns
158 pounds marline
83 pounds hawseline 100 pounds hambroline

The size, length, and amount of cordage required to complete the outfits and sea stores for the sloop-of-war Cyane and the ships-of-the-line Ohio and Columbus included:

Number of Fathoms	Size	Pounds
360	23-inch	44,435
120	14-1/2-inch	5,886
60	13-inch	2,338
120	11-inch	3,332
120	10-inch	2,822
320	9-inch	6,680
400	8-1/2-inch	6,680
1,816	8-inch	26,882
600	7-1/2-inch	7,752
1,040	7-inch	11,742

Number of Fathoms	Size	Pounds
850	6-1/2-inch	8,279
1,540	6-inch	12,782
1,258	5-1/2-inch	8,718
1,753	5-inch	9,776
1,120	4-3/4-inch	5,891
1,400	4-1/2-inch	6,580
1,120	4-1/4-inch	4,715
3,292	4-inch	12,279
1,548	3-3/4-inch	11,087
3,955	3-1/2-inch	11,272
1,527	3-1/4-inch	3,741
4,467	3-inch	9,381
1,938	2-3/4-inch	3,392
3,497	2-1/2-inch	5,071
1,300	2-1/4-inch	1,534
2,410	2-inch	2,362
1,800	1-3/4-inch	1,278
2,180	1-1/2-inch	1,138
41,911		237,825 pounds

For Columbus, the cables, hawsers, and towlines included:

3,220 pounds	18-thread ratline
2,600 pounds	15-thread ratline
1,400 pounds	12-thread ratline
1,900 pounds	9-thread mooring
1,550 pounds	6-thread mooring
1,000 pounds	4-thread mooring
600 pounds	marline
240 pounds	hawseline
1,420 pounds	2-yarn spun yarn
1,556 pounds	3-yarn spun yarn
896 pounds	4-yarn spun yarn
224 pounds	5-yarn spun yarn
1,504 pounds	4-1/2-inch white rope
100 pounds	3-1/2-inch white rope
18,210	
237,142	
256,035 pounds	

Recapitulation

Whole amount of Tarred Rope in fathoms, 41,913 fathoms	237,825 pounds
Amount of ratline from 12-to-18-thread inclusive	7,220 pounds
Amount of mooring line 4-to-9-thread inclusive	4,450 pounds
Amount of marline	600 pounds
Amount of hawseline	4,096 pounds
Amount of white rope 3-1/2 to 4-1/2 inch inclusive	1,604 pounds

Outfit & sea stores for Ohio, Columbus, and Cyane	255,795 pounds
Required for first class frigate	119,063 pounds
Required for two sloops-of-war	89,413 pounds
	464,271 pounds[769]

20. The Requisitioning and Shipment of Cordage

On May 5, 1838, some four months after the ropewalk had gone into production, the commissioners by circular letter advised the navy yard commandants that the facility was prepared to "furnish considerable quantities of rigging for the use of our vessels." They would, therefore, make requisition upon Commodore Downes for such as was required at their stations. In calling for the first requisitions, they were to limit them to the quantities they supposed would be needed in the third and fourth quarters of 1838. Thereafter, they were to regulate their requests to permit about 90 days for the cordage preparation and shipment.

They were to continue to make requisitons upon contractors through the naval agents for such cordage, as might not be on hand or obtainable from the Charlestown Ropewalk in time to meet immediate needs.[770]

In accordance with these guidelines, storekeepers at the yards where vessels were built or repaired, and at facilities, such as the Pensacola yard, which served as bases for the nation's squadrons, began submitting requisitions. This caused problems. In June 1838 the New York Navy Yard storekeeper forwarded a requisition for a gang of standing rigging for the sloop-of-war St. Louis, but made no call for running rigging, ratlines, worming, or spun yarns. If this practice continued, Commandant Downes fumed, all the best stock would be taken from the ropewalk, and the "poorest left on hand." This would result in an accumulation of inferior cordage at the Charlestown yard, which would either have to be sold or used on-site.

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769. Percival to Downes, January 17, 1838, NA, RG 45, Letters Received, BNC.

770. Circular Letter, May 5, 1838, NA, RG 45, Circular Letters, BNC.

All stays ordered were four stranded with no heart. Superintendent Whitmore believed the quality would suffer, because it was liable to "become irregular in the lays," i.e., one or two strands cutting in, and others bulging out.

Unless instructed otherwise, stays would be laid with a heart.[771]

In mid-July 1838 the ropewalk received two orders for cordage through the department. On the 20th Commodore Downes was directed to have prepared "a gang of lower and topmast rigging" for the sloop-of-war Natchez to ship to the Pensacola Navy Yard. Several days later, he was instructed to send to the Norfolk yard running rigging, consisting of: 2,000 fathoms 3-1/2 inch rope; 2,000 fathoms 3-1/4 inch rope; 3,000 fathoms 3-inch rope; 3,000 fathoms 2-3/4-inch rope; 3,000 fathoms 2-1/2-inch rope; 4,000 fathoms 2-1/4-inch rope; 4,000 fathoms 2-inch rope; and 4,000 fathoms 24-thread rope.[772]

Early in January 1839 Downes was directed to ready for shipment to the Pensacola Navy Yard for the West India squadron these items: four 11-inch messenger lines, 45 fathoms each; 500 fathoms 5-inch rope; 500 fathoms 4-1/2-inch rope; 500 fathoms 4-inch rope; 500 fathoms 3-1/2-inch rope; 1,000 fathoms 2-3/4-inch rope; 1,000 fathoms 2-1/2-inch rope; 2,000 fathoms 2-inch rope; 30 coils 21-thread ratline; 30 coils 18-thread ratline; 30 coils 15-thread ratline; 30 coils 12-thread ratline; 30 coils 9-thread ratline; 30 coils 6-thread ratline; 30 coils 4-thread mooring; 20 coils tarred marline; 20 coils hawseline; 30 coils 3-yarn spun yarn; 20 coils 2-yarn spun yarns; 150 pounds sewing line; 4 boxes window glass 14 x 8; 4 boxes window glass 12 x 16; and 200 bales of hay.[773]

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771. Downes to Chauncey, June 26, 1838, NA, RG 45, Letters Received, BNC.

772. Chauncey to Downes, July 20 and 23, 1838, NA, RG 45, Letters Sent, BNC.

773. Chauncey to Downes, January 3, 1839, NA, RG 45, Letters Sent, BNC.

At the end of the month, the Pensacola requisition was increased to include two sets of lower and topmast standing rigging, and one hemp bower cable for a first class sloop.[774]

On July 3 Commodore Downes was ordered to ship to Norfolk the standing rigging, lanyards, tacks, sheets, ties, yard ropes, bolt ropes, and messengers for the third class sloop Yorktown. In preparing the rigging, he was to regulate the size, except the running and ratline stuff, to that proposed by the Hull board.[775]

In March 1840 Commandant Downes complained to the department that much inconvenicence resulted from the practice of the various yards in submitting requisitions for cordage without specifying the use, i.e., hawsers, messengers, strouds, stays, running rigging, etc.[776]

To correct this situation, the commissioners directed the commandants to hereinafter specify in their requisitions the purpose for which the cordage was wanted. They would also indicate the quantity of each kind, "whether for cables, hawsers, messengers, stays or other standing rigging, running rigging, bolt rope, etc." If towlines or hawsers were to be a Manila, this was to be indicated in the requisition.[777]

Early in July 1840 the commissioners called on Commodore Downes to see that many hundreds of fathoms of rope of assorted sizes and 70 bolts of flax canvas were sent aboard the ship Robinson for use of the Brazilian station.[778]

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774. Chauncey to Downes, January 30, 1839, NA, RG 45, Letters Sent, BNC.

775. Chauncey to Downes, July 3, 1839, NA, RG 45, Letters Sent, BNC.

776. Downes to Board, March 25, 1840, NA, RG 45, Letters Received, BNC.

777. Circular Letter, April 1, 1840, NA, RG 45, Circular Letters, BNC.

778. Morris to Downes, July 8, 1840, NA, RG 45, Letters Sent, BNC.

During the winter of 1840-41 the yard shipped to Norfolk the necessary quantity of hide rope for topsails and sheets, topgallantsail ties, and wheelropes for ship-of-the-line, a frigate, and a sloop.[779]

21. The Competition Between Foreign and Domestic Hemp

a. The Navy Agent Supplies the Yard with Hemp

The commissioners by late winter 1838 had determined the Navy's cordage needs for the year and the ropewalk's probable production, while Congress had made its annual appropriations for the armed services. Consequently, in the first week of April, Secretary of the Navy Dickerson authorized the purchase of hemp "provided it be of good quality and the terms be moderate." Commandant Downes would make his requisitions on Agent Jarvis to purchase the desired hemp.[780]

By April 20 the quantity of hemp stockpiled in the yard was insufficient to keep the machines running another 20 days. Agent Jarvis, upon checking with the brokers, learned that there were two lots available--one at $210 per gross ton and the other for $220. There was a "disposition to monopolize" the supply and there would be no new stocks before August, so Downes recommended an additional quantity be bought.[781]

Secretary of the Navy Dickerson, therefore, authorized purchase of as much quality hemp as may be "wanted for the service."[782]

Agent Jarvis, having been given the go ahead, contracted with Thomas B. Curtis for from 200 to 300 tons of Russian hemp, to be delivered by early September. Whereupon, the department ordered that

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779. Board to Downes, February 16, 1841, NA, RG 45, Letters Sent, BNC.

780. Chauncey to Downes, April 3, 1838, NA, RG 45, Letters Sent, BNC.

781. Downes to Chauncey, April 20, 1838, NA, RG 45, Letters Received, BNC.

782. Chauncey to Downes, April 26, 1838, NA, RG 45, Letters Sent, BNC.

no more hemp be purchased for the time being, unless "indispensably necessary to keep" the ropewalk in operation.[783]

The vessel with Curtis' hemp was lost at sea that autumn. To cover the deficiency, the board authorized Agent Jarvis to purchase from time to time such quantities of the "best quality" hemp approved by the commandant. Care was to be exercised to guard against an increase in price, which news of the Navy's needs might precipitate.[784]

On checking with Agent Jarvis, Downes learned that it would probably be July 1839 before Curtis could make good his loss and be able to resume deliveries on his contract. If the ropewalk were to meet its commitments during the next seven months, Downes warned the department, 200 tons of hemp beyond that stored in the hemp house were required.[785]

Replying, the board noted that its object was "not to let it be known in the market what quantity" the United States wanted. Such news would cause the price to escalate. It was immaterial when the hemp was purchased, as long as it was secured on the best possible terms, at the discretion of Agent Jarvis, upon consultation with Downes.

The best hemp on hand should be reserved for the most important uses, i.e., bolt rope, standing rigging, etc.[786]

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783. Chauncey to Downes, August 3, 1838, NA, RG 4t, Letters Sent, BNC.

784. Chauncey to Downes, December 1, 1838, NA, RG 45, Letters Sent, BNC.

785. Downes to Chauncey, December 5, 1838, NA, RG 45, Letters Received, BNC.

786. Chauncey to Downes, December 10, 1838, NA, RG 45, Letters Sent, BNC.

This proved a wise decision, because of a seller's market. Efforts had been made recently to secure hemp in New York City for $325 per ton, but none was to be had.[787]

Then, in March 1839, the commissioners were able to contract with Enoch Train of Boston for 87 tons of St. Petersburg Clean and Riga Rein, at $270 per ton, delivered.[788] And, on April 6, the department advised Downes that Curtis, under his contract, would soon deliver 72 tons of St. Petersburg and Riga Rein.[789]

By mid-December the situation had changed and there was a glut on the market. The commissioners, taking advantage of this situation, sanctioned the purchase by Agent Jarvis of all hemp offered by Curtis, in excess of his agreement, at $35 per ton under the contract price.[790]

Early in September 1840 another hemp contract was signed with Curtis.[791]

In late December 1841 the department instructed Commodore Downes to have the 75 tons of clean St. Petersburg hemp imported by Chandler, Howard & Co., examined, and if found equal to the best quality Riga Rein, it was to be purchased, at a price not to exceed $230 per long ton.[792]

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787. Downes to Chauncey, January 21, 1839, NA, RG 45, Letters Received, BNC.

788. Chauncey to Downes, March 21, 1839, NA, RG 45, Letters Sent, BNC.

789. Chauncey to Downes, April 6, 1839, NA, RG 45, Letters Sent, BNC.

790. Morris to Downes, December 19, 1839, NA, RG 45, Letters Sent, BNC.

791. Board to Downes, September 3, 1840, NA, RG 45, Letters Sent, BNC.

792. Warrington to Downes, December 27, 1841, NA, RG 45, Letters Sent, BNC.

The subject hemp was found to be first quality. But, Downes reminded the board, St. Petersburg hemp was never equal to the best quality Riga Rein and could not be purchased unless the board amended its instructions. Unless there was an unexpected call for Manila, there was enough on hand to meet demands for that type of cordage until June 30.[793]

Some 18 months before, the Manila situation had not been so favorable. By early July 1840, the 50 tons of Manila purchased by the Navy for experimental purposes had been nearly exhausted. Commodore Downes had accordingly recommended purchase of 75 to 100 tons. There was a glut on the Boston market, and it was selling for 5-1/2 cents a pound.[794]

The commissioners were agreeable and the desired quantity purchased.

In the late winter of 1842 the department again contracted with Curtis. He was to supply the yard during the next year with 500 tons of Riga Rein. Then, in April, the commissioners authorized Agent Browne to purchase for the ropewalk a 12-month supply of Manila from Sibsbee & Co., at 7 cents a pound.[795]

b. The Foreign Hemp Testing Program

The department was interested in experimenting with various types of hemp, both foreign and domestic, to ascertain if any were superior in quality to the popular Russian hemp. In mid-April 1838 the board issued orders for Agent Jarvis to purchase three bales of Italian hemp. It would be spun into yarns of different sizes and handled

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793. Downes to Board, December 31, 1841, NA, RG 45, Letters Received, BNC.

794. Downes to Morris, July 7, 1840, NA, RG 45, Letters Received, BNC.

795. Warrington to Downes, March 26, 1842, NA, RG 45, Letters Sent, BNC.

in the same fashion as the Russian hemp, against which it would be tested.[796]

The Italian hemp was accordingly spun into yarns of different sizes and tested. Both the Italian and Russian were handled in the same manner.

After cleaning and hackling the Italian hemp, it was found that there was not enough to spin into four sizes of yarns, nor to make any part of it into untarred rope, so the experiments were confined to two sizes of yarns, Nos. 20 and 40, and to tarred rope.[797]

In mid-April 1839 the department, despite the poor quality cordage manufactured from the initial lot of Italian hemp, directed the New York agent to purchase from Tucker, Cooper & Co., nine tons of Superior Bologna. This Bologna cost the government $300 per long ton delivered.[798]

Fifty tons of Manila hemp were also received at the yard early in March 1839. It had been purchased by the board for experimental purposes and comparative tests against Russian hemp. Commandant Downes was to submit the results, reporting upon the wastage, quantity of tow, facility or difficulty with which it was manufactured, the cost of production, etc.[799]

On January 7, 1840, Commodore Downes transmitted to the department a table giving the results secured by tests carried out at the

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796. Chauncey to Downes, April 18, 1838, NA, RG 45, Letters Sent, BNC.

797. Downes to Chauncey, July 10, 1838, NA, RG 45, Letters Received, BNC.

798. Downes to Chauncey, April 18 and 25, 1839 and Chauncey to Downes, April 22, 1839, NA, RG 45, Letters Received and Sent, BNC.

799. Chauncey to Downes, March 14, 1839, NA, RG 45, Letters Sent, BNC.

yard since 1838 on various kinds of imported hemp--Manila, Riga Rein, St. Petersburg, and Italian (Bologna). These experiments had been made with 1-3/4-inch cordage and gave these cost figures:

Kind of Hemp	Cost of Hemp per Ton	Cost of Manufacture	Value of Tow	Cost of Rope
Manila hemp	$140.00	$60.00	$70.00	$199.30
St. Petersburg (untarred)	257.00	55.00	25.00	282.00
St. Petersburg (tarred)	257.00	65.00	25.00	292.00
Riga Rein (untarred)	267.00	55.00	25.00	297.00
Riga Rein (tarred)	267.00	65.00	25.00	307.00
Italian (untarred)	268.00	67.00	15.00	313.00
Italian (tarred)	268.00	70.00	15.00	323.00

Evaluating the results, Downes noted that Manila hemp could be manufactured with "as great facility as any hemp . . . , and the only difference in its treatment is the necessity of using oil to facilitate the first heckling," which added about $5 per ton to the cost of manufacturing it into cordage, over and above other varieties of hemp.

When the strength of the rope was tested, only one, the Italian, fell below 1,000 pounds, while one of the others went as high as 1,300 pounds "to an inch of the square of the girt."[800]

c. Congress Presses the Navy to Favor the Domestic Staple

In April 1839 the department learned that Grinnell, Minturn & Co., of New York City was advertising 100 tons of hemp for sale. Superintendent Whitmore was sent there to look it over. He liked what he saw and the board authorized purchase of 60 tons at $200 per long ton, landed at the yard.[801]

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800. Downes to Chauncey, January 7, 1840, NA, RG 45, Letters Received, BNC.

801. Chauncey to Downes, April 10 and 11, 1839, NA, RG 45, Letters Sent, BNC.

During the ensuing winter, the commissioners, pressured by Congress, called for data detailing the "relative value and strength" of imported hemp compared with the staple marketed by Grinnell, Minturn & Co.[802]

The committee (Commander Joel Abbot, Jr., Lieutenant John Bubier, and Superintendent Stephen Whitmore) assigned by Commandant Downes to oversee the undertaking found that the amount of atmospheric humidity greatly affected the point at which rope broke, when subjected to great stress. Consequently, it was necessary to make all the tests on the same day, April 7, when the humidity was very low.

The rope tested from hemp purchased of Grinnell, Minturn & Co., S.C. Gray, and Enoch Train had been "manufactured from hemp selected as the very best of their hemp, there being no other on hand," whereas the imported hemp was taken at random.[803]

The tests documented that there was little difference in strength between the St. Petersburg hemp imported for the Navy by Thomas B. Curtis and the St. Petersburg purchased by Agent Jarvis from Enoch Train, S.C. Gray, and Messrs. Grinnell, Minturn & Co. The cost factor, however, favored the Curtis St. Petersburg:

Kind of Hemp & Contractor	Cost of Hemp per ton	Cost of Manufacture	Value of tow	Cost of Rope
Thomas B. Curtis				
untarred	$252	$55	$27.20	$279.80
tarred	$252	$65	$27.20	$289.80
Enoch Train				
untarred	$270	$55	$25.00	$300.00
tarred	$270	$65	$25.00	$310.00
S.C. Gray				
untarred	$259	$55	$27.05	$286.95
tarred	$259	$65	$27.05	$296.95
Grinnell & Minturn				
untarred	$259	$55	$26.60	$297.40
tarred	$259	$65	$26.60	$297.40

802. Morris to Downes, February 24, 1840, NA, RG 45, Letters Sent, BNC.

803. Committee to Downes and Downes to Board, April 8, 1840, NA, RG 45, Letters Received, BNC.

The Riga Rein, for which Curtis had a monopoly had consistently tested stronger than the St. Petersburg. It, however, was more expensive, costing $267 per ton.[804]

In the autumn of 1840 samples of American water-rotted hemp were forwarded by the board to the yard to be tested against the best Riga Rein and other approved types of Russian hemp.[805]

The American water-rotted hemp, upon being tested, was found to be inferior to Riga Rein, but superior to first quality St. Petersburg clean. The American hemp used in the trial was of "good length, fair fibre, and cleaned much better than was usual." The quantity, however, was too limited for Superintendent Whitmore to make an accurate estimate of the waste. His guess was that it would not exceed 6 percent. Wastage of Riga Rein and St. Petersburg hemp was 3 to 5 percent.[806]

Whitmore's major objection to domestic hemp was the practice of sending it to market packed in large bales, a part of which was "good & a part of an inferior quality." No attention was paid to segregating the good from the bad.

Russian hemp, he explained, was habitually inspected and separated into three categories--clean hemp, outshot, and half clean. If American hemp were treated in this fashion, he was satisfied that a "large proportion of it would be found of very superior quality, stronger than any imported hemp, and nearly as well cleaned."

The objections to rope made of American hemp were that it decayed sooner than Russian hemp rope. Water rotting, he believed, washed from

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804. Ibid.

805. Morris to Downes, October 29 and November 2, 1840, NA, RG 45, Letters Sent, BNC.

806. Whitmore to Downes, December 14, 1840, NA, RG 45, Letters Received, BNC.

the native hemp a glutinous substance attached to the fibre which prevented tar from penetrating it properly.[807]

On July 30, 1841, the department, goaded by congressmen championing domestic hemp, called on Commodore Downes to ship to Washington a "parcel of the best Riga Rein" to be divided into small portions for use by Kentucky, Illinois, and Missouri congressmen, to show their constituents the type of hemp necessary for naval purposes.[808]

Downes forwarded by express the requested samples of Riga Rein. This lot, he explained, was a "fair sample" of that imported in 1840.

The Kentucky hemp, he continued, recently delivered by David Myerlee and rejected had been shipped to Salem where it was manufactured into cable rope. The manufacturer had told Downes that it was the poorest lot of American hemp he had ever worked, many of the bales yielding only 8 to 10 percent tier hemp. Kentucky hemp, however, was superior in one important respect; after the tow was extracted, it tested stronger than Riga Rein.[809]

Soon thereafter, Washington took action to assist American hemp growers. On September 4, by joint resolution, the First Session of the 27th Congress called on the Secretary of the Navy to "purchase domestic water-rotted hemp" for use of public vessels:

> so far as the same shall be found of suitable quality, and can be used beneficially to the service, having regard to the cost, strength, and durability of the article; and for that purpose shall cause purchase of such hemp to be made in the different hemp growing regions of the Union.

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807. Whitmore to Downes, November 20, 1840, NA, RG 45, Letters Received, BNC.

808. Warrington to Downes, July 30, 1841, NA, RG 45, Letters Sent, BNC.

809. Downes to Board, August 4, 1841, NA, RG 45, Letters Received, BNC.

This joint resolution was to remain in effect for seven years from the date of passage.[810]

To oversee and monitor the program, plans were made to send an agent to the western hemp-growing region to purchase high quality domestic water-rotted hemp. Consequently, Secretary of the Navy Abel P. Upshur called on the board to nominate a suitable person. The board accordingly asked Commodore Downes to make necessary inquiries. To qualify, the person selected was to have integrity and be able to evaluate hemp. He would be required to visit all regions, particularly the west, "to ascertain the capabilities of the country, to afford such water rotted hemp as was required by the Navy."

Downes, after checking with Superintendent Whitmore and other knowledgeable people, recommended Albert G. Broome of Salem as agent to purchase water-rotted hemp in Kentucky and Missouri. He was familiar with both the hemp growing regions and the qualities the government desired.[811]

The need for this action was underscored in the winter of 1841-42, when the department called on the ropewalk to make such experiments with a lot of Land Olcott's Kentucky hemp as deemed necessary, reporting the results to the commissioners.[812]

Whitmore tested the strength in Olcott's hemp and pronounced the sample deficient in strength. It also had a "bad putrid smell entirely different from any other hemp," from which it was inferred that it had been injured in rotting. It contained more tow than Russian hemp, and had been poorly cleaned.

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810. Public Statutes at Large, Vol. V, p. 468.

811. Board to Downes, December 24, 1841 and Downes to Board, January 5, 1842, NA, RG 45, Letters Sent and Received, BNC.

812. Warrington to Downes, January 19, 1842, NA, RG 45, Letters Sent, BNC.

If American hemp were to be purchased for the ropewalk, 15 to 20 percent of the tow should be heckled out, Whitmore cautioned, when it was prepared. This would free it of a large portion of the waste. In addition, it should be packed in "snug bales and covered with bagging."[813]

22. Supplying the Walk with Tar

Tar, which was used in large quantities in production of naval cordage, did not present similar problems. Unlike hemp, domestic sources were plentiful and there was little or no difference in quality. During the first year the ropewalk was in operation, tar was purchased as needed. This proved to be uneconomical, and, in the winter of 1838-39, the board authorized Agent Jarvis to contract for as much tar, not to exceed one year's supply, as could be conveniently stowed, provided it could be secured on favorable terms.[814]

Agent Jarvis experienced no difficulty in securing the needed tar.

This transaction simplified bookkeeping and insured an ample supply of tar throughout the year. Consequently, this practice was continued. On December 20, 1839, the department directed Commodore Downes to requisition through Navy Agent Jarvis a year's supply of tar of suitable quality.[815]

23. Disposing of Surplus Tow

Large quantities of tow, a by-product from the manufacture of hemp into cordage, accumulated. Whenever more tow was stockpiled than could be used with advantage as oakum at the yard, it was to be turned over the Agent Jarvis for sale at public auction.[816]

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813. Whitmore to Downes, February 10, 1842, NA, RG 45, Letters Received, BNC.

814. Chauncey to Downes, January 30, 1839, NA, RG 45, Letters Sent, BNC.

815. Morris to Downes, December 30, 1839, NA, RG 45, Letters Sent, BNC.

816. Chauncey to Downes, December 14, 1838, NA, RG 45, Letters Sent, BNC.

Accordingly, on January 13, 1839, an auction was held at the yard, and 83,428 pounds of tow, tyers, and sweepings were sold, netting the government $5,614.08.[817] In subsequent years, there were fewer auctions of this character, as the yard began shipping its surplus tow to other yards for use as oakum.

24. The Walk Begins Making Hide Rope

The Navy also used rope manufactured from hides, as well as hemp. On August 4, 1840, Commandant Downes notified Washington that they were now prepared to manufacture hide rope. It could be made at a cost not to exceed 4 cents per pound, exclusive of the hides which cost 6 to 7 cents per pound.[818]

The department accordingly directed Downes to be ready to supply hide rope, when required, for tiller ropes, ties, etc.[819]

Philip B. Holmes and William Pedrick, two ropewalk employees, built and patented the machine employed for cutting hides into strips for making rope. In February 1841 they claimed that the Navy should compensate them for its use. Superintendent Whitmore deemed the machine a valuable improvement and Commandant Downes carried their case to the department.[820]

The commissioners, however, ruled that, as the machine had been perfected on government time, the Navy was under no obligation to pay Holmes and Pedrick a fee for its use.[821]

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817. Downes to Chauncey, January 21, 1839, NA, RG 45, Letters Received, BNC.

818. Downes to Morris, August 4, 1840, NA, RG 45, Letters Received, BNC.

819. Board to Downes, August 7, 1840, NA, RG 45, Letters Sent, BNC.

820. Downes to Board, February 4, 1841, NA, RG 45, Letters Received, BNC.

821. Morris to Downes, February 10, 1841, NA, RG 45, Letters Sent, BNC.

The subject machine continued in operation at the walk for many years.

25. Handspinners Challenge the Machines

The use of machinery for making rope by the Navy sparked a storm of protest by handspinners, who would be thrown out of work by this technological revolution. This opposition surfaced in New York City and soon spread to the Boston area. There were petitions to Congress and remonstrances.

To quell the uproar, the department called upon Commodore Downes to provide data regarding the number of pounds of yarns per day that could be spun by hand for these size yarns, 20-, 28-, 32-, and 40-strand to the hook; the average daily wage paid a handspinner in 1839; and the cost of handspinning 1,000 pounds of yarns of each of the aforementioned sizes.

Also needed was the comparative strength and quality of cordage made by hand opposed to machine spun yarns.[822]

Before yard authorities could act on this request, the Secretary of the Navy received a letter from Joseph Barnes, describing a recent conversation he had had with Superintendent Whitmore. According to Barnes, Whitmore had told him, in the spring of 1839, that: (a) the cost of spinning yarns and laying-up rope in the government's facility averaged 19 to 20 cents per pound; (b) the machinery could not "spin the tow and bands made by cleaning the hemp"; (c) in his opinion the same class of cordage could be manufactured by hand for 11 to 12 cents per pound; (d) the machinery was unable to manufacture Manila without cutting it very short; and (e) "it could never answer of private individuals, for to spin the yarn by machinery, but it would do very well in the form it is now in."

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822. Morris to Downes, May 2, 1840, NA, RG 45, Letters Sent, BNC.

Moreover, Barnes had seen "tangled Russia hemp belonging to the United States sold at public auction at an average price of six cents per pound, when" he was confident that if manual labor had been employed upon it, it would have been worked into good yarn.[823]

The department called for Commandant Downes to secure Whitmore's version of the conversation.[824]

Whitmore pronounced Barnes' deposition nothing more

> than one of the modes by which the warfare of the Ropemakers is carried on against machinery which enters into such fatal competition with the spinning branch of the business; a competition which they cannot successfully oppose, as the yarns by machinery are not only better, but can be spun from forty to fifty percent cheaper [than] by hand.

Focusing on specifics, Whitmore noted:

(a) The cost of the navy rope was 15 cents per pound.
(b) The machines spun tow and bands into spun yarns to the extent required for the public service.
(c) The cost of rope made by hand would exceed that spun by machines from $20 to $30 per ton.
(d) The machines spun Manila hemp 5 feet in length without cutting. No Manila hemp had been spun at the walk until July 1839. Consequently, it would have been impossible to have discussed this subject with Barnes in the spring of 1839. In addition, the experiment had been successful, the machines handling Manila with more facility than any other category of hemp.
(e) Barnes' statement that he had seen tangled hemp sold was false.[825]

A three-man committee (Captain Joseph Smith and Commanders Joel Abbot and Thomas W. Wyman) was constituted by the department to study

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823. Barnes to Paulding, April 22, 1840, NA, RG 45, Letters Received by Secretary of the Navy, Microcopy M-124.

824. Morris to Downes, May 6, 1840, NA, RG 45, Letters Sent, BNC.

825. Whitmore to Downes, May 14, 1840, NA, RG 45, Letters Received, BNC.

and report on the four questions raised by the commissioners as to which was superior--machine or handspun cordage.

To secure answers to the first two questions, the committee inquired into "the economy of the various Ropewalks." On doing so, they learned that in Massachusetts the wages paid handspinners were fairly uniform averaging $1.25 per day, while in New York City the average was $1.50 per diem. But, in these ropewalks, the spinners required assistants, and there was usually one of these for every three spinners. In estimating the cost of handspinners, the proportionate cost of the helpers must be included. Wages paid to this class of operators, principally boys, varied from 30 to 50 cents per day. This sum divided among three Bay State spinners boosted their daily cost to $1.39, and those in New York to $1.64.

A good handspinner, it was found, could in one hour manufacture 450 fathoms of the larger sized yarn, or 500 fathoms of the smallest or bolt rope yarns per hour.[826]

Assuming that these were fair statements of the daily quantity and cost of handspun yarns by a single spinner, the committee turned to ascertaining the cost of spinning 1,000 pounds of designated sizes. They found:

> Quantities & cost of handspun yarns in the year 1839 as deduced from the operation in six ropewalks, & the cost of 1,000 pounds of each size

Yarns	Cost Per Day	Cost of Spinning 1,000 Pounds of Each
No. 20 No. 26 No. 32 No. 40		No. 20 No. 26 No. 32 No. 40
93.50 71.90 61.20 49.25		15.40 20.00 23.99 29.24

Zeroing on a cost comparison with machine spinning, the committee found that there were 80 machines in operation at the walk, manned by 20

826. Abbot to Board, June 15, 1840, NA, RG 45, Letters Received, BNC.

hands, including machinists. These machines, during a ten-hour day spun 5,674 pounds of No. 20 yarns; 4,225 pounds of No. 26 yarns; 3,524 pounds of No. 32 yarns; and 3,000 pounds of No. 40 yarns. This broke down to a production per shift for each of No. 20, 283 pounds; No. 26, 211 pounds; No. 22, 176 pounds; and No. 40, 150 pounds. This averaged 205 pounds per man, in contrast to 69 pounds for a handspinner.[827]

Next, the committee computed the cost of spinning by machines which broke down into two elements--cost of power and of wages. The former had a daily charge of $19.21 ($9 for fuel, $6.25 for engineer, and $3.96 for firemen). This, however, was the entire cost of the power applied to laying and tarring, as well as spinning. Accordingly, for the engineer "scarcely half the power" was required for the spinning machinery.

Upon checking with Superintendent Whitmore, the committee found that there were employed at the walk 17 spinners and drawers at a daily cost of $25.84, and three machinists and attendants at a daily charge of $7. After adding $9.60, the assumed expense of power, to labor costs, and dividing by 20, it was found that the average daily cost per hand was $2.12. On being tabulated, this disclosed:

> The quantity spun per day, a man, of the respective sizes of yarns and the cost of each size, and also the cost of 1,000 lbs of each size

Yarns				Cost Per Day	Cost of 1,000 pounds of each size			
No. 20	No. 26	No. 32	No. 40		No. 20	No. 26	No. 32	No. 40
283	211	176	150	$2.12	$7.49	$10.04	$12.02	$14.13

Evaluating the data found in the two tables, the committee concluded that the difference between the cost of handspun and machine spun Nos. 20 and 40 yarns was more than 100 percent in favor of the machines, and

827. Ibid.

for the two intermediate weights nearly as great. The average cost per pound for handspun yarns being $2.009 for the machine spun $1.034.[828]

There were, moreover, other advantages to machine spinning besides the costs. Among those noted by the committee were:

> the perfect command the master holds over the machines, . . . and on the other, the difficulty of controlling a promiscuous and changing gang of men and boys, subject to all sorts of caprice; sometimes murmuring about wages, and always ready to take advantage of a demand for their services to strike for higher pay.

The machines, however, were "steady and act with perfect uniformity, always producing the precise size of yarn required," where handspinners were irregular, no two men being able to spin yarns of identical size, nor any spinner "produce a given yarn of a uniform size throughout its whole length." Whether early or late in the day, the machines ran at the same speed, while handspinners were subject to all kinds of irregularities. Neither could it be anticipated that a gang of handspinners would individually possess equal proficiency.

If the spinning were done by hand in a public walk, manufacturing 600 tons of yarns per annum, there would be required, the committee noted, a gang of 80 operators in the spinning department, along with 40 or more layers, tarrers, and attendents. Time lost in calling roll for 120 men, several times a day, would take at least one hour.

Besides these advantages, there was connected with machine spinning, a tarring apparatus which permitted each yarn to be tarred separately, and kept under tension while warm, until its "solidity is fixed, so that there can be no further stretch to it when laid up into cordage." The old mode of tarring in the haul, the committee reported, was known to be imperfect.

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828. Ibid.

A comparative study, the committee wrote, demonstrated that the performance of the "regular and beautiful automata now in operation in the Ropewalk" was far superior to that of handspinners.[829]

The committee next investigated and reported upon the comparative strength of cordage made from handspun and machine spun yarns. Ground rules called for the hemp from which the yarns were to be spun to be selected from the same lots and to be prepared for spinning in a like manner. Upon being prepared, it was to be divided, one-half to be spun by hand and the remainder by machines. Enough was to be spun to provide at least three samples of tarred and untarred yarns from which Navy cordage was to be spun for cables, standing rigging, running rigging, and bolt rope. To insure fairness, a representative from the New York ropemakers would be present at all tests.

The rope subjected to these comparative tests was 1-3/4 inch, and the results were:

Method	Size of yarn No. 20					Size of yarn No. 32				
Handspun	1-14/16	.58	21	1145	4028	1-12/16	.58	30	1239	3796
Machinespun	1-12/16	.54	21	1361	4168	1-10/16	.51	30	1456	3843[830]

These experiments aroused so much interest that the Charlestown ropemakers sent four of their best spinners, who asked to make ropes in their own walk to enter into the strength competition against the machine made rope. Two of them were invited by the committee to select a lot of hemp from the yard. This hemp was then divided into equal parcels to be spun. Two yard ropemakers were sent to watch the handcraftsmen spin their yarns and make rope, and two of their people were admitted to the yard to observe the making of rope by machines.

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829. Ibid.

830. Morris to Downes, October 3, 1840, NA, RG 45, Letters Sent, BNC.

This was done, because the Charlestown ropemakers had been vocal opponents of the machinery "and had been zealous in promoting the designs of some ropemakers from New York and elsewhere in getting up a remonstrance to Congress against machine spinning." "They were therefore disposed to do their best," and had been heard to boast that they could spin stronger ropes than any machine.

They spun carefully, at the rate of 400 fathoms per hour. Everything was now ready for the trial. The tests carried out before a select group, including eight Charlestown ropemakers, were made on May 16, 1840. They revealed:

Method	Size of yarns No. 20					Size of yarns No. 32				
Handspun	1-13/16	.58	21	1281	4211	1-12/16	.58	30	1278	3914
Machinespun	1-12/16	.52	21	1343	4115	1-10/16	.54	30	1469	3821

Girth of Rope

Girth of Rope

Weight per fathom

Weight per fathom

No. of yarns in rope

No. of yarns in rope

Weight borne by each inch of square of girth

Weight borne by each inch of square of girth

Mean weight of experiment to break rope

Mean weight of experiment to break rope

Girth of Rope

Girth of Rope

Weight per fathom

Weight per fathom

No. of yarns in rope

No. of yarns in rope

Weight borne by each inch of square of girth

Weight borne by each inch of square of girth

mean weight of experiment to break rope

Mean weight of experiment to break rope

The committee, on reviewing the tests, called attention to the similarity in results, "with the same remarkable difference" in favor of the machines.

After concluding several more experiments, the committee reported that the strength of machine spun rope was "always a maximum owing to the perfect uniformity of the yarns," while handspun yarns were not uniform in strength. Consequently, rope made from handspun yarns could not be depended upon for more than "a mimimum strength," because of its uncertainty. This certainty on the one hand and uncertainty on the other was "an advantage of inestimatable value in the machinespun rope."[831]

These tests satisfied congressional critics of the program, although the handspinners were not mollified.

26. The Yard Continues to Employ the Chapman and Huddart System for Laying-Up Rope

During the winter of 1841-42 the department was pressured into calling upon the yard to "fairly and fully" test and evaluate Easton's system for laying-up rope.[832] This would be unnecessary, Commodore Downes assured the department, because the yard's Chapman and Huddart system was more than satisfactory.[833]

27. Standardizing Bookkeeping Procedures for Accounting for Hemp and Cordage

A conflict developed over who was reponsible for the hemp after it was received at the yard--Superintendent Whitmore or Storekeeper Thomas. From the day the ropewalk began production, in December 1837

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831. Abbot to Board, June 15, 1840, NA, RG 45, Letters Received, BNC.

832. Warrington to Downes, February 26, 1842, NA, RG 45, Letters Sent, BNC.

833. Abbot to Downes, March 29, 1842, NA, RG 45, Letters Received, BNC.

until the autumn of 1840, Whitmore was in charge of the staple and hemp house. This arrangement evolved out of the necessity of selecting and sorting hemp for the sundry sizes of yarns, and the convenience of hackling and extracting the tow, while it was in the hemp house.

The hemp was received at the house by Whitmore, who attended to the weighing with the custom house officers. He then supervised its stowage, with proper attention to quality and age.

The hemp, as received, was reported to the storekeeper by Whitmore, at the weight taken from the custom house receipts. Thus, Storekeeper Thomas experienced no difficulty in ascertaining the correct weight and entering it into his books. But, as no requisitions were made on him by Whitmore, Storekeeper Thomas did not feel authorized to subtract the hemp from his books.[834]

The board, upon learning of this procedure, voiced his disapproval. They held that Storekeeper Thomas should be responsible for the hemp and that requisitions should be made upon him for the materials used by the ropewalk.[835]

The board, moreover, did not perceive any necessity for altering the "mode of receiving, taking care of or expending the hemp from that now practised." Superintendent Whitmore bore the same relationship to the storekeeper, in respect to hemp and cordage, as Naval Constructor Barker did in relation to the timber. Each had immediate charge and direction of the respective articles, while Storekeeper Thomas carried all the items on his books, and had the necessary means of entering and reporting receipts and expenditures. When new rigging was manufactured, it must be placed in charge of the storekeeper, and expended as other manufactured articles, by requisition or order.

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834. Downes to Board, December 7, 1840, NA, RG 45, Letters Received, BNC.

835. Board to Downes, December 19, 1840, NA, RG 45, Letters Sent, BNC.

Superintendent Whitmore, in effecting these transactions, acted as the storekeeper's deputy.[836]

28. Whitmore Administers the Ropewalk

a. Superintendent Whitmore Seeks a Raise

On January 14, 1840, Superintendent Whitmore reminded Commandant Downes that he had accepted his position at $4 per day, on the understanding that, after the machinery was operating successfully, he would be entitled to a raise in compensation. Trusting that the department was satisfied with production, he asked that his pay be made commensurate with that of superintendents of private factories, some of whom received $2,000 per annum. None of these ropewalks, he added, were as large as the Navy's.

The various departments of the ropewalk, he continued, were in charge of quartermen. After two years, he was ready to select one of these, William Caban, as his foreman.[837]

Downes, upon forwarding Whitmore's letter to Washington, recommended that his salary be increased accordingly. Downes also recognized the merit in the proposition to name Caban foreman, with his pay boosted to $3 per diem.[838]

The board promised to review Whitmore's request for a pay increase. Meanwhile, Downes was to determine whether the services of a competent superintendent could be secured for $4 per diem, a sum in excess of that paid to any other yard master workman.[839]

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836. Morris to Downes, January 4, 1841, NA, RG 45, Letters Sent, BNC.

837. Whitmore to Downes, January 15, 1840, NA, RG 45, Letters Received, BNC.

838. Downes to Chauncey, January 15, 1840, NA, RG 45, Letters Received, BNC.

839. Morris to Downes, January 20, 1840, NA, RG 45, Letters Sent, BNC.

Replying, Downes noted that the Navy had been fortunate to secure Whitmore's services. In his opinion, $4 a day was not "adequate to his services." Whitmore was tried and known, and Downes did not believe the "risk of making new trials" was in the government's interest.[840]

The board, however, pigeonholed the subject of raises for Whitmore and Caban, and it did not resurface until the winter of 1841-42.

b. Serious Charges Are Made Against Whitmore

Early in the spring of 1841, John S. Ladd, an attorney, made serious charges against Superintendent Whitmore. He accused him of compelling several apprentices (George Andrews and Charles and Oliver Richardson) to make kickbacks on pain of being discharged. Called on for an explanation, Whitmore informed Commandant Downes that Charles Richardson had been fired because of bad conduct, while the other two young men had quit because of ill health. While employed at the ropewalk, he continued, they had been "treated in all respects as apprentices."[841]

Baxter Richardson, Charles and Oliver's father, described as a "drunken worthless man" by Commodore Downes, then went to court. He brought suit against Whitmore. Upon being apprised of this, the department called on Downes to keep it advised of trial developments.

Downes was satisfied that Whitmore would be exonerated and, if the commissioners were stampeded into firing him, the government's interest would suffer. An equally competent master ropemaker would be difficult to find.[842]

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840. Downes to Chauncey, January 28, 1840, NA, RG 45, Letters Received, BNC.

841. Ladd to Downes, April 1, 1841 and Whitmore to Downes, April 17, 1841, and Morris to Downes, April 10, 1841, NA, RG 45, Letters Received and Sent, BNC.

842. Board to Downes, June 18, 1841, Sawyer to Downes, June 22 and Downes to Board, June 25, 1841, NA, RG 45, Letters Sent and Received, BNC.

Meanwhile, Ladd had brought suit against Whitmore on behalf of his clients. By mutual consent, at the June term of the Common Court, the trial was postponed first till September and then till December, when Ladd secured a judgment against Whitmore. The superintendent filed an appeal.[843]

On January 8, 1842, the commissioners, satisfied that Whitmore was guilty of taking kickbacks, ordered his discharge. Downes was to initiate measures to select a successor.[844]

Commodore Downes carried out his instructions with no enthusiasm and deep regret. Writing the board, he explained, that the only substantial complaint against Whitmore was taking kickbacks and this was a universal practice in "every mechanical department in the yard." Whitmore would be difficult to replace.

If the department, however, refused to reconsider its decision, Downes urged that William Caban be named to the ropewalk superintendency. Caban, who had been its foreman since early 1840, was 30, of good habits, and familiar with all aspects of the operation.[845]

Taking cognizance of Downes' statements, the board reversed itself: Whitmore was to be reinstated as superintendent.[846]

c. Whitmore's Difficulty Encourages Downes to Seek More Apprentices

On the last day of January 1842, influenced by the Whitmore imbroglio, Commandant Downes requested the department to

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843. Downes to Board, undated, NA, RG 45, Letters Received, BNC.

844. Warrington to Downes, January 8, 1842, NA, RG 45, Letters Sent, BNC.

845. Downes to Board, January 11 and 12, 1842, NA, RG 45, Letters Received, BNC.

846. Warrington to Downes, January 15, 1842, NA, RG 45, Letters Sent, BNC.

designate the number of apprentices to be allowed to these departments--Ropemakers', Caulkers', Masons', Plumbers', Coopersmiths', Painters', and Chief Engineers'. In respect to the number of boys to be allowed the ropemakers', he noted, they had proved very useful in that department. They were particularly helpful in "tending certain machines." The four roving machines, for example, were operated by boys, while their services were important in the laying-up ground. Seven or eight of these lads had been employed at the walk since it had gone into production. If they were laid off, they would have to replaced by men at higher wages. Whether these boys were classified as apprentices or not, must be left to the board's discretion.

An inquiry had divulged that there were 30 minors currently employed at the yard, at wages established by the board on July 8, 1817. Of the 30, only the two apprenticed to the master blacksmith were regularly indentured. If the circular of July 8, 1817, were to be enforced, the others must be laid off at great injury and loss to themselves, as well as to the service.[847]

Referring Downes to the circular of May 1, 1817, the commissioners reminded him that it governed the number and pay of apprentices, and to whom they were allowed. The circular of July 8, 1817, had modified the terms of pay and age. As these circulars had never been revoked, they were still in force and no apprentices were to be allowed that were not therein provided for. No apprentices were to be received, who were not indentured.[848]

d. Caban Succeeds Whitmore As Superintendent

Whitmore returned to his position briefly. But, on March 10, the board having again refused to boost his pay, while raising Caban's to $2.50 per day, he submitted his resignation to Commodore

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847. Downes to Board, January 31, 1842, NA, RG 45, Letters Received, BNC.

848. Board to Downes, February 17, 1842 and Downes to Board, March 10 and 12, 1842, NA, RG 45, Letters Received and Sent, BNC.

Downes, to take effect on April 1, 1842. He had been hired, he continued, to manage a cordage factory for $3,000 annually.

Downes hated to see Whitmore go, because the public would be the loser. Equally competent men, he complained, would not take the position for $4 per diem, when their services could earn them at private ropewalks $1,800 to $2,500 per annum. Failure by the department to raise the superintendent's compensation would place in this key position "an ordinary kind of man, that you cannot turn out for actual incompetency, but whose character is not equal to conducting of such an establishment to the best interest of the Government."[849]

Upon reviewing the situation, Downes nominated Caban as the "fittest man" available to replace Whitmore.[850] The board, satisfied that Caban possessed "better qualifications than an ordinary kind of man," named him to replace Whitmore. His pay as superintendent of the ropewalk was to begin April 1.[851]

The department, at this time authorized employment, when necessary, of a man as a "storekeeper's laborer" to help Superintendent Caban keep his books.[852]

O. The Marines During the Downes Years

1. Coping with Disciplinary Problems

The administration of punishment for wrong doings and disciplinary breaches continued to occupy much of the Marines' attention during the seven years Commodore Downes commanded the Charlestown Navy Yard. For example, on the evening of May 26, 1835, Private Calvin

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849. Board to Downes, Feburary 17, 1842 and Downes to Board, March 10 and 12, 1842, NA, RG 45, Letters Received and Sent, BNC.

850. Downes to Board, March 15, 1842, NA, RG 45, Letters Received, BNC.

851. Warrington to Downes, March 18 and 28, 1842, NA, RG 45, Letters Sent, BNC.

852. Warrington to Downes, March 23, 1842, NA, RG 45, Letters Sent, BNC.

Porter, a prisoner convicted and confined for desertion, asked Sergeant-of-the Guard John Fowler for permission to go to a tub next to the guardroom door. Seeing that Porter was clad in only his shirt and trousers, Sergeant Fowler relaxed his vigilance. Porter took advantage of this to elude the sergeant and escape over the wall.

Barracks Commander Colonel Freeman accordingly had Sergeant Fowler arrested. He was soon released but would be fined the cost of apprehending Porter.[853]

On June 12 Colonel Freeman, in an effort to tighten discipline, sought authority to employ the "Naval Laws & Regulations to inflict corporal punishment for drunkenness and other offences on post."[854] Marine Corps Commandant Henderson was unable to give the desired authority. Freeman was reminded that corporal punishment could only be inflicted by a sentence pronounced by court martial.[855]

Meanwhile, Private James Lavery had deserted his post at the Navy yard's main gate. He was soon apprehended in Boston and brought back to the barracks, where he was confined with a ball and chain.[856] Upon being advised of this, Colonel Henderson wrote Freeman that, during his forthcoming visit to Charlestown, he would determine the extent of Private Lavery's punishment.[857]

To reduce the number of men in the guardhouse and simultaneously boost the strength of the force available for duty, Commandant

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853. Freeman to Henderson, June 13, 1835, NA, RG 127, Letters Received.

854. Freeman to Henderson, June 13, 1835, NA, RG 127, Letters Received.

855. Henderson to Freeman, June 24, 1835, NA, RG 127, Letters Sent.

856. Freeman to Henderson, June 27, 1835, NA, RG 127, Letters Received.

857. Henderson to Freeman, July 3, 1835, NA, RG 127, Letters Sent.

Henderson, in early June, directed Colonel Freeman to release those prisoners whose cases had not been brought before a court martial, because "of some supposed informality, and put them on such duty" as he deemed best. If they were social misfits or chronic troublemakers, Freeman was to recommend them for discharge.[858]

This helped to alleviate the situation but did not solve the problem. Desertions, especially among recruits, continued to plague the Corps, as they did the Army and Navy throughout the 1830s and 1840s.

2. Defining the Corps' Responsibility to the Navy

There continued to be difficulties in making adjustments to the 1834 legislation. On October 31, 1835, Commandant Downes complained that Colonel Freeman had refused to obey his order to turn out a guard to receive the Navy commissioners on their September 30 visit to the yard. If the navy yard and barracks were separate commands, Downes wished to be apprised.[859]

Secretary of the Navy Dickerson promised an investigation.[860]

President Jackson, upon being apprised of the problem, held that Marines attached for protection of the navy yard were subject to the orders of the commandants thereof, and were to receive from him their instructions as to the duties they were to perform therein. In addition, all persons enlisted into the nation's armed services, and doing duty under orders to the commandants of the yards will be subject to the "act

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858. Henderson to Freeman, July 6, 1835, NA, RG 127, Letters Sent.

859. Downes to Dickerson, October 31, 1835, NA, Captains' Letters, Microcopy M125. Colonel Freeman, upon refusing to comply with Downes' orders, had explained that he had no knowledge of a Marine guard ever having been required to receive the commissioners on their visits to the yard. Nor did he know of any "regulation or useage of service making it proper that he should have a guard receive them unless they visited the barracks, when due honors will be paid."

860. Dickerson to Downes, November 4, 1835, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

for the better government of the navy of the United States, and punished in the same manner as if the offense had been committed at sea."[861]

Hereinafter, all orders and other communications between Commandant Henderson and his staff addressed to officers of the Corps, stationed at navy yards, were to be sent unsealed to the commandant of the yard. The detachment commanders could suspend from duty Marine officers under their command and confine noncommissioned officers and privates, provided their offenses required it, but they must furnish the yard commandant with a statement of the offenses within 24 hours, for his information and further orders.[862]

3. The Detachment in the Autumn of 1835

In September 1835 Commandant Henderson inspected all Marine detachments and barracks, except those at Pensacola. He found the men "as well disciplined as the frequent changes to which they are continually liable will admit." Requisitions for guards for warships and the necessity of "sending to sea the best drilled soldiers," render it "extremely difficult to have the force, left on shore, as thoroughly drilled as could be wished." Guards returning from long cruises, "with their uniforms tarnished by salt air and water" prevented as "complete uniformity in the appearance of the men as they would possess if they were stationary."[863]

To encourage re-enlistment, the comptroller had ruled that any Marine enlisting two months before or one month after the expiration of his term of service was entitled to two months' extra pay, as well as the pay, rations, and clothing due on account of the unexpired weeks of service.[864]

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861. Jackson to Henderson, December 7, 1835, found in American State Papers, Naval Affairs, Vol. IV, pp. 835-36.

862. Dickerson to Henderson, December 11, 1835, found in ibid., p. 836.

863. Henderson to Dickerson, October 6, 1835, NA, RG 127, Letters Sent.

864. Henderson to Freeman, December 2, 1835, NA, RG 127, Letters Sent.

This gave no immediate relief. To reinforce the Charlestown detachment, which had seen its strength erode during the autumn, Colonel Henderson on January 13, 1836, directed the officer in charge of the Philadelphia barracks to send two sergeants and 12 privates to Boston.[865] They arrived on the 22d and reported for duty to Captain Thomas S. English.[866]

Colonel Freeman was absent from the barracks throughout the winter. After expiration of a Christmas leave, he was called to Washington. He did not return to Charlestown until March 26. During his absence Captain English was in command.

4. Service in the Second Seminole War Reduces the Detachment to a Sergeant's Guard

Most of the Marines would soon be leaving the navy yard. The Second Seminole War had exploded in Florida, and, by the spring of 1836, the Army found itself hard pressed. More than 1,000 soldiers were trying to round-up and to deport to the Indian Territory more than 3,000 Indians. State militia, which had initially reinforced the Army, soon had their fill of poor rations, fever, and discomforts. With the coming of spring, the militia units were recalled and returned to their home states.

To complicate a difficult situation, long standing feuds that had wracked the Creek Nation erupted. Murder begat murder, and troops had to be called in to curb the violence. Marine Corps Commandant Henderson volunteered the services of a regiment of Marines for duty with the Army. His offer was accepted with alacrity. President Jackson, in accordance with the Act of June 30, 1834, ordered the withdrawal of all Marines from the navy yards and the Washington barracks, except for a sergeant's guard (one sergeant, one corporal, and 12 privates) at each, for service with the Army in the southeast. The sergeant's guard was to consist of personnel unable to pull field duty.

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865. Henderson to Miller, January 13, 1836, NA, RG 127, Letters Sent.

866. English to Henderson, January 22, 1836, NA, RG 127, Letters Received. Colonel Freeman had been on leave since December 24 and Captain English was in command of the barracks.

Colonel Freeman was to assume command of the Portsmouth detachment, and with it and all officers and men from the Charlestown barracks, not detailed for the sergeant's guard, proceed to New York. On arrival of his battalion in New York City, Colonel Freeman was to receive from Lieutenant Colonel John M. Gamble such troops as Gamble had been directed to turn over. Accompanied by his reinforced battalion, Freeman was to take passage aboard a Charlestown, South Carolina, bound ship. From Charleston, the battalion would travel to Augusta, Georgia, by rail, and from there march to Fort Mitchell, Alabama.[867]

No time was lost in packing their gear, bringing down the Portsmouth detachment, and securing passage on a New York City-bound ship. On May 29 Colonel Freeman and his Marines sailed from Boston. Left behind were Second Lieutenant F.B. McNeill and a handful of enlisted men.

The departure of Freeman and most of the Marines placed Commandant Downes in a quandry. Writing Secretary of the Navy Dickerson, he explained that he had engaged ten men as watchmen to look after the public property. But these men could not prevent recruits and disillusioned seamen from deserting. To control this problem called for increased vigilance by yard and receiving ship officers. As these were few in number, Downes called on the department to immediately order to the yard the mishipmen allowed by regulations.[868]

Upon being apprised of Downes' actions, Secretary of the Navy Dickerson gave his approval, and sanctioned employment of "a suitable number of trusty watchmen upon the most reasonable terms." Under no circumstances would Downes hire more than shall be absolutely necessary.[869]

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867. Henderson to Freeman, May 23, 1836, NA, RG 127, Letters Sent.

868. Downes to Dickerson, May 28 and 29, 1836, NA, Captains' Letters, Microcopy M-125.

869. Dickerson to Downes, June 2, 1836, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

On June 10 Sergeant George L. Crosby, two corporals, and 12 privates reached Charlestown from New York and Sergeant Crosby reported to Lieutenant McNeill. Crosby explained that they were to serve as the Marine detachment detailed for duty aboard the sloop-of-war Boston, then being outfitted. Whereupon, McNeill saw Commodore Downes, who told him to keep the detail at the barracks until their service afloat was required.[870]

In mid-June Acting Marine Corps Commandant Wainwright ordered Lieutenant McNeill to report to Corps headquarters for court martial duty before taking command of Natchez's Marine detachment.[871] This disturbed Commodore Downes, and he wrote Secretary Dickerson, complaining that he did not recognize Colonel Wainwright's authority to detach an officer from his command nor had he received any communication in relation to the Marine guard sent from New York City for duty on Boston.[872]

Secretary Dickerson replied that Lieutenant McNeill had been detached with his approbation, and that the New York Marines were intended to be a part of Boston's guard.[873]

McNeill's departure for Washington was delayed for several weeks, because of ill health, which kept him confined to his quarters.[874] When he left Charlestown, in early July, Orderly Sergeant Edward C. Young, as senior noncommissioned officer, assumed command of the sergeant's guard. Three months passed before Acting Commandant Wainwright could

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870. McNeill to Wainwright, June 23, 1836, NA, RG 127, Letters Received.

871. Wainwright to McNeill, June 15, 1836, NA, RG 127, Letters Sent. Colonel Henderson had taken the field with the Marine regiment, leaving Colonel Wainwright in charge of Corps headquarters.

872. Downes to Dickerson, June 20, 1836, NA, Captains' Letters, Microcopy M-149.

873. Dickerson to Downes, June 24, 1836, NA, Letters Sent, Secretary of the Navy, Microcopy M-149.

874. McNeill to Wainwright, June 28, 1836, NA, RG 127, Letters Received.

spare an officer as McNeill's replacement. Finally, on October 1, he ordered Second Lieutenant Richard Douglas to repair to Charlestown and report to Commandant Downes. He was to relieve Orderly Sergeant Young as commander of the barracks and begin a vigorous enlistment campaign.[875]

Lieutenant Douglas reached Charlestown from Baltimore on October 8, and assumed command of the detachment. An inspection of the barracks and quarters satisfied him that no immediate repairs were needed.[876]

On January 5, 1837, Colonel Wainwright ordered Captain English to report to Commodore Downes and begin organizing a guard for duty aboard Independence, then being outfitted at the yard. As senior officer, he was to relieve Lieutenant Douglas as commander of the barracks.[877]

Captain English reached Charlestown in mid-January from the New York yard, accompanied by one sergeant, one corporal, and 12 privates. English, whose family lived in the Boston area, had campaigned for this assignment.[878] On the last day of the month, Lieutenant Douglas was transferred to the New York yard.[879]

On March 8, two sergeants, two corporals, two musics, and 18 privates reached Charlestown from Washington and joined the men brought

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875. Wainwright to Douglas, October 1, 1836, NA, RG 127, Letters Sent. Young was a gifted amateur artist. For details on Young's Marine Corps career, the reader should consult Wendell C. Park's "Sgt. E.C. Young, Artist of the Old Corps," Fortitudine, Vol. VII, No. 1, pp. 10-11.

876. Douglas to Wainwright, October 8, 1836, NA, RG 127, Letters Received.

877. Wainwright to English, January 5, 1837, NA, RG 127, Letters Sent.

878. English to Wainwright, January 16, 1837, NA, RG 127, Letters Received.

879. Douglas to Wainwright, February 1, 1837, NA, RG 127, Letters Received.

up from New York for service aboard Independence.[880] By the beginning of April, Captain Nicolson, who had been named to command the big razee, called Captain English in and asked, "When will you be ordered aboard Independence?" Relaying this information to headquarters, English wished to know when he would be relieved as commander of the barracks by Captain Ward Marston.[881]

No formal relief was necessary in this situation, Colonel Wainwright replied, all that was required was to pass receipts. Captain Marston, then on recruiting duty at nearby Taunton, had been ordered to Charlestown. English would await his arrival and then report immediately to Captain Nicolson.[882]

In mid-April Captain Marston reported to Commodore Downes for duty as commander of the yard's Marine detachment. He found the unit much increased in strength by an influx of recruits, but in want of noncommissioned officers--there being only two sergeants and two corporals. One of the corporals was pulling duty as a sergeant and four privates as corporals.[883] On June 2 Captain Marston accordingly recommended the Corporals John C. Smeed and John P. Davis be promoted to sergeants and Privates John Money, Charles E. Morris, George Ivy, Samuel W. Leggitt, Thomas Boorman, A.C. Hand, and Alphonse Laument be made corporals.[884]

Acting Commandant Wainwright approved these promotions.[885]

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880. English to Wainwright, March 8, 1837, NA, RG 127, Letters Received.

881. English to Wainwright, April 3, 1837, NA, RG 127, Letters Received.

882. Wainwright to English and Wainwright to Marston, April 9, 1837, NA, RG 127, Letters Sent.

883. Marston to Wainwright, April 20, 1837, NA, RG 127, Letters Received.

884. Marston to Wainwright, June 2, 1837, NA, RG 127, Letters Received.

885. Wainwright to Marston, June 8, 1837, NA, RG 127, Letters Sent.

5. Most of the Marines Return from the Southeast

Meanwhile, a treaty had been signed at Fort Dade, Florida Territory, on March 6 between some of the Seminole chiefs and the United States. Major General Thomas H. Jesup, believing the war was over, began to discharge his volunteers. On May 22, 1837, Colonel Henderson received orders to return to Washington. Accompanied by all his Marines, except two companies, Henderson left Florida the next day. Within two weeks of Henderson's departure, hostilities were resumed.

Upon reaching Washington, Colonel Henderson, on June 22, resumed his duties as Corps Commandant. Two days later, he wrote General Jesup, requesting that the battalion that had remained in Florida be returned to its "home station" as soon as its services could be dispensed with. His efforts to secure its return were rebuffed by the War Department, which felt that the need for Marines in Florida was more pressing than at the nation's navy yards.[886]

The critical Marine manpower situation was underscored in August. Captain Marston, as ordered, had sent a detachment (one sergeant, one corporal, and 17 privates) to New York City for duty aboard Ontario. This so reduced his command that Commodore Downes was compelled to eliminate one post at the yard.

As he had only 16 men available for guard duty, Marston sought authority to "pay two dollars for each recruit until the strength of his detachment was increased to 60 privates." He would then be able to meet requisitions for 20-man details, without curtailing yard responsibilities.[887]

Commandant Henderson was absent from headquarters from mid-July until September 1, and he failed to reply to Marston's communication. There was little he could do, however, to alleviate the manpower problem, because the Corps' enlisted strength had been pegged by Congress at

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886. Henderson to Jesup, June 24, 1837, NA, RG 127, Letters Sent.

887. Marston to Henderson, August 11, 1837, NA, RG 127, Letters Received.

four noncommissioned staff officers, 80 sergeants, 80 corporals, 30 fifers, 30 drummers, and 1,000 privates. Of this force, nearly two-thirds were on sea duty. The Marines assigned to duty afloat were all "effective men, leaving all the non-effectives to be comprehended in the part of it left on shore." The non-effectives included the recruits, sick, and prisoners, and currently numbered 210, which left 113 effective privates to constitute the guard detachments of the nation's seven navy yards, as well as the headquarters detail.[888]

The sloop-of-war Erie reached the yard on September 15 and was laid-up for repairs. Her Marine guard, as was the practice, was transferred to the barracks to be processed and reassigned. A number of Erie's Marines, having been at sea for months, clamored for 20-to-30-day furloughs.[889]

On October 19 Ohio dropped anchor off the yard, and, on the 31st, her Marine guard (one sergeant, one corporal, and 45 privates) reported to the barracks.[890] They were without arms and accoutrements and "elements" of their uniforms. Captain Marston issued them arms to enable them to mount guard.[891]

Commodore Downes now told Captain Marston that if there were enough Marines to permanently man ten posts, Downes would dispense with the watchmen. To discharge this mission, which he believed a vital function of the Corps, Marston called on Commandant Henderson to authorize for his command a strength of 75 privates, with the prerequisite number of commissioned and noncommissioned officers.[892]

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888. Henderson to Dickerson, November 18, 1837, NA, RG 127, Letters Sent.

889. Marston to Henderson, September 25, 1837, NA, RG 127, Letters Received.

890. Henderson to Marston, September 30, 1837, NA, RG 127, Letters Sent.

891. Marston to Henderson, October 31, 1837, NA, RG 127, Letters Received.

892. Marston to Henderson, November 2, 1837, NA, RG 127, Letters Received.

Upon examining the September returns, Colonel Henderson saw that there had been 46 privates at the barracks. He found it "somewhat singular" that this force, although reinforced by Erie's detachment, had been reduced in four weeks to 12.[893]

Early in April 1838 Captain Marston, as directed, sent a detail (one sergeant and ten privates) to the New York barracks. This reduction in strength made guard duty more arduous. Relaying this news to Colonel Henderson, Marston noted that Commodore Downes was "anxious" to have a sufficient number of Marines, 80 to 100, at the yard to enable him to discharge the watchmen.[894]

Replying, Commandant Henderson noted that, with a battalion in Florida, he had been "obliged to distribute the few men we have in the Corps to the best advantage among the Stations."[895]

Then, to compound Marston's manpower problem, Corps headquarters alerted him to be prepared to send a detail (one sergeant, two corporals, and ten privates) aboard Cyane, when called upon by Commander Percival.[896]

6. Colonel Freeman Resumes Command

On September 10, 1838, while on his annual visit to and inspection of the barracks, Commandant Henderson ordered Colonel Freeman to resume command of the post, reporting to Commodore Downes. Both Freeman and Marston being present, this transfer was effected immediately.[897] Captain Marston remained at the barracks until the first

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893. Henderson to Marston, November 7, 1837, NA, RG 127, Letters Sent.

894. Marston to Henderson, April 3, 1838, NA, RG 127, Letters Received.

895. Henderson to Marston, April 9, 1838, NA, RG 127, Letters Sent.

896. Henderson to Marston, April 25, 1838, NA, RG 127, Letters Sent.

897. Henderson to Freeman, September 10, 1838, NA, RG 127, Letters Sent.

week of October when he was detached and ordered to open a recruiting station in Boston.[898]

This was dictated, in part, by the navy call made for Marines (three sergeants, four corporals, two musics, and 48 privates) to be sent aboard Ohio. Some of these men were to be sent to Boston from the Washington barracks, while Freeman's command would provide the remainder.[899]

On October 3 Commandant Henderson ordered one corporal and five privates from New York City to aid in fleshing out Ohio's guard. Freeman would still have to furnish from his command one sergeant, two corporals, and 20 privates.[900]

On October 17 Colonel Freeman notified headquarters that the transfer of Captain Marston left him only two junior officers. If the detachment were to discharge its duties efficiently, his billet must be promptly filled by another captain. One or two lieutenants were also needed to serve as officers-of-the-day.

There were now at the barracks five sergeants, including the orderly sergeant, four corporals, and two lance corporals. To correct this situation, Freeman urged that the two lance corporals be promoted to corporal.[901]

It was impossible for Colonel Henderson to order a captain to the barracks. One or two lieutenants would be joining Freeman, whenever they could be spared from other assignments.

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898. Henderson to Marston, October 3, 1838, NA, RG 127, Letters Sent.

899. Henderson to Freeman, September 25, 1838, NA, RG 127, Letters Sent.

900. Henderson to Freeman, October 3, 1838, NA, RG 127, Letters Sent.

901. Freeman to Henderson, October 17, 1838, NA, RG 127, Letters Sent, CMB.

He could promote the two enlisted men to corporal.[902]

Early in December, Commandant Henderson ordered Lieutenant McNeill, who had been stationed at the barracks in 1836, from Washington to Charlestown. McNeill reported to Colonel Freeman, on the 11th, only to be arrested on January 11, 1839, as a debtor. He was thrown in jail for want of bond to remain there until the court convened in April. This reduced the detachment to two officers available for officer-of-the-day duty.[903]

Upon being advised of McNeill's difficulties, Commandant Henderson called for a written statement, explaining the circumstances for his confinement.[904]

McNeill's debt to a Mr. Locke, Colonel Freeman explained, had been incurred on forfeiture of a bond posted in 1836. McNeill had been transferred at that time without settlement of his suit and Lockes had been compelled to pay the debt. Now Locke, in an effort to recover his loss, had had McNeill jailed.[905]

McNeill's legal problems were solved at the April term of court, and he rejoined the detachment.

On Saturday, June 22, Private Stephen Lawrence's body was fished out of the Charles River. Attached to his right leg by a length of rope was a 53-pound piece of scrap iron. Whether Lawrence's death was murder or suicide was never determined.[906]

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902. Henderson to Freeman, October 23, 1838, NA, RG 127, Letters Sent.

903. Henderson to Freeman, December 4, 1838 and Freeman to Henderson, January 28, 1839, NA, RG 127, Letters Sent and Received.

904. Henderson to Freeman, January 23, 1839, NA, RG 127, Letters Sent.

905. Freeman to Henderson, January 28, 1839, NA, RG 127, Letters Sent, CMB.

906. Army and Navy Chronicle, Vol. IX, p. 10.

7. The Detachment Discharges Its Mission

On September 26, 1839, Commandant Henderson notified Colonel Freeman that three sergeants, three corporals, two musics, and 31 privates for United States and one sergeant, two corporals, and ten privates for Marion will be sent to Charlestown from Washington and Philadelphia. It was not in the Corps' power to detail sergeants or privates for the latter vessel's Marine guard.[907]

Despite heavier calls for Marines for duty afloat, the manpower situation had improved. With the nation in the throes of a severe depression, following the panic of 1837, Corps' recruiters encountered no difficulty in meeting their quotas. In mid-October Colonel Freeman reported that the average enlisted strength of the detachment between January 1, 1837, and October 1, 1839, had been a little under 78.[908]

Early in February 1840, Captain Marston closed the Boston recruiting rendezvous and reported to Colonel Freeman.[909]

A fire across the Salem Turnpike from the barracks reminded Colonel Freeman of this ever present danger. He accordingly purchased six large tubs to be positioned at strategic places in the barracks and filled with water. Fifty leather water buckets were also secured.[910]

In July, Columbia and John Adams returned to the United States from lengthy cruises and were laid-up in ordinary. The Marine guards were ordered to report to Colonel Freeman at the barracks, while the naval personnel were sent aboard the receiving ship for processing preparatory to discharge or reassignment. Upon being notified of this, Commandant Henderson directed Colonel Freeman to have the four musics

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907. Henderson to Freeman, September 26, 1839, NA, RG 127, Letters Sent.

908. Freeman to Henderson, October 17, 1839, NA, RG 127, Letters Sent.

909. Henderson to Freeman, February 3, 1840, NA, RG 127, Letters Sent.

910. Freeman to Henderson, March 9, 1840, NA, RG 127, Letters Sent, CMB.

that had served aboard these vessels sent to headquarters. If, however, the two Medalf boys had been paid off, Freeman was to see that they did not squander their money. Other enlisted personnel, desirous of transfer, were to be given ten days' leave, with orders to report at their new stations upon its expiration.[911]

Despite precautions, Marine Corps' recruiters continued to enlist minors. Whenever this was brought to the attention of headquarters by distressed parents or guardians, the minors upon proof of age were discharged.[912]

The detachment was called on frequently to provide personnel for the receiving ship's guard. On February 1, 1841, a sergeant and two privates were transferred from the barracks to Columbus. Private Henry Hutchinson, who had been confined for desertion since August, was returned to duty on February 5. Two weeks later, he was detailed to Columbus' guard.[913]

Orders were issued on March 26 for Colonel Freeman to detach two corporals and 28 privates for service aboard Delaware. None of these men were to have less than three years to serve, and they must be "sufficiently well drilled" for sea duty. They were to be conducted to the New York barracks by either Lieutenant Edward L. West or another officer.[914]

Lieutenant Zeilin was placed in charge of the 30-man detachment and proceeded by railroad to New York City, where he reported to the

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911. Henderson to Freeman, July 7, 1840, NA, RG 127, Letters Sent.

912. Freeman to Henderson, January 4, 1841, NA, RG 127, Letters Sent, CMB. Private John O. Fulson was discharged at the barracks on January 8, 1841, for this reason.

913. Freeman to Henderson, February 1 and 5, 1841, NA, RG 127, Letters Sent, CMB.

914. Henderson to Freeman, March 26, 1841, NA, RG 127, Letters Sent.

commander of the Marine barracks. To help make good this loss, the detachment was reinforced during the first week of April by ten men from the Portsmouth barracks.[915]

A detachment of Marines from the barracks participated in the ceremonies at Roxbury, Boston, and Charlestown on the occasion of the death of President William Henry Harrison.[916]

Early in May the barracks was again called on to send a detail to New York City. On the 8th Lieutenant McNeill and six men (a corporal and five privates) were transferred and departed the barracks for duty aboard North Carolina.[917]

Heavy September drafts for men for duty afloat were faced. On the 9th Sergeant Collier left for New York City with a 15-man detachment for service with the West India squadron. Among these men were Privates Thomas Gorman and James J. Ayers, deserters. They were to be confined until ready to go aboard ship.[918]

Later that day, Colonel Freeman received instructions to send two sergeants, one corporal, 19 privates, one music, and one fifer to Macedonian and Warren, then tied-up at the yard. This request would be difficult to comply with, because the departure of Collier and his people had reduced the command, exclusive of men on sick call and detail, to 32 privates.[919]

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915. Freeman to Zeilin, March 31, 1841 and Freeman to Nicholson, April 7, 1841, NA, RG 127, Letters Sent, CMB.

916. Marston to Dearborn, April 16, 1841, NA, RA 127, Letters Sent, CMB.

917. Freeman to Harris, May 8, 1841, NA, RG 127, Letters Sent, CMB.

918. Freeman to Harris, September 9, 1841, NA, RG 127, Letters Sent, CMB.

919. Freeman to Henderson, September 10, 1841, NA, RG 127, Letters Sent, CMB.

To east the manpower crisis, six privates were transferred to the detachment from the Portsmouth yard.[920]

Lieutenant Zeilin was back at the barracks by autumn, when as senior offices, in mid-November, he assumed command of the detachment, while Colonel Freeman was on leave.

Freeman returned and resumed command on January 5, 1842. The manpower situation, with Columbia and John Adams being readied for sea, was again critical. On January 25, three sergeants, three corporals, and 36 privates were transferred from the barracks to Columbia.[921]

To accomplish this, Colonel Freeman had to withdraw all sentinels from the yard, except those assigned to man the main gate. Commodore Downes, to provide for the yard's security, adopted the policy pursued during the regiment's service in the Second Seminole War. He employed 12 watchmen at $12 per month and their rations.[922]

The department approved Downes' action and authorized him to continue to employ watchmen, until ordered otherwise.[923]

The Marine guard for John Adams was assembled from several sources. Two sergeants, one corporal, and 18 privates arrived from the Portsmouth barracks. To bring the detail up to its authorized strength, Colonel Freeman reinforced it with one corporal and two privates. The musics for Columbia left Washington for Boston on Monday, February 21, and reported to Lieutenant Zeilin, who had assumed command of the frigate's guard.[924]

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920. Henderson to Freeman, September 6, 1841, NA, RG 127, Letters Sent.

921. Freeman to Parker, January 25, 1842, NA, RG 127, Letters Sent, CMB.

922. Downes to Board, January 26, 1842, NA, RG 45, Letters Received, BNC.

923. Warrington to Downes, February 4, 1842, NA, RG 45, Letters Sent, BNC.

924. Henderson to Freeman, February 16, 1842, NA, RG 127, Letters Sent.

8. Efforts to Relocate the Barracks Fail

Colonel Freeman had returned from the southeast in mid-April 1837. Captain Marston having been placed in command of the barracks, Freeman would be in charge of regional recruiting. After visiting the barracks, Freeman wrote Acting Commandant Wainwright, calling attention to the need for "very considerable repairs to the officers' quarters & men's barracks . . . unless the establishment is to be removed to a location without the Navy Yard." There was a convenient site, he noted, for relocation of the barracks near the Chelsea Bridge, across the Salem Turnpike from the navy yard.[925]

Since 1828, when the yard's master plan had been approved, the question of relocating the barracks outside the yard had periodically surfaced. It now seemed as if action to accomplish this goal might be generated. In the autumn of 1837 the department named Colonel Freeman and Commodore Downes to a board charged with selecting a new site for the barracks in the vicinity of the yard, and to ascertain its price. The only suitable lot answering this description was the one mentioned by Freeman, opposite the lower yard, and separated from it by the Salem Turnpike. It fronted on the pike for 1,082 feet and was bounded on the northeast by the Mystic. This tract was owned by four individuals--Commodore Hull, the Salem Turkpike Co., Ebenezer Breed, and a Mrs. Shaw. On part of the tract, which formed a parallelogram, there was a hill, which could be leveled and the spoil used for fill. Freeman and Downes believed the lot could be purchased for about $25,000.[926]

Colonel Freeman, however, encountered problems in his negotiations with the landowners.

On December 19, 1838, Marine Corps Commandant Henderson transmitted to Secretary Paulding the offer of the Salem Turnpike Co. for

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925. Freeman to Wainwright, April 14, 1837, NA, RG 127, Letters Received.

926. Downes and Freeman to Secretary of the Navy, December 8, 1837, NA, Captains' Letters, Micrbcopy M-125.

its tract. This and the one made by Commodore Hull, Henderson deemed excessive. He found the prices asked by Ebenezer Breed and Mrs. Shaw for their land moderate in comparison.

Marine Corps Quartermaster Nicholson had cautioned that an early decision was necessary, because Breed had placed a time limit on his offer. If the site were not now purchased, they could not secure it in the future, and the Marines would "lose the only possible chance of getting ground adjoining the yard."[927]

The secretary acknowledged and filed the correspondence for future reference.[928]

9. Maintenance of the Buildings and Grounds

Upon assuming command of the detachment in mid-April 1837, Captain Marston inspected the barracks. He saw that the walls of the left wing required yellow washing, while the interior woodwork should be painted. The fences, outbuildings, and enlisted men's quarters needed whitewashing. He and his family planned to occupy the "left wing as soon as it could be put in order."[929]

In mid-summer 1838, to secure better control of disbursements made for maintenance and repair of the barracks and quarters, Marine Quartermaster Nicholson issued a directive revoking authority for post commanders to obligate funds for minor but necessary repairs. Captain Marston protested this action. Most repairs, he pointed out, were of a trifling nature, which it would be a waste of time to refer, besides necessitating a delay in attending to those requiring immediate attention.

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927. Henderson to Paulding, December 19, 1838, NA, RG 127, Letters Sent.

928. Paulding to Henderson, December 21, 1838, NA, RG 80, Letters Sent by Secretary of the Navy to Marine Officers.

929. Marston to Wainwright, April 20, 1837, NA, RG 127, Letters Received.

He trusted that the commandant had sufficient confidence in his judgment as he had theretofore practiced the "greatest economy."[930]

Colonel Henderson could not change his policy, because it had been instigated by the department. Captain Marston, along with other detachment commanders, would have to learn to live with it.

On August 22 Captain Marston accordingly requested and was granted authority to spend funds for:

purchase of a new cooking stove	$ 35.00
purchase of a new stove for room No. 4 . . .	10.00
purchase of a new stove for guardroom . . .	10.00
repair of stove in room No. 6	3.00
purchase of stove pipe	8.00
purchase of large lamp for left wing . . .	4.50
purchase of 10 lights (2 for right wing, 2 for left wing, 1 for guardroom, 1 for officer-of-the-day, 1 for sinks, 1 at lower gate, and a lantern to be used each by the orderly sergeant and the sergeant-of-the-guard	36.00
Total	$106.50[931]

In November 1838, soon after returning to Washington from his annual inspection of the stations, Commandant Henderson informed Secretary of the Navy Paulding that the Charlestown barracks were "in a state of decay and too small for the force required at that post." An appropriation had been made by Congress to build suitable barracks, and Henderson urged prompt action.[932] But, until a site was purchased, this would be impossible.

As an emergency measure, Colonel Freeman now called for an allotment to make needed repairs. Commdandant Henderson, however, did

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930. Marston to Henderson, July 31, 1838, NA, RG 127, Letters Sent, CMB.

931. Marston to Nicholson, August 22, 1838, NA, RG 127, Letters Sent, CMB.

932. Henderson to Paulding, November 10, 1838, NA, RG 127, Letters Sent.

not believe that more than $300 should be spent for repair of a barracks, which was "in bad condition and very badly constructed originally."[933]

To secure a firm figure on the extent and cost of required repairs, Colonel Freeman requested that the navy yard's master carpenter and painter survey the quarters and barracks and submit estimates for needed work.[934] This was done, and in early August 1839, Freeman mailed to headquarters the estimates prepared by the two master mechanics.[935]

Quartermaster Nicholson failed to reply to this letter, so we are unable to learn anything further regarding the nature or extent of these needed repairs. Since Nicholson did not give permission to proceed, we may assume that the projects were not undertaken at this time.[936]

In April 1840, Colonel Freeman asked authority from Commodore Downes for Master Joiner Caleb Pierce to survey the wooden building, used for fuel storage, in the left wing garden, and submit an estimate of the cost of its repair.[937]

Downes was agreeable, and Pierce, after examining the shed, placed the cost of its rehabilitation at $168. This brokedown into lumber $90, nails $13, and labor $65. When he transmitted the estimate to Colonel Henderson, Freeman argued that the labor costs would be less, if Corps mechanics were employed, at an allowance of 15 cents a day, in addition to their pay.[938]

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933. Henderson to Paulding, March 19, 1839, NA, RG 127, Letters Sent.

934. Freeman to Downes, March 30, 1839, NA, RG 127, Letters Sent, CMB.

935. Freeman to Nicholson, August 5, 1839, NA, RG 127, Letters Sent, CMB.

936. Letters Sent, Marine Corps Quartermaster, August I-December 31, 1839, NA, RG 127, Letters Sent, MCQ.

937. Freeman to Downes, April 23, 1840, NA, RG 127, Letters Sent, CMB.

938. Freeman to Henderson, April 25, 1840, NA, RG 127, Letters Sent, CMB.

Colonel Henderson submitted the estimate to Secretary of the Navy Paulding, who authorized the repairs to be made at the estimated cost. Upon relaying this information to Colonel Freeman, Quartermaster Nicholson noted that, as soon as the President signed the "Navy Bill," measures would be taken to make remittances to enable him to pay the due accounts.[939]

Materials were purchased, and a force of carpenters and laborers turned out. By late August the shed had been repaired at a cost of $132.37, leaving an unexpended balance of $35.73 in this account.[940]

This was a wise measure, because Corps headquarters had recently challenged several vouchers submitted for purchase of lumber. In explanation, Colonel Freeman pointed out that the lumber had been used for repair of fences and other damage to Corps property suffered in the December 1839 storms; for necessary repairs of rooms in the left wing occupied by Captain Marston who had rejoined the detachment in April; and for relaying decayed and obstructed drains at the barracks.

As the commandant must know, Freeman continued, the buildings were old and are "constantly requiring repairs that can hardly be foreseen or estimated for." For example, Captain Marston had reported his kitchen sink totally decayed.[941]

In November 1840, Master Joiner Pierce, accompanied by Master Mason Job Turner, returned to the barracks and examined the left wing.[942] They found it occupied as quarters by Captain Marston and the

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939. Paulding to Henderson, July 7, 1840, NA, RG 80, Letters Sent by Secretary of the Navy to Marine Officers.

940. Freeman to Henderson, September 2, 1840, NA, RG 127, Letters Sent, CMB.

941. Freeman to Henderson, July 27, 1840, NA, RG 127, Letters Sent, CMB.

942. Freeman to Downes, November 23, 1840, NA, RG 127, Letters Sent, CMB.

lieutenants, and "so much out of repair as to be unfit for occupancy." The cost of making the structure habitable was placed at:

25 new window frames, sashes, blinds, and setting at $22 each	$550
Slating on lead	200
Stone cap sills and setting	50
Total	$800[943]

Commandant Henderson referred the subject to Navy Secretary Paulding. In mid-December, Paulding approved the project. While it was underway, the five officers were to be allowed commutation in lieu of their quarters.[944]

Encouraged by this success, Colonel Freeman had his quarters examined by Pierce and Turner. They found the right wing of the barracks to be in a "dilapidated state," because of the roof and gutters. To make repairs would cost:

For woodwork and materials	$100
For 17 squares of slating at $13 per square	221
For lead for slating	24
For 160 feet copper gutters and fitting up	160
For repair of foundations to chimneys and materials	55
Total	$560

To repair the left wing gutters, they reported, would involve expenditure of $120 for purchase of and handling 120 feet of copper gutters.[945]

Colonel Henderson, on being apprised of the situation and costs, recommended to the department that necessary funds be allotted. A

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943. Pierce and Turner to Freeman, November 24, 1840, NA, RG 127, Letters Sent, CMB.

944. Nicholson to Freeman, March 26, 1841, NA, RG 127, Letters Sent, CMB.

945. Freeman to Downes, January 9, 1841 and Pierce and Turner to Freeman, January 13, 1841, NA, RG 127, Letters Sent, CMB.

change in administration caused delays, and it was mid-April before Secretary of the Navy Badger sanctioned repair of Colonel Freeman's quarters and hanging new gutters on the left wing.[946]

Repairs to the left wing were completed in early May and to the right wing during the summer.

Meanwhile, one of the two barracks wells had failed. In December 1840 it was sealed and a new one dug.[947]

Colonel Freeman, meantime, had focused attention on efforts to secure funds for rehabilitating and enlarging the enlisted men's quarters in the centre block of the barracks. Once again, Master Mechanics Pierce and Turner were called upon to view the structure and report on the expense of necessary repairs and addition of a second story, with bunks, etc.[948]

Pierce and Turner found that it would cost about $673 to repair the foundation under the men's barracks and the right wing. This project, involving excavation and taking down and laying stone, should be attended to immediately. To add a second story (140 feet long and 22 feet wide) would cost:

bricks and masonry	$ 660
carpentry, slating & materials: making bunks for sleeping in 2d story and painting and glazing .	2,175
Total	$2,835[949]

Upon forwarding these estimates to headquarters, Colonel Freeman wrote that he had asked for this survey, when several feet of "brick wall

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946. Carter to Freeman, April 13, 1841, NA, RG 127, Letters Sent, MCQ.

947. Freeman to Nicholson, December 11, 1840, NA, RG 127, Letters Sent, CMB.

948. Freeman to Downes, April 8, 1840, NA, RG 127, Letters Sent, CMB.

949. Pierce and Turner to Freeman, April 10, 1841, NA, RG 127, Letters Sent, CMB.

in the center of the men's barracks" gave way, because of the failure of the foundation.

The call for an additional story was dictated by need to provide more space for the detachment. There was "only suitable room for 40 to 60 men, agreeable to the regulations for the quartering of soldiers in the Army." The detachment, when at full strength, exceeded this number, and was quartered in three 20-foot-square squad rooms. The other four rooms in the barracks were allotted: one to the first sergeant, one to the other noncommissioned officers, one to the cook, and one as a guardroom. This left the "post without any suitable place for the sick," who were temporarily quartered in the navy yard.[950]

No funds were forthcoming for this project. Instead, Commandant Henderson recommended to Congress an appropriation of $50,000 to purchase the tract north of the Salem Turnpike and to begin construction of a new barracks. Congress, however, failed to include the necessary funds in the 1841 act making appropriations for the naval service, although it was endorsed by the Navy Commissioners.[951]

During the autumn of 1841 a room became available at the barracks for accommodation of the sick, and Colonel Freeman had them removed from the navy yard, because he desired better control of their welfare.[952]

There being no allotment for repair of the foundation of the right wing and center block, Colonel Freeman, in the spring of 1842, contracted for delivery of three loads of stone. Enlisted personnel were detailed as masons and laborers. They were then turned to in the

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950. Freeman to Henderson, April 12, 1841, NA, RG 127, Letters Sent, CMB.

951. Preble, "History of the Boston Navy Yard," p. 273, RG 181.

952. Freeman to Yard Surgeon, October 5, 1841, NA, RG 127, Letters Sent, CMB.

barracks cellar removing rotten planking and replacing it with stone, thus preventing the "walls of the building from falling."[953]

10. Keeping the Detachment Supplied

During these years the detachment requisitioned clothing, arms, and accoutrements through Marine Corps Quartermaster Nicholson. Like the Navy, the Marines continued to advertise and contract annually with various firms to supply the barracks with certain necessities. In November 1841, John K. Graham of Philadelphia was awarded the contract for supplying rations to the Charlestown, Philadelphia, Portsmouth, New York, Norfolk, and Pensacola stations. Martin Collier of Boston was given the fuel contract for the Charlestown Marines for 1842.[954]

On October 12, 1839, Colonel Freeman requisitioned from Quartermaster Nicholson for his command: 40 uniform caps; 50 pompons; 15 uniform coats, size No. 4; 50 uniform woolen overalls; 100 pairs of shoes, particularly sizes Nos. 6-8; 20 blankets; 50 knapsacks; 100 pairs of socks; 50 gaiters, principally Nos. 2-4; 10 waistcoats; and 2 pieces yellow tape for sergeants' overalls.

It was recommended that the shoes be purchased in Boston, as local footgear were of better quality.[955]

Quartermaster Nicholson advised Freeman that the clothing called for would be forwarded by the Philadelphia Quartermaster Depot. As it was planned to make a change in the type of shoe, replacing those now issued by a laced bootee, shoes stockpiled at the depot would be issued before the change was effected.[956]

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953. Freeman to Third Auditor Dayton, June 18, 1842, NA, RG 127, Letters Sent, CMB.

954. Nicholson to Graham, November 17, 1841, NA, RG 127, Letters Sent, MCQ.

955. Freeman to Nicholson, October 12, 1839, NA, RG 127, Letters Sent, CMB.

956. Nicholson to Freeman, October 19, 1839, NA, RG 127, Letters Sent, MCQ.

Some five weeks later, on November 20, Colonel Freeman submitted a requisition for 50 sets of accoutrements, complete except for cartridge-boxes.[957] Robert Dingee of New York City was directed to ship to the barracks the desired accoutrements.[958]

When he inventoried the accoutrements supplied by Robert Dingee, Colonel Freeman found there were no brass plates nor waist belt plates.[959]

These were subsequently supplied by the Phildelphia depot.[960]

On December 19, 1839, Colonel Freeman called on Quartermaster Nicholson to provide the detachment with: 30 woolen uniform overalls (sizes Nos. 3-5); 200 shirts; 50 blankets; 50 socks; 100 fatigue jackets (including a due proportion of music jackets); and 100 fatigue overalls.[961]

These items were received from the Philadelphia depot in January 1840. Three months later, in mid-April, Colonel Freeman requisitioned 50 uniform caps; 50 pompons; 50 uniform coats (most to be sizes Nos. 3 and 4); 3 music uniform coats; 200 linen overalls; 20 uniform woolen overalls (sizes 35); 200 pair of shoes; 50 blankets; 50 knapsacks; 50 pair of gaiters (a large proportion to be sizes Nos. 4-5); 100 linen jackets; 20 watch coats; and 53 counterstays.[962]

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957. Freeman to Nicholson, November 20, 1839, NA, RG 127, Letters Sent, CMB.

958. Nichsolson to Freeman, November 26, 1839, NA, RG 127, Letters Sent, MCQ.

959. Freeman to Dingee, January 4, 1840, NA, RG 127, Letters Sent, CMB.

960. Freeman to Nicholson, March 5, 1840, NA, RG 127, Letters Sent, CMB.

961. Freeman to Nicholson, December 19, 1839, NA, RG 127, Letters Sent, CMB.

962. Freeman to Nicholson, April 14, 1840, NA, RG 127, Letters Sent, CMB.

Six months later, in early October, Colonel Freeman requisitioned from Quartermaster Nicholson, 40 muskets; 50 uniform caps; 50 pompons; 30 uniform coats; 2 music coats; 100 woolen uniforms; 100 overalls; 200 pairs of shoes; 50 blankets; 50 knapsacks; 100 pair of socks; 70 fatigue jackets; and 100 fatigue overalls. These quartermaster supplied gear and ordnance stores arrived from Philadelphia aboard the brig Oak in mid-November.[963]

On February 16, 1841, Colonel Freeman requisitioned 100 cartridge-boxes (new pattern); 100 cartridge-boxes belts; 100 bayonet scabbards; 100 bayonet belts; 100 breast plates; 100 waist belts; 100 waist belt plates; 10 sword belts; 100 screwdrivers; 100 wipers; 100 ball screws; 10 spring vices; 100 brushes and picks; and 100 pompons.[964]

Within ten days, Nicholson had shipped from the Philadephia depot all the requested accoutrements, except the screwdrivers, wipers, ball screws, and spring vices, which were out of stock.[965]

In June a shipment of the recently adopted blue uniform coats was received at the barracks from the Philadelphia Quartermaster Depot. Upon receipting for them, Colonel Freeman inquired, can we dispose of the 120 "old green uniforms" on hand at a public sale?[966] Quartermaster Nicholson sanctioned the disposal of the obsolete uniforms on the most advantageous terms for specie.[967]

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963. Freeman to Nicholson, October 2, 1840, NA, RG 127, Letters Sent, CMB.

964. Freeman to Nicholson, February 16, 1841, NA, RG 127, Letters Sent, CMB.

965. Nicholson to Freeman, February 25, 1841, NA, RG 127, Letters Sent, MCQ.

966. Freeman to Nicholson, June 25, 1841, NA, RG 127, Letters Sent, CMB.

967. Nicholson to Freeman, July 10, 1841, NA, RG 127, Letters Sent, MCQ.

APPENDIX A

September 1833 Ropewalk Estimates

Ropewalk

No. 1

An estimate of the probably cost of erecting a Building 70 feet by 60 and three Stories high as a Head House to a Rope Walk, thickness of Walls lower Story 2-1/2 bricks, 2d Story 2 bricks, 3d Story 1/2 Bricks.

Masonry

1500 Yards Excavation	.35	525.00	
300 " Cellar & foundation walls	5.00	1500.00	
400000 Bricks, & laying; mortar, etc.	13.00	5200.00	
350 running feet underpinning	.75	262.50	
40 Window Caps & Sills of Stone	4.00	160.00	
45 Square of Slating	13.00	585.00	
1200 lbs lead	.08	$ 96.00	$ 8,328.50

Carpenters

95 Tons of Timber	8.00	760.00	
5 m Joist	20.00	100.00	
17 m Boards	20.00	340.00	
18 m Planks	20.00	360.00	
1050# Spikes & Nails	.08	84.00	
50 window frames & windows	28.00	1400.00	
50 Iron window Shutters	25.00	1250.00	
8 Iron Doors	50.00	400.00	
500 # Iron Works	16	80.00	
Carpenters Labour		2407.50	$ 7,181.50
			$15,511.00
Add 5 per cent for Contingencies			775.55
Total Cost if built of Bricks			$16,286.55
If built of Stone the total cost could be			$20,681.70

No. 2

An Estimate of the cost of erecting a building 360 feet long 44 wide three Stories high as a part of a Rope walk for Spinning Yarns by Machinery, walls 2-1/2, 2/ & 1-1/2 bricks thick.

Masonry

720 Feet Underpining	.75¢	540.00	
220 Yards Excavation for foundation	.30	66.00	
220 " Stone foundation Mortar, etc.	5.00	1100.00	
550 m Brick Mortar & laying, etc.	13.00	7150.00	
216 Caps & Sills for Windows	4.20	907.20	
184 Squares Slating	13.00	2392.00	
3000 Pounds Lead	.08	240.00	
36 Stone Pillars	14.40	518.40	
1610 Yards Brick Paving	.72	1159.20	$14,072.80

Carpenters

22 m Boards	20.00	440.00	
24 m Joist	20.00	480.00	
120 m Planks	20.00	2400.00	
440 Tons Timber	8.00	3520.00	
3600# Spikes & Nails	.08	288.00	
1800# Iron Works	.16	288.00	
216 Windows complete	18.00	3888.00	
216 Iron Window Shutters	25.00	5400.00	
3 Iron Doors	80.00	240.00	
Carpenters Labour		7500.00	$24,444.00
			$38,516.80
Add 5 per cent for Contingencies			1,925.84
Total Cost of Brick			$40,442.64
If Built of Stone			$47,150.64

No. 3

Estimate of the probable cost of erecting a building 940 feet by 44 feet wide one story high as part of a Rope Walk, walls 2 Bricks thick.

Masonry

1220	Yards Excavation for foundation	.30¢	366.00	
564	Yards Masonry for foundation	5.00	2820.00	
1880	feet Underpining	.75	1410.00	
425	m Bricks	13.00	5525.00	
188	Caps & Sills	4.20	789.60	
4325	Yards Brick paving	.72	3114.00	
94	Stone Pillars	14.40	1353.60	
470	Squares Slating	13.00	6110.00	$21,448.20

Carpenters

330	Tons Timber	8.00	2640.00	
112	m Boards	20.00	2240.00	
112	m Joist	20.00	2240.00	
4700	lbs Iron works	.16	752.00	
3225	lbs Nails & Spikes	.08	258.00	
188	window frames & windows	22.00	4136.00	
188	Iron window Shutters	25.00	4700.00	
3	Iron Doors	80.00	240.00	
8535#	Lead	.08	682.80	
	Carpenters Labour		8125.00	$26,013.80
				$47,462.00
	Add 5 per cent for Contingencies			2,373.10
	Total if built of Brick			$49,835.10
If built of Stone				$61,369.86

No. 4

Estimate of the probable cost of a Rope Walk two Stories high, 1300 feet long and 44 feet wide. Walls 2-1/2 and 2 Bricks thick.

Masonry

1690	Yards Excavation for foundation	.30¢	507.00	
780	" Foundation in Mortar	5.00	3900.00	
3000	Feet underpining	.75¢	2250.00	
1600	M Bricks Laying Mortar, etc.	13.00¢	20,800.00	
520	Caps & Sills	4.20¢	2184.00	
5980	Yards Brick paving	.72¢	4305.60	
650	Squares Slating	13.00¢	8450.00	
130	Stone Pillars	14.40¢	1872.00	
10,500	Pounds Lead	.08	840.00	$ 45,108.60

Carpenters

910	Tons of Timber	8.00	7280.00	
156	m Boards	20.00	3120.00	
130	m Joist	20.00	2600.00	
156	m Planks	20.00	3120.00	
6500	Pounds Iron Work	.16	1040.00	
3900	" " "	.10	390.00	
9490	" Spikes & Nails	.08	759.20	
520	Window frames & windows	23.00	11960.00	
520	Iron Window Shutters	25.00	13000.00	
3	Iron Doors	80.00	240.00	
	Carpenters Labour		18762.50	$ 62,271.70
				$107,380.30
	Add 5 per cent for Contingencies			5,369.00
				$112,749.30

If built of Stone $136,169.95

No. 5

Estimate of the cost of a building for Tarring, Cooling & Storing Yarns, 110 feet long by 25 feet wide, one Story 10 feet high, walls 2 Bricks thick.

Masonry

100	Yards Excavation for Foundation	.30	30.00	
48	" Foundation in Mortar	5.00	240.00	
150	m Bricks laying, etc.,	13.00	1950.00	
275	Yards Brick paving	.72	198.00	
33	Squares Slating	13.00	429.00	
270	Feet underpining	.75	202.50	
1000	Pounds Lead	.08	80.00	
10	Iron Window Shutters	25.00	250.00	
6	Iron Doors	80.00	480.00	
	Tar Kettle & Setting		600.00	$4,459.50

Carpenters

22	Tons Timber	5.00	110.00	
4	m Boards	20.00	80.00	
4	m Joist	20.00	80.00	
200	lbs. Nails	.08	16.00	
300	lbs Iron works	.16	48.00	
	Labour		376.80	$ 710.80
				$5,170.30
	Add 5 per cent for Contingencies			258.51
	Total cost if of Brick			$5,428.81

If built of Stone $6,214.41

No. 6

Estimate of the probable cost of Steam Engines & all the necessary Machinery and utensils for Spinning and laying 1000 Tons of Cordage annually, the Yarns being spun by hand.

For Steam Engines and putting them up	7,000.00
For all other Machinery & utensils	2,300.00
	$30,000.00

No. 7

Additional Cost of Machinery if the Yarns are spun by Patent Machine

According to the Patentee's prices	$95,000.00

Recapitulation of the estimated cost of a building for a Rope walk and for spinning the Yarns by Machinery, for a Tarring and Yarn House and for the Steam Engines and other Machinery and Utensils necessary for making one Thousand Tons of Cordage annually.

The Elevation of this building is marked A on the plan.

		If of Brick	If of Stone
For Head Building . . . as for Estimate No.	1	16188.90	20681.70
For Spinning Rooms & part of Walk " "	2	40442.64	47150.64
For the remainder of the Walk " "	3	49783.86	61369.56
For Tarring & Yarn House " "	5	5498.10	6214.41
Total Cost of Buildings		$111913.50	$135416.61
Steam Engine and all other machinery for Cordage "	6	30000.00	30000.00
Additional cost of Machinery for Patent Spinning "	7	95000.00	95000.00
Total Cost		$236913.50	$260416.61

Recapitulation of the Estimated cost of a Building for a Rope Walk & for Spinning the Yarns by hand or by Machinery for Tarring & Yarn House & for the Steam Engines and all other machinery & utensils for making one Thousand Tons of Cordage annually. The Elevation is marked B on the plan.

		If of Brick	If of Stone
Head Building as per Estimate No.	1	16188.90	20681.70
Rope to Spinning Walks " " " "	4	112544.35	136169.95
Tarring & Yarn House " " " "	5	5498.10	6214.41
Total cost of Buildings		$134231.35	$163066.06
Steam Engine & Machinery for Cordage & spinning yarns by hand "	6	30000.00	30000.00
Total cost for hand spinning		$ 164231.35	$193066.06
Patentee price for Patent Spinning "	7	95000.00	95000.00
Total Cost if Patent spinning is used		$259231.35	$288066.06

Navy Yard Charlestown Sept. 28, 1833
s/ J.D. Elliott
Commandant

LIST OF MAPS AND ILLUSTRATIONS

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Plate II - Historical Base Map No. Two, Charlestown Navy Yard, ca. 1812

Plate III - Historical Base Map No. Three, Charlestown Navy Yard, ca. 1823

Plate IV - Historical Base Map No. Four, Charlestown Navy Yard, ca. 1834

Plate V - View of the Navy Yard Site, March 1800

Plate VI - Map of the Navy Yard Site found in Preble's Unpublished History of the Navy Yard

Plate VII - Aerial Photograph of the Boston Naval Shipyard Made in 1968

Plate VIII - The Carleton Osgood 1802 Plan of the Yard

Plate IX - Drawing of the Yard as It Appeared in 1823 from the 1904 Panorama by V.K. Spicer

Plates X and XI - Cover and Index to the Alexander Parris Portfolio of "Plans of Buildings and Machinery Erected and Positioned in the Navy-Yard Boston from 1830 to 1840"

Plate XII - View of the Charlestown Navy Yard, Showing the Commandant's Quarters and the Marine Barracks, ca. 1831

Plate XIII - View of the Naval Dry Dock at the Charlestown Navy Yard, 1851

Plate XIV - View of the Ropewalk Headhouse, Charlestown Navy Yard, 1852

Plate XV - U.S.S. Independence

Place XVI - U.S.S. Alligator

Plate XVII - U.S.S. Porpoise

Plate XVIII - Commodore Samuel Nicholson

Plate XIX - Commodore William Bainbridge

Plate XX - Commodore Isaac Hull

Plate XXI - Commodore William M. Crane

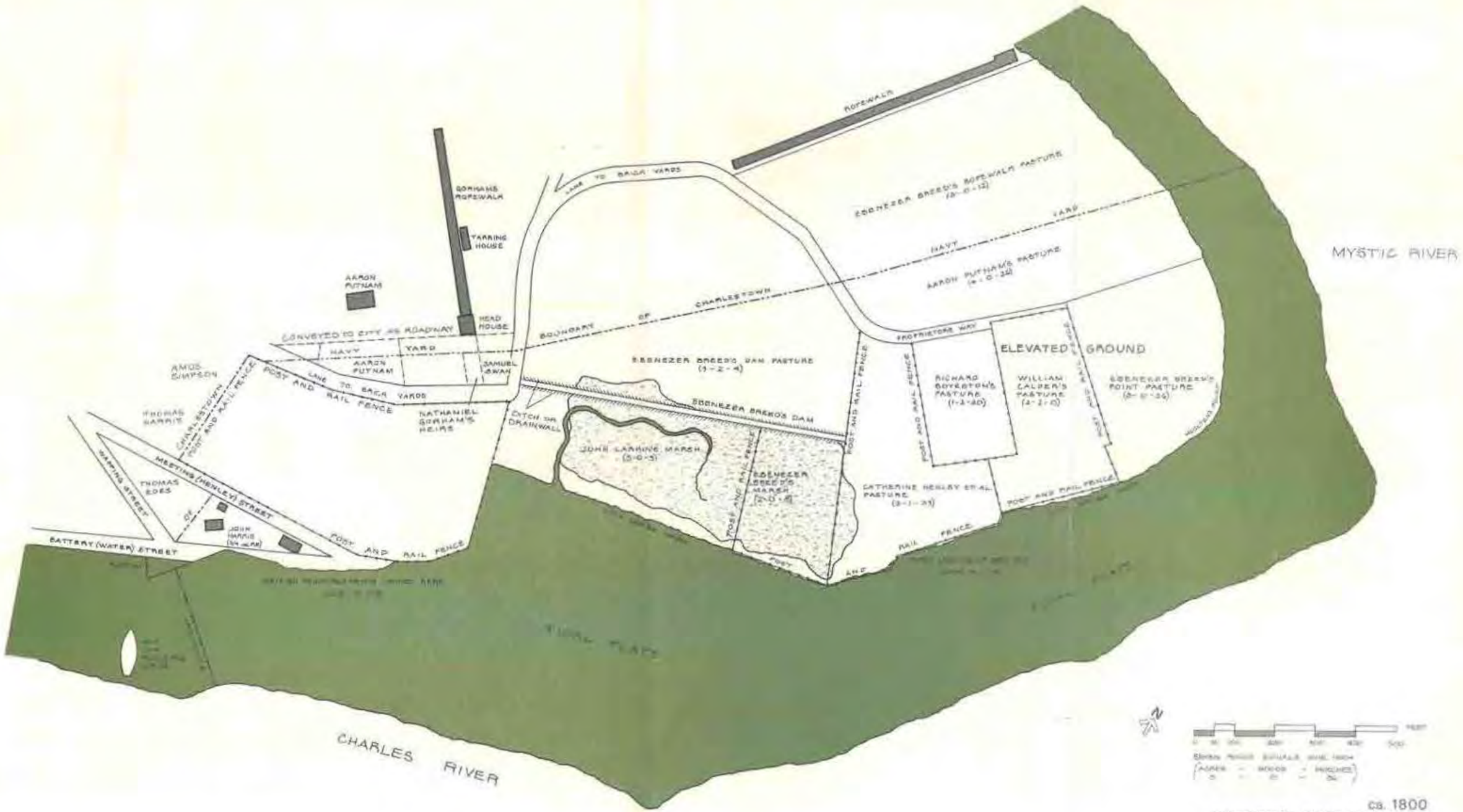
Plate XXII - Commodore Charles Morris

Plate XXIII - Commodore Jesse D. Elliott

Plate XXIV - Commodore John Downes

Plate I

Historical Base Map No. One, Charlestown Navy Yard Site, ca. 1800



CA. 1800
HISTORICAL BASE MAP NO. 1

CHARLESTOWN NAVY YARD
BOSTON NATIONAL HISTORICAL PARK
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

ON MICROFILM

Plate II

Historical Base Map No. Two, Charlestown Navy Yard, ca. 1812

ca. 1812
HISTORICAL BASE MAP NO. 2

CHARLESTOWN NAVY YARD
BOSTON NATIONAL HISTORICAL PARK
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

487 | 23020
DSC | AUG 84

ON MICROFILM

Plate III

Historical Base Map No. Three, Charlestown Navy Yard, ca. 1823

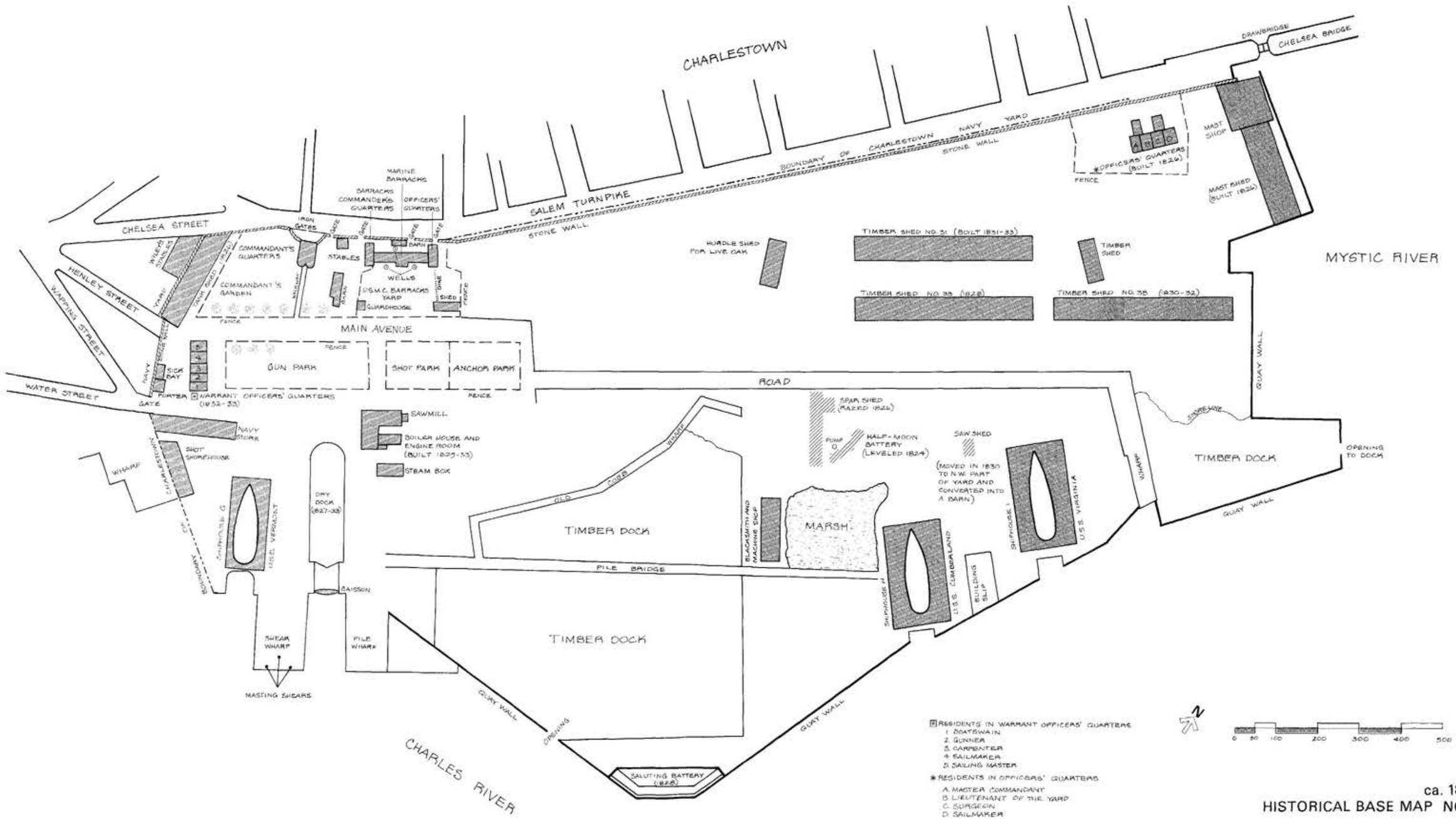
ca. 1823
HISTORICAL BASE MAP NO. 3

CHARLESTOWN NAVY YARD
BOSTON NATIONAL HISTORICAL PARK
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

ON MICROFILM

Plate IV

Historical Base Map No. Four, Charlestown Navy Yard, ca. 1834



RESIDENTS IN WARRANT OFFICERS' QUARTERS
1. BOATSWAIN
2. GUNNER
3. CARPENTER
4. SAILMAKER
5. SAILING MASTER

* RESIDENTS IN OFFICERS' QUARTERS
A. MASTER COMMANDANT
B. LIEUTENANT OF THE YARD
C. SURGEON
D. SAILMAKER

N

0 50 100 200 300 400 500 FEET

ca. 1834
HISTORICAL BASE MAP NO. 4

CHARLESTOWN NAVY YARD
BOSTON NATIONAL HISTORICAL PARK
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

457 | 25022
DSC | AUG 84

ON MICRO

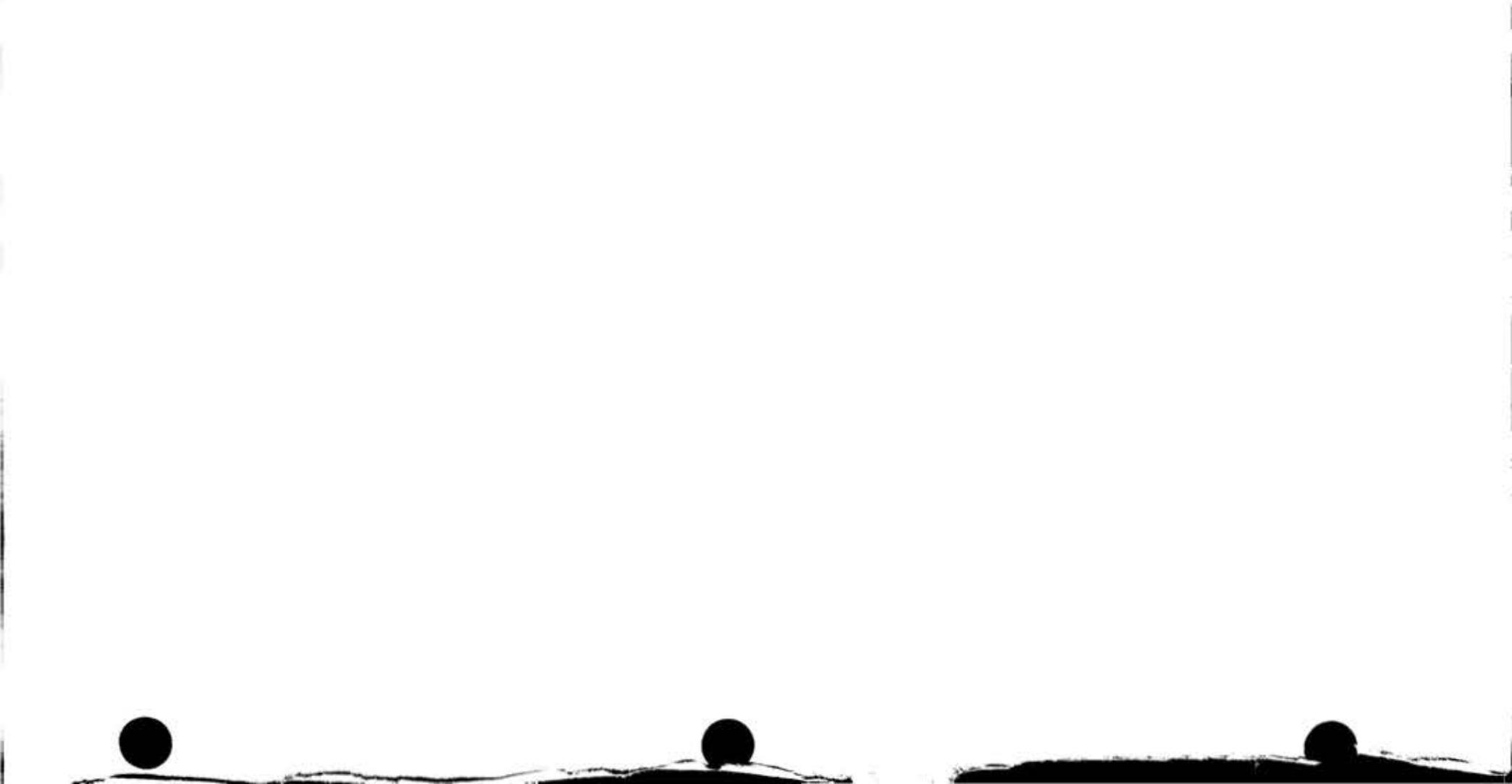
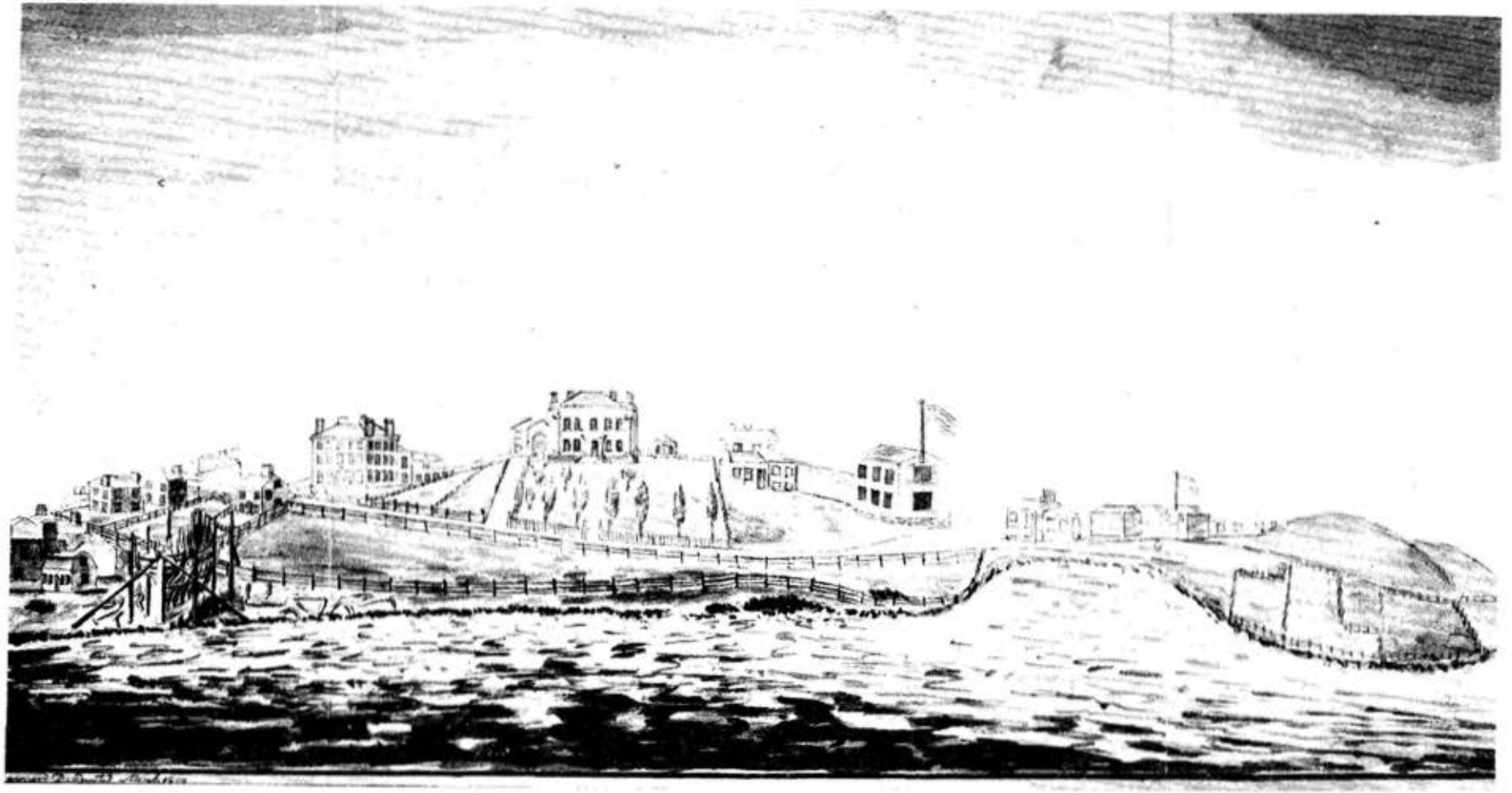


Plate V

"A Northwest View of that part of Charlestown proposed for the United States Dock & Navy Yard. Taken in a Boat on the Water at highwater," delinated by D. Roynerd, courtesy National Archives, March 1800.



A Northwest view of that part of Charlestown proposed for the United States Dock & Navy Yard. taken in a Boat on the water at high water. ——,

Plate VI

Map of the Navy Yard Site found in Preble's Unpublished History of the Boston Navy Yard. The subject map was probably drawn by Peter Tufts, Jr. in 1801. This map has had additions made to it in pen and pencil.

The proposal for dry docks and timber wharves is probably the one referred to in correspondence between Dr. Aaron Putnam and the Secretary of the Navy in August 1801, but never implemented. Courtesy National Archives.

1076

U. S. Navy Yard, Boston, Mass.

Plate I.

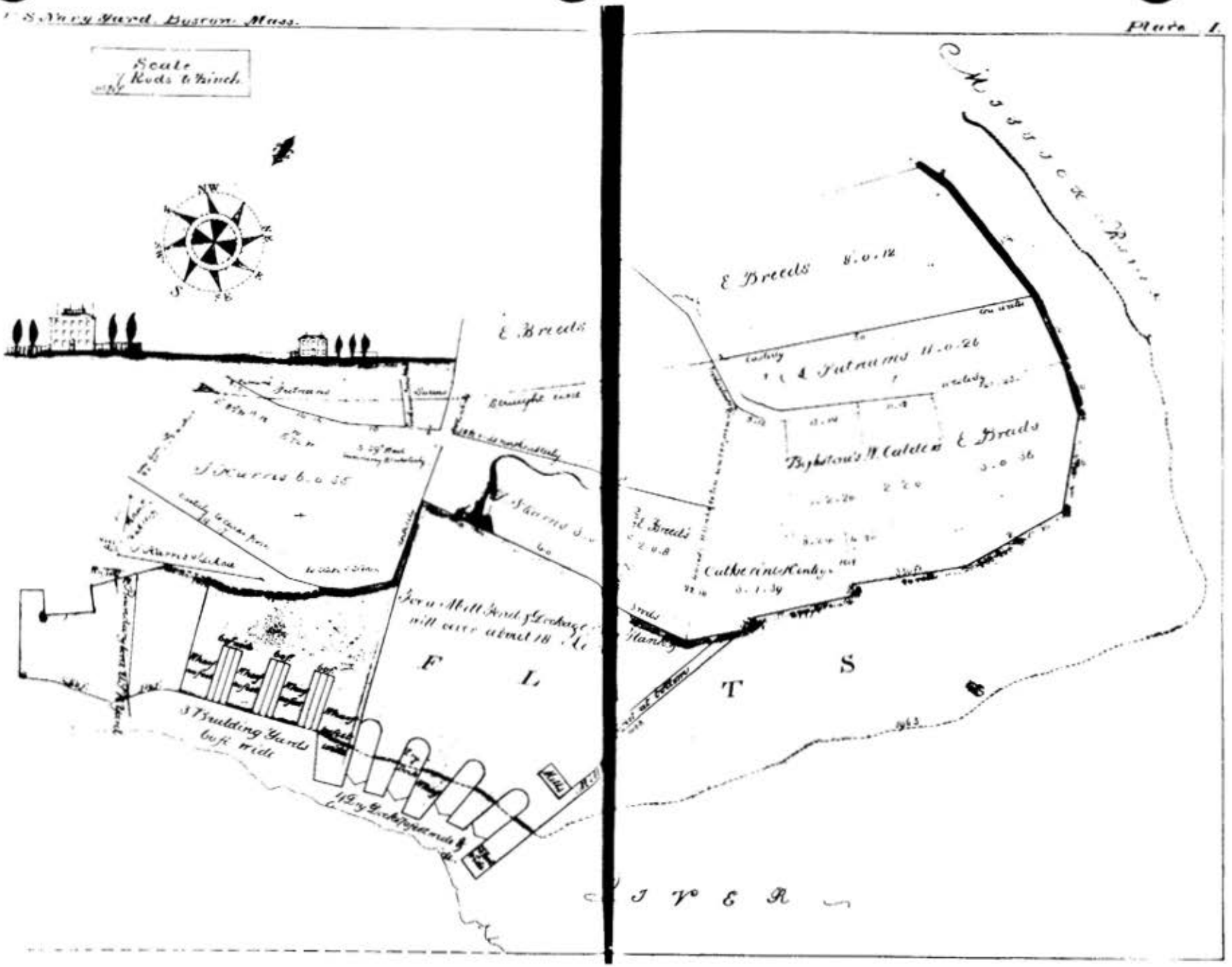


Plate VII

1968 aerial view of the Boston Naval Shipyard. On the photograph are delinated the land acquired by the Charlestown Navy Yard in the years between 1800 and 1803, and the 1968 boundary of the Boston Naval Shipyard. The captioning was done for a "Command Presentation," a statistical report of the activities of the Boston Navy Yard, prepared in 1972. Courtesy Boston National Historical Park.

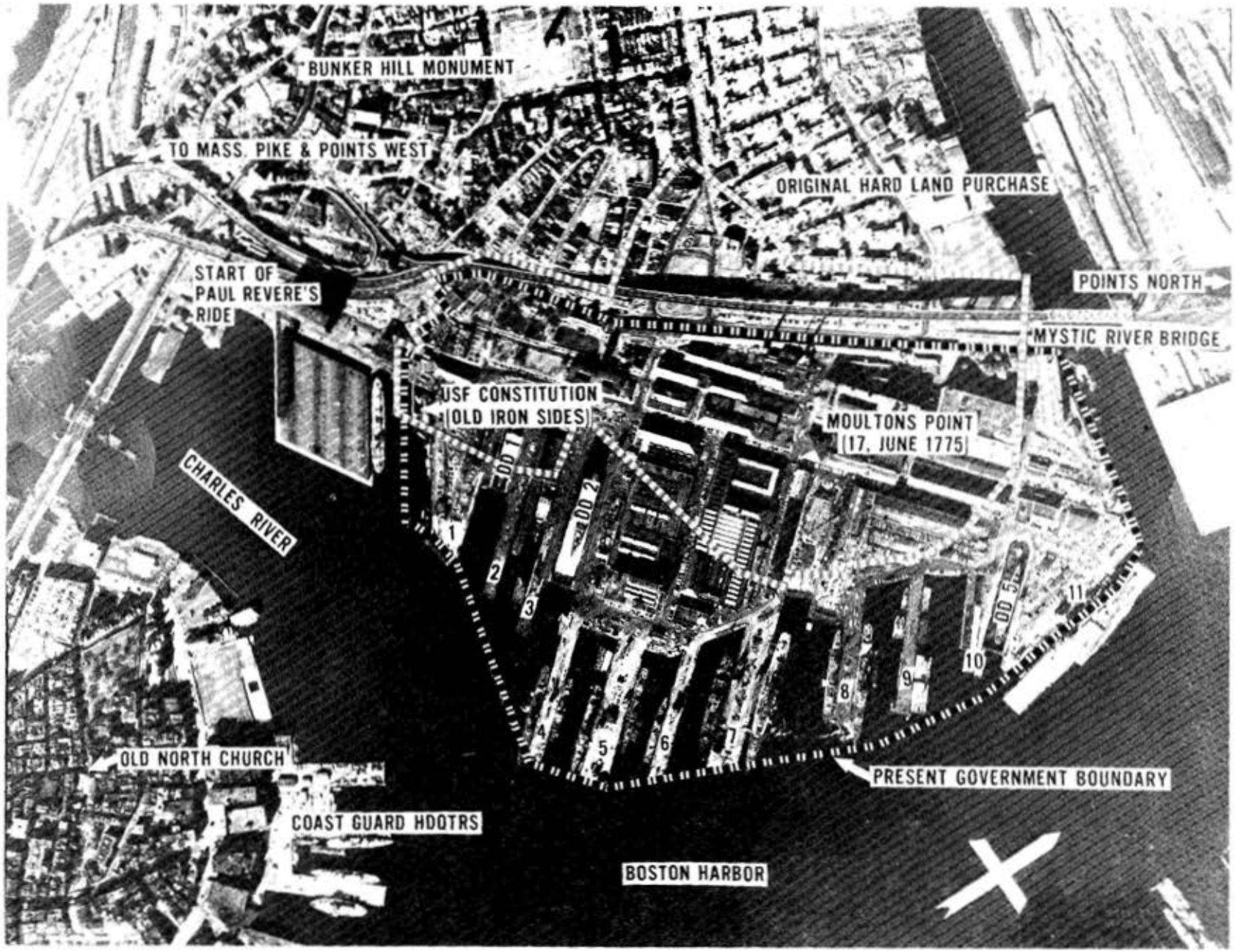

BUNKER HILL MONUMENT
TO MASS. PIKE & POINTS WEST
ORIGINAL HARD LAND PURCHASE
START OF PAUL REVERE'S RIDE
POINTS NORTH
MYSTIC RIVER BRIDGE
USF CONSTITUTION (OLD IRON SIDES)
MOULTONS POINT (17, JUNE 1775)
CHARLES RIVER
OLD NORTH CHURCH
PRESENT GOVERNMENT BOUNDARY
COAST GUARD HDQTRS
BOSTON HARBOR

Plate VIII

Carleton Osgood's 1802 drawing of the Charlestown Navy Yard. The proposal for the "Dock Yard" and "Bason" was added by another person, and the drawing--constituting the original and proposal--copied and transmitted to the Secretary of the Navy. Courtesy National Archives.

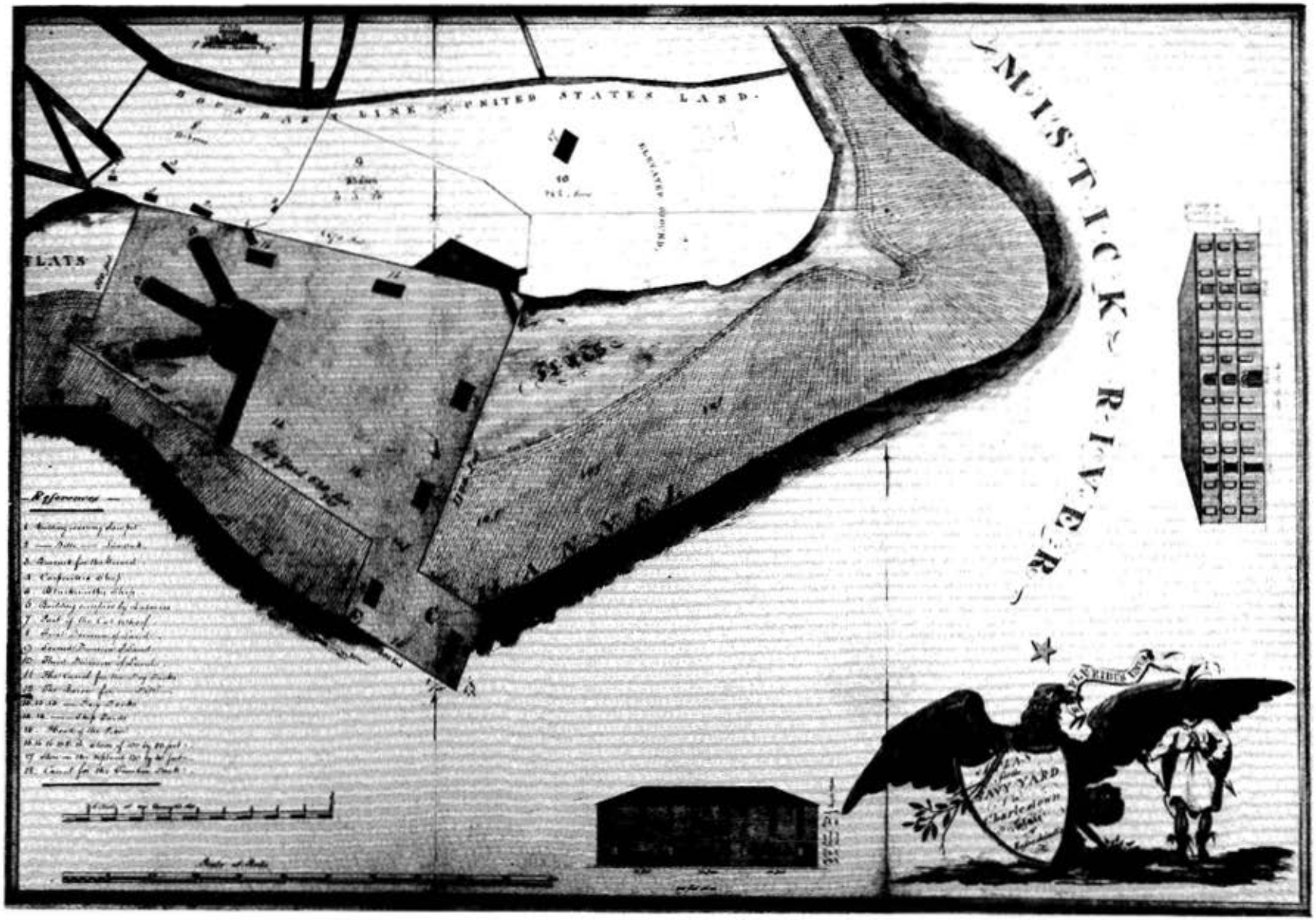
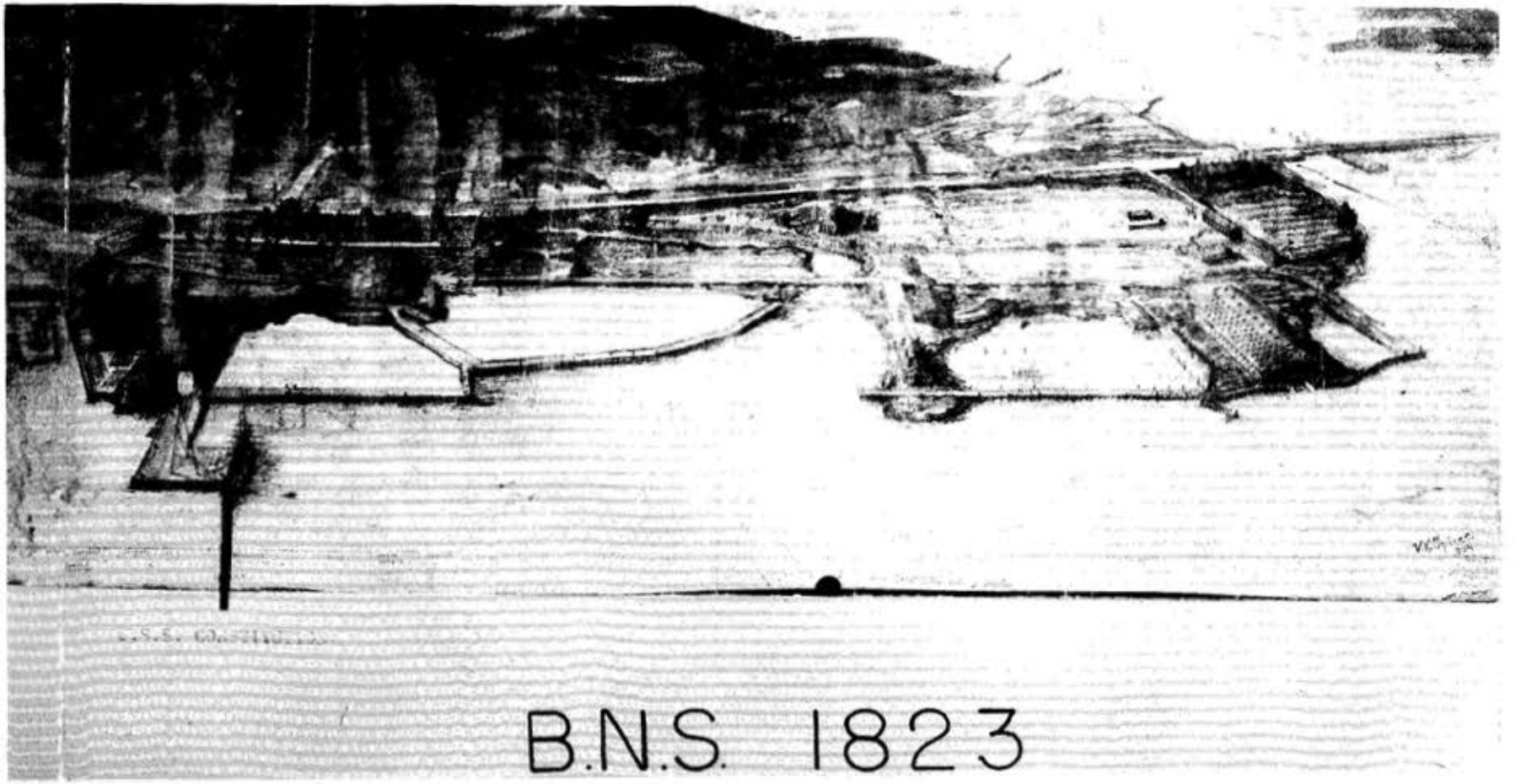

MISTICK RIVER
BOUNDARY LINE UNITED STATES LAND.
FLATS
References
NAVY YARD

Plate IX

In 1904 V.K. Spicer, employing the 1823 plan of the Charlestown Navy Yard as his point of reference, sketched this panoramic view of the yard. Courtesy of the Boston National Historical Park.



B.N.S. 1823

Plates X and XI

Cover and index to the Alexander Parris portfolio of "Plans of Buildings and Machinery Erected in the Navy-Yard, Boston from 1830 to 1840." The portfolio, a work of art, is on file at National Archives.

PLANS
OF
BUILDINGS
AND
MACHINERY
ERECTED IN THE
NAVY-YARD
BOSTON
FROM
1830 to 1840
By
Alex[r] Parris
Architect and Engineer.

INDEX to DRAWINGS.

No 1. Title Page.
2. Index.
3. General Plan of Yard.
4. Do of Engine House.
5. Front Elevation of Saw Mill.
6. Side Do Do
7. Section
8. Plan of Foundation.
9 & 10 Details of Saw Mill.
11. Hauling Gear of Do.
12. Details of Do.
13. Force Pump for Do.
14. Double Acting Force Pump.
15. Plan and Section of Reservoir.
16. Elevation and Plan of Tar House.
17. Section of Do Do.
18. Steam Boiler for Do.
19. Reeling Machine.
20. Elevation of Spinning Machines
21 & 23 Details of Do.
24. Small Laying-up Machine.
25. Do Do Do.
26. Details of Do.
27 & 29 Details of Large Laying-up Machine.
30. Drag for Do.
31. Proving Machine.

Plate XII

View of the Charlestown Navy Yard, showing the commandant's quarters and the Marine Barracks. The painting is attributed to the wife of then Lieutenant James Armstrong, who was stationed at the yard from November 1830 to October 1831. The painting is in the custody of the U.S. Naval Academy Museum.

1086

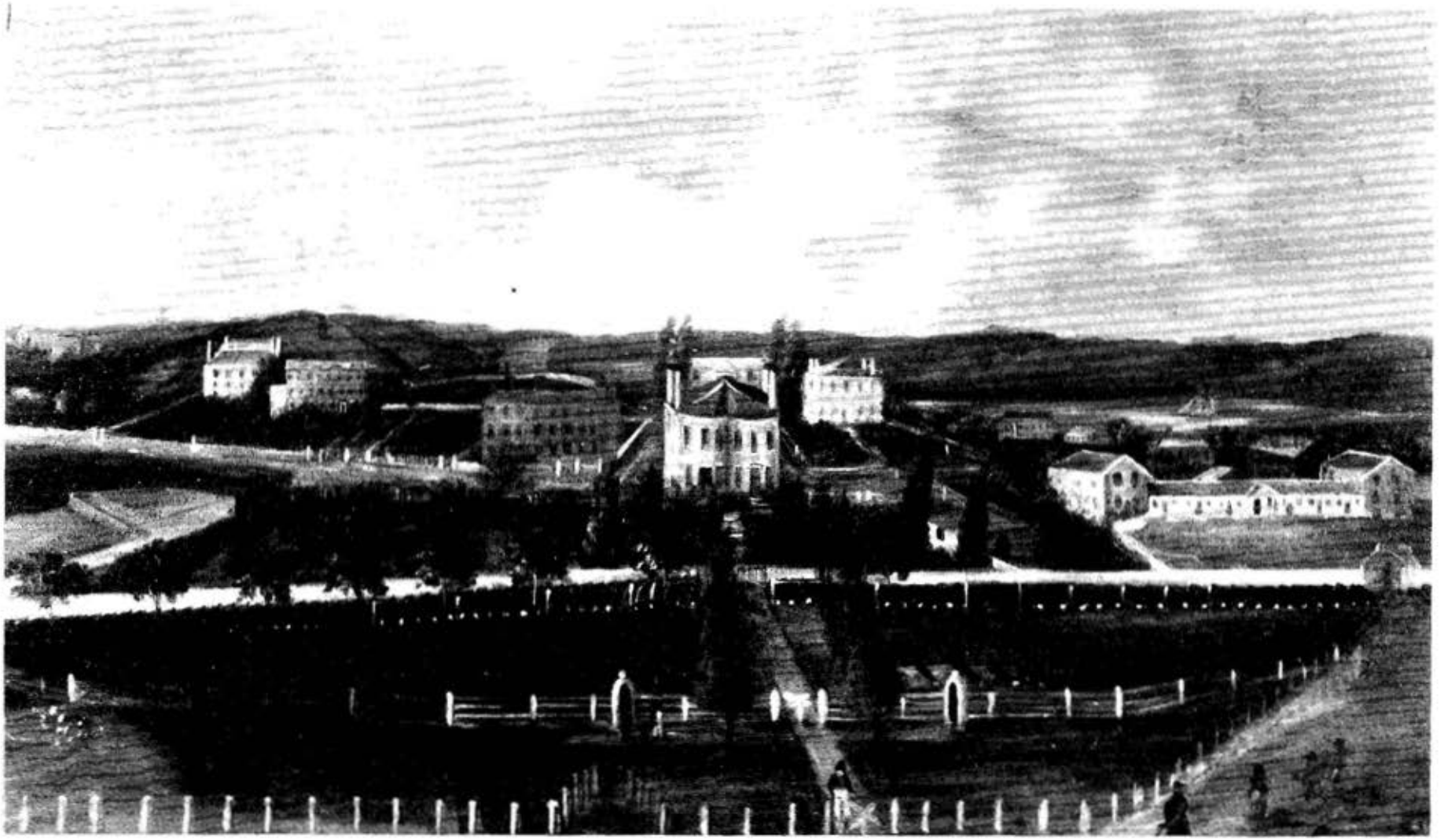
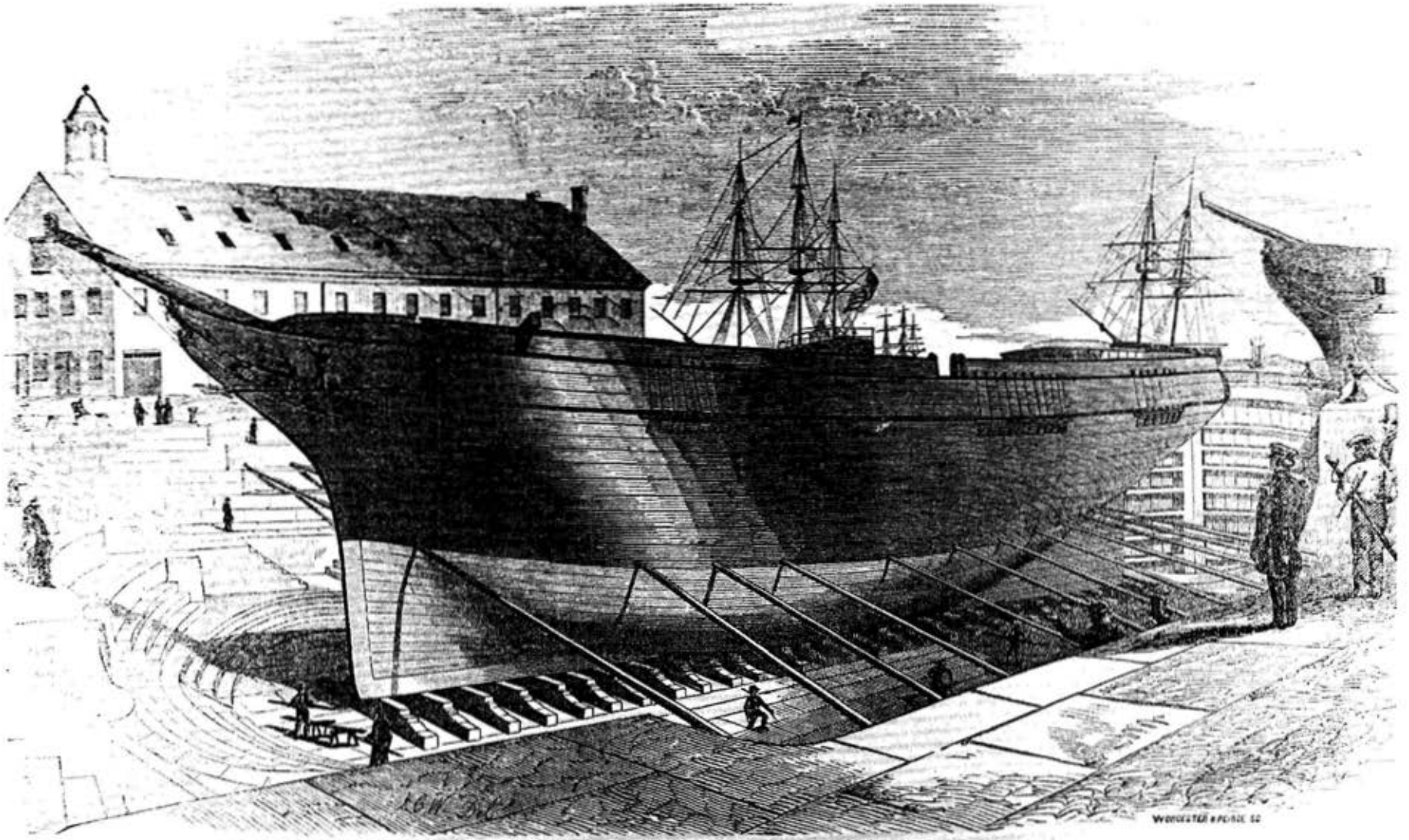


Plate XIII

View of Dry Dock One, at the Charlestown Navy Yard. This print was first published in Gleason's Pictorial Drawing Room Companion, Vol. I, No. 7, June 14, 1851. Courtesy Boston National Historical Park.

1088

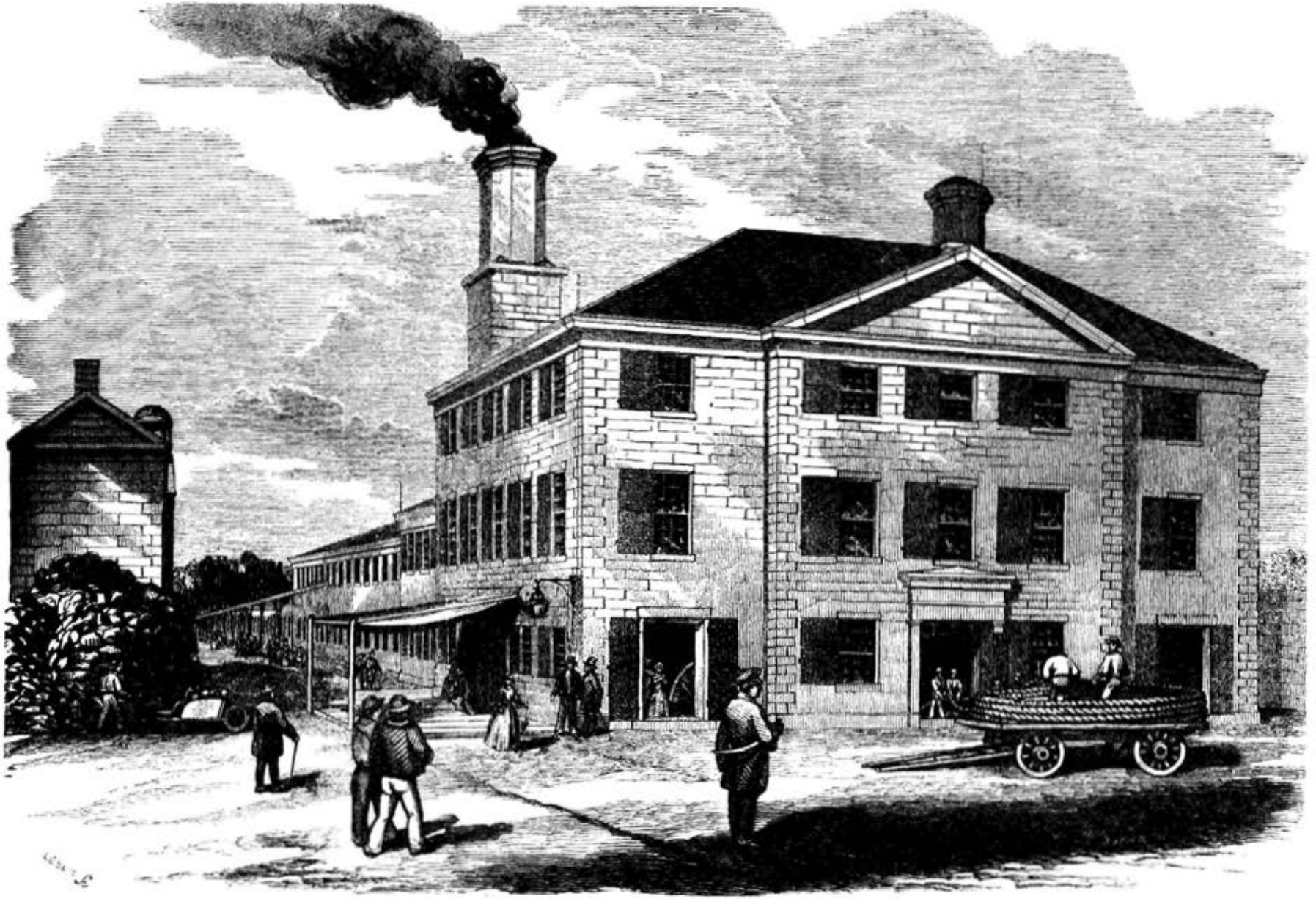


VIEW OF THE NAVAL DRY DOCK, AT THE U. S. NAVY YARD, CHARLESTOWN, MASS.

Plate XIV

View of the northeast elevation of the Ropewalk headhouse, and southeast elevation of the headhouse and Ropewalk at the Charlestown Navy Yard, from Gleason's Pictorial Drawing Room Companion, Vol. 3, No. 12, Sept. 18, 1852. Courtesy Boston National Historical Park.

1090



VIEW OF THE ROPEWALK, AT THE CHARLESTOWN NAVY YARD.

Plate XV

The 74-gun ship of the line Independence, the first vessel of this class commissioned in the U.S. Navy was launched at the Charlestown Navy Yard on June 22, 1814. She was razeed at the yard in 1836. This drawing of Independence is from a negative on file at the Boston National Historical Park.

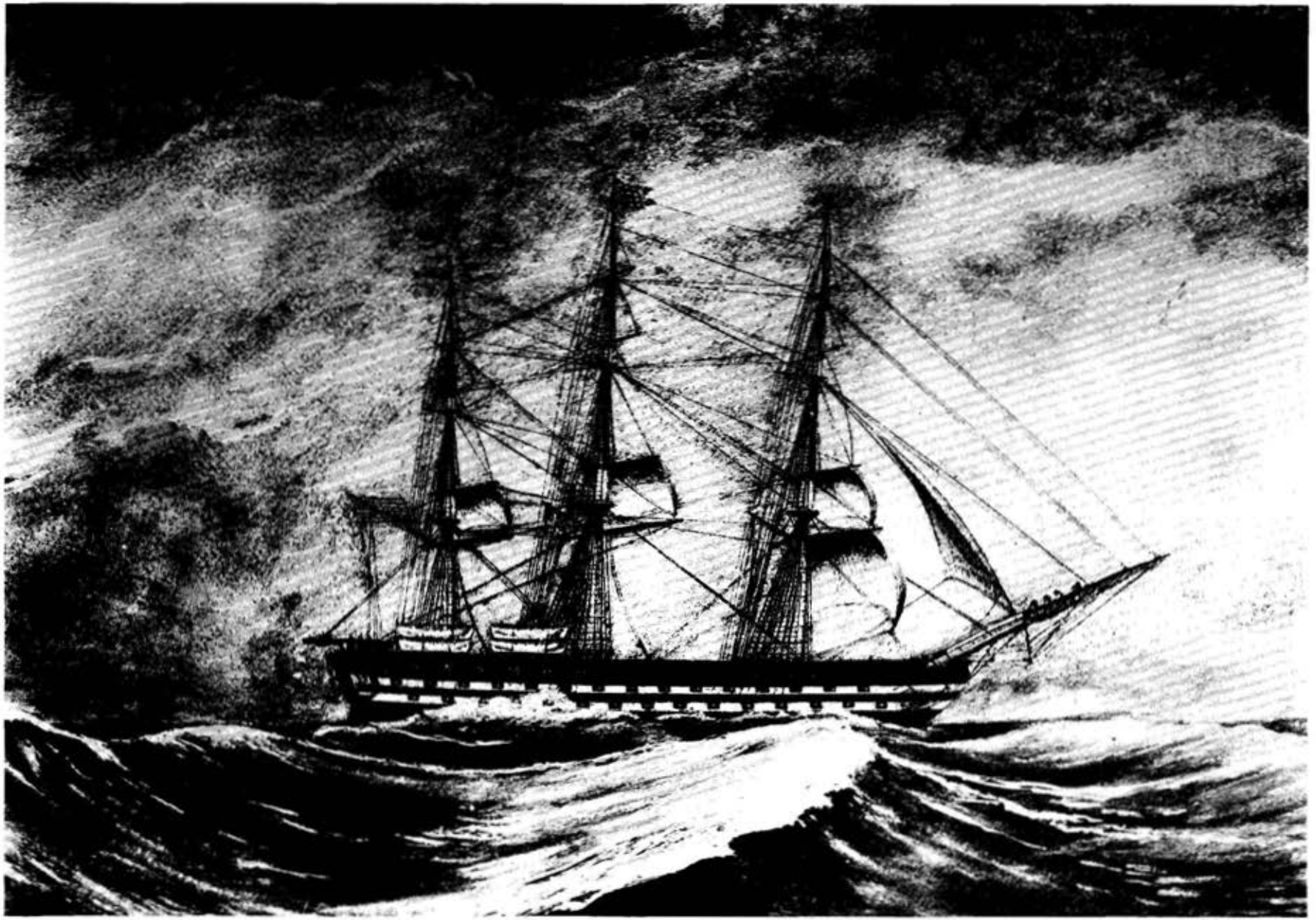


Plate XVI

The schooner Alligator, the third U.S. naval vessel of this name, was launched at the Charlestown Navy Yard on November 2, 1820. The original of this drawing by Charles Ware is on file at the National Archives.

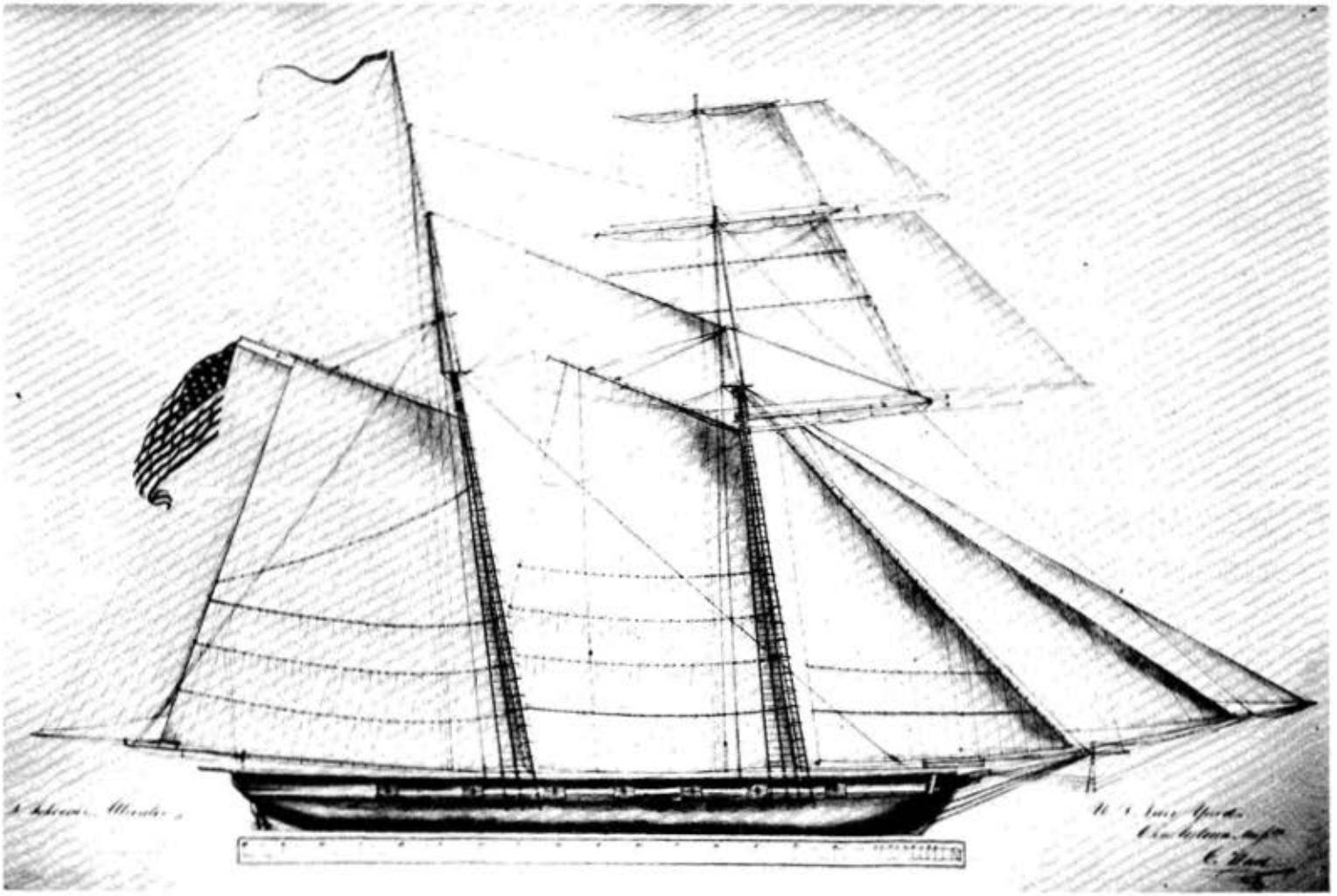


Plate XVII

The second Porpoise, a hermaphodite brig, was authorized by Congress on June 30, 1834, and built at the Charlestown Navy Yard. She was launched on May 31, 1836. From an engraving by W.J. Bennett published in The New Mirror, Vol. 3 No. 18, August 3, 1844. Courtesy of U.S. Naval Academy Museum.

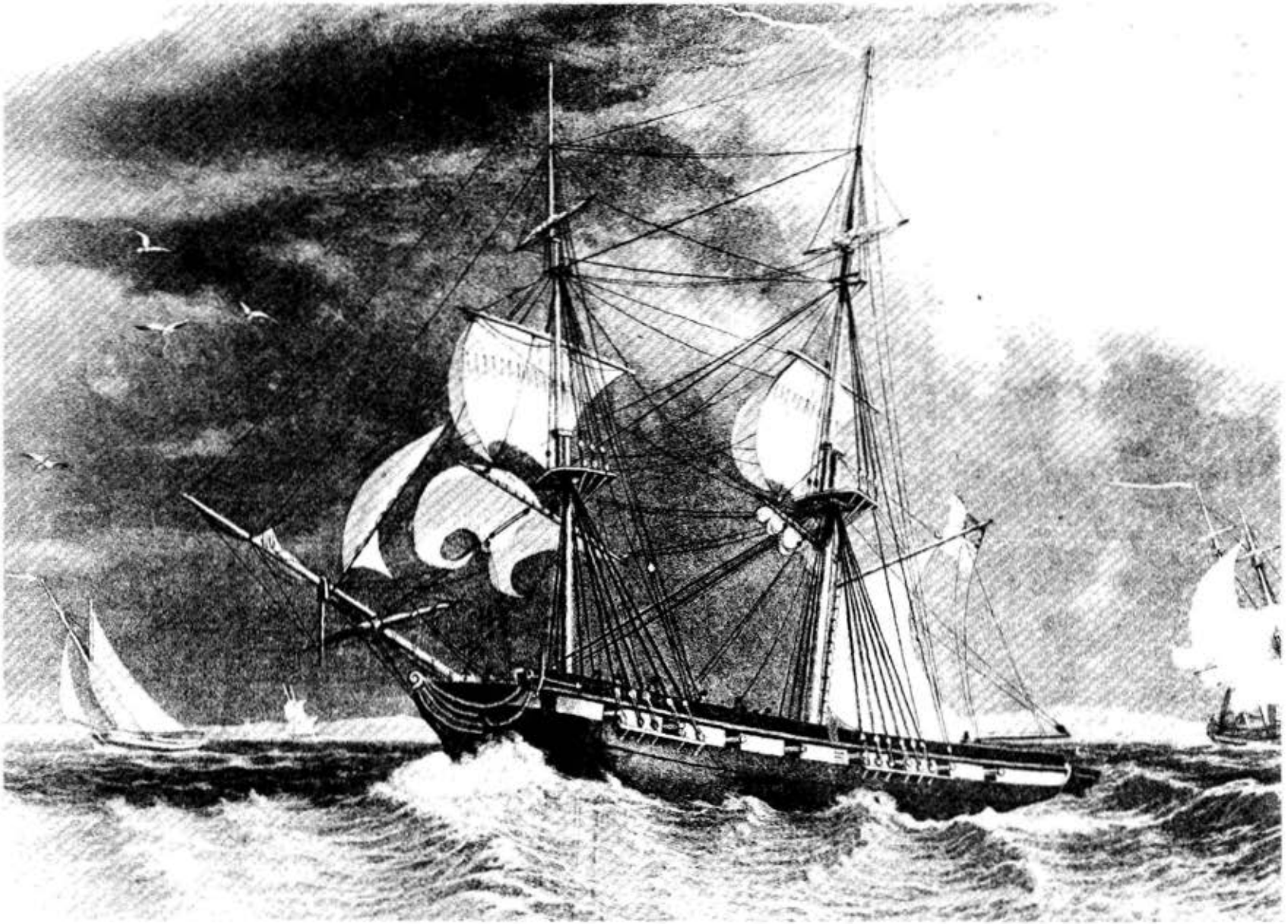


Plate XVIII

Commodore Samuel Nicholson (1743-1811) was commandant of the yard from 1800 to December 29, 1811. He was the yard's first commandant. Courtesy Boston National Historical Park.

CAPTAIN SAMUEL NICHOLSON, U.S.N.
First Commander of the CONSTITUTION,
1797.
First Commandant BOSTON NAVY YARD.
1800-1811.

Plate XIX

Commodore William Bainbridge (1774-1833) was commandant of the Charlestown Navy Yard from March 1812 to September 15, 1812; March 1813 to March 1815; August 1, 1823, to December 31, 1824; and July 13, 1832 to May 1, 1833. He commanded Constitution in her victorious engagement against Java. This print is from an engraving by W. Wellstood, published in 1868 in the National Portrait Gallery. Courtesy Boston National Historical Park.

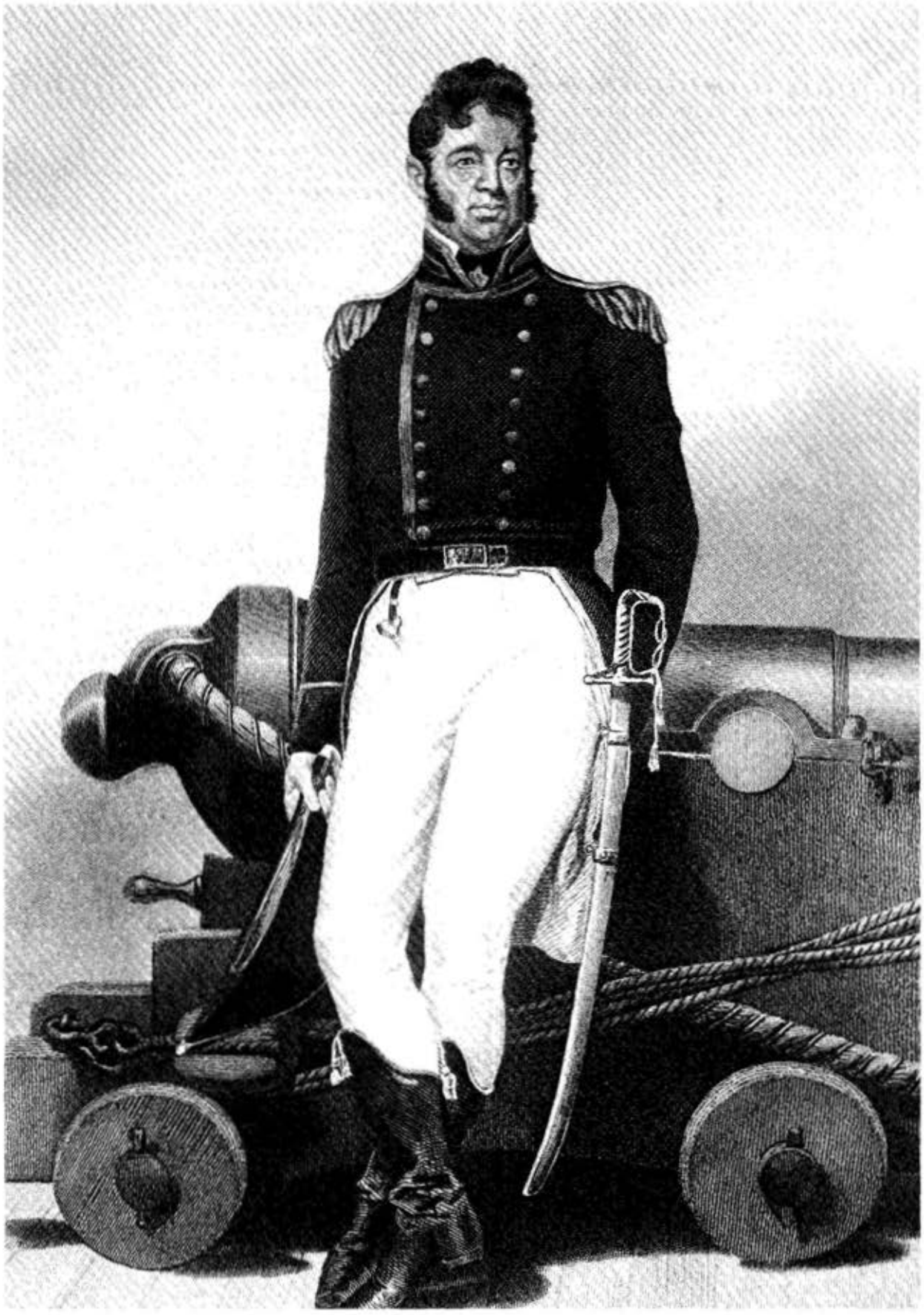


Plate XX

Commodore Isaac Hull (March 9, 1773-February 13, 1843) was commandant of the Charlestown Navy Yard from March 1815 to August 23, 1823. He commanded Constitution in her classic battle with HMS Guerriere. This 1807 painting of Hull by Gilbert Stuart is in the Mrs. Robert C. Elliot Collection. Courtesy Constitution Museum.

Plate XXI

Commodore William M. Crane (1776-March 18, 1846) was commandant of the Charlestown Navy Yard from March 19, 1825, to May 31, 1827. Courtesy Boston National Historical Park.

Plate XXII

Commodore Charles Morris (1784-1856) was commandant of the Charlestown Navy Yard from June 1, 1827 to July 23, 1932. He was called by Admiral Farrigut the "ablest sea officer of his day." Courtesy Boston National Historical Park.

Plate XXIII

Commodore Jesse D. Elliott (1782-1845) was commandant of the Charlestown Navy Yard from May 1, 1833, to March 2, 1835. Courtesy Boston National Historical Park.

Plate XXIV

Commodore John Downes (1786-1854) served as commandant of the yard from March 15, 1835, to May 31, 1842, and from March 19, 1849, to May 19, 1852. Courtesy of the Boston National Historical Park. This copy negative taken from a daguerreotype in the possession of William L. Roberts of San Francisco.

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Letters to Commandants and Navy Agents. January 1808-December 1865. Microcopy M-441.

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Index to Letters Sent. December 1823-December 1861. Entry 11.

Letters Sent. January 1832-December 1833. Entry 12.

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Miscellaneous Letters Received ("Miscellaneous Letters"). January 1801-December 1884. Microcopy M-124.

Letters from Officers of Rank Below that of Commander ("Officers' Letters"). April 1802-December 1884. Microcopy M-148.

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