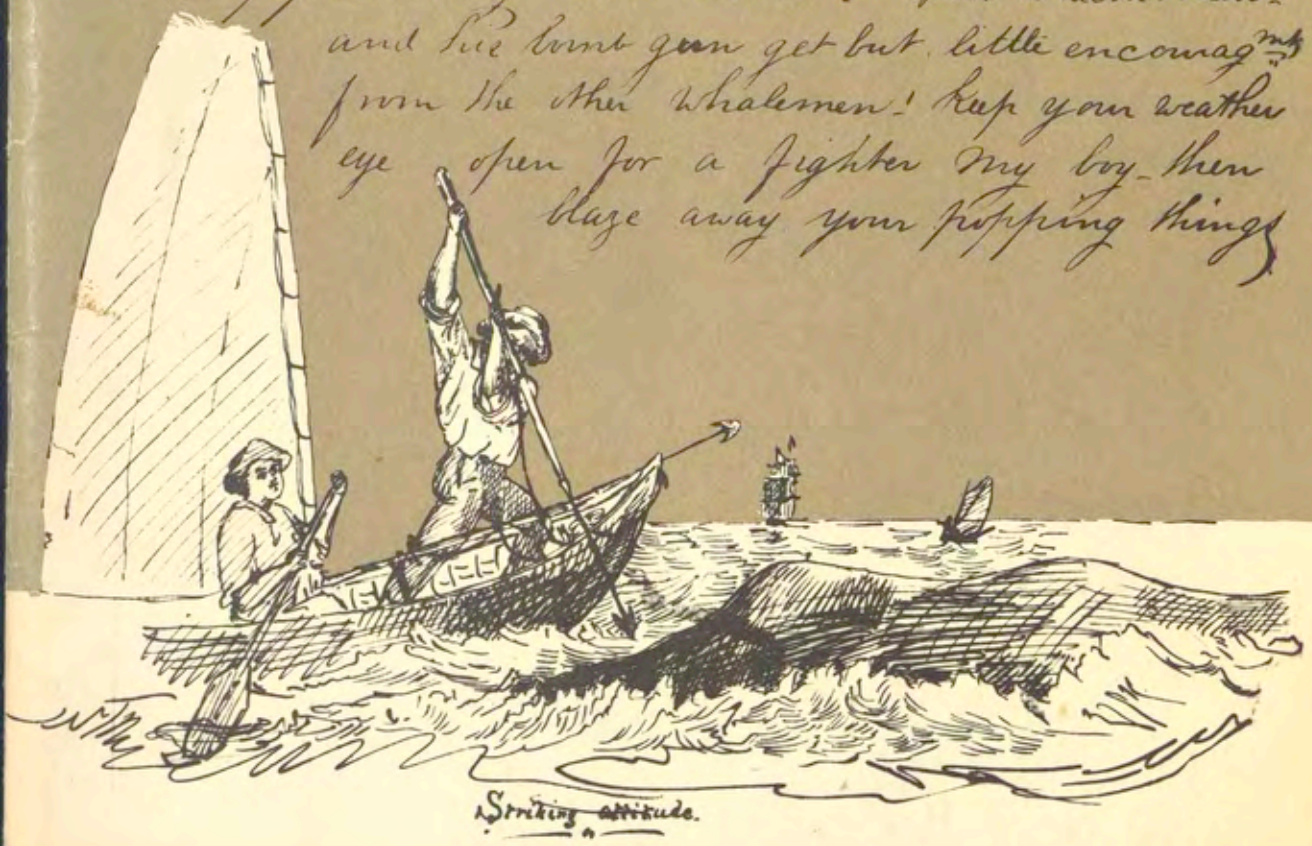
& Miss from home. No letters, not even for the Captain. What is the matter?

November 1975

7th Wednesday. Gammed w[illegible] six months out - as unfortunate as usual - have they forgotten me. Shipped two

11th Sunday. Struck [illegible] 4 a.m. by 11 o'clock Mr Barker whale - took him head & head. I got up and gave it to him solid - whiz - whiz - whiz it rained but a moment & all the line was out of one of our tubs - 160 fathoms. I held the turn he shortly slacks - and again comes up to blow. The Starboard gets fast & within an hour he is fin up. The waist boat was then with the bomb-lance, but did not have an opportunity to use it. Poor Deacon Welsh - and I've learnt you get but little encouragement from the other whalemen! Keep your weather eye open for a fighter my boy. Then blaze away your popping things!



Striking attitude.

THE LOG OF MYSTIC SEAPORT

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COVER: *This page from the log of the whaleship* Clara Bell, *taken from the Seaport's collection, was penned and illustrated by Robert Weir.*

FACING PAGE: *The three-master schooner* William H. Hopkins, *built by the Greenman yard in Mystic in 1876, was the last sailing vessel to be launched there. Third in a series of drawings by the late John F. Leavitt depicting vessels built on the Mystic River.*

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OF MYSTIC SEAPORT

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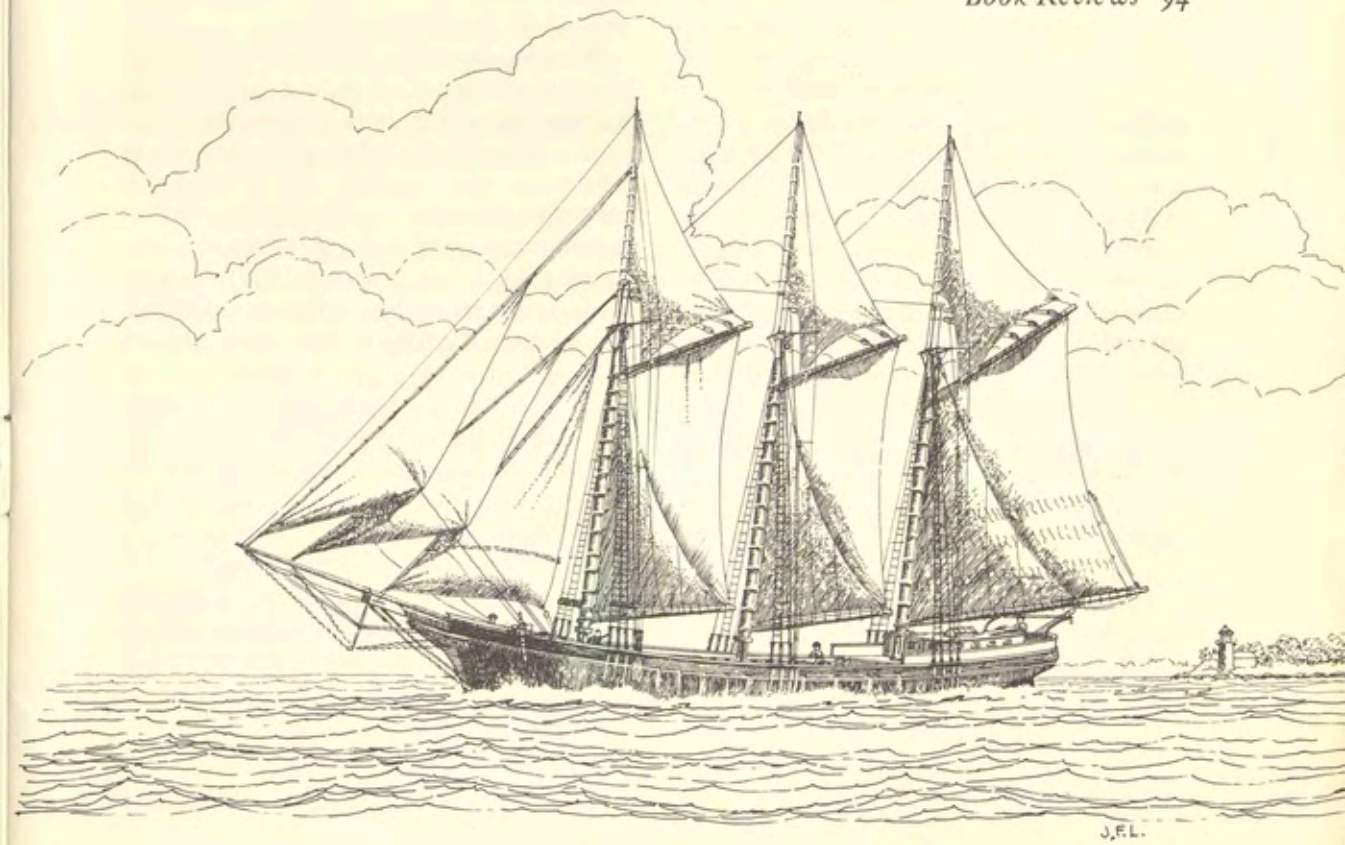
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Henry P. Haven: Whaling Agent

By DALE PLUMMER*

During the Golden Age of Whaling, when New London vied with Nantucket for second place (behind New Bedford) among American whaling ports, the firm of Williams & Haven was the most prominent of New London's numerous whaling agents. Yet Williams & Haven has never received adequate recognition for its role in the industry, and Henry P. Haven, the man responsible for the management and operation of the company over much of its long history, has been almost totally ignored. More, indeed, should be known of the men who, if they did not hazard their lives, at least risked their fortunes in the expensive undertaking of whaling.

Most accounts of Haven's life were written by ministers inspired by his religious activities, but even in these unworldly chronicles it is apparent that Haven's rise was meteoric. Apprenticed to Major Thomas W. Williams, the man responsible for establishing whaling in New London, he impressed his employer so thoroughly that four years after he started, at nineteen, he was receiving a yearly salary of $400, more than double the $150 his apprentice's contract called for. At twenty-one, his apprenticeship over, he was retained by the major as a confidential clerk at $500 a year. Two years later, at the age of twenty-three, he was admitted to partnership in Haven & Smith, newly created by Major Williams after his election to Congress. On the major's return in 1846, the firm became Williams and Haven, the name it was to bear until 1868, throughout the greatest years of New London's whaling industry.

Although whaling was the principal activity of Williams & Haven, the company engaged in numerous outside enterprises, especially as whaling declined. Advertisements in local publications reveal that the firm operated a chandlery selling ship's supplies as well as yellow pine and yellow metal. The Phoenix Guano Company was formed by Haven and his partners in 1859 to exploit the newly discovered guano deposits in the South American island group of that name. Another offshoot, the Alaska Commercial Company, was formed in 1868 to exploit the seal fisheries of Alaska's Pribilof Islands.

Whaling, however, remained Williams & Haven's primary concern, and the firm was perhaps one of the more progressive enterprises engaged in the industry. The first steam whaleship was outfitted by Williams & Haven in 1866, and exploration expeditions in conjunction with whaling and sea-elephant hunting were sent to remote Kerguelen Island, known to whalers as Desolation Island, and to Heard's Island, even more distant. During the Civil War the firm was involved both in the "Stone Fleet" and the *Alabama* claims, from both of which it derived profits. There were few areas of the world that escaped the attention of vessels bearing the flag of Williams & Haven, and the company's record is remarkable in the tenacity with which it stuck to whaling, seeking out profits in spite of the decline of the industry.

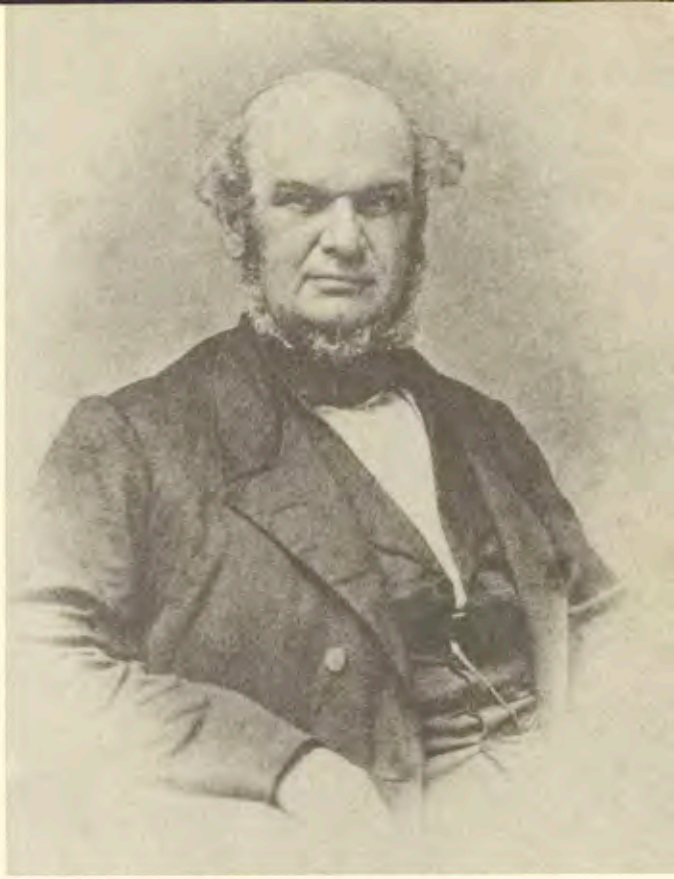
Henry P. Haven was not only a partner in

*Dale Plummer, a staff interpreter at Mystic Seaport, became interested in Henry Haven through his wife, who is a librarian at the New London Public Library which Haven founded. In his spare time Plummer, who has a master's degree in medieval studies from the University of Connecticut, is working on a homemade suit of mail, of which the coif (headpiece) and hauberk (tunic) are already completed.

New London's largest whaling firm, but was also involved deeply in local, state, and even national politics. Railroad and banking interests occupied much of his time as well, the remainder being spent in religious activities. He founded and for forty years superintended Gilead Sunday School in Waterford; the last twenty years, he also superintended New London's Second Congregational Church Sunday School.

The clue to Haven's success may lie in his early childhood. Born of "substantial" New England stock in Norwich on 15 February 1815, the boy was profoundly influenced by the death of his father when he was but four. Without a breadwinner, the family saw its fortunes all but disappear. The boy's formal schooling was shortened to two years, and responsibilities were forced on him that were to prepare him for the challenges of adult life as no formal education could. At seven he chopped firewood for the entire family with his hatchet, and a year later he took on most of the work around the family farm. Early exposure to a nearby Sunday school, combined with a strong religious impulse in his family, provided the youth with the beliefs he was to maintain so rigorously all his life. His half-sister, Francis Manwaring Caulkins, was a noted author of religious tracts and poems, which Henry, with his wide religious connections in later life, was to aid in distributing.

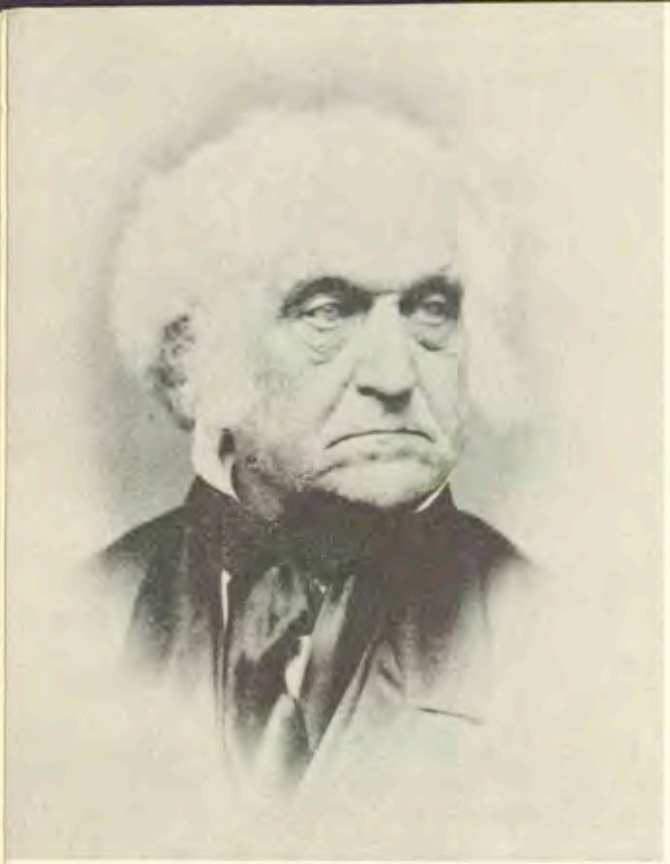
The capacity for hard work and the religious convictions that reinforced it were dominant influences in Haven's life. A desire to uphold moral virtues developed early, as his founding of a juvenile anti-swearing society testifies. This interest persisted throughout his life, and he seldom ignored any opportunity to impose his standards on others. Dr. Fred Smith, an enthusiastic violinist at picnics and social gatherings, gave up this pastime after a lecture from Henry P. Haven on the impropriety and immorality of fiddling. On another occasion, he tried to impress the wickedness of stealing on some Sunday-school children whom he had invited for



Henry P. Haven, "the Prince of Whales" (1815–1876).

strawberries with sugar and cream. Would the strawberries taste as good if they had stolen them, he asked? The children chorused, "No!" Pleased at the apparent success of his lesson, Haven asked why not. "Because, sir," came the answer, "if we'd stolen them we wouldn't have sugar and cream on them."

Regardless of the motivations inspiring it, hard work was Haven's greatest asset. When he was first apprenticed to Major Williams, he saw an opportunity for rapid advancement: the job of bookkeeper was vacant. He offered to take it, but was told he was needed where he was. Haven nonetheless begged for a trial, promising to do both jobs. The result was work for long hours, sometimes until two in the morning, only to rise again at four. This effort was not unrewarded, for after balancing the books better than ever before, he was soon promoted. His capacity for long, hard hours did not abandon him even when he was an established businessman: his business day



Maj. Thomas W. Williams, senior partner in Williams & Haven and silent partner in the firm of Haven & Smith during his term in Congress.

started at 6 A.M. and ended at 10 P.M. His Sunday-school students conferred with him on matters of faith in the unoccupied hour of 5 to 6 A.M.

The hard work and organization which Haven applied to his business were also displayed in his supervision of Sunday schools. His system of recordkeeping was regarded as a model of efficiency and accuracy and was widely imitated, as the course of any student could be followed with great ease, allowing backsliders to be constantly reminded of their peril. Similarly, he kept a Whaling Record in which the date, length, and results of every whaling voyage from New London since 1820 was tabulated. It is an invaluable asset to historians of the industry.

Not everyone appreciated Haven's hard-working efficiency, though, as a ministerial acquaintance testifies:

> The clerks in his office might think him despotic, but he knew that obedience was the secret of order. Customers might call him hard in bargaining, but he had it for a principle to save that which was least in trade. Acquaintances were sometimes offended at his curt manner when interrupted in his correspondence, but it was the concentration of a strong mind in one channel which wrought curt his dispatch.

To this day, Henry P. Haven remains unpopular with many residents of New London. The prevalent rumor that Haven ran brothels for his seamen may have roots in previous ill-feeling and the fact that the district where he established his Sunday school in Waterford was noted for "rum-selling, drunkenness and houses of the vilest repute." The truth of the rumor must remain in doubt.

Even in his own day, Haven was not universally loved. George Tinker, an old resident, remarked that in his morning walk to his offices on Water Street, Haven would often pass acquaintances without recognizing them, causing much resentment. His term as mayor from 1853–1856 was marked by his unpopularity, explained in part by a later commentator:

> It was almost as natural for him to give orders that were to be obeyed, as he was an owner in many ships, a captain over many captains, and a large employer. Being a busy man himself he was restive when a ship did not make a quick voyage or when she was too long delayed at her home port.

Haven's support of building and educational expenditures—the City Hall Building was constructed during his mayoralty—also doubtless contributed to his unpopularity with the thrifty townsfolk.

His correspondence with whaling captain Asa W. Fish provides the best portrait of the efficient, hard-driving businessman. Besides containing advice on cruising grounds, subject to the captain's discretion, the letters, in Haven's neat and concise handwriting, instruct Fish on current oil prices and the most advantageous markets. In a letter of 7 February 1862, for example, he advises Fish not

to ship to Germany because of the likelihood of war between Germany and Denmark.

In San Francisco, Morgan, Stone & Company acted as agents and contacts between Haven and his distant captains. There must have been a whole network of such contacts, but the few existing letters give only tantalizing hints.

The same despotic eye known to Haven's office clerks was turned to the accounts of his captains. Julius Shepard, Fish's financial agent, shows how small were the details that come under his scrutiny:

> The order in favor of the Portugee boy Mr. Haven wished explained as his name was not on the articles. he thinks that 1/195 lay is more than he ought to have as other men shiped at the same time had longer lays. he expressed some surprise that he had no advance.

Despite this minor point Haven repeatedly expresses his satisfaction with Fish's conduct of the voyage. Fortunately, Fish enjoyed a profitable relationship with Haven, starting in 1858 when Haven was appointed agent for the *Architect* following the failure of the firm of Perkins & Smith. By the end of that voyage, Haven wrote:

> Although the voyage you have been prosecuting in the *Architect* has been quite unfortunate, yet I have entire confidence in your ability & integrity, & it will give me pleasure on your return home either to provide you with a good vessel myself or assist you in any other way in procuring profitable employment.

Fish was later put in command of the *Nile* and justified Haven's confidence by a very profitable voyage.

The close relationship Haven enjoyed with the Williams family began with his apprenticeship in 1830 at fifteen, and it endured the remainder of his life. The two families lived near each other, attended the same church, shared in political offices and parties, and continued their association in business until Haven's death forty-six years later, when Charles A. Williams, the son of Major Williams, was appointed by him as a trustee of his estate. It seems likely that Haven lived at Major Thomas W. Williams's home during his apprenticeship, and the friendship that then developed must have been quite genuine, since his first son, Thomas William Haven, was given the major's name.

It was Charles Williams's initiative that established Williams & Haven in the guano trade. When the whaleship on which he was traveling in 1859 stopped at a remote island to bury a dead sailor and discovered guano (an ignominious fate for the deceased), Williams quickly claimed the island under the 1856 Guano Act. Realizing the value of the deposits, Haven immediately established the Phoenix Guano Company to exploit them, and a flourishing trade with the South soon

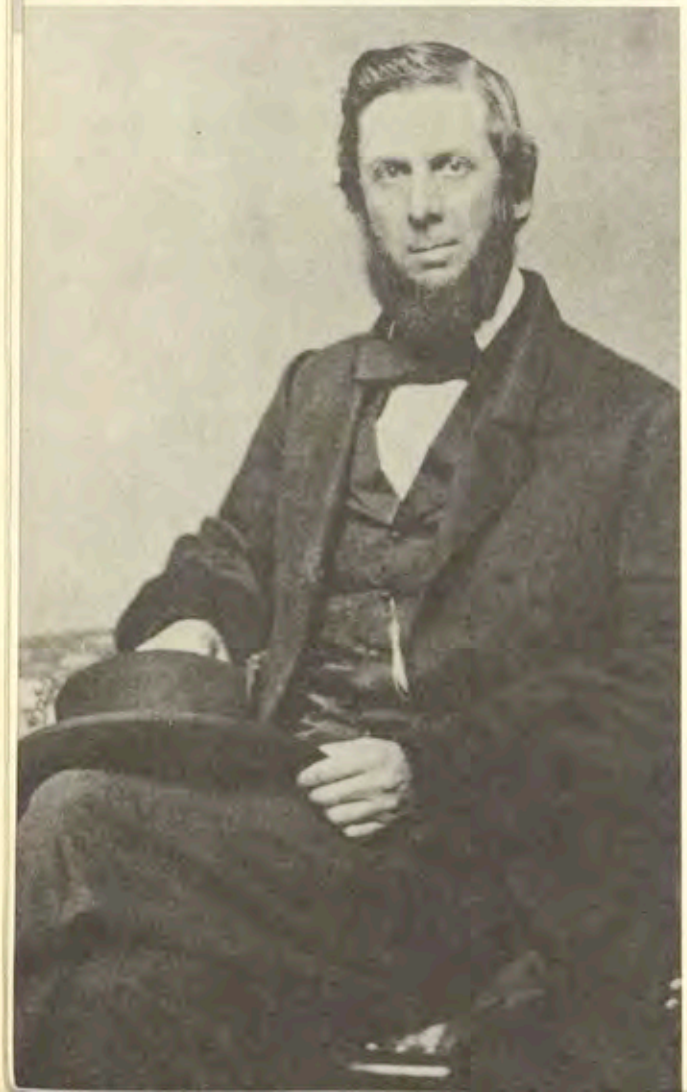
Charles Augustus Williams, son of Major Williams and a partner in the firm.



developed. The Civil War, though disrupting trade with the South, was no hindrance, since shipments were rerouted to Germany.

Even the Gilead Sunday School was to yield a profit, though not in oil or bone. Noticing a promising eleven-year-old, Haven brought him to live in his home and work at the office. Richard Jason Chapell lived with the Havens for eighteen years, until his marriage in 1855, even changing his name to Richard Haven Chapell out of affection and gratitude to his friend and employer. He was virtually a member of the family, leaving money in his will to Haven's daughter and naming two of his three sons after members of the family, Henry Haven Chapell and Thomas Haven Chapell. At sixteen, he joined the Second Congregational Church, to which Haven also belonged, and on his death left a large bequest to it. In 1867 he dedicated the Mission School, which must have made Haven proud, and like Williams he was active in civic and political affairs. Haven had chosen wisely, for by the 1860s Chapell was perhaps the most active and valuable partner of the company.

Richard H. Chapell, partner in Williams & Haven. Henry P. Haven recruited him from his Sunday school.



During the Civil War, Haven and Chapell suggested to Gideon Welles, Secretary of the Navy, that old whaleships be used in the proposed blockade of Charleston harbor by sinking them in the shipping channel. Chapell then acted as Welles's agent in the purchase of vessels and stone ballast for the famous "Stone Fleet." On the purchase of Alaska in 1867, Haven, learning from Secretary Seward that Alaskan sealing grounds would be open to Americans, sent Chapell and Ebenezer ("Rattler") Morgan by way of Panama to Honolulu, where the bark *Peru* was fitted out with haste and secrecy and sailed to Sitka. On obtaining proper clearance Chapell returned home via San Francisco, while Morgan proceeded to St. Paul ("Seal Island"). His was the first American vessel to raise the flag in the Pribilof Islands. On the authority of his membership certificate in a Scottish Rite Masonic Temple, Morgan took possession of the island from a confused Russian agent and promptly staked out the seal rookeries—under the Federal Homestead Act! A week later a vessel arrived from Hutchinson, Kohl & Company of San Francisco, who had bought the holdings of the Russian-American Company. Encountering Morgan, who threatened a pitched battle over possession of the rookeries, they finally agreed to a compromise whereby Henry P. Haven, Richard H. Chapell, C. A. Williams, and the unyielding Captain Morgan became stockholders in the Alaska Commercial Company. Morgan returned home with his share of the harvest: 40,000 sealskins.

By late 1869 and early 1870, Richard H. Chapell was in Washington, D.C., apparently

lobbying for the passage of "An Act to Prevent the Extermination of Fur Bearing Animals in Alaska", which leased the seal rookeries in the Pribilofs to the Alaskan Commercial Company. The revenue from the immensely profitable seal fishery was to provide a major source of income for Williams, Haven, & Co. (as the firm was known from 1868 to 1875) and the later C. A. Williams Company until 1890, when another company was granted the lease. The establishment of homes and schools for native employees must have been a source of satisfaction for Haven, an outspoken advocate of education at home, though there were some who felt not enough was done.

In Captain Ebenezer Morgan the firm possessed another invaluable asset. Noted for his shrewdness, ability, and determination, Morgan was given the command of the *Pioneer*, the first steam whaleship, fitted out by Williams & Haven in 1866. He later became a partner in the company. These considerations aside, his religious propensities doubtless had a strong appeal for Haven. Nathaniel W. Taylor, ship's doctor on board the *Julius Caesar* under Morgan, noted that the ship sailed under a temperance banner, that Morgan conducted services every Sabbath, and regarded Sunday as a day of rest—until the whaling grounds were reached.

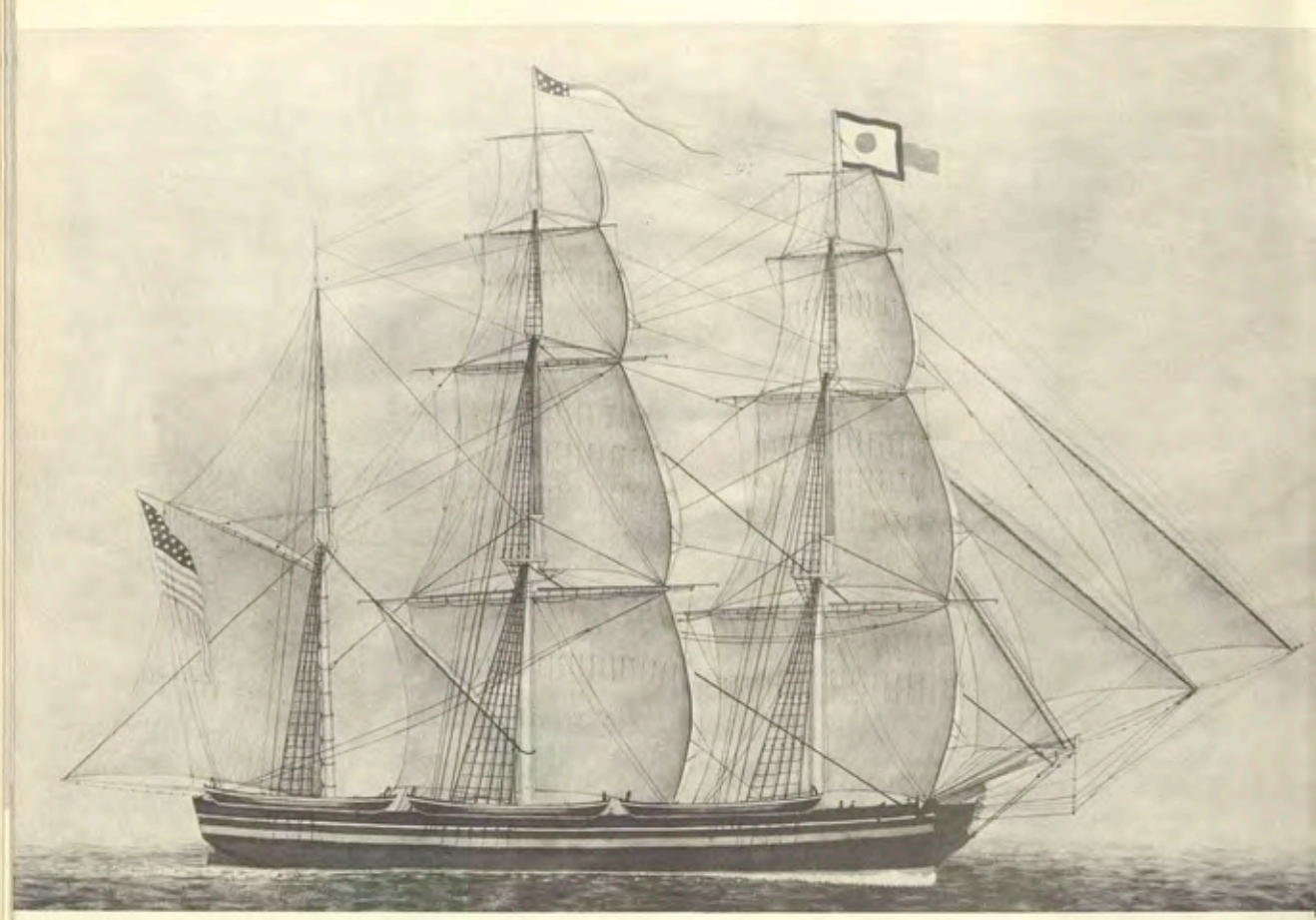
Haven's generous aid to the Arctic explorer C. F. Hall, who advocated planting a Christian colony among the Eskimos to convert them, was motivated at least in part by religious principles. In a dramatic incident Haven appeared just as Hall was departing the wharf, and gave him a tract entitled "The Daily Food," apparently with the thought of lending Hall spiritual as well as earthly aid. In gratitude, Cape Haven and Chapell Inlet were named by Hall after his benefactors.

In 1863, after his return, Hall met with his backers to plan another expedition. One proposal, not adopted, was for "The Combination Research and Whaling Expedition," with the proposed whaling activities underwriting the cost of the project. Such a plan must have held great attraction for Haven, as business, scientific exploration, and Christian mission might be combined in the same project.

Industry, the ability to organize, and the recruitment of able partners were all factors in Haven's success. No less important was his capacity to retain the affection and loyalty of his employees and partners. This at first seems contradictory with the image of the man, but there was another side to him. Henry P. Haven left behind him no fewer than six namesakes, and took other young men like Chapell into his home. Perhaps Haven, left fatherless at an early age, felt a very real need to act as a surrogate father. It is possible that his strict authoritarianism and his fatherly attributes both stemmed from the same roots, and reflected in the one his public image, and in the other his private. His minister spoke of Haven as cheerful, enjoying a good joke, and delighting in picnics and ball games.

Two other factors must be considered in assessing Haven's seemingly contradictory personality: politics and innovative behavior. All the partners in Williams & Haven were dyed-in-the-wool Republicans, exerting influence not only over New London but also in state and national politics. Major Williams served in Congress from 1838–1846, while his son and Henry P. Haven were both mayors of New London, and together with Richard H. Chapell served in the state legislature and on numerous city boards and commissions. This small group, with friends and associates, was a dominant influence in local politics. Their acquaintance with Secretaries Welles and Seward proved lucrative in conjunction with the "Stone Fleet" and the Alaska seal fisheries. Haven's staunch Republicanism, evidenced by his candidacy for governor in 1873 and his selection as Connecticut's electoral college representative in the election of Grant, stood him in good stead.

There is no evidence that Haven ever set foot aboard a ship in any capacity other than passenger. Yet by the 1860s, if not before, he was dispensing sound advice on whaling grounds to Asa W. Fish. Planning sessions,



Bark *North America*, owned by Haven & Smith.

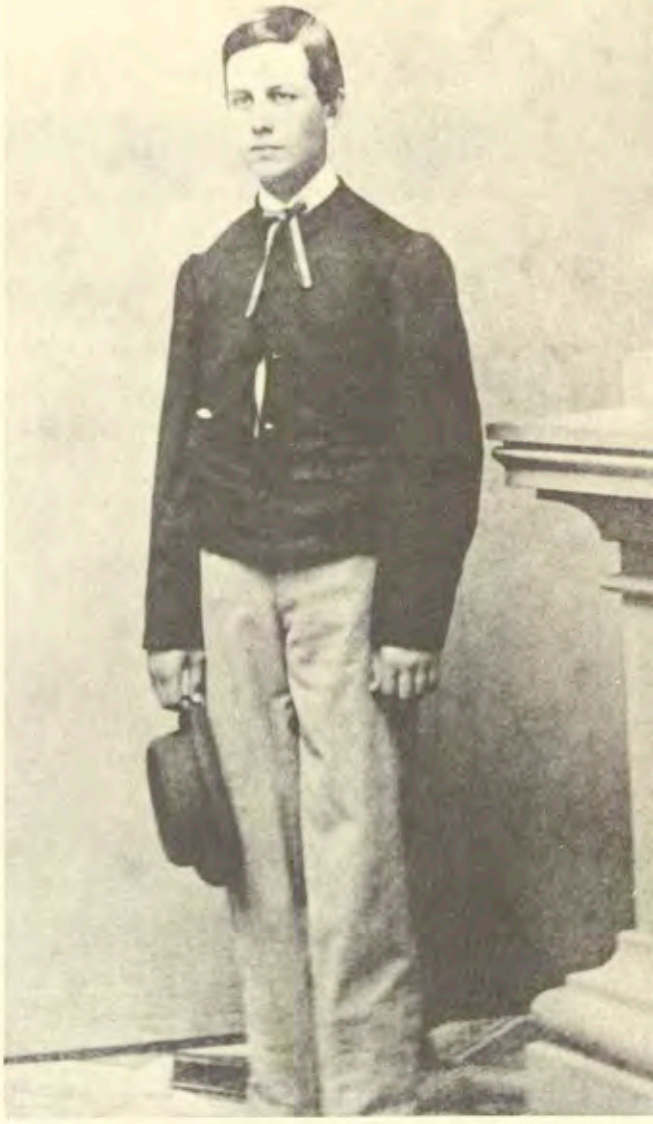
when he met with his captains and plotted the courses of whaling and sealing campaigns, may have formed the basis of this knowledge. Interestingly, he held similar strategy meetings with his Sunday-school teachers. The parallel between these and his recordkeeping system is remarkable, his ability to systematize being revealed in both. In the practical application of steam vessels to whaling and in such episodes as the proposed whaling and explorative expedition and the race to the Pribilofs, Haven and his partners showed a readiness to try new techniques foreign to the conservative whaling community. Perhaps the very fact that he (as well as Chapell) was a landlubber led him to be more receptive to innovation than those who had "come in through the hawse hole" rather than the counting room. This willingness to adopt new methods is evident also in his Sunday school and his work in education, in which he is given credit for introducing adult evening education to the state.

By 1868 Haven could look back on a long series of accomplishments. That year, capping the success of the Alaska venture, his son Thomas W. Haven attained his majority and joined the firm as a partner, the name now changing to Williams, Haven & Co. This pinnacle of achievement, however, was destined to be ephemeral. Tragedy marked the decade of the 1870s for Haven, as success had marked the 1860s. His son, the major's namesake Thomas W. Haven, died in 1870, barely two years after joining the partnership. Traveling on business in the South, perhaps connected

with the guano or yellow timber trade, he caught the "ague" and died at the age of twenty-three, ironically at the same age his father had been when admitted as a partner in Major Williams's company. Four years later, in 1874, Haven's wife and his old friends and partners Major Thomas W. Williams and Richard H. Chapell also died, Chapell at the comparatively "vernal" age of forty-eight.

Sapped of much of its vitality, the firm continued until Haven's death on 30 April 1876, just prior to his leaving for Sunday school. Only C. A. Williams was left to carry on the leadership of the company. The remaining years saw a contraction to the point of nearly total dependence on the Alaska seal harvest. The loss of the Alaska Commercial Company's lease in 1890 was the death blow, for only two years later Williams sent out his last whaling vessel. Had Haven lived longer or had his son and Chapell survived him, the subsequent history of the company might have been different. A combination of factors, overshadowed in economic significance by the decline of whaling, brought about the fall of his carefully constructed organization, just as other factors had caused its rise.

Today the only visible monument to Haven's memory in New London is the Public Library, built with funds left in trust by Haven for charitable and benevolent purposes. In death as in life he remains close to his partners, but scant yards apart in Cedar Grove Cemetery. His life and works pose many problems, and, like those of his fellow whaling agents, deserve more attention from scholars.



Thomas W. Haven, namesake of Maj. Thomas W. Williams. He died at the age of twenty-three.

Bibliographical Note: The most important printed source for Haven's life is *A Model Superintendent* by Henry Clay Trumbull (New York: Harper & Brothers, 1880). *Whaling Industry in New London* by Robert Owen Decker (York, Pa.: Liberty Cap Books, 1973) contains much on New London's various whaling firms. As to manuscript sources, the G. W. Blunt White Library at Mystic Seaport contains much of value, especially the Asa W. Fish papers. The New London County Historical Society has much material, especially the Wall Scrapbook. Anyone wishing more detailed references is referred to the original of this article in the G. W. Blunt White Library. There are enormous gaps in our knowledge of Haven and his business, and anyone having documents relating to him or to other whaling agents is urged to contact the manuscript librarian at the Blunt White Library. Even the driest of ledgers and account books are of incalculable value to the historian.

Ropemaking at Mystic

By J. REVELL CARR*

From earliest times rope has been one of man's basic tools. The facts of its development are lost in the darkness of pre-history, but we do know that flexible fibers and strips of hides were used as lashings in earliest times. When additional strength was needed, several fibers or strips were twisted together and thus the first ropes were made.

The sophistication of ancient ropemaking is evident when we consider the ropes used by Xerxes during his invasion of Greece in 480 B.C. In order to build a pontoon bridge across the Hellespont, Xerxes used six ropes, each of which was one mile long and twenty-eight inches in circumference.[1] The effort that had to go into the manufacture of these cables is staggering to contemplate, but the basic principles of ropemaking have remained constant from that time to the present. The fibers are spun into yarn; then a group of yarns is twisted into a strand; finally, several strands are twisted together to form a finished rope. In each of these steps the twisting is done in the opposite direction from the preceding step, with, for example, the yarns spun clockwise, the strand formed counterclockwise, and the rope twisted or "layed" clockwise, so that each element's natural tendency to untwist binds it against the other and the rope remains intact.

At the time of settlement of this country, most rope in Europe was made from flax or hemp, and it was a blessing that natural hemp grew plentifully in New England. Within the first decade of its settlement, Boston had two operating ropewalks, and by the War of 1812, there were 173 ropewalks in this young nation.[2] The ropewalk gets its name from those phases of the manufacturing process in which men walked the length of the building. In one of these phases there was a basic flaw, which was not discovered and corrected until the 1790s. Since this problem and its solution had a long-range effect on ropemaking, it is appropriate to examine the matter at this point.

The defect developed during the strand-forming stage, when the necessary number of yarns were pulled down the ropewalk and then twisted from both ends to form the strand. All of these yarns were of equal length, and when the twist was applied, those on the outside of the bundle had to travel farther as they wound around the outside of the strand, while those yarns on the inside received very little twist, being merely compressed in the middle of the strand. This resulted in an unequal distribution of strain when the rope was used.

The man who conceived a practical solution to this difficulty was an Englishman, Capt. Joseph Huddart, who was in the employ of the British East India Company when he first became involved in the problem. While on a voyage from India to China, Huddart's ship was forced to anchor several times in the Straits of Sunda. During the process of raising the anchor, he noticed a large number of broken yarns on the strands of the anchor cable. On examination he discovered that the strain was being borne by the outer yarns primarily, with negligible strain on the

*J. Revell Carr is Curator of Mystic Seaport and a self-made expert at ropemaking.

[1] David Himmelfarb, *The Technology of Cordage Fibers and Rope* (London, 1957), p. v.

[2] Samuel Eliot Morison, *The Ropemakers of Plymouth* (Boston, 1950), p. 7.

inside yarns. The inefficiency of this type of construction can easily be perceived, and Huddart realized that it was essential to have each yarn carry an equal portion of the strain. The method he developed called for the yarns to be stored at the head of the ropewalk on large spools called bobbins. The strand was made by a forming machine that twisted and pulled the yarns simultaneously, feeding yarns of the proper length so that they could all carry equal strain.[3]

Captain Huddart's method, which was patented in 1800, was universally adopted in the decades that followed. This had a substantial effect, since it meant that a rope made under the new method was considerably stronger than one of similar size made under the old system. One additional benefit was smaller ropes, but this may not have been immediately perceived. There is no evidence that in the area of ship rigging, for example, people immediately began to use rope of a smaller diameter; it is more likely that they used the traditional sizes of rope and enjoyed the safety of the additional strength.

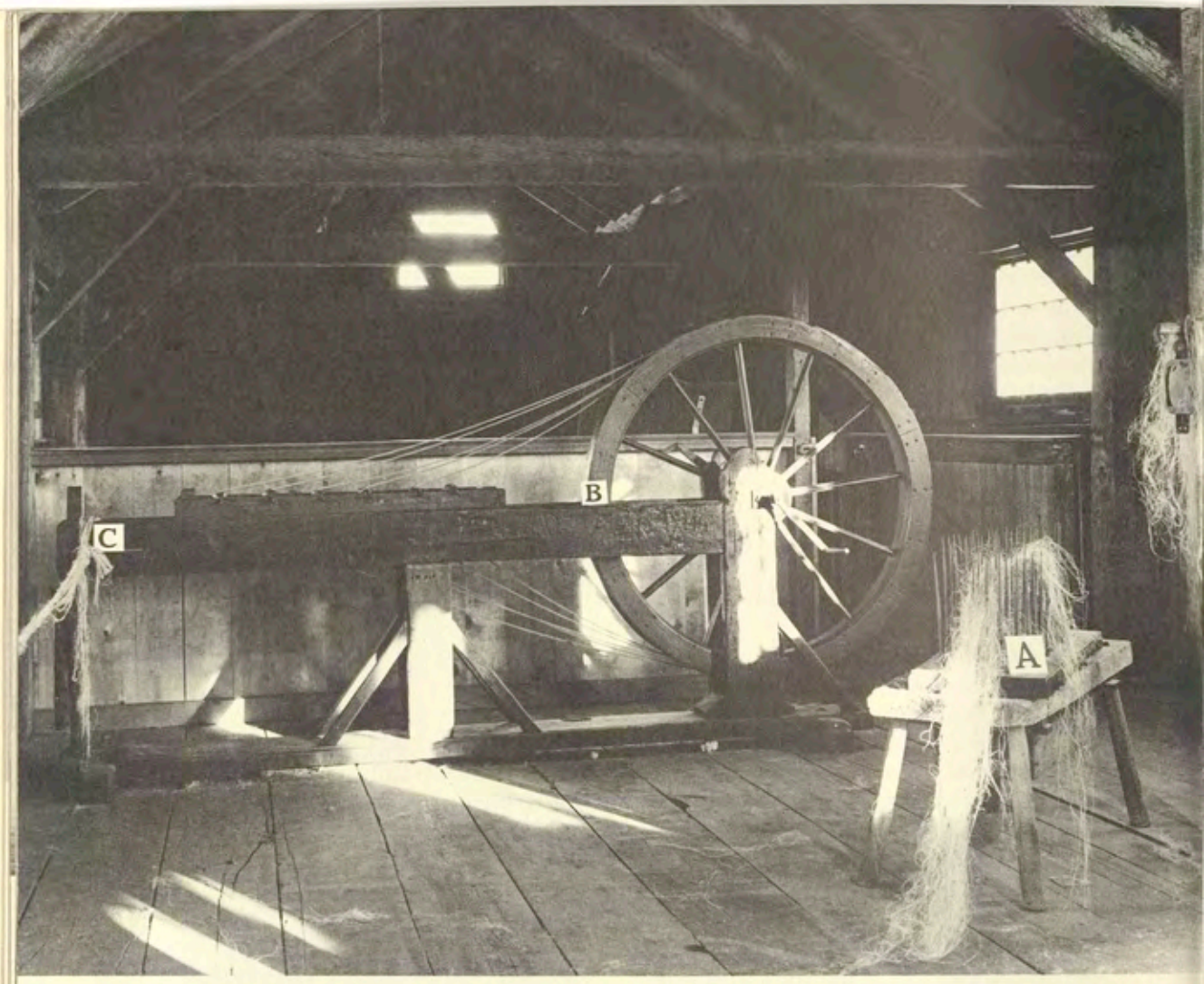
Since Captain Huddart's significant technological advancement, there have been many others which have, among other things, done away with the ropewalks, so that there is none operating in this country today. There are several ropewalk buildings still standing, but none of these is operational and it is doubtful that they will be again. Many of the early ropewalks were not in buildings at all, but were merely straight stretches of ground where the basic equipment was set up and the work conducted during good weather. This method is still used in rural areas of some countries, but in the United States commercial manufacturers were quick to realize the advantage of ropewalk buildings that allowed work to go on during all types of weather. We find these structures shown in a number of early town plans. These buildings ran to great length, since it was necessary for them to be longer than the longest piece of rope the manufacturers wanted to make, and it was always desirable to have as long a rope as possible without splices which might weaken it. A ropewalk the size of the Plymouth Cordage Co. walk, with an overall length of 175 fathoms (1050 feet), could produce a continuous rope only 100 fathoms in length, and this size was not abnormal. Bourne Spooner, founder of the Plymouth Cordage Co., said in 1850 that no ropewalk in New England could produce a single piece of rope 150 fathoms in length.[4]

The Plymouth ropewalk was built in 1824 and was enlarged several times in the late nineteenth century, but by the end of that century technology had caught up with the ropewalk and new machines were developed that replaced it. The advantage of the new machines was that they reeled the rope into coils as it was made and therefore could operate in relatively small space. While some people were skeptical of the quality of the rope made on these "house machines," the machines were soon universally adopted and the ropewalks were maintained only for special orders.

The Plymouth ropewalk was used periodically until 1947, when it finally went out of operation. The decision was made to have the wooden frame building torn down, but fortunately, people of foresight at the Plymouth Cordage Co. and at Mystic Seaport arranged for a portion of the building to be removed to Mystic, Connecticut. At that time Mystic Seaport was a very small organization, and it is remarkable that a few men with trucks loaned by local businesses were able to salvage such a large section of the building and erect it in Mystic. It is unfortunate that the entire structure was not saved and methodically restored, but the 250-foot ropewalk that has been preserved serves well to convey the feeling of these enormous buildings. What is of critical importance is that the equipment

[3] William Cotton, letter to James Walker in *Memoir of Captain Joseph Huddart, F.R.S.* (London, 1855), p. 21.

[4] Morison, p. 13.



1. The devices shown in this photograph are used in the first three steps of ropemaking. The fibers are straightened on the hackles (A), spun on the large wheel (B), and loosely twisted into a "junk" for tarring (C). 73-1-63

that was in the walk when it closed was preserved and set up at Mystic by men from the Plymouth Cordage Co. who had worked with the machinery. Additional light was cast on the process through interviews with Mr. David Himmelfarb, master ropemaker, and Mr. Edmund B. Skelly, general foreman, of the U.S. Navy ropewalk in Charlestown, Massachusetts, where machines identical to ours were used.

While the ropemaking process seems complicated and the ropewalk appears a tangle of ropes and machinery, it is hoped that some of the mystery of this process can be eliminated by the following description with its attendant photographs and drawings.

The hemp fibers were shipped to the ropemakers in bales and had to be straightened by being drawn through a series of spikes called hackles. These can be seen marked "A" in photograph 1. By the middle of the nineteenth century, most of the hackling and spinning at the Plymouth Cordage Co. was done on machines, but since none of these early spinning machines has survived, the older method using a spinning wheel is shown at Mystic.

The wheel itself is large, with a diameter

of four feet, and was powered by a man or two boys. It drove as many as six spindles, or whorls, so that several spinners could work at the same time on the same wheel (*"B" in Figure 1*). To begin spinning, a large bundle of hackled fibers was gathered either around the waist of the spinner or in a pouch-like apron which he wore. A few fibers were then hooked over the hook of a whorl and the wheel started turning (*Figure 2*). As the hook twisted, the spinner began feeding additional fibers from the bundle around his waist, walking backwards away from the wheel down the length of the spinning loft, which at Plymouth was 660 feet. Skilled spinners could spin a separate yarn with each hand, so that it was possible for three spinners to work on a six-whorl wheel at the same time.

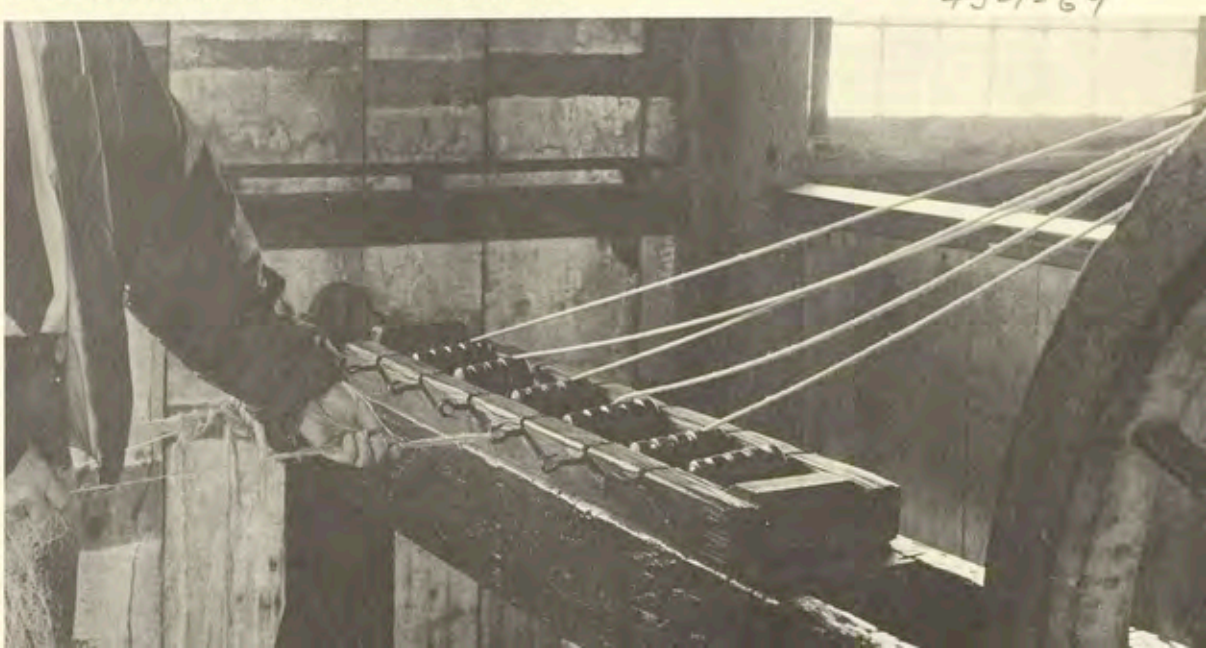
Once the yarns had been spun, a number were twisted together into a loose bundle called a junk (*"C" in Figure 1*), which prevented the tangling of the yarns when they were immersed in the tar tank. After being removed from the preservative, the junk was run through rollers to squeeze out excess tar and then untwisted. The separate yarns were wound onto large bobbins. Racks called creels were used both to store the bobbins of yarn and to hold the yarns during the next step, the forming of a strand.

Two creels with the proper number of bobbins of yarn were moved into position at the end of the ropewalk. The yarns were then threaded systematically through holes in a circular metal forming plate or register plate (*Figure 3*). This arrangement produced an even distribution, so that each yarn in the finished rope carried equal strain. Next, the yarns had to be fed through a metal tube called the forming tube, which compressed them and tended to smooth the fibers.

As was mentioned briefly in the discussion of Captain Huddart and his improvements in ropemaking, the forming of the strand calls for the yarns to be simultaneously twisted and pulled down the walk until the desired length is reached. The forming machine is used for this purpose. This machine travels down the walk on metal wheels, guided by low tracks. Its power comes from a drive rope, an endless rope connected to a pulley

2. The whorls and hooks revolve as the fibers are continuously fed by the spinner, who walks backward down the length of the spinning loft.

73-1-64



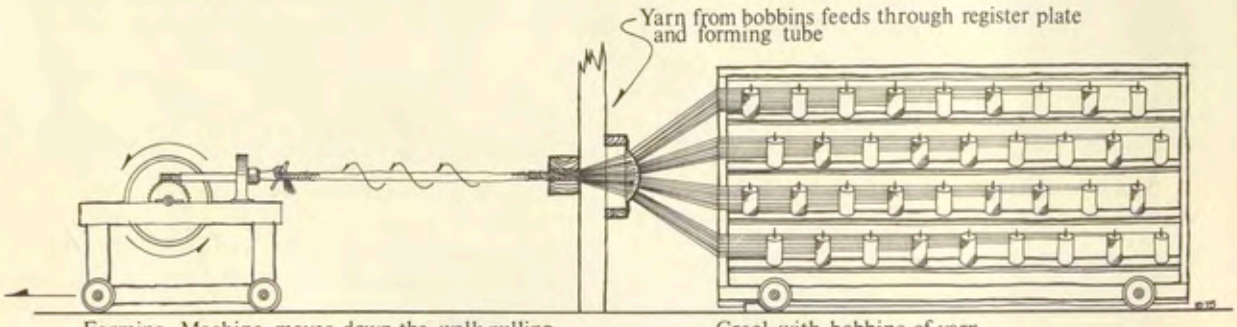
on a steam engine.

With the forming process about to begin, the plate man takes up his position between the two sets of yarns feeding from the creels through the register plate. This man's job is to see that the yarns flow freely through the plate and to watch for any broken yarns. Since a break in the yarn would mean a defect in the strand, the plate man has several extra yarns threaded and ready to be quickly tied to a broken end of a yarn as it is being pulled toward the tube. It is undesirable to stop the process of forming a strand once it has begun, since the starting up again will cause an initial surge of power and create an irregularity in the strand.

The operator of the forming machine is called the hauler, and he is the most important individual in this portion of the operation. By signaling with a small rope rigged overhead and attached to a bell, the hauler calls for power. The hauler puts the forming machine into gear so that the forelock begins to twist the yarns together and the ground rope wheel begins to turn and pull the machine down the walk. Once the process has begun, the hauler walks just behind the machine as it moves down the walk. It is from this position that he watches the strand that is being formed and continuously evaluates its quality.

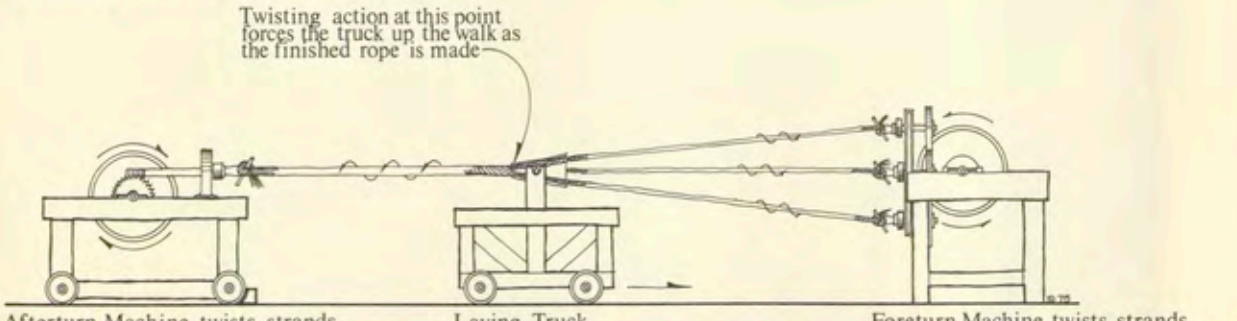
If all goes well, the machine will move down the entire length of the walk at a regular speed, usually that of a fast walking pace, and the result will be a well-formed strand with a uniform twist. The forming machine is then stopped by shifting it out of gear and the strand is cut off at both ends, which are tied around posts to prevent untwisting. It should be noted here that several strands

The Forming of a Strand

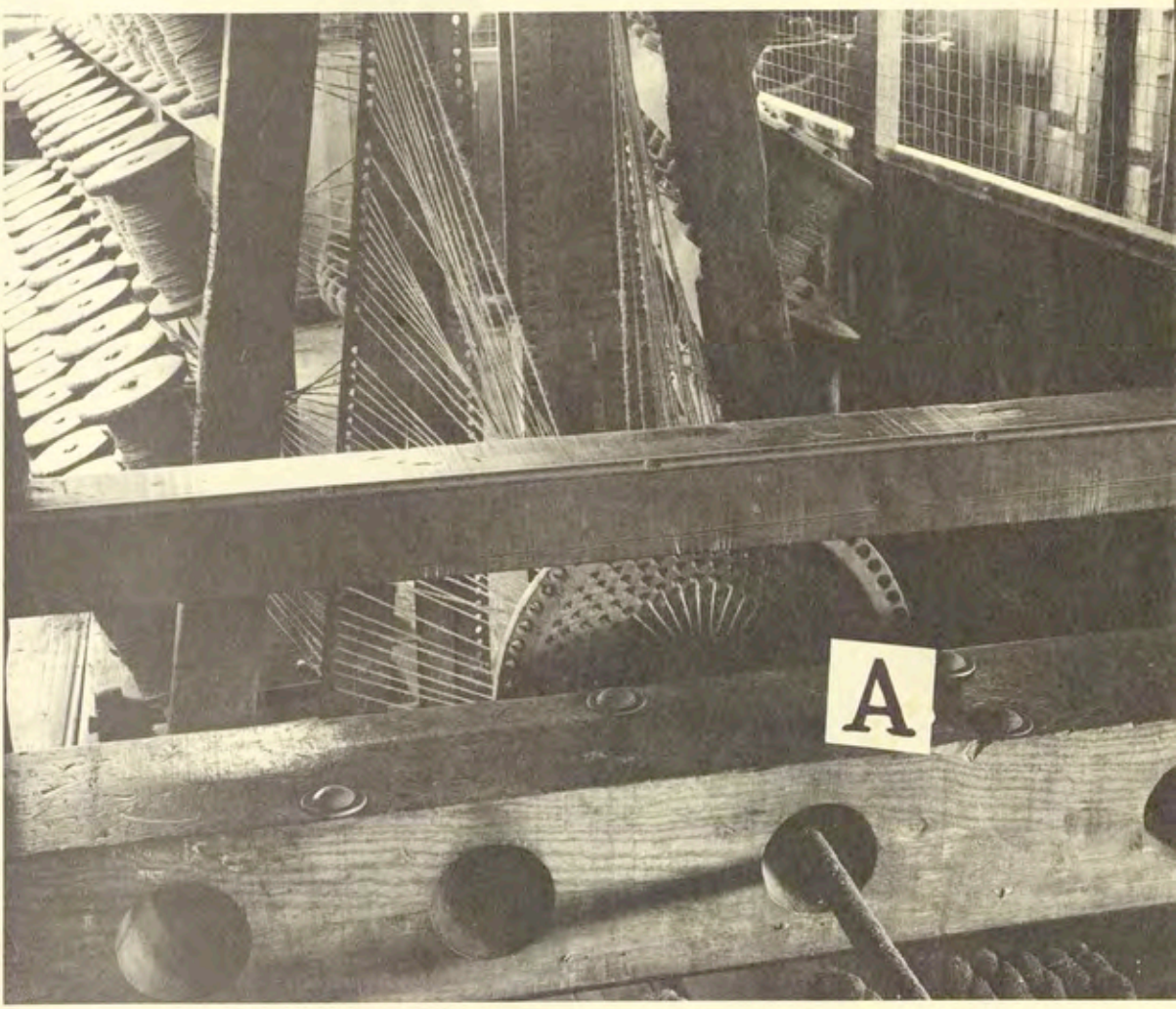


77-2-232

The Laying of the Rope



77-2-233

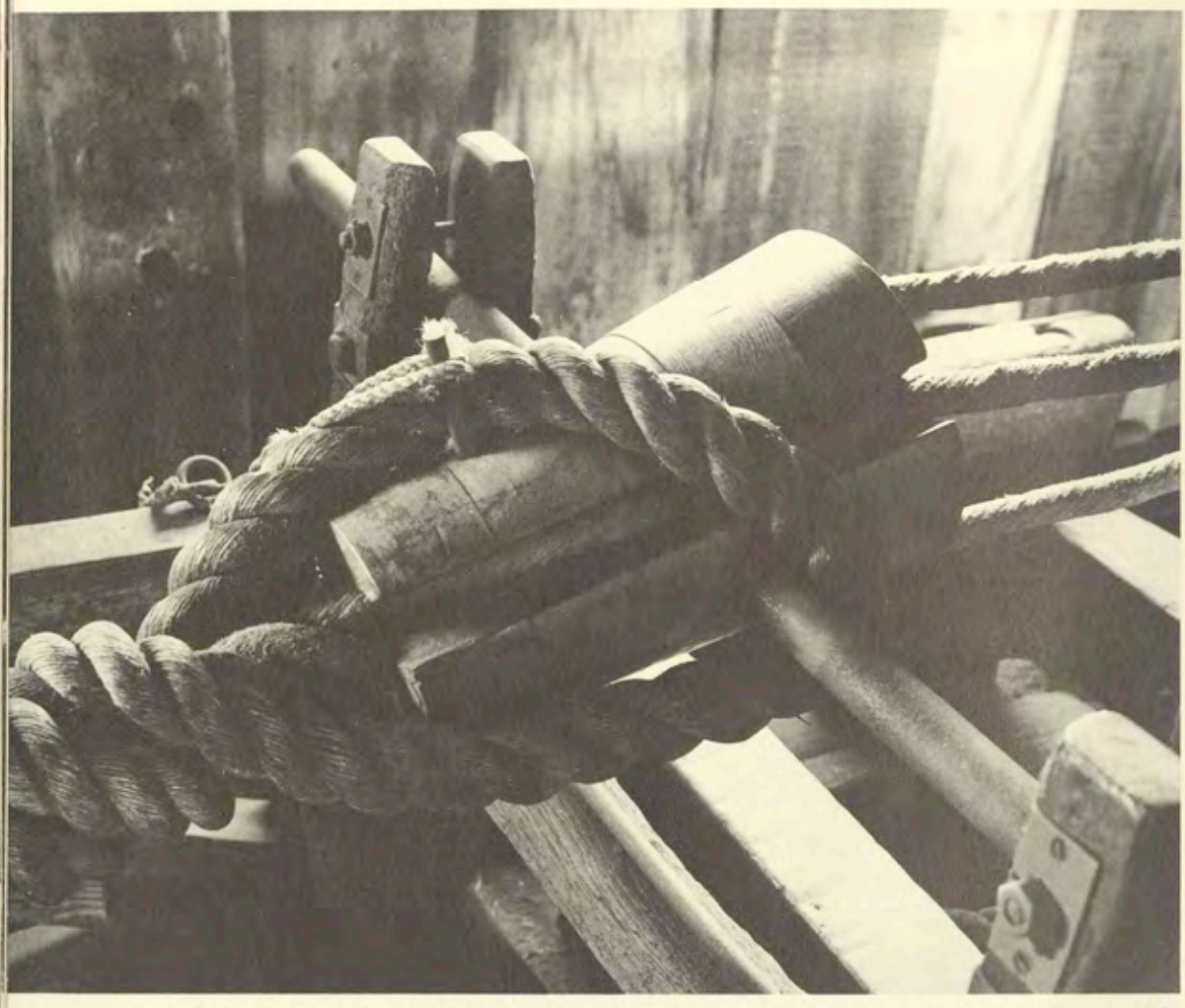


3. The creels holding the bobbins of yarns are shown in the background, with the yarns feeding through the round register plate (A) and through the forming tube as they are twisted and pulled into a strand by the forming machine. 73-1-61

could be made at the same time if they were not too large in size.

Once the proper number of strands has been formed, usually three or four, the crew is ready to begin the process called laying, during which the strands are twisted together to form a rope. The strands must be longer than the desired finished rope, since they will shorten when they are twisted together.

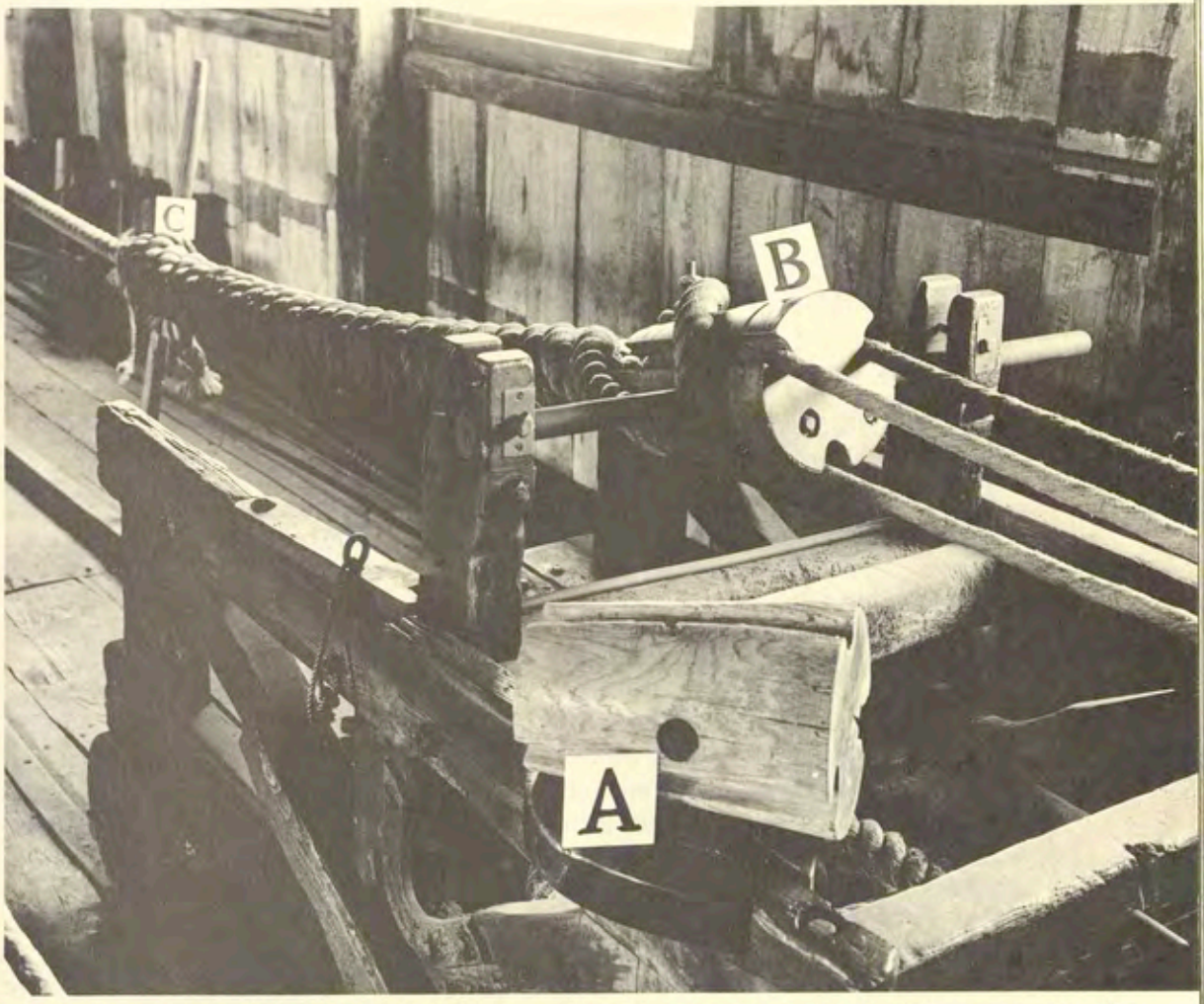
Three machines are involved in this final stage. At the head of the walk is the foreturn machine, to which each of the strands is attached and which maintains the twist in the strands as the afterturn machine at the end of the walk twists the strands together. Between these machines is the laying truck, which controls the tightness and regularity of the lay. The key to this process is the laying top (*Figure 4*), which is made of wood in the form of a truncated cone with grooves for each strand. This top, attached to the laying truck in a fixed position, is moved directly



4. The critical point in the laying of the strands into the finished rope is at the base of the laying top shown here. The twist is being made by the afterturn machine, and the three strands (*right*) are kept separated by the grooves in the top. 73-1-67

in front of the afterturn machine and the strands are positioned in the grooves ("*B*" *in Figure 5*). When power is applied to the afterturn machine, the twisting of the strand begins, and because of its conical shape, the laying top and its truck are forced up the walk. A man walks behind the laying truck, controlling its speed with two braking devices ("*C*" *in Figure 5*) and controlling the final critical regularity of the lay. Again the process is fast, requiring only the amount of time necessary to walk the length of the building. Once the truck reaches the head of the walk, the rope is served on both ends and cut from the machines, ready to be coiled and shipped out.

The simple exhibit at Mystic shows two lanes, each depicting a major portion of the process. The forming ground with the forming machine is closer to the visitor, and the laying ground with the afterturn machine, laying truck, and foreturn machine is nearer the wall. The machines are there, and yet the ropewalk does not operate. There have been in the past, and there are today, many people who would be interested in seeing this process. The idea of operating the ropewalk has been given consideration and the merits of



5. Here the laying truck is shown with the three strands separated by the laying top (B). The finished rope is seen in the left background, wrapped in another large rope which is part of the braking mechanism. 73-1-62

this undertaking are obvious, but there are real problems of manpower, materials, a power supply for the machines, and the strength of the building which have to be taken into account.

Our ropewalk machinery, from the end of the ropewalk era, has been preserved, and these machines represent the most advanced type of ropewalk equipment. They are plain and simple by comparison with the huge house machines of today with their complex arrangement of spools and reels, all simultaneously spinning and twisting.

Perhaps someday a ropewalk will operate again in the United States. There is no practical economic motivation for it, however, and if one does ever operate, it will be as a curious archaic industry, functioning as a novelty. While many crafts are preserved by individuals who are interested enough to acquire the skills and the basic hand tools, industries such as ropemaking, which require large amounts of space, fairly heavy machinery, and a number of trained men, seem doomed. It is hoped that exhibits such as the Plymouth ropewalk at Mystic Seaport will help fill these voids in our technological history.

Logs and Journals at Mystic Seaport

By GINNY COOPE*

One of the most fascinating collections at Mystic Seaport is that of the ships' logs and journals. Dating from 1737, the logs cover trading, whaling, and sealing voyages, United States and British Naval cruises, privateering, yacht cruises, and voyages of exploration—all together an extensive account of over 200 years of maritime history. Not only is the day-to-day record of ships at sea invaluable for the historian; it is interesting to all who wish to see how our early trade with the West Indies expanded to India and the Orient, and how whalers, confined mostly to the Atlantic Ocean until about 1850, ventured first into the Indian Ocean when whales became scarce, then the Pacific, and finally the Arctic. The logs and journals are a unique source of information on navigation, ports-of-call, vessels spoken, cargo, whales taken, ships' accounts, crew lists (and often details of the crew), medicine at sea, mutiny, and many other things that give a vivid picture of the life of the seafarer.

Some journals were written by women, usually the master's wife. Maria P. Clark, wife of James W. Clark, master of the bark *Nimrod*, kept a journal from 1863 to 1865 in which she wrote of the capture and burning of the Confederate steamer *Shenandoah*. Children are sometimes mentioned: in 1851 the ship *Mary and Martha* left New Bedford for a whaling voyage and Sarah Jane Slocum, wife of George W. Slocum, master, told of some of the doings of one John Bolles's wife and their six children, all of whom were aboard.

Sallie G. Smith, whose husband, Fred, was master of the bark *Ohio*, wrote of her time at sea: "July 6, 1875, Started life on the Ocean... commenced to be sea sick it rained during the night but I dident pay much attention to that." On 9 July: "went on deck it was very pleasant stayed nearly two hours... the rest



*Ginny (Virginia Thurston) Coope, wife of staff member Peter Coope, has been a volunteer for several years, reading and cataloging the logs and journals in the library. She attended Smith College and spent the next twenty years as a Navy wife before she and Pete settled in North Stonington, where they are restoring an old house.



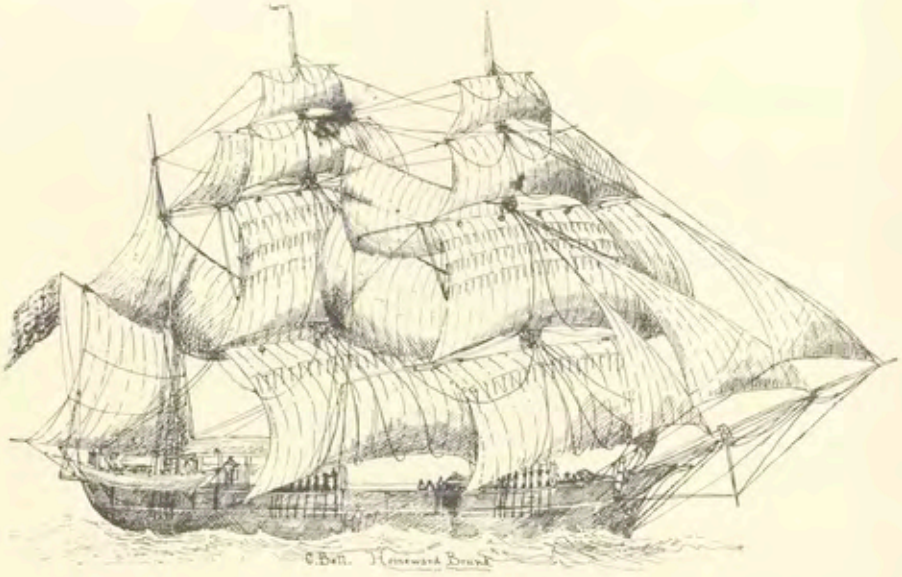
part of the day I have been packing things and getting ready for keeping house havent got my sea legs on yet but I have done pretty well for only four days out." In great detail she describes the bringing of whales alongside, cutting in, and trying out the blubber. She also tells of sewing, taking care of her plants, and airing clothes; her husband, she writes, made clothespins and crochet hooks of bone. At the end of her log are notes on how to remove mildew, some recipes, and a most unusual process "to silver Ivory—Immerse the ivory in a nitrate of silver untill it is a deep color then into a tumbler of clear water exposed to the sun about three hours then rub untill it becomes like silver."

When I started reading this collection I had no idea how involved I would become in the lives of certain people who kept personal journals. In 1817 Henry Green of Sag Harbor went aboard the ship *Fair Helen* as a foremast hand for a whaling voyage. He started then, at age twenty-three, to keep a journal, and he kept it through fourteen volumes which follow his sea career for nineteen voyages over a period of twenty-two years, sixteen of those as master. He expresses the loneliness of long periods at sea with no news from home; he writes of his marriage and the birth of his children, and often refers to the hardship of a sailor's life.

"August 13, 1820," reads one such entry. "We poor seamen must leave our native land and all that is dear to us and plough our way through a pathless ocean to seek our fortune. . . . We have to encounter the Terrible Monitors of the deep and our voyage depends wholly on our success with them." On 17 August 1826: "This day I am 32 years old. This is my tenth year awhaleing. Hard, hard is my fate. I sigh while I tug at the oar. I think that I will whale but two voyages after this unless poverty compels me to... when I head from home I am in hopes that I shall hear that my tickets in the Lottery have drawn ten thousand dollars, O then how happy I should live on shore."

One interesting entry was dated 4 September 1819: "We received a visit from Dad Neptune the God of the sea. He spent four hours with us and asked the green hands a number of questions concerning their love affairs on shore. After being answered to his satisfaction he shaved 7 of them and then he got into his stone canoe and with his iron paddle he paddled off." So far I have been unable to find anyone who has heard of a stone canoe and an iron paddle!

In 1855 Robert Weir started his journal on board the bark *Clara Bell* of Mattapoisett, Mass. In the pages that followed, he did many outstanding illustrations of men in whale-



boats chasing and harpooning whales. He also showed the cutting-in process, boiling at the try works, and many other details of life on board, providing a rare record of these events.

His first entry arouses immediate interest: "Oh! if the folk at home knew what a field I am about to launch upon what would they say. What does dear father think—but I cannot turn back. . . . I shall *never never* call on father again—but I dare not speak his name. I have wronged him too much to be his son." Weir often mentions this shame that he has brought upon his father, but he never says what he did.

The vivid descriptions in Weir's journals give a real understanding of the whaleman's life: "I have had to go aloft in rain and wind to furl and reef—and I do like it—there is not half the danger that landsmen imagine. But at such times we can feel our utter insignificance. . . . I commenced then to appreciate something of the romance of the sea—the thought of which when I was sea sick utterly disgusted me—I feel joy in beholding the most noble Ocean."

On a Sunday, when only necessary work was done, Weir once wrote, "Most [of the men] will be seen squatting about the fore hatch smoking—dozing or growling—some read, wash, sew etc.—but no thought is given to the welfare of the soul."

On 9 November 1855 he wrote of the excitement when a whale was sighted: "A little before 6 oclock this morning—heard the cheering cry from the mast head—'there blows' . . . all is now excitement; a general rush is made to get a sight; when the old man sings out get the boats ready—then there is a confusion; each boats crew rushes to their respective boats and assist the Boat steerers in preparing the boats for dropping—two harpoons are attached to the line—one by a short line of 4 fathoms—which is fastened by a loose bowline knot to the towline from the tub—and the other or first iron is made fast solid to the end of the tubline. Presently the old skipper sings out haul aback the main yard and lower away . . . the boats dropped into the water and manned as quick—the sail is set—oars shipped and off we go after the Captains directions."

On 23 November 1855: "Hurrah! We have done it—we've taken our first whale. . . . At five oclock the larboard and starb'd boats were lowered and hard in chase—at about 5½ the starboard boat got fast—and away they dashed, passing within a ship's length of our boat—and going straight to windward—most of the time hidden in a cloud of spray—We immediately took in our sail and bent to our oars to get to their assistance—but on and on they dashed madly jumping from wave to

wave, the spray dashing high in the air, and often a heavy sea breaking over them for it was quite rough. It could not have been more than half an hour before they were out of sight from our boat."

On 24 December 1857: "At 9 oclock Mr. Barker put me on a noble fellow—We were right over the whale flukes and I saw he was going down—I did not forget that the Captain had said; 'Two whales more boys and we'll go home'—I darted the iron right below his hump—I heard a crash behind me—and was covered with a deluge of water but I saw nothing but the whale; I thought his carcass would bring us so much closer to home—and I turned around—what a sight—all the crew amidships piled up like so many potatoes—the boat half full of water—and the line running out like lightning—smoking like a house afire—no time was to be lost; the men tore off their frocks and shirts and stuffed them in the hole; at the same time baling boat with might and main—the whale meantime came up and Mr. Perry fastened to him and gave him a lance—we had now got our boat pretty clear of water . . . we hauled up to the whale and the mate gave one of his true darts . . . we pulled outside of his circle and waited for him to die . . . his flurry was terrific but glorious to behold."

On a later date Weir further described the danger of whaling, after some whales had risen under the boat: "I grasped the harpoon to heave into the side of a noble big fellow—when I heard the mate crying out in a rather loud whisper—'Are you mad Man, you'll kill us all'—I looked around and here we were almost resting on the flukes of one and the head of another—the slightest prick to any one of a half dozen of whales about us would certainly have been our ruin . . . there I stood harpoon in hand and the crew with oars suspended in the air like so many statues; did not dare to move a muscle, when the whales became aware of some danger . . . and all sunk like so many tons of lead."



Among the logs of naval cruises which have historical value are those of the British ship *Kattie*, which transported British troops to Quebec in 1776 under the command of General Burgoyne; the United States frigate *John Adams*, 1820–1822, on a cruise to Africa in search of slavers; the United States brig *Spark*, 1823–1824, looking for pirates in the Caribbean; H.M.S. *Agincourt*, 1882, in which Midshipman Dawes did an illustration of the bombardment by the British fleet of Alexandria, Egypt. In 1861 James A. Stubbs, first mate of the ship *Maria Theresa* of New Bedford, kept a journal describing the "Stone Fleet" of sixteen ships sent to Charleston, South Carolina, to be sunk so as to block the ship channel and bottle up the Confederate fleet. From 1838 to 1840 the United States frigate *Columbia* made a cruise around the world; her log speaks eloquently of life at sea: "The life of a sailor is far from being one of ease and inactivity, but it still presents considerable intervals of entire leisure with very limited sources of amusement. . . . Next to the claims of religion upon minds . . . those of literature certainly appear the strongest. It is difficult, however, to go through a long and continued course of reading without frequent and provoking interruptions. The noise and motion of the vessel, the sudden shiftings of the winds—in short the very situation in which one finds himself 'cabinned, cribb'd, confined' are so many impediments to a steady and successful cultivation of literature."

The logs of trading voyages give an ac-

count of how trade expanded to cover the world, and show how weather conditions and currents at certain times of the year would often determine the routes to be followed. The best of these journals are the ones kept by Horatio Nelson Gray covering the years from 1850 to 1861. When he was first officer of the ship *Charlotte Reed* of Baltimore in 1850, he confessed his lack of confidence in his journal due to his inability to express himself with eloquence and "long stretched words." "Thus I finished my last page of this book," he ends the first volume on 5 January 1851, "and what does it amount to? A mere nothing, a scribble, a collection of foolish thoughts and reflections and some few interesting remarks to anyone who has the patience to peruse them."

How wrong he was! It is this very candor that makes his journals so engrossing. You feel that you know him. In one of his entries he says: "A hen crowed and Mrs. W. whistled yesterday. A very bad Omen." In the next volume he goes on in his self-deprecatory vein: "This book has been written upon the bosom of the Mighty Ocean amid gales of wind and seas of mountainous height. . . . As will readily be seen, it contains many imperfections, in this it closely resembles the author. Punctuation, penmanship and grammatical arrangement have been awfully sinned against . . . but never having been through a Collegiate Course and having but imperfectly retained any smattering (not knowledge) of these matters, I must beg leniency on this score."

In 1857, when Gray was master of the bark *Crisis*, he recorded some of the problems he encountered: "After lying in Rio de Janeiro for the space of 43 days and undergoing every possible harrassment from the dilatory manner in which everything like business is performed and having also had a most Providential escape from death by the Yellow Fever, I did this morning return on board my little Bark to go to sea." In the next few days so many of his crew became sick that there was only the cook and one other man to manage the ship. On another occasion he expressed his disillusionment with his life as a seafarer: "I am not in my proper sphere of Life. I set off with a full determination to make myself master of the Profession . . . and here I am completely disgusted with this monotonous Life."

On 17 June 1853, when master of the ship





Pennamaquon, Gray wrote of a heavy squall that knocked the ship on her beam ends, filling the cabin and forecastle and floating off the deck load. It was necessary to cut away the mainmast in order to save the ship. Gray went on to lament his being master of "this leady vessel" and feared for his reputation as a ship's master.

Some of Gray's entries show a whimsical sense of humor: "The *Medford* is what we term a *strong* sailing ship. That is, she makes a good deal of noise without producing any wonderful results. Strong winds are requisite to move her august body through the briny sphere." In another entry he wrote: "Wouldn't you have laughed at seeing your friend Horatio sitting down as demurely as anything you can imagine of—and covering books with as much ease and facility as any old school marm—I can sew buttons on too!"

In 1861 Gray married Emma Hotchkiss, who went to sea with him. They encountered bad weather, and he wrote: "Poor Emma, she has a hard time of it—between seasickness and my grumbling at *winds*, not her, I'd have you know." Three days later conditions were no better: "Another day of utter wretchedness, misery and sin—wind adverse blowing a whole gale . . . vessel staggering under canvas—half buried up in the tremendous sea . . . the decks are flooded and spray is flying all over everybody and everything. I sometimes think that we are given over to the Devil and that he is exercising us. I am getting to be well used up. . . . My eyes what with constant straining during the night—the salt water which gets into them—and the effects of wind—are as sore as possible."

On the subject of gamming with other vessels, Gray speaks for all those who have spent long months at sea: "It is always a matter pleasing to me to be able to communicate with another vessel when at sea. It brings me back to a state of real existence and for the time, we feel that we are among the living—that sense of loneliness is removed—we are once again with the world. At ordinary times we sometimes doubt if we have a real existence when on the ocean."

Almost every log and journal contains something of particular interest. One of Gray's voyages in 1854 took him to Liberia with a cargo of 280 emancipated slaves from Missouri, Kentucky, and Virginia. The log of the ship *Morrison* of New London describes in detail what Honolulu was like in 1845. The log of the ship *Cavalier* of Stonington contains a Kanaka dictionary. In 1861 the schooner *Maria* of Honolulu made a hydrographic voyage in the Pacific Ocean; her log gives the positions of many islands. The log of the steamship *Savannah*, kept from March to December of 1819, tells of the first transatlantic crossing by a steam-driven vessel.

These are just a few examples from the variety of logs and journals at Mystic Seaport. It is an outstanding collection.

Mystic Reminiscences

By IRVING H. REYNOLDS*

Carl C. Cutler Sec'y
Marine Historical Society
Mystic, Conn.

Dear Sir:

In your booklet on Mystic [*Mystic, The Story of a Small New England Seaport*, 1945] you have performed a valuable service in recording historical data and as one familiar with many of the later ships and persons, I greatly appreciate your sending me a copy.

I knew and grew up with the children of some of the persons mentioned including Capt 'Jack" Williams, Capt Warren Holmes, Capt Spicer and D. O. Richmond.

I remember very well Charles Mallory Sr—known locally as "Old Man Mallory" as distinguishing him from his sons—Henry, George and David. He was a tall dignified gentleman, dressed in black and wore a silk hat—known as a beaver in those days, and I think was the only person in town having a coachman and span of horses. I saw the building and launching of the last two steamers at the Mallory yard—the *Carondelet* and the *Aurora* the latter never having been placed in service on the "Line."

I saw the *Frolic* launched at the Greenman yard and remember that her figurehead was a woman holding a baseball in her left hand and a ball bat in her right, trailing backward. This figure was carved by Colby & Campbell whose shop was on the east side of the river about opposite Richmond's boat shop. That Colby was a baseball "fan" probably accounts for the subject chosen.

The last ship (square rigger) that I remember being built at the Hill yard was a little later than the Greenman's *Frolic* and I recall that the launching failed because she didn't start after all the keel blocks were out, even after the use of battering rams and the pull of a tugboat—reported cause—tallow too much



The *Aurora*, shown tied up at Mallory's Wharf, is one of the wooden steamships mentioned in the Reynolds letter. An anachronism at her launch in 1874, she proved a financial disaster for her owner C. H. ("Henry") Mallory. In his journal C. H. Mallory writes with some disgust that "George [his brother George Mallory] came down from Mystic this morning and tells me that he has made a sale of the new boat which has been lying at Mystic for three years, price about $46,000, which is at least $30,000 less than her cost."

*This letter has been supplemented with photographs and notes by William Peterson of the Curatorial Department of Mystic Seaport. The letter is being reprinted exactly as it was written, with spelling and punctuation unchanged.



The ship *Frolic*, launched in 1869 by the George Greenman & Company Shipyard, is seen here tied up at Mallory's Wharf shortly after her launch. Also seen are fourteen partially completed gunboats destined to be sold to the Spanish government. The gambrel roof building on the left is the old Mallory rigging loft and storage building that was destroyed by fire in March 1893. The building to *Frolic's* left in the photograph is Mystic's Central Hall building, and to the right are the familiar houses on Gravel Street.

thinned with fish oil? She was blocked up, the ways regreased and successfully launched a week later.

The sandbagger *Annie* was built after my time but her predecessor the *Richmond* was built 7 or 8 years earlier and I frequently saw her starting down the river bound for a race which she usually won. I never had the privilege of sailing on her because she required a large crew of husky young men to handle the sand bags promptly.

Near the Hill yard was a spar yard, where we boys enjoyed running over the floating logs, usually ending by falling in the water between the logs and requiring a visit to the boiler room of the mill (the old Mystic Iron Works) to dry out clothes before venturing a return home.

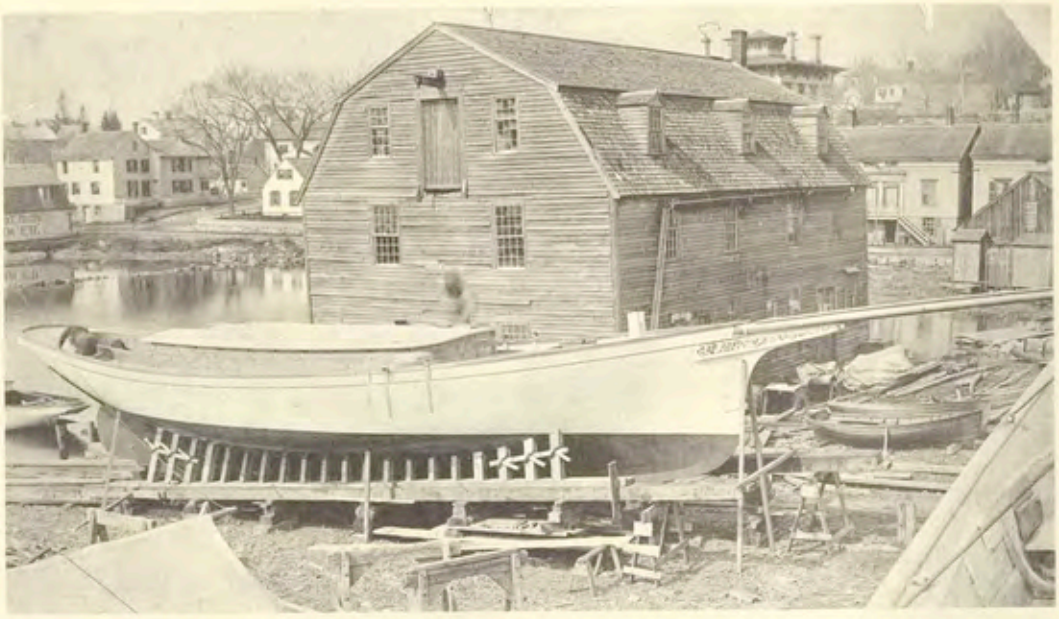
At the dock of the old Iron Works was a big pair of shear poles originally used for installing machinery in ships (gunboats, etc.) during the Civil War and later for stepping masts in sailing vessels. You speak of the "scream of power saws," but I never remember seeing anything but saw pits—hand operated—in any of the yards in my day—tho there was a "planing mill" not far from the Iron Works which made ordinary building woodwork and probably "joiner" work for ships cabins. This mill was later turned into the Lantern Hill Silex Mill by David Mallory.

My boyhood in Mystic inoculated me with a love for the sea which tho I have lived mostly in the middle west, has been partly gratified by about 300,000 miles of sea travel including four round the world voyages.

Sincerely,

Irving H. Reynolds

P.S. The last sealing schooner out of Mystic



A view of the D. O. Richmond Boatyard on the west bank of the Mystic River. The sloop on the ways is *Millie*, launched in 1888. It was at this same yard that the sandbagger *Annie*, now a part of Mystic Seaport's collection of small craft, was built. Throughout his long and prosperous career Richmond's work was continuously in demand. He built small craft for all varieties of people and interests. Yachts, seine boats, small fishing vessels, and even surf boats for the United States Life Saving Service were not uncommon sights at his busy yard.

or at least the last sealing voyage was under Captain Appleman in the early 70s but the vessel may have hailed or sailed from New London.

I particularly remember this voyage because a schoolmate of my brothers was shipped as cook and never returned.

The schooner landed a boat's crew on the Islas Diego Ramirez off Cape Horn to do some sealing while the vessel went further south towards the S. Shetlands, planning to pick up those left on Ramirez on her return. She never was heard from again—evidently lost with all hands somewhere between Cape Horn and Antarctica which is not at all strange as that is the stormiest of seas and the vessel very small, also there is always danger of ice—and those rocky islands were almost uncharted.

Notes

In his letter to Carl Cutler, Mr. Reynolds mentions the last "square rigger" built by the Hill yard. This vessel was quite probably the Bark *George Moon*, launched in 1874 by Hill and Grinnell. No other vessel with square rig was launched at this yard after 1869, the date of *Frolic*'s launch, which preceded, in Mr. Reynolds's recollection, the launch of the Hill square-rigger.

In his postscript Mr. Reynolds mentions the last sealing voyage in the "early 1870s." This was the voyage of the schooner *Charles Shearer* out of Stonington under Captain William H. Appelman in 1877 and 1878. The *Shearer* was apparently six months out on a ten-month voyage when she left a seven-man crew on the Diegos Islands to hunt for seals.

The *Shearer* intended to return in about a month to pick up the men, but she was never heard from again. The seven men, under Second Mate Joseph Reddington, were re-supplied by the *Charles Shearer*'s sister schooner *Thomas Hunt*, also out of Stonington; however, the *Hunt* left only a week's supplies, since no one suspected anything was amiss with the *Shearer*. The *Thomas Hunt* returned to Stonington, but when no word was heard from the *Shearer* or the Diegos Islands crew, she set out again to rescue the stranded seal hunters. Fortunately the emaciated crewmen had already been picked up by a passing clipper ship, the *Jabez Howes*. After passing through a typhoon in which two of her masts were lost, the *Howes* limped into San Francisco and landed the hapless seven in May of 1878. No trace of the *Charles Shearer* was ever found and she was probably, as Mr. Reynolds conjectures, another victim of the stormy Cape Horn seas.

This photograph shows the ruins of "the old Iron Works" as well as the remains of many other buildings including the large Oceanic Woolen Mill, all of which were destroyed by fire in June 1875. At the end of the point near the water, the masting shears mentioned by Mr. Reynolds can be seen. D. O. Richmond's Boatyard can also be recognized across the river.



DIRECTOR'S PAGE

Having completed ten years of stewardship at Mystic Seaport, I'm prone to ruminate on where we have come, what we are, and where we are going. This museum, like our country, is a far different place in 1975 from what it was a decade ago.

I believe we have accomplished much.

First of all, we have realized that a museum is only as good as its staff. We have built a competent staff of which we can be justifiably proud.

We have saved our ships and attained independence and skill in ships' preservation. No museum anywhere can equal our capability to care for our waterborne collection and teach the science of maritime preservation.

We have stabilized procedures for documenting and controlling our acquisitions. We have developed a Long-Range Plan, enlarged our educational programs, researched our collections and buildings, pursued an ongoing publications program, expanded the curricula of the Munson Institute of American Maritime Studies, and built a strong research library. Acquisition of the Rossie Mill has provided new opportunities for maintenance, storage, and study of our collections. Chubb's Wharf has furnished the *Morgan*, now afloat, with a safe berth. The R. J. Schaefer Building and the Wimpfheimer Terrace of Sea Sculpture are developing as a unique center for the exhibition and study of maritime art.

These accomplishments have placed us in the forefront of the world's great maritime museums. We have won formal accreditation from the American Association of Museums. Museologists throughout the world beat a continuing track to our door seeking advice and counsel over a broad spectrum of matters pertaining to maritime museology.

It has been a productive decade.

It has also produced a discomforting array of complexities, opportunities, and problems, stemming from the need to maintain and strengthen our position of leadership. Quality is an expensive commodity, both to achieve and to maintain. It grows more expensive every year.

Probing the future and establishing courses that will preserve the strength and integrity of Mystic Seaport on the level we have attained, in a confusing and changing world, will require almost mystical Delphic talents. If the current times are good for nothing else, they are a fine subject for speculation. But speculation is a poor substitute for hardheaded, knowledgeable, pragmatic thinking and planning; so the skills of oracles must be constrained by realistic debate and cautious trailblazing in which many hearts and minds, working in concert, will come up with positive fixes and safe passages.

Thus, as I see it, the next decade poses a special challenge. We must develop a strong financial base to enable us, first, to maintain the position we have attained, and second, to withstand the buffeting of an unstable national economy which promises to haunt us over the immediate years ahead. We are far too vulnerable to the whims of the public, who provide seventy percent of our operating budget through gate admissions. To overcome this we must bolster our reserves by increased endowment funds, so that the museum can maintain strength and viability through fair winds and foul.

To safeguard our destiny will require the combined talents and effort of everyone who shares with us an intense dedication to this place. The need is so imperative that I am convinced it will be met. It can—and must—be done! But it can only be done if you accept the challenge I present to you. And even acceptance is not enough: concerted and prolonged action must follow.

This is the light, the way, and the hope of the next decade. This is our destiny.

Waldo Chapman Johnston

11 August 1975

In Memoriam: Howard Chapelle



It must have been twelve years ago when I first met Howard Chapelle. I had read his *The American Sailing Navy* and *American Sailing Ships*. After all the romance and nostalgia I had absorbed about the sea, these books were *so* professional: they were about the ships themselves, how they were built, what their hulls really looked like, with each of the line drawings holding such real beauty! So I—one in a long line of model builders over the years—was in sufficient awe as I shook his hand in his office at the Smithsonian. There he patiently answered my questions and told me to read his boatbuilding book. That book, in *all* its detail, with its many secrets and constructions, all the alchemy of turning wood and metal into boats, was a fire to me.

There were other books—*American Sailing Craft; The Baltimore Clipper;* that bible of ours at the Seaport, *American Small Sailing Craft;* and that fine book (perhaps his best) in which he carried on the tradition of Capt. J. W. Collins, *The National Watercraft Collection.*

When we were rebuilding the forward half of the *L. A. Dunton*, we went to see Howard Chapelle at his home, "Tolland," on the Eastern Shore of Maryland. There was a lot of land at "Tolland," or so it seemed to us as we drove down the long driveway through quiet fields to the house. The house was white, simple—a farm house, I think. A creek, a tributary of the bay, could be seen from the house. There were some choice half models on the walls, given him by a friend who had made them. In his study Chapelle gave us a copy of the notes which were subsequently to come out in his last book, *The American Fishing Schooners.* A wealth of data it was for us.

As we were saying goodbye, standing at the screen door, a story came to his mind. It concerned his old friend W. P. Stephens. On the last day of his life, Stephens, as he always had, left the breakfast table to go directly to his drawing board. Several hours later his daughter found him there, slumped over the table. "That's what I want," said Chapelle, "to work until the end."

A year ago, quite a few of our boats were being actively sailed here at Mystic. Howard Chapelle was sitting one day upstairs in the boat shop talking to a small group of people. His back was to the window that looks down on the river. *Glory Anna* went sailing by; he turned and saw her—a boat alive and sailing right out of *American Small Sailing Craft.* And then there was a New Haven Sharpie, one of his favorite types; a Noman's Land boat; a Friendship sloop; a melon seed. It was as though we were returning a little something to him after all this time—bread upon the waters.

On 2 November 1972, he wrote in a letter: "At 71 I have so many projects that I would like to do—pilot boats, small craft, and scows. A view of the American slave trade, American-built ships in the British Navy 1694–1840, and it will soon be 72 for me . . . and so much to be done."

Howard Chapelle died in a hospital on 30 June of this year. He was central to what we do and care for, and in our field his works are mighty. Certainly we shall miss him.

Barry Thomas

BOOK REVIEWS

Racing for the America's Cup, 1974: The View from the Candy Store. By Theodore A. Jones (New York: Quadrangle, 1975. xiii + 177 pp. $12.50.)

Haunting pictures and a razor-sharp text are only two reasons for recommending this beautiful and authoritative replay of the 1974 America's Cup trials. What we have from Theodore A. "Ted" Jones is not only an expert's story with all the attention to details of strategy and tactics which this implies, but also a warm and observant account of the human side of Cup racing—the people who race and those who come to watch them, and always the gorgeous, white-winged yachts between.

Just in case anyone has forgotten, 1974 was an enormously exciting Cup Race summer. Not only was there the drama—which quickly went flat—of the meeting between the French and Australian challengers, but there was the truly stirring fight between *Intrepid*, the 1970 defender and the only American contender with a wooden hull, and *Courageous*, the brand-new, Olin Stephens-designed aluminum-hulled yacht which at the very end was given the nod. The action was heart-stopping all the way, and if *Courageous* won in the end, there was no doubt in anyone's mind that *Intrepid* contributed decisively to her excellence by relentlessly forcing her rival to achieve perfection.

All this is visible in the smashing photographs which accompany the text and which show the decisive moments in each race. This is something for the armchair strategists of yesteryear to gloat over: "Bondsmanship"—the someimes dubious tactics of Alan Bond, the Australian owner—stands clearly revealed in at least one instance.

No less important for the full flavor of a Cup Race summer, however, is the evocation of the crowds, the color, the girl-watching, the unparalleled hoopla surrounding the match races between these million-dollar beauties. It pervades everything, it's a lived-out fantasy, and it's all here in a book which is as satisfying as caviar and champagne after a hard day's sailing off Brenton Reef. The book is almost as unforgettable as the summer which it recalls.

Percy Knauth

Skiffs and Schooners. By R. D. Culler. (Camden, Me.: International Marine Publishing Co., 1974. v + 199 pp. Illustrations, photographs, index, and index to boat plans. $15.00.)

At last, a book on boatbuilding by a boatbuilder: also a book on shipbuilding by a man who has designed and built beautiful schooners. But more than that, the joyful affirmation of a craftsman and a sailor who has found continuing satisfaction, excitement, and creative fulfillment in a lifelong involvement with wooden vessels both large and small.

In his early twenties and already a professional seaman, "Pete" Culler came east to the Chesapeake where he entered into an arrangement with a master shipwright, one of the few surviving from the days of sail, to take him on as an apprentice, and to build a replica of Captain Joshua Slocum's *Spray*. During the twenty years that followed, this vessel provided Culler with a home and a living and carried him through the hard years of the Depression.

When the war came, reviving a need for wooden ships and shipwrights to build them, Culler found himself in the thick of it as loftsman and planking boss. After the war his vocation took him to the Concordia Yard in South Dartmouth, Massachusetts. Here his talents flourished, and in due time the *Integrity*, a fifty-two-foot wooden schooner of great distinction, was built from his design and under his direction as master shipwright. Many diverse and lovely craft have since followed.

Culler did not take up designing until he was past fifty and ripe with practical experience. Since then, the output from his board has been prolific, ranging from small flat-bottom skiffs to large schooners. A lavish selection of the plans and photographs of these craft constitutes one of the most attractive and useful segments of this book. Culler is not stingy with information. He believes in sharing it and spreading it around for the good of the trade. His chapter on the sprit rig is the best and fullest treatment of this subject in print, and should prove a boon to modern small-boat sailors.

Tools, materials, engines, oars, sails, planking, paints, oils, anchors, stoves, fuel, centerboards, cabins, and ever so many other things all come in for their share of attention. Theory and practice go hand in hand in this book, guided by experience and common sense, and in tune to Culler's well-considered philosophy.

"Having worked with everything from cheap skiffs, up through yachts, plain and fancy, in Uncle Sam's best in wood," he writes, "I have long ago come to the conclusion that traditional craft are by far the most economical and useful in the end and the most pleasing to the eye."

Schooners are something special for Culler. "We can't all own big boats," he concedes, "yet some of us can, and anyhow they are fun to dream about . . . and I say right now, if you are able to build and sail a schooner, that's living!"

Yet there is joy and fulfillment in small craft too. "I find these just as much fun as any vessel," Culler affirms. "It's my second childhood, no doubt, and made sweeter by a background of varied experience. For many reasons, I still find much pleasure in swabbing out a nice small craft, cleaning her bottom, fussing with her simple gear, and understanding her design, gear, and build. I find I get a lot out of her when we go sailing and rowing. Most good small boats have a lot more in them than most people take the time to get out."

It is somewhat the same for this book. There's so much to be got from it.

John Gardner

Marine Carving Handbook. By Jay S. Hanna. (Camden, Me.: International Marine Publishing Co., 1975. x + 92 pp. Illustrations and photographs. $6.95.)

This is a very readable and encouraging little book. Mr. Hanna obviously enjoys wood carving, and knows how to carve billetheads, trailboards, eagles, and other decorative carvings suitable for decorating small vessels. He does not deal with figureheads, probably for the good reason that they are seldom mounted on small craft these days, and also because he has no intention of discouraging the reader from carving. This is a friendly, comradely book, written by an experienced professional craftsman who is able and willing to guide and encourage amateur "wood butchers." As he says, "No one, let alone me, can put down words that will make you a master carver, but this book can help you get started on the right heading, and perhaps it will keep you away from some of the shoals."

I feel that the last part of that sentence may contain a double meaning, for I suspect that Mr. Hanna may have a secret conviction—as this critic does also—that wood carving, like all handicrafts which require the united team effort of brain and heart and hands, is actually good for people. He knows that all our ancestors had to use this full team effort to survive and to make our lives possible. And so, inherently, all of us are constantly driven to do something with our hands. Unfortunately, great numbers of people who have been robbed of this manual work by machines can keep their hands occupied only by lighting and smoking cigarettes—which may indicate some of the "shoals" he mentions. But people enjoying handicrafts such as wood carving, when well instructed and encouraged by leaders such as Mr. Hanna, can create beauty with their minds and hearts and hands, and so regain their self-respect. Only people who respect themselves can make a nation that is worthy of respect.

Being a Maine Yankee, as he is, of course Mr. Hanna could never be forced to admit any such intention. But he does show some amusingly personal attitudes relating to his carving, such as when he describes the carving of an eagle's eye: "I like to finish the eye first because its appearance is critical and because it puts life in the bird. If you spoil it or don't like its looks, the eye can be recarved without doing over the whole head. With the completed eye to keep watch on what you're doing, it's easier to keep the rest of your carving alive. And, of course, it's someone to talk to as you carve: a benevolent eye approving your praise when the chips peel off as they should, and a glittering, fierce eye to receive your muttered curses when a feather splits. Forgive the old carver his strange ways, but things like this do happen when you work alone."

Amen to that! says this Seaport Carver.

Willard O. Shepard

BOOK ANNOTATIONS

Clam Shack Cookery. By Cap'n Phil Schwind, with illustrations by Gordon Brooks. (Camden, Me.: International Marine Publishing Co., 1975. iv + 106 pp. Illustrations and index to recipes. $6.95.)

A gastronomical delight with wit. This is the only fun way to go, and if you keep your mussels, muscles, and muscatel in their proper perspective, you will receive much, much more than you give—praise, that is!

Collector's Illustrated Encyclopedia of the American Revolution. By George C. Neumann and Frank J. Kravis, with drawings by George C. Woodbridge. (Harrisburg, Pa.: Stackpole Books, 1975. 286 pp. Illustrations, photographs, and bibliography. $17.95.)

Very timely publication as we approach the bicentennial celebration. Though the subject treated is almost entirely in the realm of military equipage, this will be an excellent illustrated source book for the buff, collector, local pageant chairman, historical society, etc.

A Cruising Guide to the Lesser Antilles. Revised edition. By Donald M. Street, Jr. (Boston: Sail Books, Inc., 1974. xii + 319 pp. Illustrations, charts, appendices, and index. $15.00.)

If your destination lies between Puerto Rico and Trinidad, you can't do without this book. Here is a wealth of information that is presented in a readable, factual, and totally usable fashion for sailor or greenhand. Plan your cruise and never be caught with the unexpected.

Early American Crafts and Hobbies. By Raymond F. and Marguerite W. Yates. (New York: Funk & Wagnalls, 1974. vi + 221 pp. Illustrations, photographs, and index. $2.95.)

This paperback edition should be popular with the hobbyist as an excellent "how-to" book. Early American crafts and design continue to grow as a practical interest for more and more people. Numerous projects and variations are presented, along with the tools, materials, forming, and decorative instructions.

Foam Sandwich Boatbuilding. By Peter Wynn, with introduction by Derek Kelsall. (Camden, Me.: International Marine Publishing Co., 1972. 128 pp. Illustrations and photographs. $9.95.)

The subtitle of this book, *A Practical Guide to Home Construction,* is the key to its usefulness for the do-it-yourself amateur boatbuilder. There are also chapters on tools and materials, but the balance of the text and pictorial matter gives more instructions and technical tips than you could stack in a dinghy.

Fred Boynton, Lobsterman, New Harbor, Maine. By Ted Van Winkle. (Camden, Me.: International Marine Publishing Co., 1975. 77 pp. Photographs. $8.95.)

The life of a lobsterman is not all boiled lobster and drawn butter. A seasonal calling just does not carry, so this first-person account with all its Maine flavor amply depicts the occupational diversities. The great photographs truly enhance the story.

The Handbook for Beach Strollers from Maine to Cape Hatteras. By Donald J. Zinn. (Chester, Ct.: The Pequot Press, 1975. 128 pp. Illustrations, references, and index. $3.50.)

If you are what the title describes, this is your book. For those who stroll with a purpose, there is also a chapter entitled, "When the Tide is Out, Dinner is Served." Either way, you will be treated to first-class knowledge by a leading expert and increase the enjoyment of your favorite pastime.

Modelling the Golden Hinde. By Arthur L. Tucker and John Bowen. (New York: Charles Scribner's Sons, 1975. 96 pp. Photographs, diagrams, and foldout plans. $5.95.)

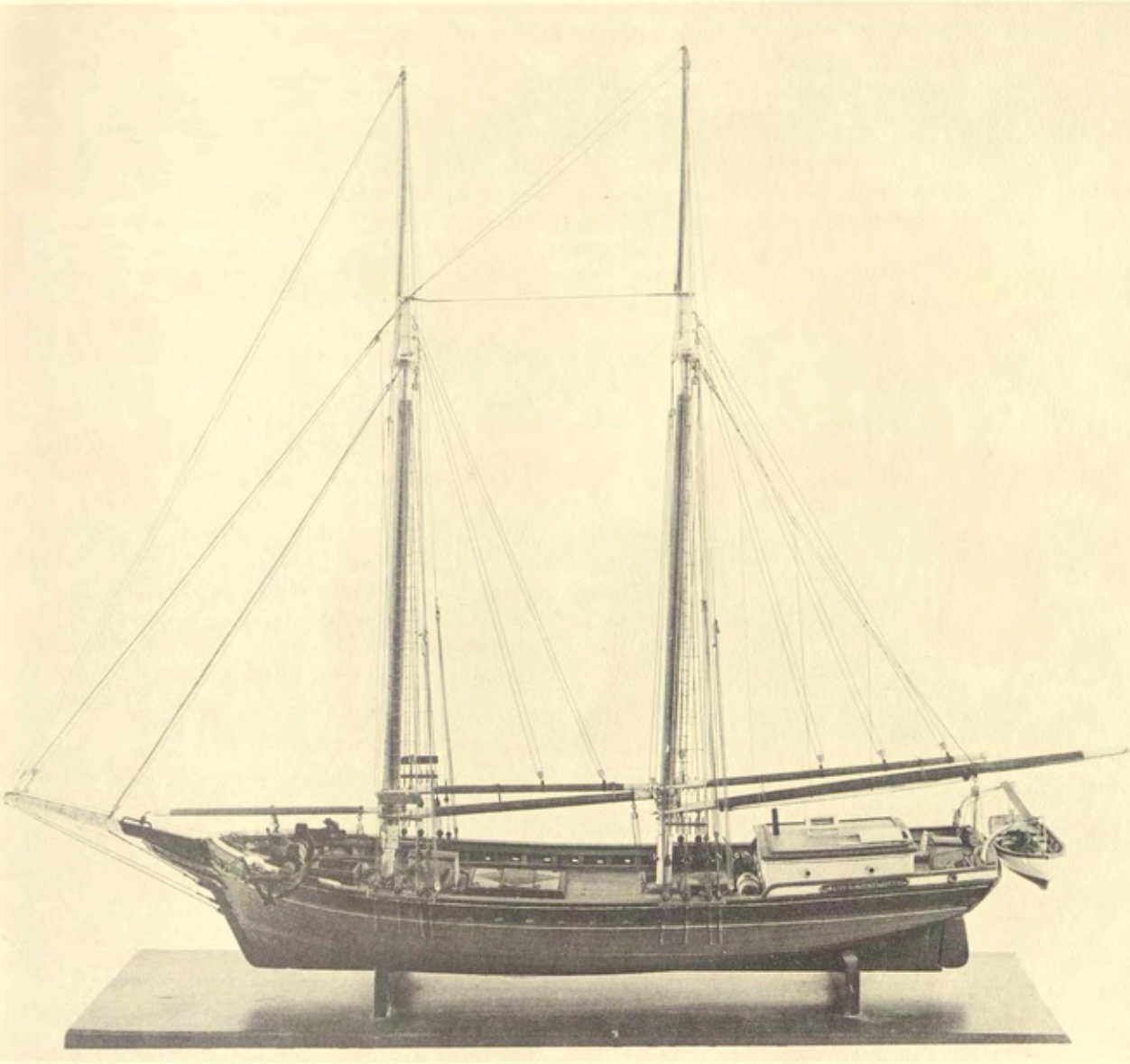
With this handy "how-to" book and the appropriate determination, anyone with reasonable basic skills can approach this modelling assignment with anticipation of success. The historical footnotes and Appledore replica of the *Golden Hinde* by Stephen Morrison, in addition to Richard Hakluyt's sixteenth-century narrative of Drake's voyage, will add further interest.

Start to Win. By Eric Twiname. (London: Adlard Coles, Ltd., 1973. vii + 232 pp. Illustrations, photographs, and index to the rules guide. $8.40.)

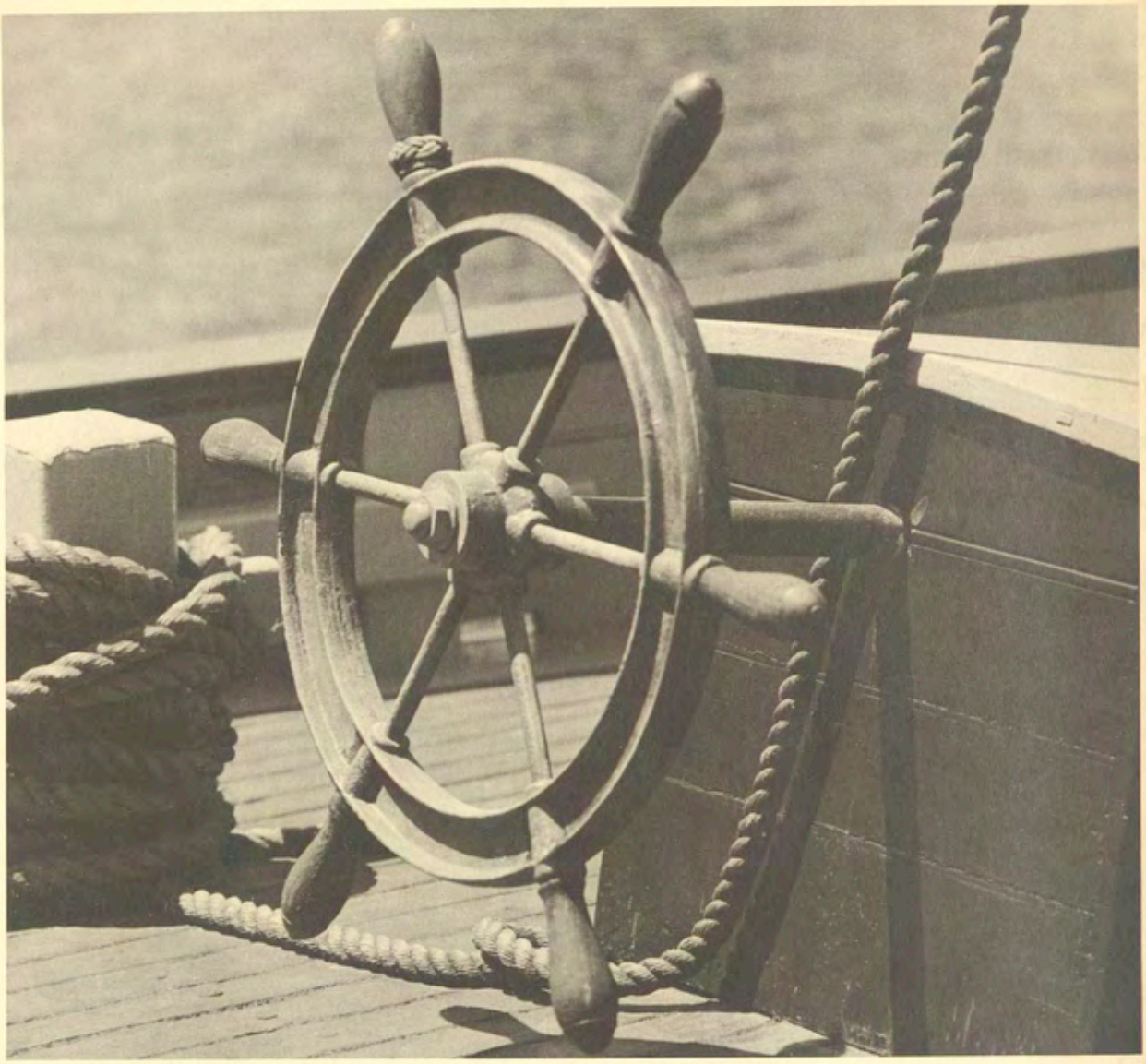
There are many reasons why individuals engage in the sport of sail racing. But even then, the fastest craft does not always win. Within these pages we can learn from a winner the necessity and techniques of fine-tuning one's self.

The Writings of Stephen B. Luce. Edited with commentary by John D. Hayes and John B. Hattendorf. (Newport, R.I.: Naval War College, 1975. x + 262 pp. Photographs, bibliography, chronology, appendix, and index. n.p.)

This is Volume 1 in the new U.S. Naval War College Historical Monograph Series. With this solid beginning we can look forward to a significant advancement in naval historiography. The editors are to be complimented.



The paintings and drawings of John F. Leavitt are well known, but this model shows another type of maritime art and the skills of another Leavitt. The model was built by John's father, Walter C. Leavitt, with John's assistance. The vessel is the *Alice S. Wentworth*, in which John went to sea in his early years. This model, recently acquired from Virginia Leavitt, is on display as part of our John F. Leavitt retrospective exhibition, which will be on view until 5 January 1976.



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