SPRING 1988

THE LOG OF MYSTIC SEAPORT



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FRONT COVER: *The steamship* Atlantic, *launched by W. H. Brown in 1849, inaugurated service for the Collins Line in 1850. Perhaps the most popular steamship afloat at the time, she inspired such popular composers as Jullien, who wrote "The Atlantic Galop." Sheet music cover lithograph by J. Brandard. (Courtesy Mariners' Museum, Newport News, Virginia)*

BACK COVER: *A contrast in steam vessel design, the Fall River liner* Bay State *and the New York–New Orleans liner* Empire City *at New York. The 300-foot* Bay State, *launched by Sneeden in 1847, initiated Fall River Line service that year. The 238-foot* Empire City, *launched by William H. Brown in 1849, represented the American ocean steamship design immediately preceding the Collins liners. Wood engraving by E. Landells.* (Illustrated London News, *10 April 1852*)

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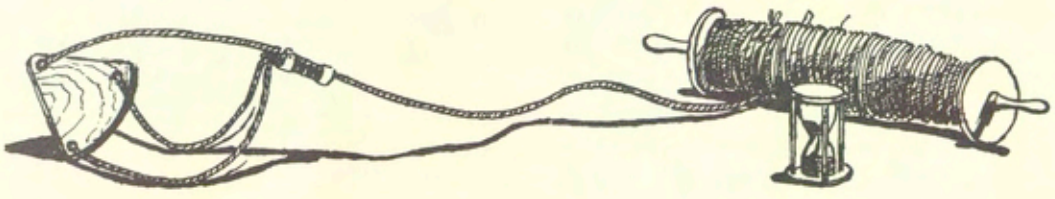
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SIGHTINGS



The bad dream one has after writing an annual report, such as that which appeared in the Fall 1987 issue of *The Log*, is that someone has been left out. For me, that dream became a nightmare as I realized that one of the eighteen sections of the report, which detailed the operations of the Seaport Store, had been left out entirely.

While it is late to do so, the highlights of the excellent 1986–87 fiscal year will be reported here in admiration and respect for the Store staff and their very positive contribution to the Seaport and the visitor experience here. The staff listed below are the store employees at the time this delayed report goes to press.

Store President Tom Aageson has led his organization to the most profitable year in the Store's history, which is, of course, of great benefit to the Museum. It is fitting that this most profitable year be observed as a tribute to Barbara Gould, who has just retired as Business Manager of the Store after more than thirty years there. Barbara played a key role in making the Store the successful multi-million-dollar operation it is. Joanne Millovitsch has ably taken over as Business Manager, with Randy Sheppo managing receiving and Linda Pecor responsible for maintenance.

The Store now has a new Merchandising Manager, Kate Steel, who replaces Jan Wickersham. Many of the "stores within the Store," such as the Christmas and Book Shops, the Variety and Country Stores, and the Jewelry and Clothing Departments, have had a very successful year. The Store's "branch" in the Mystic Hilton got off to a good start, exceeding its predicted "sales per room occupied." The Book Store increased sales by a very healthy 20 percent under Anne McNeil's management, demonstrating its service to Seaport visitors and other constituents.

With Russell Jinishian directing the Gallery operations, they had a very strong and encouraging year. This aspect of the Store serves customers at the Museum and beyond, as do Trade Sales, which wholesales books, prints, and posters. Under Dot Hazlin's management, Trade Sales has shown a 93 percent increase over last year! The Store's other important outreach is through Janice Schmidt's Mail Order Division, which had a strong increase while reaching over 500,000 people.

Through its diverse offerings and the dedication, talent, and taste of its staff, the Store continues to grow, and the benefits it creates for the Seaport are greatly appreciated.

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Edward Knight Collins: Maritime Entrepreneur and Impresario

EDWARD W. SLOAN

The Editorial Board of The Log of Mystic Seaport *is pleased to present its* Seventh Annual Prize Article. *Final selection was made by a committee comprising two members of the Editorial Board and three Fellows of the G. W. Blunt White Library. In offering a $500 award, the Fellows of the Library hope to stimulate study and publication in American maritime history.*

Edward W. Sloan III graduated from Yale University in 1953 and received his Ph.D. from Harvard University in 1963. He is Charles H. Northam Professor of History and Chairman of the History Department at Trinity College in Hartford, Connecticut. He has been Assistant Director of the Seaport's Munson Institute of American Maritime Studies since 1978. Professor Sloan specializes in American maritime history and literature, with an emphasis on the transition from sail to steam.

"Let me assure you, my dears," wrote Harriet Beecher Stowe to her children, "that going to sea is not at all the thing we have taken it to be." Anticipating that a sea voyage would be, as she expressed it, "the fulfillment of all our dreams of poetry and romance," she had embarked for England in April of 1853 on the steamship *Niagara*, a vessel of the British-owned and operated Cunard Line. Now, at the conclusion of her ocean crossing, she was obliged to admit an unexpectedly great contrast between romance and reality. "The one step from the sublime to the ridiculous," Mrs. Stowe declared, "is never taken with such alacrity as in a sea voyage."[1]

In voyaging to England, Harriet Beecher Stowe had chosen to go in a steamship rather than in a sailing vessel, for by 1853, transatlantic travel by steam was all the rage for those who could afford it. Yet all ships were not the same; and Mrs. Stowe, arguably, had not chosen a vessel or a transatlantic steamship line that might better have realized her romantic expectations. As it was, she opted for convenience and for a measure of reliability by sailing from Boston on a Cunarder.

In an era remarkable for both the novelty and the hazards of steam travel, the Cunard Line had compiled an enviable record of safety and punctuality. Indeed, for much of the previous decade the Cunarders had operated virtually without competition on the major transatlantic route between Liverpool and the United States. Yet punctual and prudent though they certainly were, the Cunarders were not distinguished for comfort, let alone elegance. Samuel Cunard and his British partners were in the business of ferrying people and cargo for profit, and, notwithstanding the liberal financial backing of the British government, there was little room in their budget for anything more than minimally satisfying the needs of passengers. By 1853, however, there had emerged a formidable competitor for Cunard's business—an American line of ocean-going steamships that held forth an enticing promise of seagoing elegance, of lavish accommodations, of sumptuous meals and novel conveniences so sadly lacking in the Cunarders. Mrs. Stowe, indeed, did have a choice. She could have traveled on the Collins Line.

By the early 1850s, transatlantic travel between England and the United States was substantial, and it was increasing rapidly. New York, by this time, already had supplanted Boston as the major western terminus, while Liverpool remained by far and away the dominant English port, both for steamers and for the much more numerous sailing vessels that plied the Atlantic Ocean. The flow of humanity was largely

in one direction, as it had been for nearly two hundred and fifty years. Emigrants from the British Isles and from the Continent funneled into Liverpool, and from there most of them were herded into large square-rigged sailing ships for the long and unpredictable westward crossing. The relatively few but larger steamships then in service also took on such passengers, so that whether by sail or by steam hundreds of thousands of European emigrants made their way to America, and did so at an ever-increasing rate. Crowded into poorly-ventilated and spartan quarters by the hundreds, travelers in sailing vessels suffered through a seagoing experience little changed from that of a century or two before. For this emigrant traffic there was nothing new or appreciably better about mid-nineteenth-century sea voyaging.

But what *was* new was the large-scale tourist and commercial traveling business, one that provided an approximately equal number of passengers in both directions, and one that really had emerged to a significant extent only after the War of 1812. This important and profitable tourist and commercial traffic in great measure was both the cause and the result of an innovation in transatlantic shipping: the packet service.

In the immediate postwar era, a group of American sailing ship operators began a transatlantic liner service that for the first time promised regularly-scheduled sailings with unprecedented punctuality of departures. "Full or not full," as the advertisements declared, the packets were to sail on their announced dates of departure—winds permitting—with those passengers and those high-value, low-bulk cargoes that could justify the steep fares that the sailing packet lines demanded. This was very much a premium service for special clients, whether shippers or travelers; and the packet ships provided what such customers demanded: speed, punctuality, and luxury.

To satisfy such demands and to remain competitive, packet ship owners and operators built special ships that were larger, faster, more rugged, and, especially, more lavish in their accommodations and service than conventional merchant vessels of the age. Speed was essential, since in those days before radio, telephone, or telegraph, sailing vessels carried the newspapers, the official communications between governments, the private correspondence between business firms, and the money—whether in the form of gold bullion or paper certificates—that lubricated and even shaped the economies of the Western world.

Thus, the sailing packets quickly grew in size and number, and the frequency of their sailings increased as rapidly. For the thirty or so passengers able to afford the fare, a packet ship provided accommodations, food, drink, service, and conviviality that rivaled the most elegant hotel facilities ashore. The era of the oceangoing palace had arrived.[2]

After twenty years of such development the packets had become numerous; and several American shipping firms operated a well-established and highly-competitive—while carefully-coordinated—liner service focused on the ports of New York and Liverpool. Yet in the midst of these solidly-entrenched and thriving firms there appeared a new rival. New York packet companies now contended with a man whose vessels and whose entrepreneurial style would establish a new standard, and ultimately a new direction, for American seafaring enterprise. This man was Edward Knight Collins, America's showman of the sea-lanes.

It was in 1837—ironically, on the eve of America's first great economic depression—when Collins inaugurated a new transatlantic sailing packet service out of the port of New York. His enterprise was called the Dramatic Line, primarily because its ships took their names from famous theatrical people: Shakespeare, Sheridan, Siddons, Garrick, and Roscius. Yet the name just as aptly fitted Collins himself.

No novice to the shipping business, Edward Knight Collins already had become the dominant operator in the major sailing packet business between New York and New Orleans. In many respects, his experience in this key element of the coastal cotton trade, during the early 1830s, had prepared him for the international arena.



Edward Knight Collins (1802–1878), near the height of his success as a maritime entrepreneur. (*Gleason's Pictorial*, 30 December 1854)

Collins, like so many other shipping men in the port of New York at this time, hailed from New England. Born in 1802 at Truro, on Cape Cod, Collins was raised by his seafaring uncle until, at age fifteen, he was sent to New York City to learn the mercantile side of the shipping business. After several years of apprenticeship, Collins finally joined his shipmaster father, Israel Gross Collins, in 1821. The two men then moved into a new area of trade, between the United States and Mexico, and soon they had a modest liner service operating between New York and the Mexican ports of Tampico and Vera Cruz. Surviving pirates, the Caribbean climate, and the wildly unpredictable Mexican authorities, the Collins firm prospered. Then, in 1831, Israel Collins died, and his young son was a maritime entrepreneur on his own.

Edward Collins promptly shifted the focus of his operations, and by the following year he had become manager and part owner of a line of cotton packets sailing between New Orleans and New York. He soon became dominant on this route, in part because he had bought, or had built, the largest and certainly the most luxurious vessels in this trade. These big, staunch, oceangoing ships were distinguished by their superior on-deck passenger accommodations and also by their surprising speed. Whether the remarkable speed resulted from Collins's choice of vessel commanders, such as the famous Captain Nat Palmer of Stonington, Connecticut, or from the relatively unconventional flat-floored hull design of his ships, the fact remained that Collins was the best in the business. Marriage to the daughter of a wealthy and politically influential New York building contractor unquestionably furthered Collins's fortunes as well. In any case, by 1837 Collins had amassed sufficient wealth and achieved such eminence that his effort to crack into the transatlantic sailing packet trade was entirely reasonable, even if the timing appeared to be unfortunate.[3]

Collins's Dramatic Line flourished from the outset. Collins recognized that the key to the success of his enterprise was in providing a service so much better than the others that he could skim the cream from existing traffic at once. Rather than wait until the economy revived, Collins swiftly moved in on the existing lines and shouldered them aside with ships that were the biggest, the fastest, the most elegant; with captains who were the most hard-driving on their vessels and crews, yet among the most courteous to first-class passengers; and with cuisine and personal service that instantly caught the fancy of travelers and vicarious shore-bound spectators alike. It was a matter of Collins setting a new standard for the others to match, so that Collins and his ships became synonymous with quality, luxury, elegance, speed, daring, and style—the essence of seafaring romance.

By the end of the 1830s, not just Collins and his ships, but the entire American sailing packet enterprise as well, had become a subject of intense public interest. The launching of a packet ship was a major event; the maiden voyage was even more so. It was not uncommon for tens of thousands of spectators to be on hand, and for

business throughout lower Manhattan to pause for several hours, while the celebration took its course. New York City newspapers customarily devoted a column or more to the event, and their accounts frequently appeared reprinted in out-of-town papers.

Of all the newspapers colorfully extolling the beauties and promise of the packets, the most prominent—and often the most notorious—was the *New York Herald*, the creation of that irrepressible journalist, James Gordon Bennett. Beginning in 1837, the *Herald* quickly became the major source of shipping news and comment, just as Bennett soon eclipsed his journalist rivals for unabashed sensationalism. Initially cool toward Collins, Bennett by 1840 had turned into Collins's champion, a supportive role that perhaps was stimulated by Collins's increasingly frequent advertisements in the *Herald*. From the outset, though, Bennett had been a devout celebrant of the Dramatic Line and of its individual ships and their commanders, so that a good part of Collins's eminence throughout New York City derived from the frequent and favorable publicity that Bennett provided.

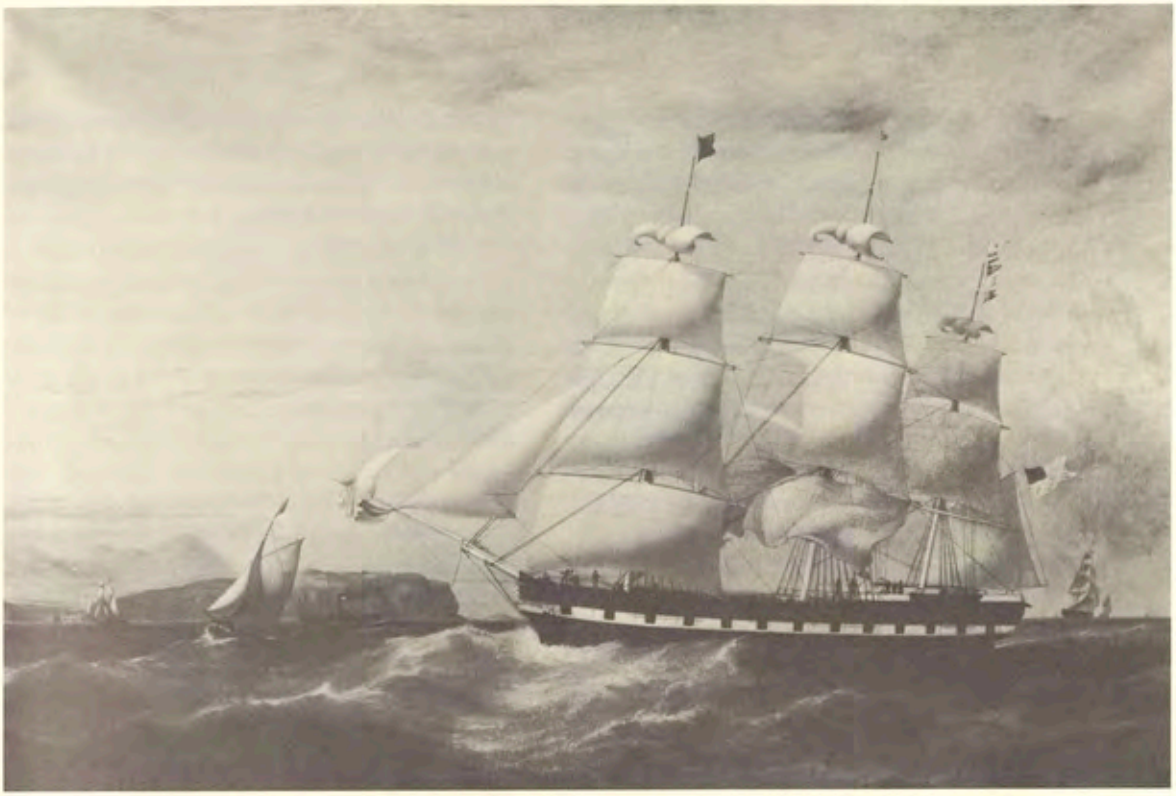
In 1838, Collins set another standard of size and luxury by adding to his fleet the first packet of 1,000-tons cargo capacity. Named after a famous Roman actor, the *Roscius* made her suitably dramatic entrance onto the North Atlantic sea-lanes in the face of a general economic depression, following the 1837 Panic. Yet it was not this economic crisis that posed the real challenge to Collins's fortunes. As he soon would prove, his knack of capturing the imagination and enthusiasm of the traveling public was more than enough to withstand hard times. Indeed, Collins's business continued to thrive throughout the depression, and the returning prosperity of the mid-1840s only enhanced his already profitable business career. The real challenge came from a wholly different quarter, and it came in 1838, just as the *Roscius* went into service. This was the challenge of steam.

On 23 April 1838, before expectant throngs of New Yorkers, first one and then another British steamship entered the harbor to complete a voyage across the Atlantic from England, essentially under steam power. "Hurrah for the Advance of Mind!" wrote the diarist George Templeton Strong; and a fellow New Yorker, Phillip Hone, recorded that "from the arrival of these two interesting strangers the city was in a ferment." The possibilities of transatlantic steam travel had been discussed, even debated heatedly, for many years, but now, with the arrival of the steamers *Sirius* and *Great Western*, speculation was at an end. More accurately, the old subjects of speculation now were replaced by new ones, the most pressing of which were how soon would regularly-scheduled transatlantic steam travel begin—and who would have the business?[4]

Edward Knight Collins barely had launched his transatlantic sailing enterprise, yet he recognized well enough the implications of what he had witnessed. "There is no longer a chance for enterprise with sails," he is supposed to have exclaimed; "it is steam that must win the day."[5] To be sure, Collins would continue for some years to operate his transatlantic sailing packets, as well as his flourishing cotton-packet line, yet he talked no more of doubling the size of the Dramatic Line, and the *Roscius* would be the last addition to that fleet.

Steam might win the day eventually, but first it had to be demonstrated that steamships could be operated both consistently and profitably. Several Americans made the attempt in the early 1840s, but they failed. British promoters, including the owners of the *Great Western*, were no more successful initially. However, there was Samuel Cunard.

Cunard, a Canadian, was a skillful promoter and an effective manager. Convincing the British government that a regularly-scheduled line of ocean steamers was so much in the national interest as to justify substantial and ongoing financial support, Cunard obtained a sizeable subsidy and in 1840 began transatlantic liner service between Liverpool and Boston. From the outset he was successful. His ships were neither elegant nor particularly swift, but they were reasonably faithful to their schedules, and they always managed to arrive at their destination, which was more than could be said for those



The 895-ton, 157-foot Dramatic Line packet *Garrick* was launched by the renowned New York shipbuilders Brown & Bell in 1836. Collins operated her from the inauguration of the Dramatic Line in 1837 until 1848. She was wrecked near Cardiff in January 1857. Oil painting by Samuel Walters, 1842. (Courtesy CIGNA Museum and Art Collection, Philadelphia)

vessels of Americans or Englishmen who occasionally managed to put together a competitive steamship service.[6]

Above all, there was the matter of cost. Oceangoing steamships, in this initial period, were tremendously expensive to operate. The cost of coal was substantial; the labor costs just for regular operation and maintenance, let alone for repairs and frequent machinery overhaul, were even greater. Sailing ships might be far less punctual than steamers, but at least the wind was free; and the wooden hulls of sailing vessels held up far better than did the wooden hulls of steamers, what with the weight, the heat, and the vibration that the latter experienced. To be sure, steamships commanded a premium price for their premium service. Passage fares on steamers were 50 percent greater than those for comparable accommodations on the sailing packets, and the steamers quickly took over almost all the revenue from the mails, money, and other high-value cargoes previously earned by the big square-riggers. Yet such revenue alone was not enough to pay for oceanic steam transportation. To build these special vessels, to operate them, to repair them, all required unprecedented sums, which private sources of capital clearly had difficulty in amassing. And when Cunard began operating with a hefty annual subsidy from the British government, the question of successful American competition grew even more dubious.

Edward Knight Collins had every intention of going into steam, but he recognized that to make his enterprise profitable, let alone be competitive with Cunard's already well-established line, he had to operate on the same subsidized basis. Accordingly, as early as 1841 Collins was

in Washington, D.C., to promote what contemporaries called his "steam scheme," but congressmen and administration officials in the Navy and Post Office Departments were not encouraging. Then, in the mid-1840s, in a period of serious international tension between Great Britain and the United States, there occurred a change in official policy, and subsidies were authorized in the Postal Act of 1845. By 1847, government contracts had been awarded for oceanic mail service, including transatlantic routes. While Collins initially failed in the rush to obtain federal government support, his situation suddenly changed for the better. Cunard, apprehensive of American competition based in New York, obtained a larger operating subsidy from the Crown in 1847; he then announced plans to begin steamship service the following year between Liverpool and New York. The specter of a really effective line of British steamers dominating the communications and trade of America's greatest seaport further prompted the United States government to act. Collins was awarded a contract to carry the transatlantic mails; he now had a commitment of federal government support for the construction and operation of a transatlantic steamship line that would compete directly with Cunard.[7]

At this point Collins sold his interests both in the coastal cotton-packet line and in the Dramatic Line. He determined to focus all of his energies, talents, and resources in his new steamship venture, officially known as the New York and Liverpool United States Mail Steamship Company, but invariably referred to as the "Collins Line." And the name, Collins Line, was appropriate, for Collins was the critical and dominant element in this enterprise. He had conceived the idea; he had persuaded both private financial backers and men in the government to support his venture; he would be closely involved in the design of the steamers, including their machinery; he would manage the line itself, and promote its interests at home and abroad, in the New York shipping community, in the press, and in Congress. He would commit most of his own fortune to the venture. He would be the impresario of this seagoing extravaganza. What his fellow New Yorker, P. T. Barnum, was to the general populace, Collins would be to the seagoing community: impresario and master showman of the sea-lanes.

Collins had realized from the beginning that his steamship project would require capital resources far beyond those sufficient for a line of sailing vessels, even one as splendid and costly as his own Dramatic Line had been. He thus turned to the firm that managed his Liverpool business and possessed an international reputation for financial acumen and strength: the Brown Brothers. Now in its second generation of leadership, the Brown Brothers private banking enterprise, as an extended family organization, was dominated by its two major offices, Brown Brothers and Company in New York City and Brown, Shipley Ltd. in Liverpool. The key man for Collins was the senior partner in New York, James Brown, whose financial connections and personal fortune together could assure the requisite backing for the steamship line.[8]

James Brown, fortunately for Collins, was quite taken with the steamship proposal. Writing to his brother George early in 1848, James Brown identified some of the other backers and warmly encouraged his brother to invest in the project. Collins, he said, had taken great pains to arrive at precise estimates of machinery costs and vessel earnings "and is entirely satisfied that the actual costs will fall short rather than exceed the estimates." Even if the costs turned out to be somewhat greater than predicted, James Brown added, "still we think it promises ample remuneration, certainly not less than 25% per annum, & maybe 50%." James Brown was putting $200,000 of his own funds into the steamship line, and he urged George to do the same. "You will never regret it," James Brown insisted; "it will pay you better than any investment you have two or three times over."[9]

But George Brown was not persuaded. Perhaps he listened to the warnings of the English partners in Liverpool, who had a dim view of Collins, of American undertakings in general, and of James Brown's enthusiasm in particular. Whatever the cause, George Brown was not listed among the original investors in the Collins

Line. James Brown, however, remained undaunted. His $200,000 investment made him the largest single investor in the enterprise, his financial commitment even exceeding Collins's $180,000; and James Brown became president of the new corporation.[10]

When only a little over one million dollars came in through stock subscription, James Brown came up with another two million as a loan to the new shipping company until it could begin to make the anticipated profits. But others of the Brown Brothers' firm, especially those in England, were not so optimistic about the line's profit potential, and increasingly sharp complaints about James Brown's American business venture began to appear in the Brown Brothers' transatlantic correspondence.[11]

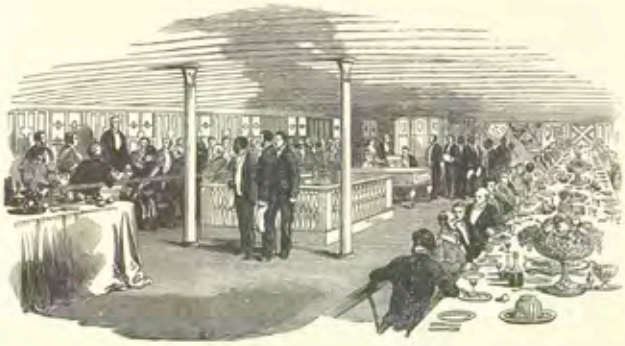
It took much longer to build the steamers and put them into service than Collins and his backers had intended. Determined to build the biggest and most luxurious steamships in the world, Collins ran into design and construction problems, and all of this translated into increased costs. Sympathetic toward his endeavor, the United States government made advance payments, while encouraging Collins to produce vessels that would be so big and fast that they could be of use in wartime, whether as warships or as naval auxiliaries. All of this well-intentioned involvement of the federal government resulted in further construction delays and mounting costs.

Finally the first of the ships was completed, and on 27 April 1850 the steamship *Atlantic* departed New York on her maiden voyage to Liverpool. She soon was joined by her sistership *Baltic*, and by the fall of 1850, two more steamers, *Arctic* and *Pacific*, also were in service. These

Representative of the Collins liners was the 2,856-ton *Arctic* (285x46x32), built by William H. Brown of New York and launched in 1850. She was nearly identical to the *Atlantic*, which was also built by Brown. Jacob Bell built the slightly smaller *Pacific* and *Baltic*. Each of the four steamers had four water-tube boilers powering two side-lever engines to turn the side-wheels, which exceeded thirty-five feet in diameter. Operating at 15.8 revolutions per minute, the *Arctic*'s engines generated nearly 2,300 indicated horsepower, with a steam pressure of seventeen pounds per square inch. In this engraving from a daguerreotype by Beckers & Piard, the *Arctic* lies along the New York waterfront. (C. B. Stuart, *The Naval and Mail Steamers of the U.S.*, 1853)







The opulent appointments of the Collins liners are reflected in these views of the *Atlantic*.

(Top) First class passengers take their ease in the richly carpeted and furnished, sixty-seven-foot-long Grand Saloon. The seals of the various states were painted on the panels between the entryways to the staterooms on either side of the saloon. The columns in the center are the stained-glass light and ventilation shafts. (*Illustrated London News*, 25 May 1850)

(Bottom) Since the *Atlantic* represented America's maritime prowess, her sixty-foot dining saloon was the scene of a lavish feast and entertainment in honor of the first world's fair, Britain's Great Exhibition in 1851. (*Illustrated London News*, 26 July 1851)

four vessels were remarkably similar in appearance, although with their straight stems and lack of bowsprit they made a decided break with conventional ship design. All four were far bigger than any other vessel currently in service. Each had a single funnel set slightly forward of the huge side paddlewheels that propelled these steamships. Their wooden hulls were over 280 feet long with a 45-foot beam, and they drew 32 feet when loaded. Rated at nearly 2,900 tons cargo capacity, they were far larger than any sailing packet—but, then, so was their cost. The most expensive of Collins's sailing packets had cost $100,000; each of his steamers exceeded $750,000 in construction and outfitting expenses.

What had these four vessels to show for such an unprecedented construction cost, which ran to three times the amount of equity capital invested in the Collins operation? For one thing, they were faster than any previous oceangoing steamer. Within weeks of commencing service, the Collins steamers began to set transatlantic speed records, and the fastest of the four, the *Baltic*, took only nine days, eighteen hours from New York to Liverpool in a crossing in 1851, then lowered that record by five hours the following year. All four usually could beat any sailing packet's transatlantic time on the eastward crossing by a day or more, even when winds were favorable for a sailer. Most importantly, the Collins steamers consistently beat the Cunarders—not by all that much, and not even that consistently, but enough so that, in an era when speed was everything, the Collins liners caught the public imagination and the lion's share of the passenger traffic.[12]

Speed drew the public's attention and a substantial amount of business; so, also, did luxury, and here the Collins liners enjoyed their greatest distinction. Americans were effusively proud; Englishmen were chagrined and envious; both were dazzled. The Collins liners provided a level of comfort, novelty, and sheer elegance that outshone the most lavish accommodations and service of the big sailing packets. Again, even more importantly, the Cunarders were left in the backwash. Their relatively old-fashioned, somewhat

spartan furnishings and often disconcertingly brusque service created a far greater, and detrimental, contrast with the Collins vessels than did the Cunarders' marginally slower speed.

Passengers on the Collins liners were captivated by such novelties as an adjustable, well-padded barber's chair in which a gentleman might recline, as one English traveler reported, "in this comfortable position . . . and his beard is taken off in a twinkling, let the Atlantic waves roll as they may." Other novelties included an annunciator board, so that a passenger in his stateroom, by pulling a bell rope, could communicate with the stewards through this mechanical contrivance, rather than by the customary method of calling out loudly and hoping someone would respond.[13]

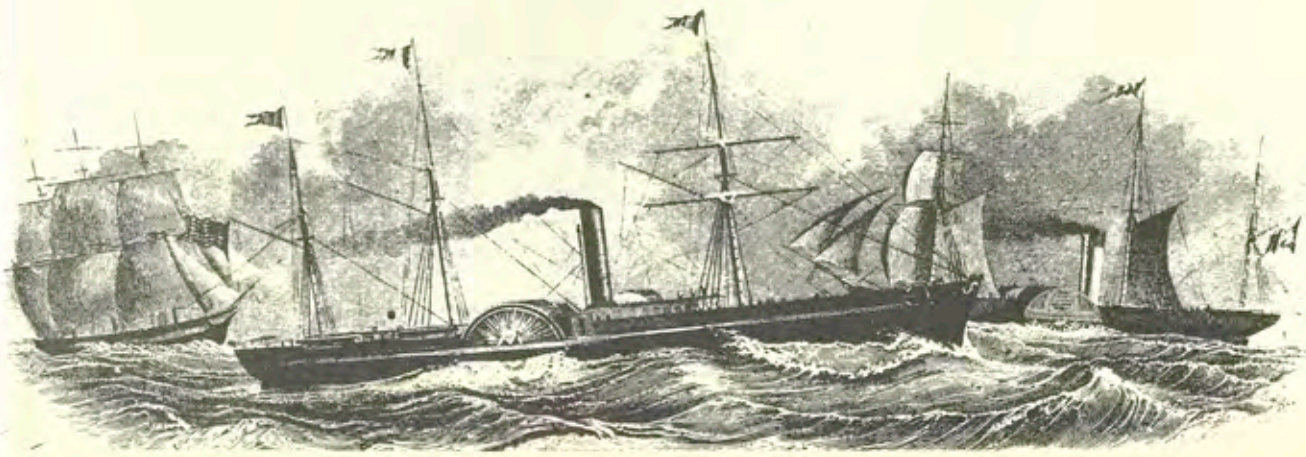
Highly-polished rose, satin, and olive wood were used throughout the ladies saloon and the great saloon. Tables were of "beautifully variegated marble" and placed on thick carpeting, along with sumptuously upholstered chairs and divans. Mirrors and elaborate murals were everywhere, and as an appropriate political as well as aesthetic statement, Collins had placed on the walls of the saloons what one English traveler described as "beautifully-finished emblems of each of the states in the Union, and a few other devices that savor very strongly of republicanism." The Englishman gave one example of such republican motifs: "A young and beautiful figure, all radiant with health and energy, wearing a cap of liberty, and waving a drawn sword is represented trampling a feudal prince, from whose head a crown has rolled in the dust." Another distinctive touch, remarkable to foreigners, was the ever-present American spittoon. On a Collins steamer even these were elegant; as one Englishman described them, "the upper part [is] fashioned like a shell and painted a sea-green or sky-blue color, thus giving ample facility for indulging in that practice of spitting of which Americans are so fond."[14]

The Collins liners actually had steam heat and hot water for baths, and even sported a special "wedding berth" for honeymooners, the likes of which were known on American river steamboats but were new to the Atlantic Ocean. Little wonder that the British were shaken out of their customary habit of patronizing and depreciating all things American. The English popular journal *Punch* offered a telling jibe at British expense with the following jingle:

> A Steamer of the Collins Line,
> A Yankee Doodle Notion,
> Has also quickest cut the brine
> Across the Atlantic Ocean.
> And British agents, no way slow,
> Her merits to discover,
> Have been and bought her—just to tow
> The Cunard packets over![15]

Edward Knight Collins quickly capitalized on the accomplishments of his vessels and made

The Collins liner *Atlantic* and a Cunard liner pass in mid-ocean, outclassing a sailing ship that beats to windward. This vignette from a period banknote illustrates the widespread use of the Collins liners as symbols of America's maritime greatness. Engraving by Rawdon, Wright, Hatch & Edson. (~~Courtesy Andrew W. German~~) MAM 1996.150.5



sure the publicity continued. When P.T. Barnum arranged to have the Swedish Nightingale, Jenny Lind, come to America on a tour that was one of the great public relations events of the nineteenth century, she traveled to New York on Collins's *Atlantic*, the first and apparently the most popular of Collins's steamships. Indeed, the *Atlantic*, as the subject of songs, prints, and journalistic effusions, was a celebrity in her own right. One may readily imagine, then, the public reaction when her safety was in peril.

Collins had maintained a virtually spotless record for safety in his years of operating sailing packets, and this admirable record continued into steam, notwithstanding the admittedly more daring behavior of Collins's vessel commanders when compared to their Cunard counterparts. Nevertheless, vessels on occasion were overdue, and, without the excuse of unfavorable winds, steamer operators were besieged with anxious inquiries when a vessel was more than a day late.

Such an occasion occurred early in January 1851, when the *Atlantic* failed to arrive on time from Liverpool. In fact, she had broken her paddle-wheel drive shaft about mid-ocean, and with considerable difficulty had turned back to the British Isles under sail power alone, arriving safely many days later. But in New York no one could know this, and days, then weeks, went by with no news, but with innumerable rumors about her fate. Finally, on 15 February, news arrived by a Cunard steamer that the *Atlantic* was safe. As the editor of *Harper's* magazine then reported:

> The Extras in a moment sowed the exciting news broadcast over the town. Men stopped each other in the street, and told the glad tidings as of some great victory which had secured peace and prosperity to the land. Crowds gathered under the lanterns, while some voice read out the happy news. People looked in at shops and up at windows, saying, "the *Atlantic* is safe!"

"For that evening," he concluded, "men stood upon the ground of a common manhood, sure of individual sympathy, in the universal joy."[16]

The novelist Henry James, then just a small boy, was with his parents at a New York theater when the news of the *Atlantic*'s safe arrival back in Britain was breathlessly announced to the audience. As James recalled, "The house broke into such plaudits, so huge and prolonged a roar of relief as I had never heard the like of and which gave me my first measure of a great immediate public emotion."[17]

Then, luck ran out on the swift Collins steamers and their daring captains. In 1853 Ralph Waldo Emerson prophetically remarked, "Everything is sacrificed for speed—solidity and safety."[18] Scarcely a year later, in early October 1854, news arrived in New York that Collins's steamer *Arctic* was no more. Returning from Liverpool with hundreds of passengers, including Collins's wife, a son, and his only daughter, the *Arctic* had been rammed by another vessel off Cape Race, Newfoundland, and had gone down with all of her women and children passengers. Perhaps the collision could not have been avoided; the *Arctic* was steaming through fog, and the small French steamer that rammed her appeared at first to be more seriously injured than the *Arctic*. But the Collins steamer had been gashed fatally below her waterline, and too late her captain and officers attempted to save their own vessel. Panic broke out, discipline broke down among the crew, and at the sorry end the only survivors were a few of the male passengers and a substantial number of the crew, who had commandeered the lifeboats and abandoned the passengers. When the *Arctic* finally plunged beneath the waves, she carried with her well over three hundred men, women, and children.[19]

Edward Knight Collins was coming home to New York from Washington when he heard the appalling news. His business associate, James Brown, also had suffered terribly; he lost six members of his own family, including his son, two daughters, and two grandchildren. Both men were emotionally devastated, and Collins additionally had to contend with the swarms of men and women who clamored at his South Street office for further information. Yet Collins and James Brown, in their grief, struggled successfully to maintain their business enterprise. The *Arctic* and her cargo had been fully insured, the remaining steamers continued on schedule,

and much of the traveling public persisted in choosing Collins's liners over those of their British competitor.

The nature of that competition, however, was not what the public believed it to be. American people, as well as their government officials, saw in the Collins Line a glorious assertion of the spirit of "Young America," a splendid challenger in a no-holds-barred struggle for maritime supremacy on the Atlantic Ocean. A national symbol of power and achievement, of American business imagination and daring, and of superior Yankee technology, the Collins Line, they believed, embodied the spirit of triumphant free enterprise upholding American honor in a major international rivalry. Yet the facts were otherwise. Early in 1850, within a few weeks of the first sailing of a Collins steamer, Cunard and Collins had made a deal.

At the initiative of Charles MacIver, the canny manager of the Cunard Line's business operations, and with the assistance of Brown, Shipley & Company in Liverpool, a private business arrangement was quietly, carefully put into place. The two steamship rivals agreed to set minimum fares for passengers and for most cargoes and, above all, to pool their revenues so that at the end of each calendar year there would be a financial adjustment between the two firms. The Cunard Line, with more ships in operation and more frequent sailings, was to receive two-thirds of the total revenues; the Collins Line would get one-third. If the revenues actually generated by the two firms varied from the stipulated allocation, then funds would be transferred to correct the discrepancy. Accordingly, at the end of 1850 the Collins Line received £1,427 from Cunard; in the years following, the adjustment tended to flow in the other direction, with Cunard receiving from Collins £5,215 for 1852, and approximately £5,000 in both 1854 and 1855. What these figures suggest is that the Collins Line was able to perform relatively better than originally predicted, so that instead of con-

After four years of safe operation, tragedy struck the Collins Line with the loss of the *Arctic* on 27 September 1854. In the fog off Cape Race, Newfoundland, she collided with the French iron steamer *Vesta* and sank in about five hours. Collins lost his wife, a son, and a daughter among the 300 fatalities. Lithograph, 1854, published by N. Currier, drawn by J. E. Buttersworth, from Charles Parsons's interpretation of an eyewitness sketch by surviving passenger James Smith. (Courtesy Mariners' Museum, Newport News, Virginia)





Edward Knight Collins in later life, careworn but proud. (Courtesy Mariners' Museum, Newport News, Virginia)

ducting one-third of the combined trade, the American line did nearly two-fifths of the business.[20]

Yet revenue was one thing; net earnings were another. To be sure, for several years the Collins Line appeared to flourish. Steamship passenger travel across the Atlantic increased; revenues from handling the mails also increased, as did proceeds from carrying general cargo. But costs also mounted. Coal was expensive, and tremendous amounts of coal were burned in the process of setting speed records. Steaming at top speed was hard on the machinery, and frequently one or another of the Collins steamers was taken off service for extensive machinery overhaul and other major repairs. The net result was no net income and no dividends for the shareholders.

Collins turned to Congress again. In January 1852 he requested an increase in his annual operating subsidy from $385,000 to $858,000. Congress obliged, but not before Collins put forth a lobbying effort that was brilliantly successful, if outrageously heavy-handed. To convince Congress and the administration of President Fillmore that such increased subsidy was in the national interest, Collins took his steamer *Baltic* to the Potomac River and held court for thousands of politicians and government officials. But the increased subsidy came at a certain price; Congress now reserved the right to cut back or even totally cancel the operating payments if Collins failed to maintain his promised service. A Damocles sword now hung over Collins's operation.[21]

Time went by, and the Collins Line had yet to produce a profit. The costs of competing both with Cunard and the still-active sailing packet lines outran revenues no matter what Collins could do. Cunard, in the meantime, was building new, large, fast, and elegant steamers and, unlike Collins, was moving towards screw-propulsion for his liners. Ostensibly bitter competitors, Collins and Cunard, through their covert pooling arrangements, had sought to stabilize their income and discourage other firms from entering the business and undercutting their agreed-on minimum fares and cargo rates; but this arrangement did not guarantee profits. While Cunard prospered, Collins did not; and members of Congress grew restive as government funds poured into the Collins operation at a level unprecedented for such public support of private enterprise. Then tragedy struck again.

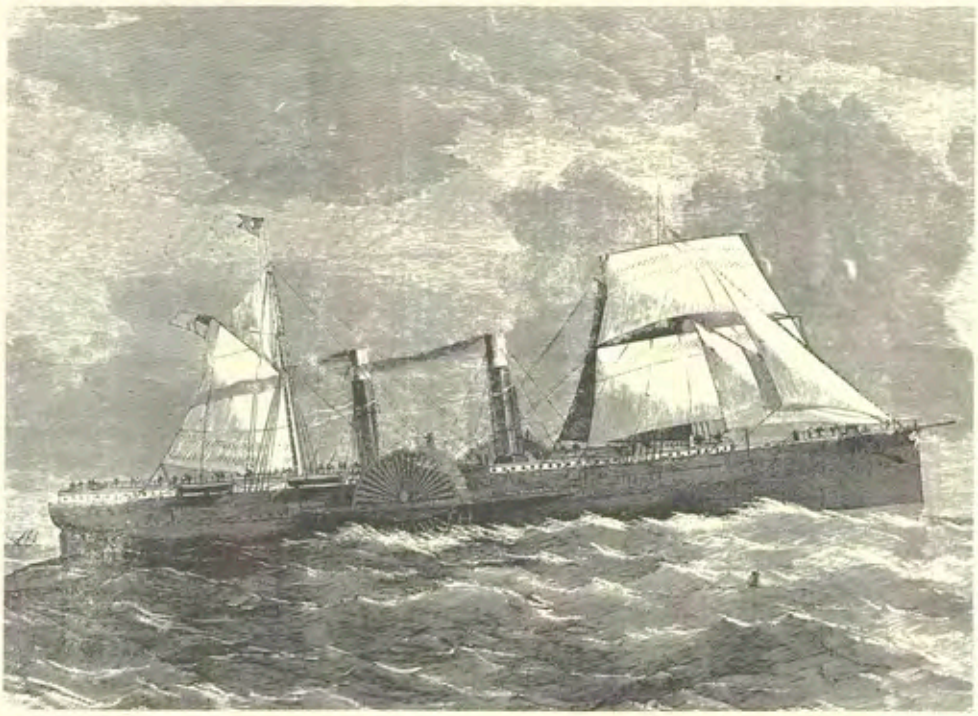
Late in June of 1856, the Collins steamer *Pacific* sailed from Liverpool just before the splendid new Cunard steamer *Persia* embarked on her maiden voyage to New York. Would the Cunarder better the time of her American rival? The *Persia*, as it turned out, had a relatively slow and rough trip, narrowly avoiding icebergs off the Grand Banks and running into unseasonably extensive fields of thick ice along her North Atlantic route. When she arrived at New York, the *Persia* apparently had beaten her competitor, for the *Pacific* had not yet been reported. Hours of expectant waiting lengthened into days, then into weeks. The *Pacific* still did not appear, nor were any of the rumors about her whereabouts confirmed. Finally, Collins and the New York

shipping community had to face the grim conclusion: the *Pacific* simply had vanished. In all probability, she had run into a field of ice at night; and with only an unprotected wooden hull, like her sister ships, she could not survive such a collision.[22]

Now the Collins Line was down to two steamers. Collins rushed to charter other, smaller vessels to take up part of the slack, but this effort fell far short. Opposition in Congress, especially from Southern and Midwestern senators, grew more strident and more effective. Partially in response to Congressional demands for improved service, Collins had been planning to launch a new, even more impressive steamer, the *Adriatic*, but innumerable delays kept her from going into service and reviving both the Collins Line's business and Congressional support.

In the meantime, Congress acted, and its actions sealed the fate of Collins's enterprise. The new, Southern-oriented Democratic administration of James Buchanan was cool to any subsidy at all for Collins, and by the middle of 1857, Congress moved to cut back the Line's annual appropriation to a level where Collins could not continue to operate. Then the short but severe panic of October 1857 resulted in business stagnation and a sharp decline in first-class oceanic passenger travel. The Collins Line, even with the *Adriatic* finally in service, was in serious trouble. On her November 1857 maiden voyage, the *Adriatic* displayed exceptional speed, yet she carried only thirty-eight passengers. Brown, Shipley & Company wrote from Liverpool that the Collins Line would only lose more money with every trip they attempted; his British partners urged James Brown to terminate his investment in the American steamship enterprise. By the following February, the Collins Line had suspended operations. The official

Collins's forlorn hope was the 4,145-ton *Adriatic* (345x50x33), designed by George Steers and launched by James R. & George Steers in 1856. When she finally entered service in November 1857 she was the largest and most powerful ship on the ocean. Designed to carry 400 passengers—300 of them in first class—with a crew of 188 (including 36 waiters), she carried only 38 passengers on her maiden voyage. Her eight water-tube boilers powered two oscillating engines that, at twenty-five pounds per square inch and fourteen revolutions per minute, generated 3,300 horsepower in turning her forty-foot side-wheels. Wood engraving by E. Weedon. (*Illustrated London News*, 19 December 1857)



end came on 1 April 1858, when the three remaining Collins Line steamers were sold at auction for a grand total of $50,000. The buyer was James Brown.[23]

The maritime career of Edward Knight Collins was over. Collins turned his face from the sea and gamely tried to recover his fortunes by developing coal, iron, and oil and gas properties along the Ohio River at Wellsville, Ohio, not far from Pittsburgh.[24] But the showman's touch was gone. The dynamic entrepreneurial spring had weakened. The Ohio venture failed, and Collins slipped back to New York City and into obscurity, his fortune largely depleted, his distinctive presence in the maritime world no longer sought. When he died in late January 1878, Edward Knight Collins merited only brief mention in most newspapers. And by this time, the Collins Line itself had become just a notorious example of unwise and terribly expensive government involvement in American business enterprise.

Yet, as the years went by, and as the American merchant marine fell from its pre-Civil War eminence to the distressingly marginal situation that it still occupies, Edward Knight Collins, in retrospect, increasingly commanded the attention, even respect, of those sufficiently informed about mercantile undertakings to recognize his remarkable merits and contributions. By the mid-twentieth century, historian Allan Nevins, in his brief survey of the American merchant marine, would present a decidedly improved estimation of Collins:

> Asked to name the greatest American shipbuilder and shipowner of the period between the Revolution and the Civil War . . . most students of the period would probably award the highest distinction to Edward Knight Collins whose career was so rich in enterprise and achievement, and whose ultimate failure was no fault of his own.[25]

While correct in his recognition of Collins's importance for his times, Professor Nevins was too charitable in his assessment of the maritime entrepreneur. Certainly, one may see easily enough that the final, steamship phase of Collins's maritime career reveals a substantial, if uncharacteristic, degree of self-delusion, unwarranted optimism, and venturesome recklessness about an enterprise that was politically risky, technologically untried, and financially perilous from its origins. Yet this classic American entrepreneur dared to be great—indeed, the greatest of them all in the maritime world. For this, while we might soberly heed Collins's ultimately disastrous venture and learn from that experience what *not* to do, surely this remarkable individual should be restored to proper historical stature by recognizing and respecting what he *did* do.

NOTES

[1] Harriet Beecher Stowe, *Sunny Memories of Foreign Lands*, vol. 1, (Boston, 1854), pp. 1–2.

[2] The standard work on the transatlantic sailing packets is Robert G. Albion, *Square-Riggers on Schedule: The New York Sailing Packets to England, France, and the Cotton Ports* (Princeton: Princeton University Press, 1938). See also the pertinent chapters in R. G. Albion, *The Rise of New York Port, 1815–1860* (New York: Charles Scribner's Sons, 1939) and Carl C. Cutler, *Queens of the Western Ocean: The Story of America's Mail and Passenger Sailing Lines* (Annapolis: Naval Institute Press, 1961).

[3] Collins's early career is briefly summarized in R. G. Albion's biographical sketch of Collins in Allen Johnson and Dumas Malone, eds., *Dictionary of American Biography*, vol. 4, (New York, 1930), p. 305; and in Collins's obituary in the *New York Herald*, 23 January 1878.

[4] George Templeton Strong, *The Diary . . .*, Allan Nevins and Milton Halsey Thomas, eds., vol. 1, (New York, 1952), p. 84; Phillip Hone, *The Diary . . . , 1828–1851*, Allan Nevins, ed., (New York, 1936), pp. 316–17.

[5] Richard C. McKay, *South Street: A Maritime History of New York* (New York: G. P. Putnam's Sons, 1934), p. 201. McKay has a number of colorful, if undocumented, anecdotes about Collins in his book; but see R. G. Albion's review at the time of its publication.

[6] The most scholarly and analytical work on the Cunard Line is Francis E. Hyde, *Cunard and the North Atlantic, 1840–1973; A History of Shipping and Financial Management* (Atlantic Highlands: Humanities Press, 1975). This official history of the company draws heavily on company archives and papers of its major executives.

[7] For the origins of Collins's steamship enterprise see David B. Tyler, *Steam Conquers the Atlantic* (New York: D. Appleton-Century Company, 1939), chapters 9 and 10.

[8] John A. Kouwenhoven, *Partners in Banking: An Historical Portrait of a Great Private Bank, Brown Brothers Harriman & Co., 1818–1968* (Garden City, New York, 1968), chapter 9.

[9] James Brown to George Brown, 8 January 1848, Brown Brothers Archives, Collins Line File, New-York Historical Society, hereafter cited as BBA, N-YHS.

[10] Tyler, *Steam Conquers the Atlantic*, Appendix V.

[11] For the English partners' viewpoint see Aytoun Ellis, *Heir of Adventure: The Story of Brown, Shipley & Co.; Merchant Bankers, 1810–1960* (London, 1960), and the extensive correspondence in the Brown Brothers Archives deposited in the New-York Historical Society.

[12] A brief but authoritative account of the Collins Line and its vessels is Cedric Ridgely-Nevitt, *American Steamships on the Atlantic* (Newark: University of Delaware Press, 1981), Chapter 9, "The Collins Line, 1850–1858." Earlier treatments include Tyler's *Steam Conquers the Atlantic*, chapters 12 through 15; John D. Dow, "The Collins Line," thesis for the Master of Arts Degree in Political Science, Columbia University, 1937; Walter Lord, "The Rise and Fall of the Collins Line," undergraduate thesis, Princeton University, 1939; and Ralph Whitney, "The Unlucky Collins Line," *American Heritage* 8 (February 1957):48–53, 100–102. Especially good on the social history of the Collins Line and its competitors is John Malcolm Brinnin, *The Sway of the Grand Saloon* (New York: Delacorte Press, 1971), Part Two, Sections I through XI.

[13] John S. C. Abbott, "Ocean Life," *Harper's New Monthly Magazine* 5 (June 1852):61–66; "Description of the Steamship 'Atlantic'," *Franklin Institute Journal* 19 (May 1850):352–53.

[14] "Steam-Bridge of the Atlantic," *Harper's New Monthly Magazine* 1 (August 1850):411–14, reprinting an account published originally in *Chamber's Edinburgh Journal*.

[15] Brinnin, *The Sway of the Grand Saloon*, p. 179.

[16] *Harper's New Monthly Magazine* 10 (December 1854): 119.

[17] Henry James, *A Small Boy and Others* (London, 1913), pp. 289–90.

[18] R. W. Emerson, quoted in John F. Kasson, *Civilizing the Machine: Technology and Republican Values in America, 1776–1900* (New York, 1976), p. 129.

[19] The best account of the *Arctic* loss is Alexander Crosby Brown, *Women and Children Last: The Loss of the Steamship Arctic* (New York: Putnam, 1961).

[20] For the Collins arrangement with Cunard, see Francis Hyde, *Cunard and the North Atlantic*, pp. 39–45, and the correspondence between Brown Brothers & Co. (New York) and Brown, Shipley & Co. (Liverpool), BBA, N-YHS. A typical letter concerned with the financial settlement between the two firms is Brown Shipley & Co. to James Brown, 31 July 1855.

[21] Tyler, *Steam Conquers the Atlantic*, chapter 13; Kouwenhoven, *Partners in Banking*, p. 96.

[22] *New York Herald*, July-October 1856.

[23] Tyler, *Steam Conquers the Atlantic*, chapter 15; John A. Brown to Joseph Shipley, 16 November 1857, BBA, N-YHS. Brown Shipley & Co. to Brown Brothers & Co., 23 and 29 January, 18 and 22 February 1858.

[24] Edgar Stanton Davidson, comp., *Before the Memory Fades: 1795–1950* (Wellsville, Ohio, 1950), pp. 28–36, 72.

[25] Allan Nevins, *Sail On: The Story of the American Merchant Marine* (New York: U.S. Lines Company, 1946), p. 22.

Captain McDougall and His Pigboats

KATHLEEN R. WARNES

Captain Alexander McDougall experienced a recurring and persistent dream, and each time he dreamed the components were the same. A cigar-shaped ship ran in heavy seas, her decks awash, but she bobbed and tossed with the waves instead of capsizing. Unable to forget his dream ship, Captain McDougall christened it a whaleback, because it reminded him of a whale lying on the surface of the water. This whaleback ship, which began as an image in the mind of a Great Lakes skipper, culminated in a fleet of whalebacks that were ancestors of the modern Great Lakes bulk freighter, influenced England's maritime tradition, and saw service in New England as well.

Alexander McDougall's beginnings were as inauspicious as the beginnings of his dream ship. Yet, like several other prominent late-nineteenth-century industrial innovators, through strength of character, persistence, and ingenuity he succeeded. Born 16 March 1845 at Port Ellen on the island of Islay off the west coast of Scotland, he was the son of a poor carpenter turned shopkeeper. In 1854 the McDougall family traveled to Glasgow for a two-year stay, and here Alexander received his only formal education. Then his father booked passage to Canada for the family, and they settled in the small Scottish community of Collingwood, Ontario, on the shore of Lake Huron's Georgian Bay. Jobs were scarce, and Alexander had to work hard, backbreakingly so when his father was killed in a sawmill accident.

Since it fell to Alexander McDougall to be the man of the family at age ten, he took any job he could find to help his mother, who made straw hats, did needlework, and acted as a doctor. When he was eleven and twelve, he worked cutting wood to support his mother, brother, and three sisters. When he was thirteen, he toiled on a farm for room and board, and at the end of the season was paid two pigs and a puppy. Later, he was apprenticed to a blacksmith to learn a trade, but he did not find the forge and flame to his liking.

Besides supporting his family, McDougall's dream was to go to sea. In 1861, when he turned sixteen, he shipped out of Collingwood as a deckhand on the steamer *Edith* for the huge sum of $12.00 a month. After his first season, McDougall returned home carrying presents for his family, as well as a stove, two full sacks of corn meal, coins he had earned by blacking the passengers' boots, and a rifle for hunting game during the winter. Many years later, McDougall described his homecoming: "often since then I have made in a single year what seemed a fortune to me, but I was never so rich in my life as when I took the new stove and the meal and the dimes back to my mother. It was the first time since the family left Port Ellen in Scotland that we really had all we wanted to eat."[1]

Working his way up through the ranks, McDougall eventually served as captain of the wooden package freighter *Thomas A. Scott*. Increasing prosperity made it possible for him to move his family from Collingwood to Duluth, Minnesota, at the western tip of Lake Superior. He had become a U.S. citizen by 1870. In the next few years, he and the Anchor Line, which owned the *Japan* on which he served as master, enjoyed booming times as a result of the new iron and grain trades opening up. Then a depression hit the area, and the Lakes trade dwin-

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dled between 1874 and 1876. Still interested in shipping grain, the Anchor Line sent Captain McDougall to Russia to investigate shipping conditions.

When he returned to America, the captain found jobs still scarce in the Lakes trade, so he traveled to Michigan's Upper Peninsula to investigate coal deposits he had heard rumors about. After finding adventure but no coal deposits, Captain McDougall decided to enter the fishing business. Building a fishing steamer, he formed a partnership with a fisherman from Collingwood, and they started their business at Marquette, Michigan. All during the spring of 1876, the two men caught and packed huge amounts of trout, as well as cutting ice and timber, but then disaster struck: the bottom fell out of the fish business, and McDougall's partner deserted their floundering enterprise. Although he lost his entire investment, McDougall eventually paid back all of his fishing debts in Marquette.

Later in 1876, McDougall assumed command of the steamer *City of Duluth* and married Emmeline Ross of Toronto. From 1876 to 1880, he continued to sail out of Chicago to Lake Superior ports. In 1880, an old friend, Captain Thomas Wilson, convinced Alexander McDougall to oversee construction of the *Hiawatha* and *Minnehaha*, which were larger than any wooden ships sailing the Lakes at the time. The launching of these two steamships marked a turning point in McDougall's life. The experience in managing a labor force, which he had gained in the shipyards, was an important asset, and his skill at organizing men and getting the job done became well known up and down the Lakes. In 1881, McDougall capitalized upon that skill and moved ashore to establish a flourishing and influential stevedoring business on the Lakes, with headquarters at Duluth.

It was at this time that his dream of a new ship design coalesced. His experience with the *Hiawatha* convinced McDougall that a radical new type of barge was required for the Lakes.



Captain Alexander McDougall (1845–1923), ca. 1907. (Courtesy Northeast Minnesota Historical Center, University of Minnesota, Duluth)

While Captain of the *Hiawatha* towing the *Minnehaha* and the *Goshawk* through the difficult and dangerous channels of our rivers, I thought out a plan to build an iron boat cheaper than wooden vessels . . . a boat with a flat bottom designed to carry the greatest cargo on the least water, with a rounded top so that water could not stay on board; with a spoon-shaped bow to best follow the lines of strain with the least use of the rudder and with turrets on deck for passage into the interior of the hull.[2]

Between 1878 and 1881, Captain McDougall had observed the changing conditions of Great Lakes shipping. The exploitation of large mineral deposits in the upper Great Lakes created an increased demand for bulk cargo capacity on Great Lakes ships. Prairie lands to the west were being opened up to wheat farming, and ships were needed to haul quantities of wheat to eastern markets via the Lakes. Steam had started to hustle sail from the Lakes, and a trend toward the use of steam freighters towing barge consorts had developed. The first wooden bulk carrier,

the steamer *R.J. Hackett*, had been launched in 1869, and her consort, *Forest City*, appeared in 1870. But the first iron-hulled bulk carrier, the *Onoko*, would not be launched until 1882.[3]

McDougall had noticed that conventional wooden steamers often were used to tow obsolete schooner hulls that had been converted to barges. It was in this role of consort barge that he saw real potential for his whaleback dream vessel. While soliciting charters, insuring vessels and cargoes, and managing his stevedoring crews, McDougall refined the design and attempted to interest backers in building an experimental hull. On 24 May 1881, McDougall received Patent No. 241,813, which specified the form and construction of his boats and provided for adapting them to use in rough or quiet waters and for towing without a rudder.

Basically, the whaleback design consisted of a flat bottom that gave stability; flat, parallel sides; a rounded deck, providing strength and preventing water from staying on deck; and a snoutlike spoon bow, allowing easy movement in the water. Both bow and stern of the whaleback design were distorted cones in shape, drawing together the square underbody shape and the curved topside into a point at either end. The spoon-like bow was expected to overcome the constant yawing of conventional barges under tow. The hull's shape made the whaleback extremely bouyant and insured a large capacity with a shallow draft. The arched upper portion of the hull provided the greatest strength for the least weight, as well as shedding water. The use of upright turrets for access into the hull made it safe for the boat to lie nearly awash, offering a low profile and little resistance to the winds that howled across the Great Lakes from Canada.

Continuing to improve on his design, as shipbuilding technology changed, McDougall applied for and was granted Patent No. 259,889 in June 1882. This patent proposed to make whalebacks out of iron and steel instead of wood, and to "dispense entirely with masts, spars, sails, bulwarks and adopting a form of hull best suited to be towed."[4]

As innovative and potentially profitable as the whaleback concept seemed to be, Captain McDougall could not get anyone interested enough to back him financially. He built models of his whaleback design and took them to all of his maritime friends and acquaintances, to no avail. Seasoned Great Lakes captains looked at the design with a jaundiced eye. "She will roll over, having no masts to hold her up," they predicted. Or, "she has no flat deck and bulwarks to keep the waves off." And worse yet was a remark that

While a steam freighter and her consort barge, with sails set to steady them, pitch wildly in a Great Lakes chop, two whaleback steamers and string of whaleback barges plow serenely through the head seas. V. D. Nickerson painted this interpretation of McDougall's early whaleback concept in 1882. (Courtesy Mariners' Museum, Newport News, Virginia)



Captain McDougall would hear for years to come: "you call that damn thing a boat,—why it looks more like a pig."[5]

Despite the lack of investors and public faith in his whalebacks, Captain Alexander McDougall persevered. He scraped together every penny he could and built a barge financed by his own capital. There was so little shipbuilding equipment at Duluth that the two ends of the barge, with their complex curves, were built under contract by Pusey & Jones at Wilmington, Delaware. When they were shipped to Duluth, a crew of stevedores joined the ends to the center section. When barge *101* was launched on 23 June 1888, Mrs. McDougall is said to have remarked to her sister-in-law as they watched it slide into the water, "there goes our last dollar!"[6]

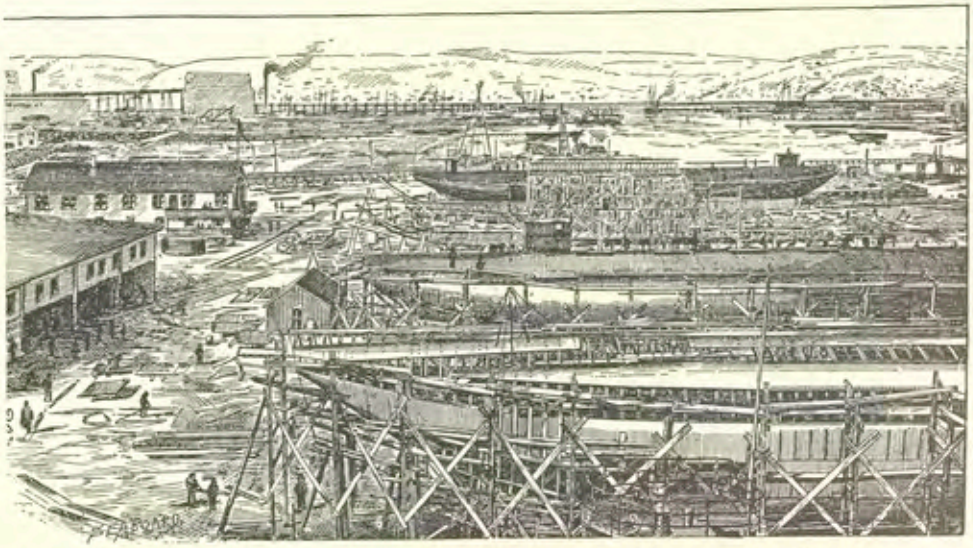
Loaded with iron ore from the rich Minnesota ranges, barge *101* made a successful maiden voyage under tow to Cleveland, Ohio. She continued to earn her keep until 1908, when she was lost off the Maine coast with all hands.

In the meantime, McDougall had completed a model for barge *102*, which was a larger version of *101*. Convinced that the Eastern financiers now eyeing the resources of the Midwest were the key to his success, McDougall traveled to New York and met with Colgate Hoyt, a banker, railroad developer, and associate of John D. Rockefeller. Hoyt was so impressed with McDougall and his whaleback concept that he organized the American Steel Barge Company to produce them. The initial capitalization of $2,000,000 was backed up by the wealthy New York businessmen on the board of directors: Colgate Hoyt, Charles L. and James L. Colby, Charles L. Wetmore, Edward B. Bartlett, George W. Weiffenbach, Robert D. Murray, and Pinckney F. Green. McDougall was the only other director, and he agreed to sell his patents to the company for $25,000 in stock, with an additional 20 percent of the stock set aside for him until he could pay for it.

In 1889 and 1890, the American Steel Barge Company under McDougall's direction built six more barges. Most of them were towed by steamers managed by McDougall's old protégé Thomas Wilson.[7] The maritime journal, *Seaboard*, took notice of McDougall's success in its 23 January 1890 issue: "The humble beginnings of a small barge in 1888 has grown to a full-sized fleet now afloat or under construction. This odd, or it is sometimes called, weird style of marine architecture, has begun to attract the attention of mariners all over the world. Tested in storms, they have proved ability to weather Lake Superior gales with ease, they carry immense loads for their size, and are cheaply operated."

The launch of the 178-foot, 428-ton barge *101*, Duluth, 23 June 1888. Assembled by McDougall's stevedores, the *101* proved the practicality of the whaleback design. In 1903 she entered the East Coast coal trade as a schooner barge. She and her crew of seven sank off Seal Island, Maine, in 1908. (Courtesy Northeast Minnesota Historical Center, University of Minnesota, Duluth)





Six whalebacks are visible in this view of the American Steel Barge Co. shipyard at West Superior, Wisconsin, in 1891. In the distance is a completed barge, beside which are two keels with some midship framing in place. On the deck of the nearly completed hull in the middle of the view can be seen the small, widely-spaced cargo hatches. In the foreground, tapered steel plates are riveted to the angle-iron frames of a barge or steamer. At the bottom margin is the top of the forward turret of a completed whaleback. Six barges and three steamers were launched at the yard in 1891. Engraving from a photograph. (*Seaboard*, 26 November 1891)

On 9 June 1890, the American Steel Barge Company launched the first self-propelled whaleback, the *Colgate Hoyt*. Her design was similar to that of the barges, except that she required a deeper, more resistant bow shape to improve her steering. The first of fifteen whaleback steamers built by American Steel Barge in the 1890s, she was 276 feet long, with a 36-foot beam, and registered 1,252 gross tons.

Later in 1890, the American Steel Barge Company relocated. Since Duluth did not welcome the development of his shipyard, McDougall established a new yard in Superior, Wisconsin, opposite Duluth. As an enticement, Superior offered land and wage contributions worth $200,000. Almost immediately, the American Steel Barge shipyard was Superior's largest firm. By 1892 it employed 400 skilled iron shipwrights and 810 laborers. In anticipation of the growing significance of Duluth-Superior as a major Lakes port, McDougall added a large drydock to the new shipyard complex.[8]

As the *Superior Daily Call* noted on 3 October 1890, "The 'pig' family is growing rapidly, and by and by the Lakes will be bristling with hogbacks—maybe. If the 'pig' tribe comes up to expectations there will be grunting by some owners of lake ships."[9] The economy of the whaleback design became clear in 1891. American Steel Barge could construct a whaleback barge in sixty days, and a steamer in ninety. Construction costs for a steamer were about $45.00 per ton, between one-half and two-thirds the cost of a conventional steamer. In operation, a whaleback steamer could carry 2½ tons per displacement ton (much greater than the capacity of a conventional hull), and operating costs of a 1,500-ton whaleback were equal to those of a conventional 800-ton freighter. In the summer of 1891 the *Colgate Hoyt* and the bulk freighter *Matoa* made four round-trips on the 900-mile run from Duluth to Ashtabula, Ohio, as a test of the relative merits of the whaleback. The *Hoyt* lugged 8,660 tons of iron ore on the four trips to the *Matoa*'s 8,500 tons. The *Hoyt* burned 122

tons of coal per trip, considerably less than the 178 tons burned by the *Matoa*. In addition, the *Hoyt* had earned a reputation as one of the three fastest freighters on the Lakes, making at least fourteen knots. It is no wonder that McDougall and his pigboats were the darlings of the American maritime press, as it sought to promote the rebirth of the nation's merchant marine.[10]

Nine whalebacks were launched in 1891, and ten more in 1892. Their names—*Joseph L. Colby, Charles W. Wetmore, E.B. Bartlett*, and others—were a litany of the financial kingpins behind the whaleback scheme. While on a smaller scale than those of his Rockefeller backers, McDougall had grandiose plans for his whalebacks. In 1892, having gotten involved in developing the railroad connecting Minnesota's new and incredibly rich Mesabi Range iron mines with Duluth, he contracted with the Merritt brothers to ship all of their iron ore aboard his whalebacks for fifteen years. Even as he worked to enhance demand for his vessels on the Lakes, he sought broader markets on the open sea. Taking advantage of the financial interests of the Colbys and Wetmore in the Pacific Northwest, he chartered the Pacific Steel Barge Company in 1890 and selected the location of Everett, Washington, to challenge Seattle and Tacoma as the region's major port. He saw whalebacks as the next generation of grain ships on both the Atlantic and Pacific, and also planned a fleet of whalebacks and consorts to ferry ore from Rockefeller's iron mines in Cuba to Philadelphia or Baltimore.

The *Charles W. Wetmore*, one of three identical steamers built in 1891, was the first pigboat to taste salt water. After the 265-foot, 1,399-gross-ton *Wetmore* was launched and fitted out, Captain McDougall had her loaded with wheat and, followed by two other whalebacks, guided her through the Great Lakes and down the St. Lawrence River. Since the *Wetmore* was too large for the canals, McDougall decided that she would have to shoot the rapids at the mouth of Lake Ontario. For three days, McDougall went down the rapids by day and took the train back at night, studying the possibilities of navigating the rapids with his new steamer.

Each day, Captain McDougall telegraphed the company directors in New York to report that even though the river pilots said it was impossible for the *Wetmore* to run the rapids, he thought it could be done, and he would do it unless the directors protested. He received no answer from New York, and the river pilots refused to take the *Wetmore* down stream, so McDougall found an old river man who agreed to take the vessel through the smooth parts if McDougall guided her through the rough water. The two men succeeded in navigating the Lechine Rapids and arrived safely at Montreal, where the cargo of wheat that had been transferred to lighters at Kingston, Ontario, was reloaded.

Departing Montreal for Liverpool, the *Wetmore* crossed the Atlantic in eleven days. An English newspaper reported that she had crossed the ocean with so little pitching and rolling that the marks of the shovels and McDougall's footprints were still visible in the wheat when the hatches were opened in Liverpool.[11] The whaleback caused such a sensation in Great Britain that she was opened to public inspection for one shilling admission charge, enabling her to raise £115 for the Liverpool Sailor's Orphanage.

Returning to the United States, the *Wetmore* loaded general cargo and set off on the 14,000-mile route round Cape Horn to reach Everett, Washington. Arriving in seventy days, she delivered a very special cargo for the new city: two disassembled sawmills, machinery for a paper mill, a nail factory, shipyard machinery, and fabricated steel. The shipyard machinery was for the Pacific Steel Barge Company, and the steel would be used to build the company's first whaleback, the *City of Everett*, which would be launched in 1894.

The *Charles W. Wetmore*'s visit to England was responsible for the spread of the whaleback design to Europe. Impressed by their inspection of her, W. Doxford and Sons, shipbuilders at Sunderland, obtained plans from McDougall and built the 2,500-ton whaleback *Sagamore*. Launched in 1893, the *Sagamore* was refused British registry and sailed under the Belgian flag for nearly twenty-five years in the Atlantic and

European grain trades to Mediterranean and Black Sea ports until she was torpedoed during World War I.

Doxford and Son combined McDougall's whaleback deck with the hull form of conventional steamers to produce the *Turret Court* in 1892, and about 150 more "turret" ships between 1894 and 1911. A few of them, including the *Turret Court*, were brought to the Great Lakes by Canadian owners. English competitors of the Doxfords built similar self-trimming ships, and some of these also came to the Great Lakes.

Captain McDougall remembered the whaleback passenger steamer *Christopher Columbus*, built for Chicago's Columbian Exposition, as "probably the most wonderful ship contracted for and constructed up to that time." He did not exaggerate when he talked about the *Christopher Columbus* in superlatives. In fact, his very enthusiasm had convinced Hoyt, Wetmore, Bartlett, and his other East Coast backers to finance her construction when he met them at the Seawanhaka Corinthian Yacht Club at Oyster Bay, New York, in August 1892. McDougall challenged them to put up the money and he would build and launch the vessel, with engine, in three months, guaranteeing that she would steam at twenty miles per hour, and that she could load 5,000 passengers in five minutes. The financiers put up $365,000, the vessel was begun on 7 September, and on 3 December 1892 she was launched. During the World's Fair season of 1893 she carried 1,700,000 passengers, and during her forty-six-year career on the Lakes she carried more passengers than any other American flag vessel.

Built with finer lines than the bulk carriers, the *Christopher Columbus* was 362 feet long, with a beam of 42 feet and a loaded draft of nearly 17 feet. Her triple-expansion steam engine developed over 4,000 horsepower, turning an 18-foot propeller. Seven steel turrets projected upward from her hull to support the passenger decks. Luxury was more than a word on the *Christopher Columbus*. Grand stairways within the turrets led from the cabin down to the main deck inside the hull. A series of steel pipes on twelve-foot centers supported the perimeter of the decks, and the cabin walls were fitted between these pipes and paneled with quarter-sawn oak. Marine scenes were etched in the plate-glass windows, and thick velvet rugs covered the decks. Fine Turkish leather upholstered furniture stood in the Grand Saloon, which was also accented with Italian marble and an aquarium filled with trout. The ship had fine restaurants, barber shops, baths, and boot-black stands. When the World's Fair closed in 1893, she was placed on the Chicago-to-Milwaukee run until 1933. She was scrapped in 1937.

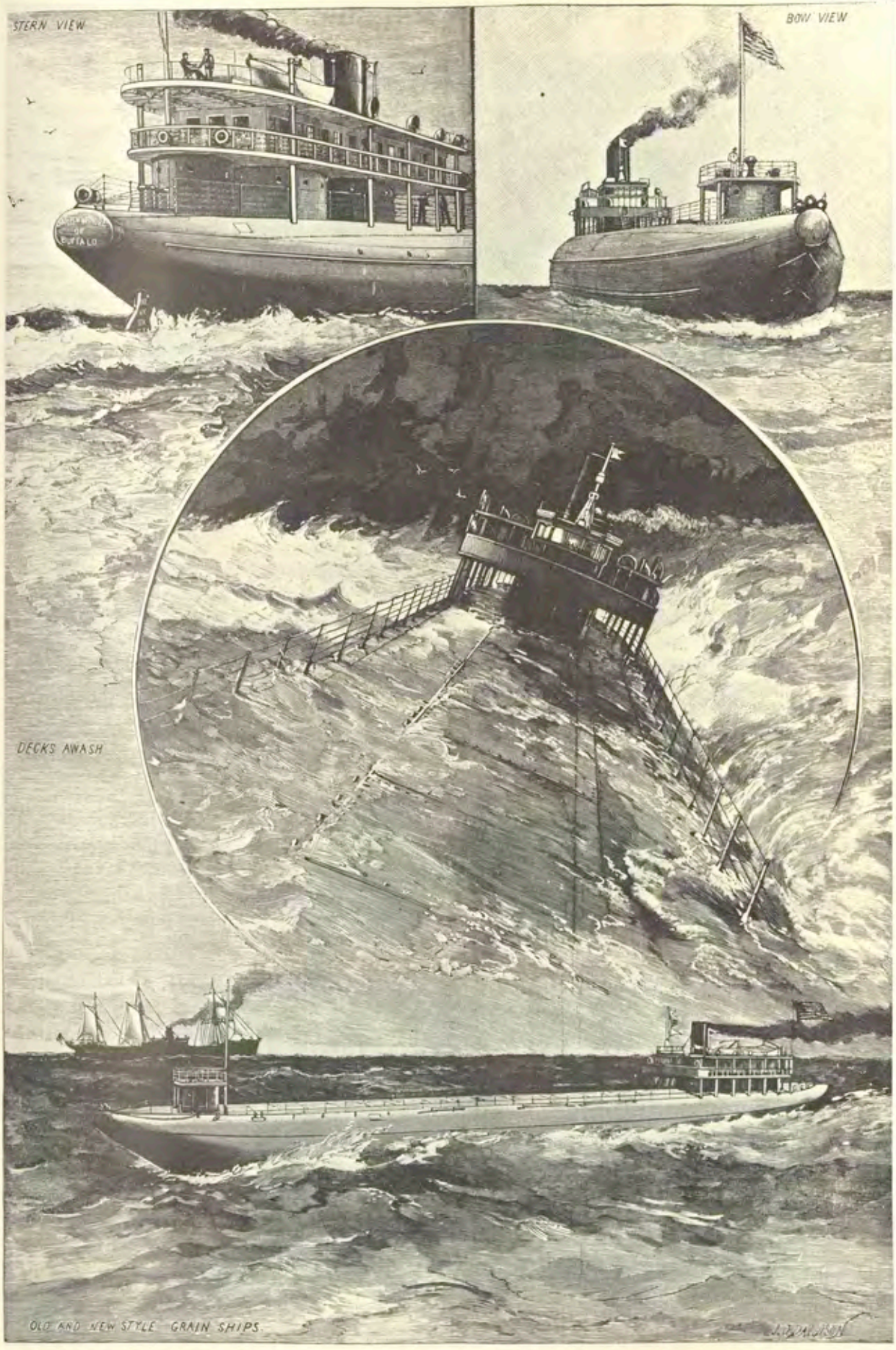
In his autobiography, Captain McDougall remembered 1893 as being one of his best and one of his worst as a shipbuilder. "In 1893 [sic] we built ten steel ships at once, two of them inside a house, which was successfully used by having sectional sides to launch through. That year we launched a ship every Saturday for eight Saturdays and on the ninth Saturday launched two ships and a tug."[12] But later in the year production was brought to an abrupt halt by forces beyond the captain's control: the Panic of 1893.

Railroad and bank failures began a tightening of the money supply, a drop in freight rates, and a round of foreclosures and labor actions. Unfortunately for McDougall, his protégé Colgate Hoyt was in Europe recovering from typhoid fever when the panic struck. To replace Hoyt as manager of his Great Lakes interests, John D. Rockefeller had sent the Reverend F. T. Gates. Anxious to conserve liquidity, Gates began to dissolve the budding syndicate that Hoyt and McDougall had been building to control Minnesota iron production and shipping. Looking to the future, McDougall strongly opposed Gates's actions, such as terminating the exclusive ore shipping contract with the Merritt brothers, and sided with Hoyt's interests.

Suddenly, McDougall found himself squeezed out of the whole operation. First, his

Opposite: The 1,400-ton, 265-foot *Charles W. Wetmore* was the first whaleback steamship on the ocean. Her 1891 transatlantic passage with a cargo of grain was expected to usher in a new generation of grain ships. Drawn by J. O. Davidson, from photographs. (*Harpers' Weekly*, 5 September 1891)

98.12


STERN VIEW
BOW VIEW
DECKS AWASH
OLD AND NEW STYLE GRAIN SHIPS



The 1,511-ton, 346-foot whaleback excursion steamer *Christopher Columbus*, launched in 1892, was one of the hits of the 1893 season at Chicago's Columbian Exposition. During her forty-six-year career on the Lakes, she carried more passengers than has any other American vessel. Oil painting by Howard Sprague, ca. 1893. (Courtesy Mariners' Museum, Newport News, Virginia)

Pacific Steel Barge Company was foreclosed. Then, as American Steel Barge stock dropped from 200 percent to 50 percent of its original value, McDougall was called on to pay up the $150,000 due on the stock set aside for him. McDougall believed that he was protected by the terms of the agreement he had made to turn his patents over to American Steel Barge, and was shocked to discover that he, the man of action, had been outwitted by the New York lawyers who had drawn up his subsequent shipyard lease and service contract with the company. Therein, a clause had allowed him only one year of protection on the stock, so he was forced to sell his $400,000 of company stock at fifty cents on the dollar to pay his obligation. By the end of 1893 he had lost both his patent rights to the whaleback design and all his equity in the whaleback shipyards.[13]

Though rightfully bitter over his treatment, McDougall did agree to remain as manager of ongoing whaleback construction. He was allowed to complete his pet project, the whaleback *City of Everett*, on the West Coast. Upon launch in 1894, McDougall had her chartered to carry a cargo of food to famine-stricken India. Her subsequent voyaging took her through the Suez Canal and back to the East Coast, and McDougall claimed for her the honor of being the first American merchant steamship to circumnavigate the globe and pass through the Suez Canal. She later became a transatlantic oil tanker.[14]

McDougall continued to seek employment for his design. He proposed Wiscasset, Maine, as the site of an East Coast shipyard to build whalebacks for the coastal coal trade, which already employed many of the Lakes-built steamers and barges. The Uncle Sam Whaleback Company was proposed to build whaleback fruit steamers to oust British-built steamers from the Caribbean-American fruit trade. McDougall also designed a whaleback transatlantic mail steamer and a whaleback gunboat, neither of which was accepted.[15]

At the same time, sobered by the sudden deflation of his whaleback scheme, McDougall "abstained from new ventures. I recuperated my strength and watched for new opportunities."[16] Yet, he remained publicly enthusiastic. He told a San Francisco newspaper in 1895: "We have them [whalebacks] on the lakes, on the Atlantic, also a line running on the coast from New York to Tampico; one is now crossing from England, where she was built on contract, and we have one here with others to be built at Everett, Wash-

ington."[17] But whaleback production never again reached the level of 1892. While he managed the shipyards between 1893 and 1898, McDougall constructed only eight more barges and four more steamers.

Two of the steamers that Captain McDougall built after his financial disaster are especially noteworthy. Built for the iron ore trade, whaleback number thirty-six, the *Frank Rockefeller*, was launched in April 1896. She outlasted five owners, carried three names, and sailed in the ore, sand, grain, automobile, and petroleum trades before she was retired as the last surviving whaleback. Today she is a museum ship in Superior, Wisconsin (see *The Log*, summer 1985). The last whaleback launched on the Great Lakes was the captain's namesake, the *Alexander McDougall*. Christened in 1898 by the captain's daughter, the *McDougall* was really a hybrid. Combining the best components of the whaleback concept with standard ship construction and a conventional bow rather than a "snout," she was a near ancestor of the modern bulk freighters on the Great Lakes. She also differed from her sisters in propulsion. The earliest whaleback steamers had compound steam engines, but the majority had efficient triple-expansion engines. The *McDougall*, however, had a quadruple-expansion (four cylinder) engine. At 413 feet, with a gross tonnage of 6,800, the *McDougall* was the largest whaleback built. She worked long and hard until 1946, when she was scrapped in Delaware.

Within ten years of Captain McDougall's great innovation, the whaleback was essentially obsolete on the Great Lakes. Despite their proven economy and seaworthiness, they had never been popular among Lakes seamen, largely because of their appearance, but also because of their unprotected decks. At the same time, Lakes ship technology changed as more sophisticated tools for rapid unloading were developed. The open clamshell of a Hulett unloader, introduced about 1900, had a twenty-four-foot spread, and called for hatches spaced on twelve-foot centers, far bigger than the eight-by-ten-foot hatches spaced on twenty-four-foot centers required by the basket-like steel framework of a whaleback hull. As the decade progressed, whaleback construction also lost its competitive edge as conventional ship construction was refined. The 2,721-ton whaleback barge *Alexander Holley* was built in 1896 for $130,600—$15,000 *more* than the cost of the 3,231-ton conventional barge *Constitution*, built by American Steel Barge in 1897. The new unloading and ship construction technology also led to rapid growth in the size of bulk carriers and the end of the steamer and barge consort form of shipping.[18]

The East Coast coal trade employed numerous whaleback barges and steamers. Here, the 1,400-ton, 265-foot *Bay Port*, ex-*E. B. Bartlett*, lies off South Boston, waiting to discharge her cargo, in September 1912. Launched in 1891, the *Bartlett* was renamed *Bay Port* on the Atlantic coast in 1905 and was lost in 1916 when she stranded in the Cape Cod Canal. Photo by Henry D. Fisher. (M.S.M. 76.208.305)



Nevertheless, the existing whalebacks still flourished on salt water. Some had left the Lakes upon completion, but others were sold to the coast as they were phased out of the Lakes trades. The less sophisticated equipment of the Atlantic coastal coal trade kept many of the barges and some of the steamers employed through the end of their working lives. Among the largest managers of whalebacks in the decade after 1910 was the White Oak Transportation Company of Searsport, Maine.

A final factor in the demise of the whaleback was Alexander McDougall himself. A tireless practical problem-solver and inventor, he simply lost interest and moved on to new enterprises. He tried to improve placer mining techniques in Idaho and iron ore washing methods in Minnesota. He established the St. Louis Steel Barge Company and carried Mississippi River cargoes, and later transported oil from the famous Spindletop oil field in Texas. Beyond ore docks and a hydro-electric project in Minnesota, he established a shipyard back at Collingwood, Ontario, and built about fifty conventional ships there. In 1917 he established another shipyard at Duluth, and built forty-six ships during the World War I shipbuilding boom.

In his autobiography, Captain Alexander McDougall tallied his accomplishments and evaluated a career that spanned six decades. He remarked that he had built eight shipyards, four drydocks, and over 200 ships. Even after he had retired from the shipyards, he was always energetic and active. He spent many hours of his later life working in the basement laboratory of his home, testing his ship models in water tanks and perfecting his other inventions. A few months before he died, Captain McDougall patented a peat fuel machine, possibly inspired by the prevalent use of peat fuel in his native Scotland.

After a life of hard work, hardship, and perseverance to match the sagas of his whalebacks, Alexander McDougall died on 23 May 1923. His impact on the growth and commerce of the Great Lakes is still being felt far into the twentieth century, and his vision helped develop the states of Wisconsin and Minnesota from frontier into prosperous trading centers. He was instrumental in turning Duluth-Superior into a major Great Lakes port, and many of his ideas and patents are preserved in the designs of today's Great Lakes freighters.

It is an ironic footnote to the whaleback story that when these ships were in their prime, they were extremely unpopular with Great Lakes sailors. Then, as the *Meteor*, ex-*Frank Rockefeller*, the last surviving whaleback, entered the twilight of her career in the late 1960s, she became one of the most photographed and most popular

The last and largest whaleback barge built was the 2,721-ton, 356-foot *Alexander Holley*, launched in 1896. She is shown towing light, probably on Lake Erie. Photo by Henry D. Fisher, ca. 1910. (M.S.M. 76.208.454)



ships on the Lakes. Today, secure in her berth at Superior as a maritime museum, she is a living memorial to Captain Alexander McDougall, a man with a dream and the courage and perseverance to make it come true.

NOTES

[1] Alexander McDougall, *The Autobiography of Captain Alexander McDougall*, Janet Coe Sanborn, ed. (Cleveland: Great Lakes Historical Society, 1968), pp. 8–9.

[2] *Ibid.*, p. 32.

[3] Richard J. Wright, *Freshwater Whales: A History of the American Ship Building Company and its Predecessors* (Kent: Kent State University Press, 1969), p. 5.

[4] Quoted in John H. Wilterding, Jr., *McDougall's Dream: The American Whaleback* (n.p.: Lakeside Publications, 1968), p. 6. See also, Ryck Lydecker, *Pigboat . . . The Story of the Whalebacks* (Duluth: Sweetwater Press, 1973).

[5] McDougall, *Autobiography*, p. 32.

[6] *Ibid.*

[7] Wright, *Freshwater Whales*, p. 44.

[8] McDougall, *Autobiography*, pp. 33–34; Wright, *Freshwater Whales*, pp. 44, 47–48, 49.

[9] Quoted in Wright, *Freshwater Whales*, p. 45.

[10] *Seaboard*, 27 August, 26 November 1891; 16 October 1890.

[11] McDougall, *Autobiography*, pp. 43–44; Wright, *Freshwater Whales*, p. 56.

[12] McDougall, *Autobiography*, p. 34. McDougall's memory is slightly at fault here, since only seven vessels were launched in 1893. He probably meant 1892, when ten vessels were launched.

[13] McDougall, *Autobiography*, pp. 39, 41–42, 47–49; Wright, *Freshwater Whales*, p. 50.

[14] McDougall, *Autobiography*, pp. 46–47.

[15] *Seaboard*, 14 December 1893, 22 March 1894; McDougall, *Autobiography*, pp. 37–38.

[16] McDougall, *Autobiography*, p. 49.

[17] *San Francisco Herald*, 2 May 1895.

[18] Wright, *Freshwater Whales*, p. 52.

The Whalebacks

Name (*subsequent names*)	*Type*	*Launched*	*Fate*
101	Barge	1888, Duluth	sank, Maine, 1908
102 (*Sir Joseph Whitworth; Bath*)	Barge	1889, Duluth	sank, Virginia, 1905
103	Barge	1889, Duluth	sank, New Jersey, 1909
104	Barge	1890, Duluth	sank, Lake Erie, 1898
105 (*Baroness*)	Barge	1890, Duluth	sank, Long Island, 1910
Colgate Hoyt (*Bay City; Thurmond*)	Steamer	1890, Duluth	stranded, New Jersey, 1909
107 (*Bombay*)	Barge	1890, Superior	sank, Nantucket, 1913
Joseph L. Colby (*Bay State*)	Steamer	1890, Superior	abandoned, New York, 1935
109 (*Bavaria*)	Barge	1890, Superior	sank, Long Island, 1924
201 (*Cassie*)	Barge	1890, Brooklyn (rebuilt 1897, Superior)	stranded, New Jersey, 1917
202 (*Fannie*)	Barge	1890, Brooklyn (rebuilt 1897, Superior)	sank, New Jersey, 1908
110 (*Badger; Pure Lubewell*)	Barge	1891, Superior	exploded, Louisiana, 1932
111 (*Ivie*)	Barge	1891, Superior	rammed, Virginia, 1916

Charles W. Wetmore	Steamer	1891, Superior	stranded, Oregon, 1892
E. B. Bartlett (*Bay Port*)	Steamer	1891, Superior	sank, Cape Cod Canal, 1916
A. D. Thompson (*Bay View*)	Steamer	1891, Superior	scrapped, Chicago, 1936
115	Barge	1891, Superior	sank, Lake Superior, 1899
116 (*Brittania*; *Pure Tiolene*)	Barge	1891, Superior	scrapped, Texas, 1946
117 (*Providence*)	Barge	1891, Superior	sold British, 1929
118 (*Boston*; *Freeport Sulphur No. 3*; *Pure Oil Steamship Company Barge No. 9*; *Pure Detonox*)	Barge	1891, Superior	scrapped, Texas, 1946
Thomas Wilson	Steamer	1892, Superior	rammed, Lake Superior, 1902
Samuel Mather (*Clifton*)	Steamer	1892, Superior	sank, Lake Huron, 1924
James B. Colgate	Steamer	1892, Superior	sank, Lake Erie, 1916
Sagamore	Barge	1892, Superior	rammed, Lake Superior, 1901
Pathfinder (*Progress*)	Steamer	1892, Superior	scrapped, Cleveland, 1934
Washburn (*James B. Neilson*; *J. T. Reid*)	Steamer	1892, Superior	scrapped, Ohio, 1936
Pillsbury (*Henry Cort*)	Steamer	1892, Superior	sank, Lake Michigan, 1934
126 (*Baden*)	Barge	1892, Superior	sank, Massachusetts, 1905
127 (*Jeanie*; *Dallas*)	Barge	1892, Superior	scrapped, Louisiana, 1936
Christopher Columbus	Steamer	1892, Superior	scrapped, Wisconsin, 1936
129	Barge	1893, Superior	rammed, Lake Superior, 1902
130 (*Lynn*)	Barge	1893, Superior	scrapped, Texas, 1924
131 (*Salem*; *Freeport Sulphur No. 4*; *Pure Oil No. 10*; *Pure NuLube*)	Barge	1893, Superior	scrapped, Texas, 1946
132 (*Portsmouth*)	Barge	1893, Superior	sank, Texas, 1927
133 (*Searsport*)	Barge	1893, Superior	sank, Long Island, 1911
134 (*Bangor*)	Barge	1893, Superior	sank, Virginia, 1912
Sagamore [British] (*Solideo*; *Ilva*)	Steamer	1893, Sunderland	torpedoed, Spain, 1917
City of Everett	Steamer	1894, Everett	sank, Gulf of Mexico, 1923
John B. Trevor (*Antikokan*)	Steamer	1895, Superior	scrapped, Halifax, 1935
Frank Rockefeller (*South Park*; *Meteor*)	Steamer	1896, Superior	preserved, Superior
137	Barge	1896, Superior	scrapped, Ontario, 1965
John Ericsson	Steamer	1896, Superior	scrapped, Ontario, 1967
Alexander Holley	Barge	1896, Superior	scrapped, Ontario, 1965
Alexander McDougall	Steamer	1898, Superior	scrapped, Delaware, 1946

Source: John H. Wilterding, *McDougall's Dream: The American Whaleback* (Lakeside Publications, 1969)

BOOK REVIEWS

Benjamin Doane. *Following the Sea*. Fred W. Scott and Marven E. Moore, eds. Halifax: Nimbus Publishing Ltd. and The Nova Scotia Museum, 1987. xvii, 275 pages, illustrations, notes, list of vessels encountered, glossary. $29.95 (Canadian); paperback $19.95 (Canadian).

This fascinating autobiographical memoir relates the life and experiences of Captain Benjamin Doane from his birth in Barrington, Nova Scotia, in 1823 up to 1849, even though he remained an active seafarer until 1890. In 1897 Doane dictated the narrative to his son, Benjamin Hervey Doane, a prominent court stenographer in New York. The original manuscript carries the story a bit farther than is done in this book, but the editors note that this latter part lacks the interest and liveliness of the portion they have chosen to publish.

Doane began his seafaring career as a cook in a coasting schooner in 1837 at age fourteen. Before long, he was sailing to the West Indies on a regular basis, and later he made a voyage to England. In between he had gone on one very short and unsuccessful whaling trip in the Gulf of St. Lawrence. After a three-year whaling voyage in the ship *Athol*, Doane returned to commercial sail and made his last voyage under the British flag in 1853. He then moved to New York with his young bride and began to sail under the American flag. Except for a brief period after the American Civil War, Doane remained an active seafarer until 1890, serving the last twenty years as master of Clyde Line steamers operating between New York and Jacksonville, Florida.

More than half of the 233 pages of this narrative are devoted to Doane's single whaling voyage in the ship *Athol*, 1845–48. Perhaps the smallness of the Canadian whaling fleet compared with its general shipping fleet, and the romance attached retrospectively to whaling, led Doane to place greater emphasis upon this three-year period of his life. This heavy concentration on his brief whaling career means that his much longer service in coasting and deep-water commerce, as well as his service in U.S. steamships, is described in a rather cursory manner. Doane's service in such a wide assortment of seafaring services makes him a rather unusual sailor, as such shifting between trades was not common, at least among U.S. sailors.

Doane's lengthy account of his whaling voyage in the *Athol* provides an excellent source for comparison and contrast between U.S. and Canadian whaling practices and customs. There seem to have been more similarities than differences. However, it is somewhat surprising that Doane should sail as a boatsteerer or harpooner on his first real whaling voyage, especially since most of the crew had previous experience in whaling. One other difference was that on Canadian whalers there appears to have been a regular rotation among harpooners for the honor of being lowered onto the dead whale to insert the blubber hook for the first blanket piece when cutting in a whale. On American whalers it was customary for whalemen to serve as regular foremast hands for some time before being given the responsible post of harpooner, and for the harpooner of the boat that took a whale to have the honor of attaching the blubber hook to it.

The editors have provided some interesting and useful features in this book. In a few places, they have placed explanatory notes conveniently in the wide outside margins. A large number of very appropriate illustrations are scattered throughout the text, and it is clear that the editors devoted much time and thought to the selection of visual matter. This thoroughness extends even to the cover, which resembles that of a typical seaman's journal of the mid-nineteenth century. Two useful features are the ten-page "Vessels Encountered" list that provides data on the vessels mentioned in the text, and the nineteen-page glossary of nautical and whaling terms, which will be extremely helpful for any reader.

Over the years I have seen some very handsome books, and some books that were filled with good and useful information. *Following the Sea* is both very attractive and full of information presented in an interesting and exciting style. Readers of *The Log*, and anyone else interested in the history of seafaring and whaling, will find this book to be well worth reading, and collectors of such titles will want to add it to their libraries.

Charles R. Schultz
University Archivist
Texas A&M University

Paul C. Morris. *A Portrait of a Ship: The Benj. F. Packard*. Orleans, Massachusetts: Lower Cape Publishing, 1987. xi, 188 pages, illustrations, bibliography, index. $30.00.

If there ever was a book that blows apart the myth

that you have to have been there to really get the experience, this is it. For, in its pages, Paul Morris has successfully brought the ship *Benj. F. Packard* to life in a way that I never thought possible. As a confirmed Packard-ophile, with more models of her under my belt than I care to recount, that's some testimony.

I knew this ship, climbing all over her when she was at Playland in the '30s, but I didn't know her the way Paul describes her in this picture book. It is must reading for the serious model maker, a trip worth sailing for the marine historian, and an interesting glimpse into life before the mast for the reader who just wants a good nonfiction book to curl up with on a rainy Sunday.

The *Packard* was first and foremost a merchant ship, with a career under sail that lasted from 1883 to 1924, and the author ably describes her loads, from lumber, wheat, and coal to salmon, and the alterations her rig went through over the years.

She was also known as a rough ship, in which various masters reigned with an iron hand, and the mates carried out orders with two-fisted vitality. Captain Zaccheus "Tiger" Allen (who commanded her with but one interruption from 1889 to 1904) and his son and mate Ralph were but the roughest of a rough bunch. As Morris relates an incident: "A young Englishman, named Stephen Hughes, was helping the first mate, and His Highness asked him questions requiring fair answers. Steve tacked on the 'sir' three times, but the fourth time he forgot. It was a fatal mistake. The mate broke forth with the vilest of epithets, at the same time pounding the fellow. Then he knocked him down and kicked him about the face and head."

But most of all, the *Packard* was the last Down East wooden square-rigger to survive on the East Coast, and here is where this book really shines. Why? Because the author's father was an employee at Playland during the *Packard*'s stay there, and he made a meticulous photographic record of every part of her hull and rigging, right up to her dying shudders as she was scuttled and headed for the bottom of Long Island Sound in 1939.

In 188 pages, more than 180 black-and-white photos, and dozens of pen-and-ink drawings, Paul Morris has created a book you'll not want to put down until you have gone cover to cover.

William S. Quincy
Model Maker, M.S.M.

Philip C.F. Smith. *Philadelphia on the River.* Philadelphia: Philadelphia Maritime Museum, 1986. 176 pages, illustrations, select bibliography, index. $29.00.

James L. Shaw. *Ships of the Panama Canal.* Annapolis: Naval Institute Press, 1985. x, 269 pages, appendices, index. $29.95.

Although these two illustrated works have been out for about two years, they deserve mention in *The Log*. Both are excellent, but each has its failings, and between them they suggest the strengths and weaknesses of maritime "picture" books. *Philadelphia on the River* is an extremely handsome volume designed and printed by the team that produces *The Log*. Dedicated to J. Welles Henderson, who founded the Philadelphia Maritime Museum in 1960, written by the museum's former curator, and funded by the Andrew W. Mellon Foundation, the book was published to mark the twenty-fifth anniversary of the Philadelphia Maritime Museum. It contains 222 images that represent the history of the port of Philadelphia and the Delaware River to its mouth at Cape Henlopen, "intended to resurrect in the mind's eye of the present day the ambience of past times, long erased." It is a visual potpourri, made up of photographs, paintings, and line art that reach from the eighteenth century to the present and flow roughly from the mouth of the river to the upper reaches of navigation. For those of us not intimate with the local geography, the endpaper maps are most helpful.

While much thought went into selection of the illustrations, the very abundance of them has become inhibiting in this volume because none could be reproduced very large. Photographs in particular invite detailed examination, and when they are printed too small they lose their vitality. In fact, the photographs in this collection are the weakest element since so many of them are static views of monumental wharf buildings or panoramic views. It is unfortunate that so few period action views—such as the oystermen loading their floats, or the commercial swirl along waterfront Delaware Avenue in 1890—were available. There are many striking images to be sure: two photos depicting the vast quantities of sugar that once entered Philadelphia for refining; a photo essay on cargo handling techniques, from hand-operated scoop and dumpcart to the mammoth cranes of today; several Thomas Eakins paintings; and numerous views of the innovative shipyards that once lined the Delaware.

I am not familiar with the details of Philadelphia's maritime past, and I must admit that the captions

accompanying the illustrations, as well written and witty as they are, did not always provide the level of interpretation that would have enlightened me. As an example, the photo of grain elevators on page 67 is accompanied by a few identifying remarks rather than even the briefest explanation of Philadelphia's significance as a grain port or of the use of floating elevators there. If this book was intended as more than a visual diversion, or a set piece for Philadelphians, the captions might have addressed more closely the questions each view elicits.

Despite such quibbles, *Philadelphia on the River* is an extremely handsome and useful book, offering the best available coverage of the maritime history of the whole Philadelphia region.

Ships of the Panama Canal plays counterpoint with *Philadelphia on the River.* It contains little artistry in design or bookmaking, yet, clearly, the photographs are the subject. The book displays 116 photographs made by the Canal's official photographer, Ernest "Red" Hallen, between 1912 and about 1939. After an illustrated introduction describing construction of the Canal, the author presents 110 vessel portraits, organized in chapters on Naval Ships and Military Transports, Passenger Ships and Yachts, and Cargo Ships and Work Craft. Each chapter will have its devotees. Naval buffs will study the U.S.S. *Arizona* and *Langley*, the Japanese cruiser *Iwate*, and the H.M.S. *Hood* and *Nelson*. Passenger liner students can watch designs change from the *City of Para* of 1878 to the *Bremen* of 1928. I was fascinated by the cargo ships, from the four-masted bark *John Ena*, an occasional transitor, to the U.S. Fleet Corporation standard freighters like the *Nashaba*, classic British tramp freighters such as the *Orient City*, and the early diesel motorships *Jutlandia* and *George Washington*.

Each photograph is displayed in large size on a left-hand page, with a detailed caption facing. Captions contain details about the vessels and their significance, anecdotes about their passages through the Canal, and the date of the photograph, when known. It is shocking to see how many of these vessels went to their watery graves during World War II. Finally, for the Panama Canal buffs, five appendices list facts and records about the Canal.

The weakness in this book is in its reproduction. On the dead white paper, many of the photographs have a washed-out look that defeats the book's purpose. With a little more attention to bookmaking, this outstanding record of early-twentieth-century ships would have been a magnificent production.

The Wherry Oarsman

ACQUISITION

Though just eleven feet long, and weighing only 150 pounds, the latest addition to the Seaport's small craft collection is an important one. The one-step, mahogany-planked hydroplane *Toy* is a rare and perfectly preserved little speedster with an impressive history.

She is a Connecticut boat. Designed by Ernest N. Way of Hartford, she was built in 1930 by the Frank Harrison Boat Yard of Essex for Elliott Spencer of Westbrook. Over the next two years, Spencer raced her in the B-1 class to a National Outboard Association championship, setting four world speed records along the way. Twice those records were set on Connecticut rivers. On 5 July 1930, Spencer and *Toy* skipped over the Pawcatuck River at nearly forty-two miles per hour, as 5,000 spectators looked on from the Westerly Boat Club. Then in October, again hunched over the steering wheel that was mounted flat on the floorboards, Spencer bested his own mark on the Connecticut River near Middletown.



Elliott Spencer aboard *Toy*, 1930. (Courtesy Skip Spencer)

The boat has been given to Mystic Seaport by Skip Spencer, son of the owner and driver. He has also donated certificates, medals, newspaper accounts, and this photograph, which help to document *Toy*'s brief but glorious career. And in as much as Elliott Spencer put away his *Toy* in 1933 when his son was born, we probably have Skip Spencer to thank for the boat's survival, as well as her donation. [87.137]

Certificate of Excellence

Mystic Seaport's Yachting Committee inaugurated its Certificate of Excellence program in the summer of 1987. In recognition of the role of private boat owners in the preservation of classic yachts, the Certificate of Excellence is awarded to exceptional boats in private hands. The program honors not only the boats, but also the owners who are preserving and maintaining them in outstanding condition. Design, construction, history, and overall condition of a boat are judged when the Yachting Committee makes its selections.

Boat owners who are awarded the Certificate of Excellence are asked to exhibit their yachts at the Seaport, where the public can be made aware of the preservation of classic watercraft as an important ongoing effort.

The five boats awarded Certificates during the summer of 1987 are shown in the accompanying photographs.

Mr. and Mrs. Endicott P. Davison of Old Lyme, Connecticut, receive their Certificate of Excellence from Museum Director J. Revell Carr aboard their forty-six-foot yawl *Ayesha*, designed by Philip Rhodes and built by Henry B. Nevins in 1932. (Photo by Claire White-Peterson)



Tar Baby, a fifty-foot schooner designed by John Alden and built by C. A. Morse in 1928, is owned by Carl D. Sherman of Westbrook, Connecticut. (Photo by Mary Anne Stets)





Jessica, a seventy-five-foot commuter designed by John H. Wells and built by Consolidated in 1930, is now owned by Ted Valpey of Portsmouth, New Hampshire. (Photo by Nancy d'Estang)

Rudolph J. Schaefer III, President of the Museum's Board of Trustees, presents the Certificate of Excellence to Van Brown and his wife, Beth Tilman, of Mystic, for their fifty-three-foot Herreshoff cutter *Neith*, built in 1907. (Photo by Claire White-Peterson)



Symfoni, a sixty-foot Swedish ketch built in 1937, is now owned by Fred Holth of New London, Connecticut. (Courtesy Fred Holth)





GIFTS OF REAL PROPERTY

Many donors have made gifts of real property to Mystic Seaport Museum, sometimes as bequests but more often through a lifetime transfer, with significant tax benefits. These gifts may be personal or vacation residences, a farm, a commercial building, subdivision lots, or an undeveloped parcel of land.

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THE LOG OF MYSTIC SEAPORT Prize Article Contest

The Fellows of the G. W. Blunt White Library and the Editorial Board of *The Log of Mystic Seaport* are pleased to announce the eighth annual prize article contest.

Purpose To encourage the study of American maritime subjects, and to promote the publication of original research in the field.

Criteria Accurate scholarship demonstrating original research and, when appropriate, the use of primary source material. Articles can take the form of biography or studies on economic, political, social, literary, artistic, or musical aspects of the American maritime traditions. However, strictly naval topics and works of fiction are excluded.

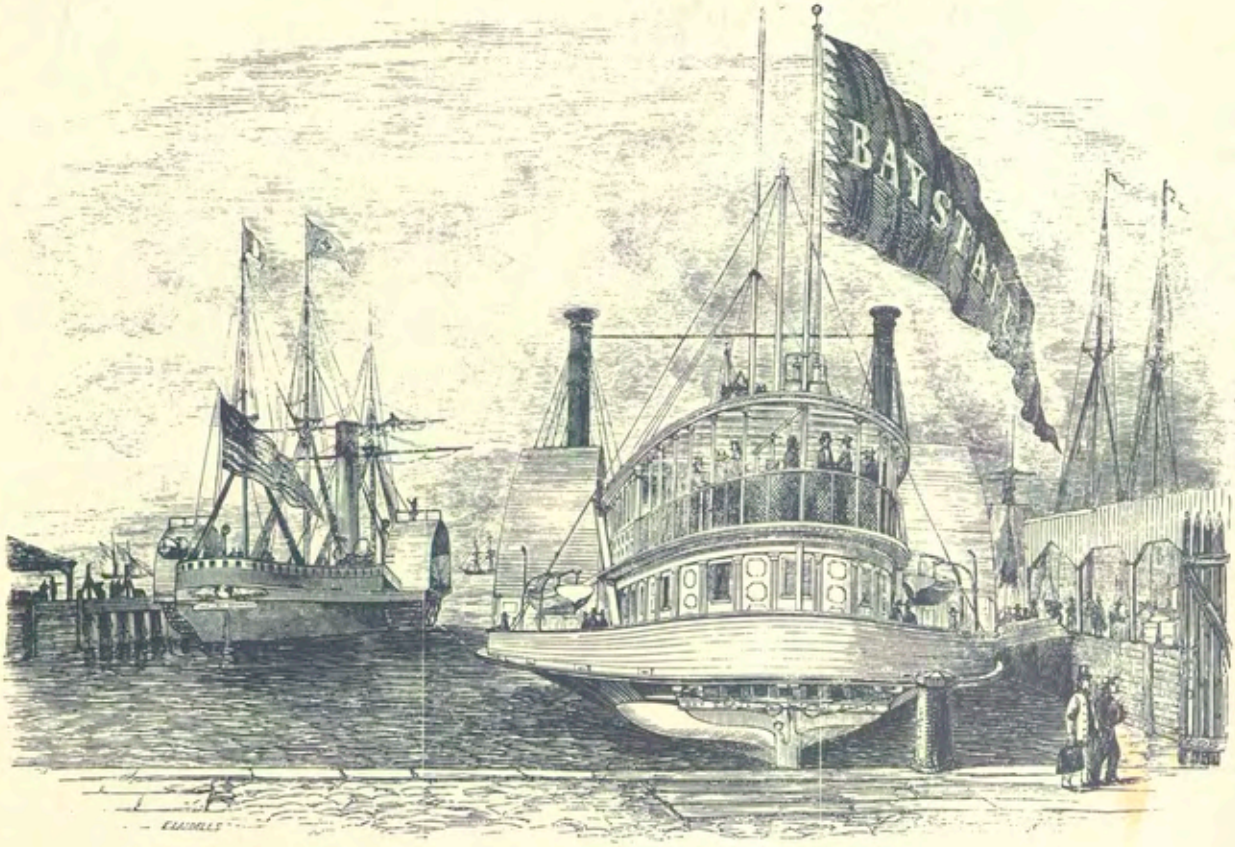
Eligibility Ineligible are Trustees of Mystic Seaport Museum and members of the Editorial Board of *The Log of Mystic Seaport*.

Manuscripts No more than 6,000 words in length (excluding footnotes and bibliography). Entries must not have been previously published. Editorial Guidelines and Contest Entry Forms are available from: The Editor, *The Log of Mystic Seaport*, Mystic Seaport Museum, Mystic, Connecticut 06355–0990.

Deadline Manuscripts must be submitted prior to 1 December 1988.

Award Five hundred dollars and publication in *The Log of Mystic Seaport*.





THE LOG OF MYSTIC SEAPORT

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