

# Naval Architect William Francis Gibbs: “A Dream Deferred Never Died”

by Susan L. Gibbs

**E**ight-year-old Willie Gibbs stared out the window of the horse-drawn coach as it rumbled down Philadelphia’s cobblestone streets toward the banks of the Delaware River. It was 12 November 1894, and the Gibbs family was heading to the William Cramp & Sons shipyard to watch the launch of SS *St. Louis*, billed as the largest and most spectacular ship ever built in America.

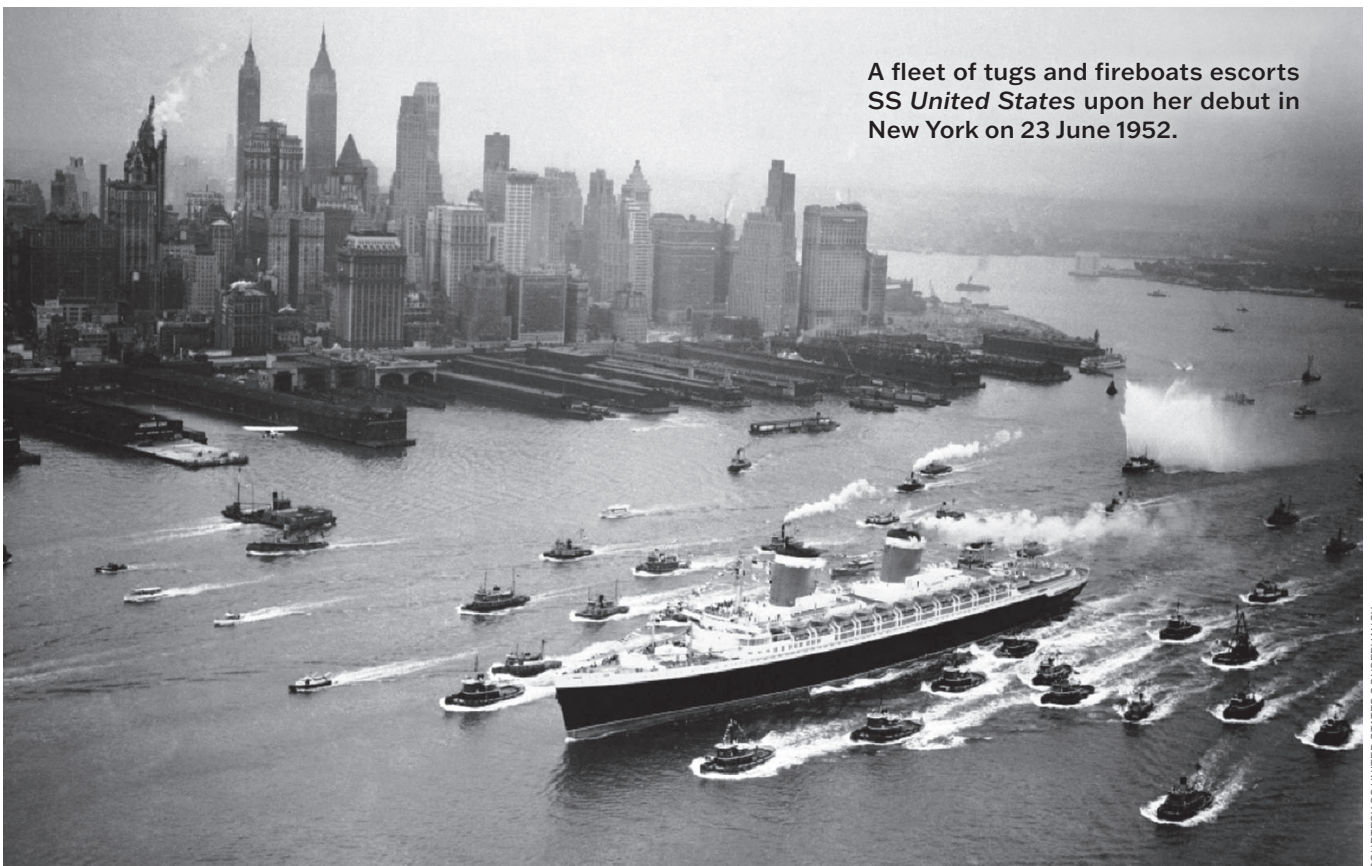
Young Willie had been obsessing over every detail of SS *St. Louis*’s design and construction. At 11,000 tons, she would be packed with new features and technological advances, including 1,200 electric light bulbs, flush toilets, advanced water-tight compartments, and 34 lifeboats—far more than the

ill-fated RMS *Titanic*, which would set sail two decades later.

Willie stood among the crowd of 40,000 and watched as Mrs. Grover Cleveland heaved a linen-wrapped bottle of champagne onto *St. Louis*’s bow. He gazed in awe at the ship’s massive black and red hull and her two tall, slender, black smokestacks rimmed in white. He listened as President Cleveland lauded the fact that the ship was built “on American plans, by American mechanics, and of American materials.” At precisely 1:00 PM, a cannon boomed and the mighty ship slid into the Delaware River. Willie Gibbs was mesmerized.

Almost sixty years later, in October of 1953, 67-year-old William Francis Gibbs traveled back to Philadelphia to

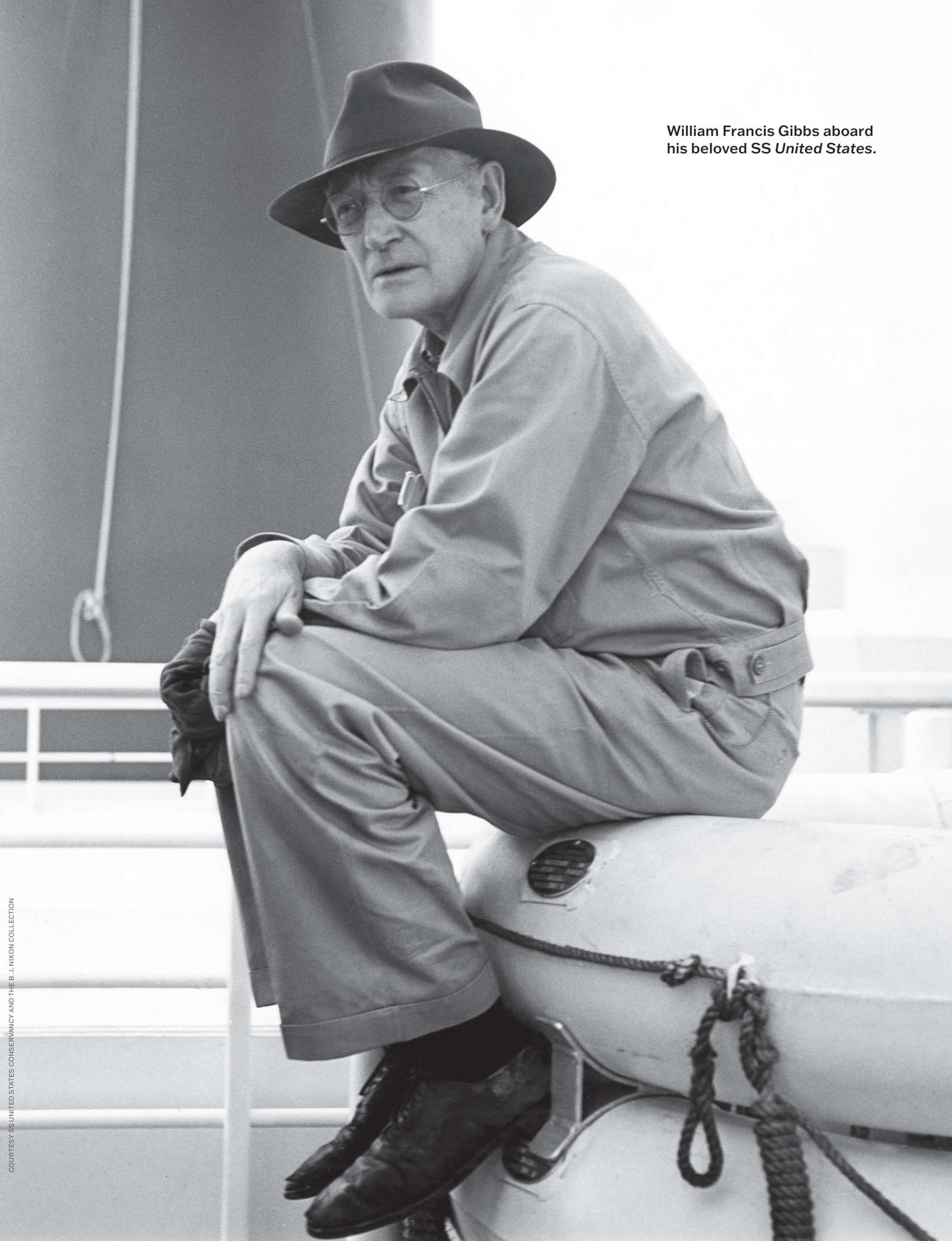
receive the prestigious Franklin Medal, joining the ranks of previous recipients Niels Bohr, Thomas Edison, and Orville Wright. He was being honored as the designer of the renowned ocean liner SS *United States*, which had smashed the transAtlantic speed record using only two-thirds of her power on her triumphal maiden voyage the year before. A large crowd at the banquet applauded as Gibbs’s award citation was read out loud. After the clapping subsided, he rose from his chair and slowly walked toward the lectern. Gibbs took his position in front of the microphone, his gaunt 6-foot-2-inch frame hunched forward slightly. As he stood at the lectern and gazed out at the crowd, he didn’t pull out an acceptance speech or unfold notes from his lapel



A fleet of tugs and fireboats escorts SS *United States* upon her debut in New York on 23 June 1952.

COURTESY SS UNITED STATES CONSERVANCY

William Francis Gibbs aboard  
his beloved SS *United States*.



pocket. He slowly began to speak. “I am moved tonight with a feeling of considerable emotion,” he said.

He then began describing all the obstacles he had overcome to galvanize support for SS *United States*. He spoke of his ship’s extraordinary “power of survival,” and how she was “entirely different from any of the ships of the

past.” He had gone to obsessive extremes to make the ship fireproof, from attempting to cajole Steinway & Co. to fabricate aluminum pianos to demanding the use of aluminum shuffleboard pucks. From her hull’s compartmentation and sleek form to the configuration of her propellers to her unprecedented use of aluminum, her

safety and stability features were unprecedented.

“In this city I was born. In this city, many years ago, I was taken by my parents to see a great ship launched at the Cramp Yard,” he said. “That was my first view of a great ship and from that day forward I dedicated my life to ships. I have never regretted it.”

After the launch of SS *St. Louis*, young Willie became completely obsessed with ships. He would study ship design and marine engineering in advanced technical journals, such as *Cassier’s Magazine*, cover to cover, aided by a small dictionary to help him decipher unfamiliar vocabulary words. He enrolled at Harvard College in 1906, where he preferred drawing ships alone

in his dorm in Claverly Hall to attending classes. He took a leave of absence and journeyed back and forth to Europe aboard the Cunard Line’s RMS *Lusitania* and *Mauretania*. He then returned to college, but he left without a degree. Despite flunking out of Harvard, he began studying law at Columbia University in 1911, where he successfully graduated despite being preoccupied

with the catastrophic sinking of RMS *Titanic*. He then practiced law in New York City for one miserable year. He hated his job and lived for the weekends, when he would travel to his parents’ home outside of Philadelphia and dream up new ship designs in a makeshift drafting room.

He had no investment capital, no personnel, and no relevant experience. Nevertheless, he had a large table and a Franklin stove for heat, and that was all he needed as he set out to design the “perfect ship,” one that would be the fastest, most powerful, and safest ship in the world.

Willie’s younger brother Freddie joined the quest. From the start, the brothers had a clear division of labor. Willie was the artist and engineer, and Freddie handled the finances. The ship that took shape on Willie’s drafting table in 1914 was 1,000 feet long, could carry 1,000 passengers, and would employ a 1,000-member crew. The ship would sprint between New York and Southampton at the unheard-of speed of 30 knots. The fact that propulsion

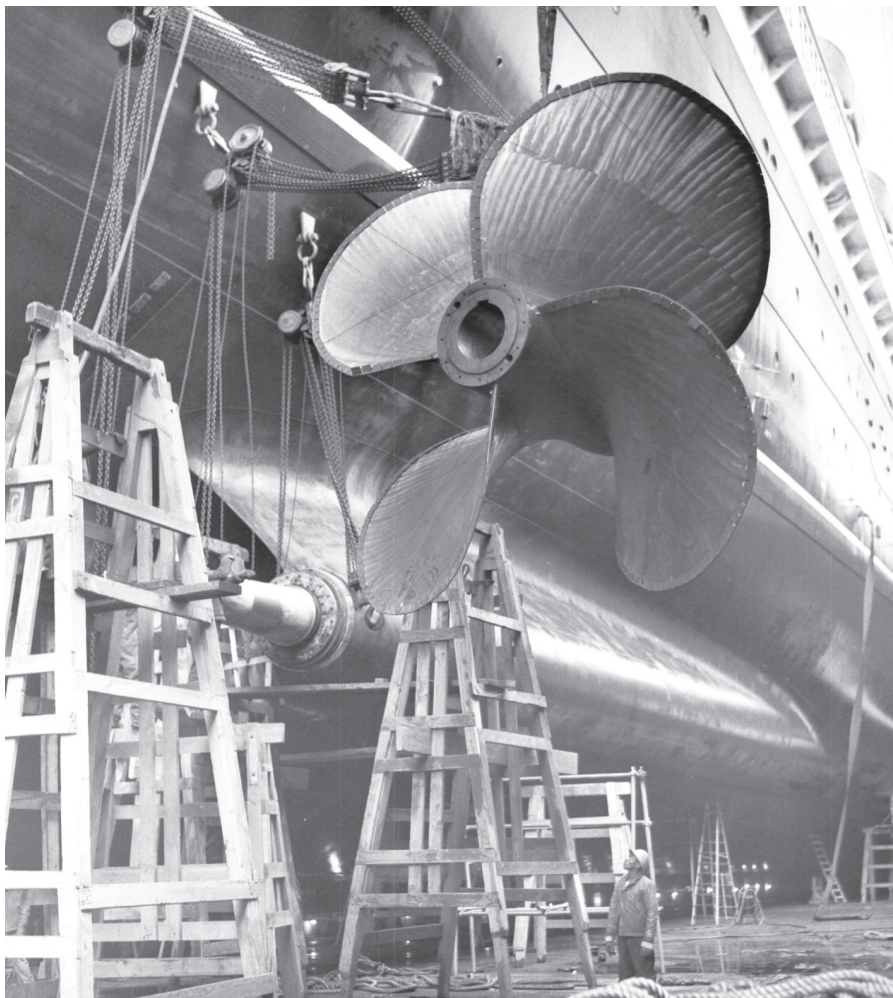


PHOTO BY MARCUS ROBBINS, COURTESY DEPARTMENT OF DEFENSE

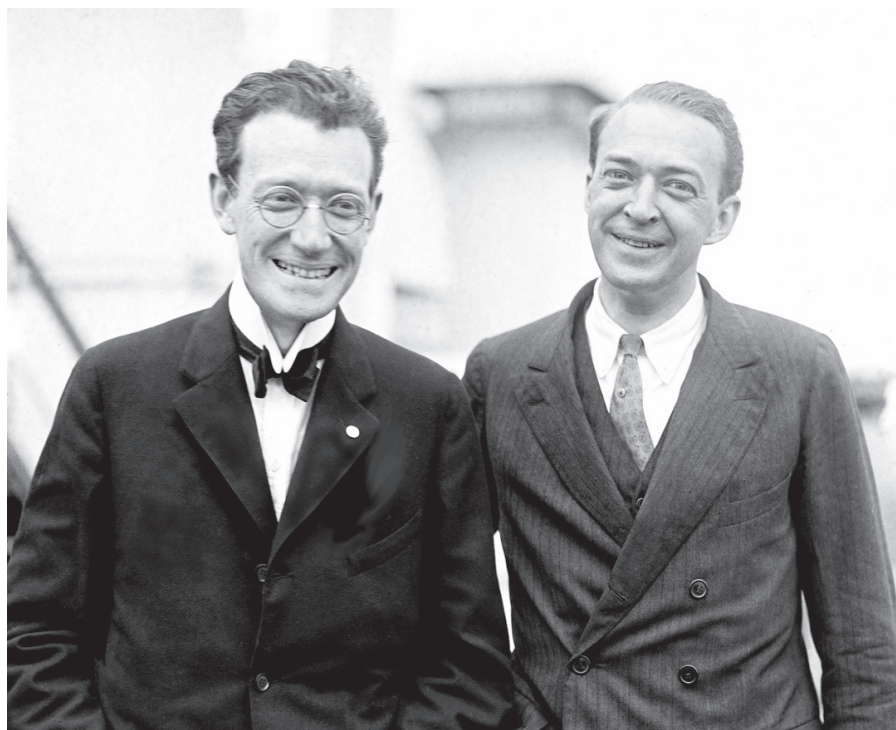
SS *United States* was fitted with four propellers (two 4-bladed and two 5-bladed). This configuration was selected for its superior hydrodynamic performance, and the design was overseen by the pioneering Gibbs & Cox engineer Elaine Kaplan. The propellers were manufactured from manganese bronze, each weighing 60,000 pounds.

technologies did not yet exist to achieve such speed did not dissuade him.

Gibbs's perfect ship took decades to emerge, despite persuading J. P. Morgan to provide initial funding and add him to the International Marine Company's payroll. During WWI, Gibbs became the assistant to the chairman of the Shipping Control Committee of the General Staff of the US Army. After the war, he painstakingly supervised the conversion of the German superliner SS *Vaterland* into SS *Leviathan*.

Fast forward to World War II. As the conflict intensified, the Allies needed to launch ships faster than German submarines, mines, destroyers, kamikaze fighters, and destroyers could destroy them. In 1942, U-boat attacks destroyed twice as many merchant vessels as were built in the same period. The Gibbs firm revolutionized the shipbuilding process by pioneering new ship design techniques, with pre-assembled components and standardized plans.

Gibbs-designed emergency cargo vessels—Liberty ships—were at the heart of war mobilization. These 441-foot-long “Ugly Ducklings” played critical roles in transporting troops, supplies, and matériel for the war effort. They were churned out on average in only forty-two days; SS *Robert Peary*



COURTESY SS UNITED STATES CONSERVANCY

William Francis (left) and Frederic Herbert Gibbs

was built in only four. Ultimately, 2,620 Gibbs-designed Liberty ships would carry seventy-five percent of all American wartime cargo to Europe and Asia.

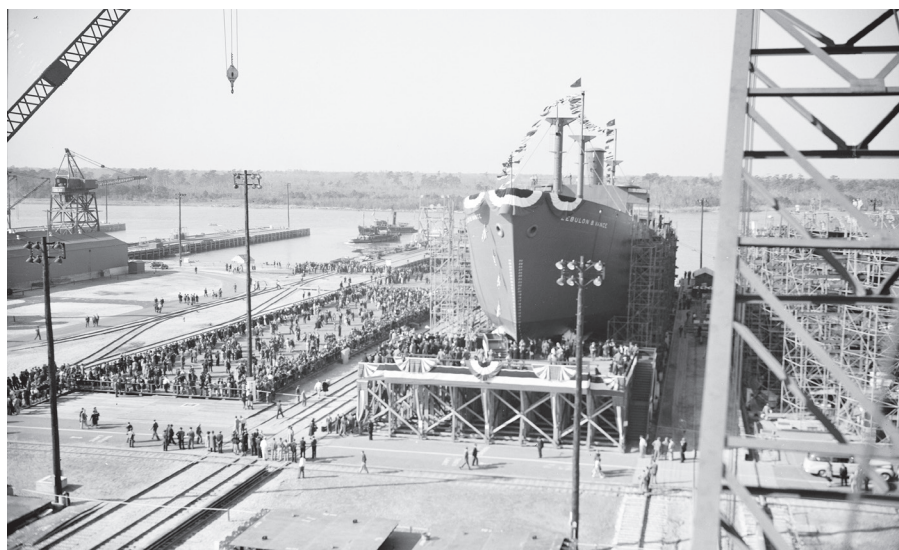
The Gibbs firm designed 5,466 vessels, or seventy-four percent of all American-built naval ships and 63 percent of all oceangoing American merchant ships during World War II, including a dizzying array of destroyers, landing ships for tanks, minesweepers, repair ships, light cruisers, rocket ships, army transports, destroyer escorts,

aircraft carrier escorts, icebreakers, gasoline tankers, submarine and destroyer tenders, and convertible troop transports.

In appreciation for his role as the War Production Board's Controller of Shipbuilding, Gibbs received a check for forty-nine cents from the US Treasurer in 1943 compensating him for his services. He never cashed it. In 1944, President Roosevelt's War Shipping Administration unveiled a “bold and daring” plan for eleven top-of-the-line US passenger ships, and subsequent legislation authorized government financing of up to a third of these ships' construction costs. Gibbs saw a political opening and seized it. He began secretly updating his early designs for his perfect ship, first conceived in his parents' guest room back in 1914. He assembled a small team and they incorporated many of the marine engineering

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In World War II, Gibbs designed 2,620 Liberty ships for the war effort, including USS *Zebulon B. Vance*, pictured here on the day of her launch, 6 December 1941.



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COURTESY SS UNITED STATES CONSERVANCY

On her maiden voyage, SS *United States* shattered the transAtlantic speed record in both directions. She was the first American ship in 100 years to capture the coveted Blue Riband (awarded to the fastest transAtlantic ocean liner). Amazingly, she still holds the round-trip record more than 70 years later.

and naval architecture innovations advanced during World War II to make her original design faster, safer, and stronger. He secretly directed \$103,770.16 of the firm's resources to perfecting the vessel's specifications.

That same year, the British journal *Shipping World* reported, "It is a paradox that the United States, which does everything in a 'big way,' had never really gone in for a really large passenger ship." William Francis Gibbs clipped the article and saved it in a special folder.

In April 1949—the year the Soviet Union tested an atomic bomb—the contract for "Hull 12201" was awarded to the Newport News Shipbuilding and

Dry Dock Company. She would ultimately become the flagship of United States Lines, as well as a crucial national security asset able to transform in a matter of days from luxury liner to military transport capable of carrying 14,000 troops over 10,000 miles without refueling.

In February 1951, Gibbs traveled to the Newport News Ship Building and Dry Dock Company to witness a 170-ton crane lift a 55-ton piece of metal into position. The keel of the *United States* was being laid, and there is no way he would have missed it.

"The trouble with Americans," William Francis Gibbs snarled to a reporter from the *New York Herald Tribune*,

"is that they tell everything they know. There's one man who would like very much to know more about this ship, and that's Uncle Joe Stalin, and I'm not going to oblige him."

As SS *United States* was being built, Gibbs became the ship's "sentinel of secrecy." He banned reporters, tourists, and politicians from engine rooms, the bridge, and even the first-class sun deck adjacent to the bridge. Throughout the thirty-month period of the ship's construction, he would travel back and forth between New York City and Newport News and keep a steady vigil, like a lion protecting his lair. He would arrange for telegrams to be delivered to the homes of senior shipyard officials

that warned of dire consequences if they said anything to anyone about the ship's top-secret features. These would be delivered at midnight, for maximum effect.

After the ship's triumphal delivery cruise on 23 June 1952, throngs of admirers, dock workers, and paparazzi gathered at the ship's New York pier and gazed up at her gigantic red, white, and blue funnels. Dockworkers were leaving nothing to chance: Each inch of her massive hull below the waterline had been sanded by hand to eliminate the slightest chance of extra drag.

An American liner hadn't won the race for the Blue Riband in a hundred years, not since a wooden-hulled side-wheel steamer named the *Baltic* traveled from Liverpool to New York in 1851 on a voyage that took nine and a half days. Expectations were sky high, with the public following along as the ship's prospects were front page news. While a plucky horse named Seabiscuit had symbolized the nation's embrace of the

underdog during the Great Depression, SS *United States* perfectly embodied postwar patriotism, technological invincibility, and industrial ascendancy.

SS *United States* departed from New York on her maiden voyage on 3 July 1952. Mr. and Mrs. William Francis Gibbs were on board, although Vera Gibbs saw very little of her husband because he spent most of his time up on the bridge or down in the engine rooms. On 7 July 1952, Gibbs requested a shipboard wake-up call at four o'clock in the morning. He knew that SS *United States* would soon smash the transAtlantic speed record, and he had no intention of sleeping through it. As he joined Commodore Manning on the bridge, the weather had deteriorated; the ship was heading straight into a gale. At the commodore's insistence, some of the windows on the bridge had been left open, and rainy gusts of cold wind blew through the wheelhouse. Rivulets of water streamed down the panes of glass as the ship battled against

raging 45-mile-per-hour winds. Suddenly, the commodore uttered two words. "On it!"

At 5:16 AM Greenwich Mean Time, the ship's whistle sounded a single, mighty blast. SS *United States* had crossed the Atlantic in three days, ten hours, and forty minutes, at an average speed of 35.59 knots (41 miles per hour), a full ten hours faster than the previous record holder, RMS *Queen Mary*. William Francis Gibbs had fulfilled a lifelong quest: He had proven that the United States could prevail against Europe's best.

When prodded by a reporter, Gibbs said simply, "I've dreamed of this for forty years." Pressed to say more, he offered that the ship had given "a fine performance," as if he'd just seen a well-staged opera in which all the singers had hit their high notes and the orchestra had been sublime, succeeding in completely transporting the entire audience.

With the blast of the ship's whistle, some of the passengers who had stayed up all night began chugging whiskey and champagne out of open bottles. Strangers clasped hands and formed a conga line on the enclosed Promenade Deck among red, white, and blue streamers and miniature American flags. The orchestra played the "Star-Spangled Banner" and the ship's theme song, as passengers belted out the lyrics:

The First Lady of the Sea. Endowed with her country's traits, proud of her destiny, SS *United States*. She's got New York's style, California's grace, the Midwest's strength, and Texas space... She's got freedom's form and liberty's face.

SS *United States* in dry dock at the Norfolk Naval Shipyard, 28 Nov. 1952.

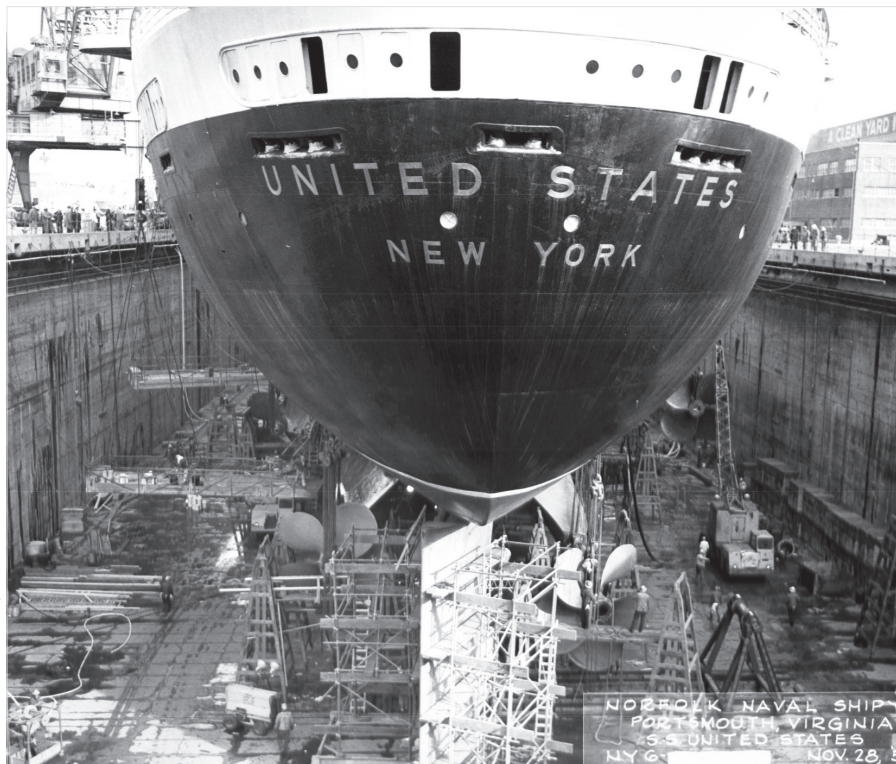


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COURTESY SS UNITED STATES CONSERVANCY

William Francis Gibbs gazes at his masterpiece, SS *United States*, in Newport News, Virginia. He would call the ship every day while she was at sea, and he would always be on hand to welcome her when she returned to her homeport of New York after each voyage.

SS *United States* arrived in Le Havre, France, at 12:24 in the afternoon, eighteen hours ahead of schedule, and Gibbs and Commodore Manning began wading through reams of congratulatory radio wires. President Harry Truman's message was succinct: "I congratulate you on your wonderful voyage." Winston Churchill's was brief and gracious: "Congratulations on your magnificent achievement."

Press reports were euphoric, although none more gushing than the ship's own *Ocean Press*, which claimed: "Not since the Phoenicians scooped out logs and converted them into boats to introduce a new mode of transportation has such a momentous occasion taken place on the seas as those aboard our new super liner SS *United States*."

SS *United States* began a successful 17-year career, with William Francis

Gibbs her most obsessively dedicated admirer. Every time the liner's whistle announced its departure from New York with her three long blasts, he'd grab his binoculars, head to the window of his waterfront office at 21 West Street and watch her glide toward the open ocean. Every day she was at sea, he'd call the ship's captain and chief engineer to check on her mood and performance. He had computed elaborate calculations of exactly how much fuel she needed to walk, jog, and sprint in every kind of weather. He even took pictures of her to bed; she would be the last thing he saw before he closed his eyes at night.

On her scheduled arrival days in New York, Gibbs always woke up early. He'd set his alarm before dawn and instruct his chauffeur to drive him in his gray Cadillac from his apartment on Manhattan's Upper East Side to

Brooklyn's Shore Parkway so he could be the first to see his ship appear on the horizon. When he spotted her, sometimes he would stay in the car and watch her approach, and sometimes he would get out of the car and stand alone at the water's edge, his fedora pulled down low, as if he were the first or last man on earth. From his vantage point on shore, he could see her whole. It was as if she had run all the way across the ocean just to be reunited with him. Then he would rush to the pier at West 46th Street and watch as tugs nestled her into her berth. Once all her lines were secured, he'd be first up the gangway to greet her captain, officers, and engineers, and ask about every detail of the voyage.

William Francis Gibbs died in 1967, two years before SS *United States* was withdrawn from service. At his

funeral service, held on 11 September in New York City's Madison Avenue Presbyterian Church, the Reverend John O. Mellin spoke of Gibbs's boyhood dream of designing the world's greatest ocean liner. He said:

History is not always a respecter of ambition. A World War, a great depression, and a Second World War postponed the teen-age vision. Three score years passed before it reached fulfillment. As the days of the years stretched forth, his talent was dedicated to his country's security in the designing of naval ships and to his country's commerce in merchant ships. Yet, William Francis Gibbs, as in his college days, proved again that he was one in whom a dream deferred, never died...

Today, William Francis Gibbs's "dream deferred" sits docked at Pier 82 in Philadelphia, not far from the Cramp & Sons shipyard where young Willie first saw the launch of a great ship. When speaking of *SS United States*, her designer would sometimes boast, "You can't set her on fire, you can't sink her, and you can't catch her." This claim turned out to be prophetic, since no one ever has.

William Francis Gibbs's beloved ship has beaten the odds and remains proudly afloat, awaiting restoration. The ship was purchased in 2011 by the *SS United States Conservancy*, a non-profit organization that has been building support for the ship's preservation, educating the public about the ship's storied history, and advancing plans for the vessel's redevelopment. *SS United States* continues to embody the nation's resilience, ambition, and sense of possibility. She also reminds us to never give up on our dreams. ⚓



*SS United States* at her berth along the Philadelphia waterfront.

**About the *SS United States Conservancy*:** As owners of "America's Flagship," *SS United States*, the Conservancy leads the effort to ensure that this enduring expression of American pride and innovation inspires for generations to come. Along with preserving the ship's history, the Conservancy continues to work closely with RXR Realty, their partners, and a wide range of technical experts to advance the vessel's revitalization as a mixed-use development in a major US port city. The organization has helped produce award-winning documentaries, built a major collection of art, archives, and artifacts from *SS United States*, and installed exhibitions at various venues, including New York's Forbes Galleries and the Independence Seaport Museum in Philadelphia. Visit the Conservancy's website at [www.ssusc.org](http://www.ssusc.org) to donate, subscribe to their free e-newsletter, and learn more about how you can help.

**Susan L. Gibbs** is the *SS United States Conservancy's* president and co-founder. She is the granddaughter of William Francis Gibbs, *SS United States's* designer. She has presented widely on *SS United States* and maritime history, and her work has been featured in dozens of national and international media outlets. She has also worked for more than two decades in the philanthropic sector with a focus on global women's issues. Gibbs is an alumna of Brown University and holds a master's degree from Columbia University's School of International and Public Affairs.