

The Herreshoff Boats

by George Nammack



Capt. Nathanael G. Herreshoff

Nathanael Greene Herreshoff was born in Bristol, RI in 1848. He graduated Massachusetts Institute of Technology (MIT) in 1870 with a Mechanical Engineer's degree and the nickname "Captain Nat". Eight years later, while supervising speed trials of the steamboat *Say When*, the vessel exploded. There was one fatality and a heavy blow to his burgeoning career in the loss of his steam engineer's license.

He returned to Rhode Island, where he and his older brother, John Brown "J.B." Herreshoff, founded Herreshoff Manufacturing Company. Captain Nat provided the engineering expertise; brother J.B. the genius-level business acumen. J.B., who was blind since age 14, handled business negotiations with their wealthy clients. He did this so well that the company grew from 20 to 400 employees in a short period of time.

Early work centered on steam-powered vessels, but by the 1890s they were producing yacht designs that would net them worldwide acclaim and cause Captain Nat to be known as "The Wizard of Bristol." The firm's reputation was based largely on superbly crafted sailing vessels for the likes of Jay Gould, William Randolph Hearst, John Pierpont Morgan, Cornelius Vanderbilt III, Harold Stirling Vanderbilt, William Kissam Vanderbilt II, Harry Payne Whitney, and Alexander Smith Cochran.

The Herreshoffs were dedicated to designing, building and offering only yachts of tiptop quality. They paid the highest wages to secure the most skilled workmen. That objective was not too difficult to achieve in that most workers wanted to climb aboard Herreshoff, a towering symbol of the highest standards in construction, craftsmanship, and lifelong careers.

Captain Herreshoff was credited with being the most innovative sailing vessel designer of all time. The designs were notably graceful, scientifically engineered and speedy. Herreshoff was among the very few ever to be an honorary member of the New York Yacht Club. His name was listed immediately before those of England's King George V and the Prince of Wales. He was world-renown, and the period of his greatest activity, 1896-1920, became known as "The Herreshoff Era."

The range of his vessels was vast and widely varied. It spread from the Bullseye, a 3-meter sailboat for training children of yachts-



The Herreshoff Marine Museum, bordering beautiful Narragansett Bay, in Bristol, RI, is one of the nation's most important historic maritime treasures.

men, to the 44-meter America's Cup giant, *Reliance* (sail area 1600 m.). He received the first United States patent for a sailing catamaran.

Many of the 2000-plus designs that Herreshoff designed are prized by connoisseurs of classic yachts. His S-class sailboats, designed in 1919, were built until 1941. Some are still being raced in Narragansett Bay, Buzzards Bay and western Long Island Sound (Larchmont, NYU). His Bullseye design of 1914 is still built and raced in New England.

A site dedicated to the preservation of Herreshoff's legacy, the Herreshoff Marine Museum, now occupies the area where Herreshoff Manufacturing Company operated. Herreshoff's designed several America's Cup contenders, among them:

1. *Vigilant*, 1893 (Captain Nat was helmsman)
2. *Defender*, 1895
3. *Columbia*, 1899 & 1901
4. *Reliance*, 1903
5. *Resolute*, 1920

In addition, his company built the winning Cup yachts *Enterprise*, 1930 and *Rainbow*, 1934, the last-mentioned designed by Starling Burgess. Every winning America's Cup yacht from 1893 to 1934 was built by the Herreshoff yard.

During his career, which spanned 72 years, Captain Nat established more innovations:

He designed well over 2,000 craft and produced more than 18,000 drawings. Between 1890 and 1938, the number of yachts he designed that won the Astor Cup, the Puritan Cup and the Kings Cup outnumbered the winning yachts of all rival yacht designers combined.

He built the first torpedo boats for the U.S. Navy.



John Brown Herreshoff

He developed the first handicapping formula (the Herreshoff Rule) to allow yachts of different sizes and types to race together.

He developed yacht scantlings (specs) based on scientific load calculations; prior to Herreshoff, most yacht designers simply relied on traditional rules of thumb to determine the proper dimensions for planks, frames and rigs.

He invented streamlined bulb and fin keels.

He invented the sail track and slide in its present form along with many other patterns of marine hardware. He developed long overhangs on racing yachts that produced longer immersed waterlines, hence greater speed while underway.

He developed the first light steam engine and fast torpedo boats.

He developed nearly all the methods of constructing light wooden hulls.

He introduced screw fastenings for planking in this country.

He invented the crosscut sail, with panels running at right angles to the leech, in order to combat cotton canvas' tendency to distort under load.

He designed more types of steam engines that anyone else.

He designed the web frame and longitudinal construction for metal hulls, afterward patented and known as the Isherwood System.

He developed light hollow metal spars combined with scientifically engineered rigging.

He developed the flat stern form of steam yachts capable of being driven at high speed/length ratios.

He designed the first folding propeller.

He designed below-deck winches – *Reliance* 1903.

He developed the method of splicing rope to wire.

He received the first U.S. patent on catamaran sailboats (the *Amaryllis*, 1876).

Small wonder then, given "The Wizard's" long line of attainments, that those of his boats still afloat continue to attract so many people.



87' Herreshoff Classic Yacht, 1936



Herreshoff Mfg. Co. produced the most technically popular and prominent boats of their day.



53' Herreshoff Cruising Ketch, 1978.