

Nathanael
Greene
Herreshoff

1848-1938



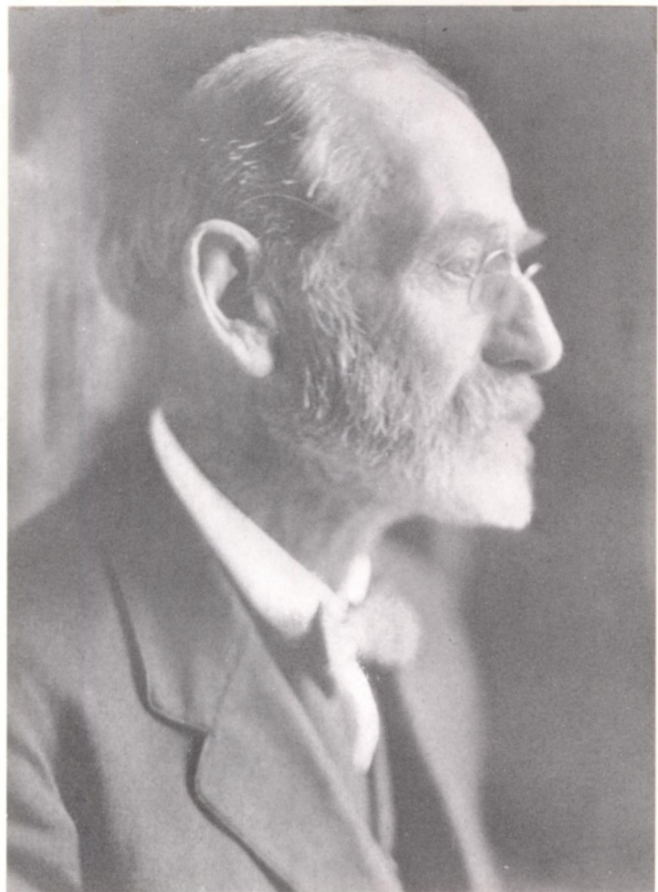
WADSWORTH ATHENEUM
MARINE ROOM

Publication Number Two

Nathanael
Greene
Herreshoff

1848-1938

**A life and an appreciation of his work
by his son, L. Francis Herreshoff**



Foreword

In view of the exhibition in the Tapestry Hall of the Morgan Memorial on the Art and Genius of Nathanael Greene Herreshoff the Marine Committee of Wadsworth Atheneum decided to devote the second publication of the Marine Room to a life of Mr. Herreshoff and an appreciation of his work by his son, L. Francis Herreshoff.

To the pleasure and instruction of those whose interest lies in the sea whether for business or recreation the contribution of Mr. Nat is probably unequalled. To a Corinthian enthusiasm he added the mind of an engineer and a perfectionist's temperament.

From the beautiful little Shadow through the long line of great and successful cup defenders, racing and cruising yachts of every description, down to the noble yawl Belisarius, his last work, there is a characteristic and familiar design of beauty and efficiency which was the fruit of art and genius. That matchless eye could foresee the swift flow of water along a vessel's side even before the unequalled hand had yet shaped in the soft pine the sweep of the characteristic Herreshoff bow and the fair and effective buttock line. He followed the principle that efficient design is necessarily also beautiful and that lines of power and speed inevitably flow into forms of beauty.

One who has stood reverently in the workshop study at Love Rocks and looked out the southern window over the blue waters of Bristol harbor, who was privileged to gaze on the assembled models from which so many and glorious vessels sprang into life and being, is convinced that the life of Nathanael Greene Herreshoff was devoted to the creation of beauty and that the art which his genius guided is worthy of preservation as the product of a great artist beside the other deathless works which adorn the walls of this ancient institution.

C. A. G.

WADSWORTH ATHENEUM
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Nathanael Greene Herreshoff

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One of the interesting things about Mr. Herreshoff is his descent or inheritance for he was descended from one of those typical New England families who were ship owners, ship captains, and architects. His great grandfather, on his father's side, was John Brown, that merchant prince of Providence, who owned many vessels in foreign trade. The Browns were Quakers, early educators in America, and the founders of Moses Brown School and Brown University—one of Rhode Island's oldest families and descended from Chad Brown, a colleague of Roger Williams. Some of the members of the Brown family were architects, and one of the fine old churches in Providence and some of the buildings of Brown University are their work. The Browns experimented some with ship design and tried outside ballast on a yacht in about 1800.

Mr. Herreshoff's mother, Julia Lewis, was the daughter of Captain Lewis of Boston, a captain of packet ships running to Europe and of the Lewis family of Lewis Wharf fame. The Winslow and Lewis branches of the family are some of the oldest in America and include two or three Mayflower antecedents. Julia Lewis received a remarkable education in Boston: the

family lived on Charles Street then (1820) a stylish outskirts of the city. This was about the time when Boston was producing her wonderful painters and writers. Julia Lewis had been abroad on one of her father's ships and all together had, for that time, unusual opportunity for education which she certainly passed on to her children.

In the Herreshoff line of the family, the first Herreshoff that we know about was a court advisor to Frederick the Great, King of Prussia. This first Herreshoff, on account of some political trouble, or other reason, disappeared leaving his son, Charles Frederick Herreshoff (born in 1763) who was placed in charge of a professor who lived in Pottsdam. Frederick the Great took an interest in this boy and had him educated at a famous school in Dessau. After eight years of study there young Herreshoff came to America and was connected with an importing business in New York City.

In 1793 he went to Providence to confer with John Brown on business. Mr. Brown was struck with the personal and mental attractions of the man and took him to his home, the then new and beautiful house on Power Street, Providence. Charles Frederick, being a man of personal attraction (as his miniature shows) was a musician. Sarah, the second daughter of John Brown, also was a musician. They played and sang together and became mutually attracted. Their engagement was opposed by Mr. Brown, but eventually

he consented and they were married in the drawing room of the Power Street house in July 1799.

After living in different places they finally settled on the Point Pleasant farm at Bristol, R. I. This farm or tract of land, together with most of Prudence Island and its fine Colonial house, had been a Tory estate. John Brown had taken it in trade or settlement for money he had lent in financing our revolutionary war. One of the children of Sally Brown and Charles Frederick Herreshoff was also named Charles Frederick Herreshoff. He was born in 1809 and educated at Brown University where he was a room mate of the son of General Nathanael Greene of Revolutionary fame. Dr. Greene and Charles Frederick Herreshoff, Jr., were life long friends so when his fifth son was born Charles Frederick Junior named him after his college room mate's father, so now we have Nathanael Greene Herreshoff, born in 1848.

Nat thus was born, and as a boy lived, on the Point Pleasant Farm, which was on Popasquash Point, a neck of land making the west side of Bristol harbor. It was a long way to school up around the head of the harbor to the town of Bristol on the other side but little Nat generally made it. He seemed to have liked his school and did well. He had many brothers and sisters—nine in all—and they all lived to a ripe old age which was a remarkable feat in those days when so many children died in childhood, and Julia

Lewis Herreshoff, their mother, must have been a wonder for besides feeding, clothing and caring for the children, she educated them. But with all her care and skill a contagious eye disease afflicted four of the children resulting in blindness. It was not an inherited trait in the family, as some writers have stated—there were none blind before or after this generation—but an eye malady which is today easily cured with eye washes. But out in the country at that time their mother, and the country doctor, did not know the cure.

These nine children, with twenty years' difference in ages between the eldest and youngest, were a queer combination of strong family traits. From the Quaker Browns they inherited poise and self control; from the Boston mother a never-ceasing quest for knowledge; from the Prussian Herreshoff line stubborn determination, conceit and self-sufficiency.

James, the oldest boy, was perhaps the greatest thinker and inventor,—as a boy always experimenting. Later in life he was to invent baking powder and perhaps made the first self-propelled vehicle which traveled on the roads of New England. This was a motor cycle driven with a hot air engine and ran about 1870. It had no means of controlling the speed and made its few trips early in the morning before the horses got out on the road. After starting up its charcoal fire it had to run until the fuel burned out. One morning, to increase the efficiency, James wrapped the

cylinder with newspapers to hold in the heat, but at the last part of the run this paper took fire and Jimmie's legs were burned so the experiment stopped. James made many other queer things—among them a light row boat that was propelled when facing forward. He took her to Europe where he toured the country in this way, self propelled. In his old age James was a most interesting talker and could discourse on the history of almost all mechanical inventions in a most scholarly and entertaining manner. He died at 95 with the grippe.

If James, the eldest, were the most intellectual, still he lacked the patience and determination to carry out his many inventions and he was quite lacking in business sense. John Brown, the son we will call J. B., on the contrary was a veritable dynamo of energy and enthusiasm. Nothing could stop him, not even blindness which overtook him when about eighteen years old. He had enough business sense to make up for what was lacking in the rest of the family. He loved to trade and often in later life would tell how his fortune started with a pig on the farm which he traded for god-knows-what a thousand times until he finally was trading in steam yachts, and always getting the best of the bargain. J. B. we shall hear of later for his life was always connected with Nathanael Greene's or N. G., who is really the subject of this writing. To help the reader to distinguish between them it may not be amiss

to mention that the workmen in the boat shop they were to run together for many years often referred to them as J. Beesus and N. Geesus.

But before taking up N. G. we will mention the next to the youngest brother named J. B. Francis Herreshoff. He was a very strong and handsome young man who went in for athletics at school and college and was known by the nickname of Pompey. After graduating from Brown University he went to New York City and entered the chemical business in which he finally rose to the very top and won the principal medals in that branch of science. He invented the present-day process of separating copper from copper ore which has made copper and bronze things cheaper in this country than abroad. He invented the Herreshoff electric furnace which has made the casting of steel practical, and it may not be an exaggeration to say one-half of the weight of the fighting tanks now being built in this country are cast or poured from the type of electric furnace he invented. In the hall of the Chemists Club in New York City there are two portraits of eminent American chemists—one of these portraits is of J. B. Francis Herreshoff.

While the boys were growing up on the Point Pleasant farm their father, Charles Frederick Herreshoff spent most of his time sailing or building a new cat boat. He was a very skilful model maker and besides modeling his own boats he made some for the Pogie or Menhaden fishing

business which was then flourishing in the bay, so little Nat must have seen model making and boat building from his earliest youth as they built about five small sail boats there. Where Nat's father ever acquired his skill at model making is a question but Bristol had long been a shipping and ship-building town and in the war of 1812 built the privateer YANKEE which is considered one of the most successful of our privateers. She had such great speed she was never caught or captured, but sent in prizes enough to enrich the whole town. At any rate, somewhere around the year 1856 the family left the Point Pleasant farm and moved to the town of Bristol to a house near the shore of Bristol Harbor. J. B. was about fifteen, and N. G. eight. In their new home, in spite of his young age, J. B. had rigged up a machine shop and with his father's help was building a boat, but blindness overtook him soon after. N. G., or little Nat, was given the job of guiding J. B. and this must have been a great responsibility for J. B. was an indomitable, ambitious and strong young man without much patience and with quite a temper, so little Nat never had much time to himself or a chance to play and this made an unmistakable mark on his character and forced him into doing the work far beyond his age, such as taking the measurements from models to build boats from, working the lathe in J. B.'s machine shop, etc.

In a few years J. B., with his great energy, was running a boat shop, machine shop, rope walk,

and dealing in second-hand watches. (Watches always fascinated J. B. throughout his life). When Nat was sixteen he had his first opportunity to model a boat or yacht. She was later to become quite famous as the sloop VIOLET. But I must tell an anecdote about VIOLET that Nat, my father, told me in his old age. When VIOLET was tried, (and Nat was sailing her), she was quite easily beaten by an older yacht modeled by and sailed by his father. Nat was so disappointed, or, as he said, mad, that as soon as he got ashore he took an axe and chopped VIOLET'S model up. And the VIOLET now is the only model missing from the collection in his model rooms.

VIOLET later turned out very well. He told me this experience taught him through life to have patience, or at least to wait until a yacht had a fair chance.

Soon after this Nat went to Boston to study and entered the Massachusetts Institute of Technology and specialized in mathematics and engineering. Besides his studies he became associated with Boston men who were interested in sailing and they formed a club which later became the Boston Yacht Club, which is about the third oldest yacht club in the country. Nat, or N. G., had great respect for one of the older yachtsmen in the club and one day when the gentleman was talking to him he said—"Whatever you do through life, young man, do it in the best pos-

sible way." This made a great impression on my father and when he was nearing ninety he told me he considered this maxim had more to do with his success than any other thing. And it is quite evident, in looking at his work, that whether it was a cleat, turnbuckle, steam engine, or whole yacht he tried to carry out this maxim.

After graduating from Tech Nat, and one of his blind brothers named Lewis, went to Europe to study, vacation and travel. They spent the winter in southern France at Nice where they built a small, light sail boat named the RIVIERA. In this boat they rowed and sailed over the principal rivers of France and visited Germany and England. On their return N. G. went to work as a draftsman or designer at the Corliss Engine Works at Providence. The Corliss Company was then building our most economical steam engines which had very complicated valve gear. And I must note that I believe N. G. throughout his life remained at heart a steam engineer. I believe his happiest moments were when he was designing steam engines with their complicated mathematics.

While working at the Corliss Engine Works, N. G. designed (working nights and Sundays) the yachts, steam launches and engines J. B. was building at Bristol. In 1877 J. B. got the order for a fast steamer 120' long, 16' beam named the ESTELLE. N. G. got leave from the Corliss Company and went to Bristol and with the help

of one draftsman designed the hull, engine and boiler. She was built very rapidly, especially for a new model of boiler and engine. She was contracted for the last of May and ran her trials in November, making a speed of 16 M.P.H. for six hours.

Herreshoff launches and steam yachts were becoming popular so N. G. had to give up his work at the Corliss Engine Company and devote all his time to designing the yachts J. B. was building. They formed a partnership which was known as the Herreshoff Manufacturing Company. Sail boats were dropped almost entirely for the next ten or twelve years and they specialized on high speed steam launches and steam yachts. They built many torpedo boats including some for the British Navy, Russian Navy, U. S. Navy and two or three South American countries. Of the torpedo boats built for the U. S. Navy the following can be cited:

LIGHTNING, first torpedo boat ordered by the U. S. Navy.

STILETTO, first torpedo boat of the U. S. N. to fire a self-propelled torpedo.

CUSHING, first steel torpedo boat of the U. S. Navy.

During the Spanish war they built the torpedo boats DUPONT, PORTER, TALBOT, MORRIS and GWYNN. The DUPONT and PORTER were very fast boats for their time,

1897. They exceeded their contract speed by three or four miles, and made 31 M. P. H. Their armament consisted of five rapid fire guns and three torpedo tubes. It is said of the DUPONT that she exceeded her trial speed when carrying Dewey's dispatches from Cuba in the Spanish American war. She was still in service at the close of the world war, twenty-one years later.

N. G. designed all the hulls and power plants for all these many launches, torpedo boats and steam yachts, and the Herreshoff Manufacturing Company developed into quite a complete plant with machine shop, boiler shop, etc. They also manufactured power plants for stationary work, factories, saw mills, etc., and it was because of these complete facilities and highly trained personnel that, after 1890 when they turned to sailing craft again, they had a great advantage over other builders. It was with the light, high-speed launches that N. G. developed almost all the methods of light yacht construction that are practised today,—in general, steam-bent frames, screw fastening, and double planking.

One of N. G.'s great friends was Mr. E. D. Morgan at Newport, first owner of the schooner CONSTELLATION. Mr. Morgan had owned and admired some of the Herreshoff launches and thought N. G. could design an improved sail boat, so he ordered one which was launched in 1890. She was named the PELICAN. She had quite fully developed overhangs both ends and

her ballast all outside in a bulb keel; she was the forerunner, or development boat, for the GLORIANA with which Mr. Morgan cleaned up the 46-foot class. So N. G., or Captain Nat, as he was generally called now, again designed racing boats. The next ten years from 1890 to 1900 were extremely busy years for Capt. Nat. He invented the fin-keelers and designed them in many sizes—the most famous was probably the NIAGARA which went to England and sailed the circuit of races, and I believe won a pennant in every race, mostly firsts, a very few seconds and thirds.

The shops were greatly enlarged and this architectural work and layout of machinery was all done by Captain Nat. Now that they were building steel torpedo boats the equipment had to be quite complete—lathes large enough to turn the crank shafts of the torpedo boat engines, and a lathe long enough for the propeller shafts, and much other machinery. In 1892 and 93 Capt. Nat designed the three large metal sloops NAVAHOE, COLONIA and VIGILANT. These large racers were soon followed by many sail boats of all sizes and the sail boats were now outnumbering the steamers being built. They are too numerous to mention excepting the Cup boats, DEFENDER in 1895 and COLUMBIA in 1899. Capt. Nat had for his own use several sailing yachts previously, but now had fast, small steam yachts. He had acquired a large family, six children, and most every Saturday and Sunday in the summer time he took them all out on the water.

By about 1905 the yacht yard was again enlarged so they now had their own foundry as well as the machine shops, boiler shop, sail loft, and, of course, several shops for building yachts of either wood or metal. Nearly everything now that was used on Herreshoff yachts was made on the premises and this included boilers, engines, sails, all hardware, upholstery, and even the paint.

I will not mention the several later cup defenders that Captain Nat designed because so much has been written about them in other places, but will make a short summary of his work. I believe he made about 1500 separate designs of yachts. Many of them, to be sure, were quite small, but among these were about twenty-five one-design classes which ranged from the 94' steel schooners WESTWARD and ELENA, down to sailing dinghies—in all perhaps three thousand boats were built from his designs. In looking up his record of winners in Astor Cup races—and this has been our most important annual race—I was rather surprised. At first I looked to see if he had designed more than any other designer; then I looked to see if he had designed more than any two others; finally I discovered he had designed more Astor Cup winners than all other designers put together, and this was in both the sloop and schooner classes. The same holds true for the Eastern Yacht Club's annual classic, the Puritan Cup. In the King's Cup, which is for both sloops and schooners (sloops over 50', schooners over

60'), his record up to 1928 is, winners 14 out of 18. In other words, other designers won but four: they were Cary Smith 2, Gardner 1, Starling Burgess 1. In the Cup Defender class his boats were selected every year that they were entered: in all, he designed boats which defended the cup six times. The Burgess family, father and son—Edward and Starling—each designed three, so between the Burgess and Herreshoff families the cup has been defended twelve times since 1885. Before that it was only defended four times.

It is often said that yacht designing is a combination of art and science. Capt. Nat. certainly was strong on the science part of it (engineering and mathematics) but I can't help looking on him also as a great artist for in a yacht's design there are a very great many things to which mathematics cannot be applied and these he proportioned perfectly. He had an uncanny sense of proportion and anything he designed, from the parts of his steam engines to the lines of his yachts, which he "always tried to do in the best possible way" turned out to be beautiful. It is true he never thought of beauty, or took an interest in art, but if a perfect sense of proportion is the highest attribute an artist can have, then he was a great artist. I never knew him to make a freehand sketch, but in one continuous line he could draw out free hand such a thing as the midship section of a sail boat so it was as if drawn mechanically. He would draw the pencil very

slowly and steadily; there would be no stopping, erasing, or changing: the curve would be even, fair and artistic. His mind was wholly concentrated on what he was doing and the line represented something to be made in the best possible way.

I have talked with my good friend, Starling Burgess, about our fathers and that is a thing which interests Starling very much for, as he says, his father, Edward, was a pure artist and used mathematics very little while he, Starling, loves mathematics and depends on them a great deal. My father, Captain Nat, he says loved mathematics, but he said that I do things almost entirely by some artistic sense of proportion and this complete reversal of things in the two generations amuses him exceedingly. Strange to say we each find this most flattering for above all things Starling would rather be a mathematician (and he is a great one) : as for my part, even a small sense of proportion seems a great blessing.

Capt. Nat worked entirely from models in developing the shape of his yachts, so there are no lines of his yachts. He was a fast and accurate worker at model making and had such a perfect understanding of the shape he was to make that he could in a few hours shape a model to have the exact desired displacement. He had developed special machines for taking the offsets of the model, and a pantagraph for taking off the sections that were required on the construction

plan. It is very likely that his system is the best for working up new shapes, and quicker than developing the lines on paper if one has his understanding of shape and is a rapid wood worker.

Capt. Nat was a wonderful helmsman and handled many of his yachts in their most important races. This includes SHADOW, VIGILANT, and the defenders. The late Charlie Barr told me he generally turned the helm over to Capt. Nat in the cup races when things were straightened out for, as he said, "Capt. Nat could get a little more speed out of her than I could". As Charlie Barr is generally considered the greatest helmsman of all times this is considerable of a compliment. Capt. Nat always handled the yachts or torpedo boats on their trial trips and thus gained first hand knowledge of them.

Of course Capt. Nat had much help through his life, particularly from his brother J. B., who relieved him of business and financial bothers. J. B., in spite of his blindness, was a most expert cost estimator. If, for instance, the estimated cost of a 90' steel schooner was wanted, N. G. would describe to J. B. what she would be like in a very few words. J. B. would go home, when evening came, and sit alone all evening. In the morning, when he came to the office, he would say what the yacht would cost and when the yacht was built that would be what she did cost.

Capt. Nat was always taken good care of at home and he had the very best of food. His second

wife, Ann Roebuck Herreshoff, took scientific loving care of him and no doubt that is why he survived all his brothers. He never smoked, drank liquor, tea or coffee: in fact he was so extremely sensitive that probably he could not have stood any stimulants. If, and when, you can find another man who applies himself as steadily to his profession, if he has a sense of proportion and starts from youth with the determination to "do things in the best possible way", then he, too, probably will go as far as Captain Nat did or become possibly a Michelangelo. But to be able to do this you will find the man must be descended from quite unusual forebears for perhaps the ability to love your work and keep your mind on it is extremely unusual and calls for some sort of inherited patience, determination and longevity. Captain Nat's determination was certainly strong, in fact he was very stubborn at times and would not change the design of his boats to meet the whims of the owners, which often caused unpleasant feeling but in all cases undoubtedly he was right. I will cite one case of two powerful minds coming up against each other. After the schooner INGOMAR beat all the German schooners Kaiser Wilhelm cabled and ordered a schooner from my father. He started on the design with great enthusiasm. Then the Kaiser asked what the dimensions were going to be and when my father cabled the dimensions the Kaiser ordered that some of them be changed. Capt. Nat cabled back that if he didn't want the boat the

way he was going to design it he couldn't have it at all. And thus ended that order.

Captain Nat did not retire from work until about eighty-five and then he kept working on models and helped others. He had had a great opportunity to see at first hand the principal part of American yachting and had actually raced in many of the most important races since 1860. To the very last his mind and memory were perfectly clear and he carried on a large correspondence, writing most of the letters himself. He died in his ninetieth year of low blood pressure and had no organic trouble: he simply got weaker and weaker and finally passed away very quietly, his mind remaining crystal clear to the last.

As a general summary he invented, developed or designed the following:

1. The light steam engine, and the first fast steam torpedo boats.
2. Nearly all the methods of constructing light wooden hulls as used today.
3. The web frame and longitudinal construction for metal hulls, afterwards patented and known as the Isherwood System.
4. The cross cut sail with the cloth running at right angles to the leech.
5. Light hollow steel spars, combined with scientific rigging.

6. The flat stern form of steam yachts, capable of being driven at high speed length ratios.
7. The development of overhangs on sailing yachts to allow longer lines and greater stability.
8. The sail track and slide in its present form, and a great many patterns of marine hardware in common use today.

L. FRANCIS HERRESHOFF

The Catalogue of Ships

*I now will sing of the
commanders and the ships.*

—Iliad, Book II

In presenting the first special exhibition of the Marine Room of Wadsworth Atheneum the committee has chosen for its subject, The Art and Genius of Nathanael Greene Herreshoff. It is believed that the great naval architects like all great architects must be artists fundamentally and there is no exception in the case of the greatest naval architect of them all, Nathanael Greene Herreshoff.

His work reached its high point during the years between 1890 and the first World War and in order to present it pictorially we start with the background. The transition from the heavy and slow ships of the Eighteenth Century to those extraordinary works of man, the clippers of the mid Nineteenth Century, is well shown by the two lithographs entitled The Old School, 1755 and The New School, 1856. These two engravings are described and interpreted by Miss C. Fox Smith in "A Book of Famous Ships" which accompanies the pictures. The two prints of the yacht Waterwitch leading a fleet of gunboats show development of British yachts at this period.

The next development is marked by the paintings of the packet ship Russell Glover and of the

medium clipper, Highflyer. The journal of Sally Bulkeley Waterman, wife of the master of the Highflyer, is exhibited. Both were lost with the vessel. The age of the true clippers, in the decline of sail, is represented by the three lithographs, Flying Cloud, Comet and Nightingale, all prints by N. Currier.

The next step in the background is the Race for the Queen's Cup in 1851 which is shown in the set of sketches by Butterworth collected by Robert De Forest, given to the Dauntless Club of Essex by Henry B. Nevins and loaned for this exhibition. America, heiress of the clippers, began a new epoch in yacht design.

Following this event we have the centerboard sloops and great schooners represented by the Cozzens prints loaned by the Hartford Club covering the period from the Civil War to the year 1890 and by N. Currier prints of Sappho and Gracie. This period is also represented with the next period by the interesting Peabody photo-gravures including over one hundred individual yachts depicting the work of the great designers who were contemporary with the early part of Nathanael Greene Herreshoff's active life arranged and framed by Moyer's Gallery; also in three models loaned by the Herreshoff Manufacturing Company consisting of a sloop, a schooner and a steamer. The age of the great schooners is also illustrated by the engravings of the Dauntless under square sail at sea, gift of Mrs. John

Cincinnati Wilson, and by the bureau from the cabin of Commodore Colt on the Dauntless with the photograph showing the interior of the cabin and the bureau in place, and a skylight from the Dauntless, the last a gift of Francis Robinson and Mrs. Cushman, shown on a base built for the exhibit by Mr. Overend.

A picture and the plans of the sloop Shadow from Mr. Stephens' latest work in Motor Boating, together with the plans of the cutter, Madge, described in Kunhardt's Small Yachts is also exhibited.

High tide is represented by the photographs loaned by Mrs. Nathanael Greene Herreshoff which belonged to Mr. Herreshoff himself and come from his house, and the magnificent plans of the great yachts designed by him between 1890 and 1913, together with a half model of the New York forty footers. These plans, loaned by the Herreshoff Manufacturing Company, show the early work in steam, the Gloriana, as much a forerunner of a new epoch as was the America, the Wasp, the Drusilla, Niagara, Vigilant, Defender, Columbia, Constitution, the fifties, the seventies, the fifty-sevens, the forties, the thirties and thirty-ones, and the schooners Elena, Westward, Vagrant and finally the great Reliance; the photograph of which last vessel finishing in one of the cup races under a press of sail hung in Mr. Herreshoff's bedroom and was his favorite picture. There is also a photograph of the New

York thirty, Oriole, and a painting of the New York forty, Pampero, formerly owned by F. Spencer Goodwin.

Fully rigged, the central exhibit is a sailing dinghy designed by Mr. Herreshoff in 1926, built according to his ideas and under his personal supervision, and a collection of models of the smaller vessels with a personal connection including the model of *Pleasure* built for his own use and sailed by him within a short time before his death. These models with pictures are loaned by his old friend, Henry C. White of Waterford, Connecticut.

Decorations consisting of signal flags loaned by Mr. and Mrs. Henry B. Nevins and two specimens of the characteristic kedge anchors designed by Mr. Herreshoff, one in wrought iron, hand forged, and the other in bronze. There is also a collection of photographs by L. Francis Herreshoff showing the interior of the model room and the workshop, views of the *Pleasure* and of various early steamers and steam plants referred to in the life of Mr. Herreshoff.

A picture of the yawl *Belisarius* and her plans loaned by the Herreshoff Manufacturing Company and her owner, Commodore Rockwell, indicate Mr. Herreshoff's last work.

Special acknowledgment is due to Messrs. William P. Stephens, Heywood H. Whaples, Horatio H. Armstrong, Sydney Herreshoff, Carl W. Haf-

fenreffer, Thomas P. Brightman, Henry B. Nevins, Henry C. and Nelson C. White, M. A. Potter and the Editors of Yachting, Motor Boating and Rudder who have supported and contributed to the exhibition and to Messrs. Houghton Bulkley and Newton C. Brainard and to Mrs. James Williams, Jr. for encouragement and assistance. To Mrs. Berger, Mr. Terry, Mr. Overend and the Atheneum staff grateful thanks are due for constant and interested cooperation.

Finally it should be stated that this exhibition, an idea cherished by the writer for many years, could not have materialized except for the enthusiasm and friendship of Charles Lincoln Taylor, late honorary curator of maritime arts of Wadsworth Atheneum.

*O'er these Odysseus ruled,
in council like to Zeus and
with him a fleet with scar-
let prows.*

—Iliad, Book II

