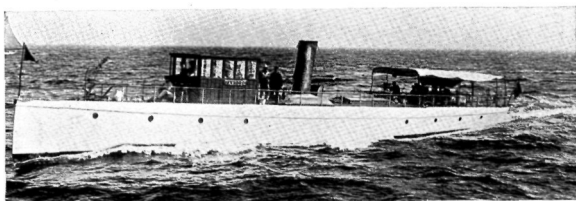


# THE NEW ENGLAND MAGAZINE.

NEW SERIES.

JULY, 1895.

VOL. XII. No. 5.



## THE HERRESHOFFS AND THEIR BOATS.

By Henry Robinson Palmer.

Illustrated from photographs by N. L. Stebbins.



WHILE the new-yacht *Defender* has been in process of construction at Bristol, Rhode Island, public attention has been attracted in no small measure to that town and to the man who has designed and built the craft. It is only a few years ago that Edward Burgess was regarded as the greatest yacht designer of the day; and when he died, in 1891, the prediction was freely made that his equal would not soon be developed. Other men might

be found who would design fast yachts, but the chances were that if the British yachtsmen should challenge for the *America's* trophy again, the cup would presently be on its way to the other side of the ocean. At least that was the conclusion at which a great many pessimistic observers arrived when they learned of the untimely death of the man who had created the *Puritan*, the *Mayflower* and the *Volunteer*. But almost at the moment of Mr. Burgess's death the victories of the *Gloriana* were pointing unmistakably to "Nat" Herreshoff as the designer upon whom the task of producing another international champion might profitably be imposed.

The Herreshoffs have been boat-builders and sailors for generations, and the

designer of the *Defender* has made and sailed craft of all sorts and sizes from his boyhood up. On their paternal side, as the name indicates, the family are of German descent, one of their ancestors having emigrated to this country in the last century and entered the employment of John Brown, a famous merchant of Providence. Subsequently he married Miss Sarah Brown; and thus the present generation of Herreshoffs at Bristol are enabled to trace their ancestry back to Chad Brown, one of the original settlers of the state, who took up his abode in Rhode Island shortly after the arrival there of Roger Williams. During the Revolution the Browns were known far and wide through the colonies for their intense and serviceable patriotism. It was John Brown who



JOHN B. HERRESHOFF.

provided the boats, on the night of the memorable burning of the *Gaspee* in 1772, to carry the plotters down the river to where the British vessel lay fast aground; and after the war it was one of his vessels which first bore the stars and stripes into Chinese waters. His interest in everything pertaining to the sea was naturally great, for he had a fleet of forty ships. It is related of him that he frequently went down the bay to meet these incoming vessels, having that fondness for the water which has manifested itself in so many of his descendants. From

the same family of Browns, it may be added, came the benefactions which led the corporation of Rhode Island College to change the name of that institution to Brown University.

The grandfather of the present Herreshoffs turned to agriculture in his later years, and settled on "Popasquash" or "Pappoosesquaw" Point, across the harbor from Bristol. His son, Charles Frederick, the father of the designer of the *Defender*, was born there in 1809, and



NATHANIEL G. HERRESHOFF.

like his sons after him early showed a great love for the sea. At twelve he was master of a sail-boat which he had himself constructed, and which he could sail with the skill of a veteran helmsman; and two years later he was known throughout the vicinity as an expert mechanic and sailor. He graduated from Brown at an age that seems strangely early to us of a later generation, and returning to Bristol, found his chief delight in building and sailing boats. Many of these were very fast and won more than a local reputation; and even after the present Herreshoff Manufacturing Company had been formed the active members of the firm received much valuable assistance and counsel from the elder Herreshoff. He



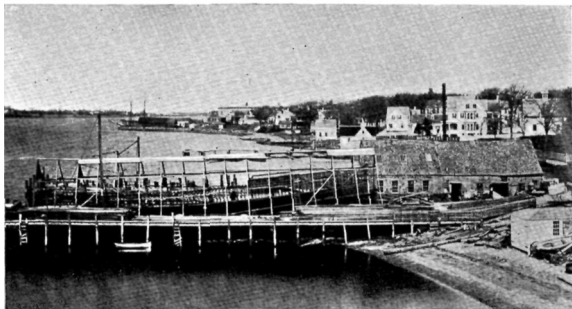
"CUSHING."

died a few years ago, and is remembered as a cultured and attractive old man, "who never said ill of anybody," to quote Captain Albert C. Bennett of Bristol, his life-long friend. One amusing story relating to his boat-building career is that he always named his craft "Julia," in honor of his wife. No amount of argument could induce him to give any of them another title. Mrs. Herreshoff is still living at Bristol, and occupies the homestead on Hope Street, opposite the shops of the company. She traces her descent from the Boston Lewises, a sea-going family; so that John B. and "Nat" Herreshoff, her sons, come fairly by their love of the water, on both sides of the house.

Charles Frederick Herreshoff had nine children, seven sons and two daughters, all of whom are yet living. The two daughters are Mrs. Chesebro and Miss Sarah Herreshoff, both making their home at Bristol, the latter with Mrs. Herreshoff at the homestead. Charles Frederick, one of the sons, lives at the yet older family homestead on Popasquash Point, being a farmer, but interesting himself in boat-building and sailing as well; and Lewis lives with his mother and sister. He is of a literary turn of mind, and has written many articles for the newspaper periodicals and magazines, although he has been totally blind for some years. Some strange malady of the eyes has overtaken no less than four members of the family, among them John B. Herreshoff, the president of the boat-building company, who was stricken at the age of fifteen. Julian Herreshoff

has conducted a school of languages at Providence, and alternates in his residence between that city and Bristol. His musical taste and talent are perhaps his chief characteristics. The other sons are Francis, James B., who studied at Brown University and has attained a considerable reputation as a chemist and engineer, John B., already referred to, and Nathaniel Greene Herreshoff, the designer of the yacht which in all probability will defend the *America's* cup against the British challenger next fall.

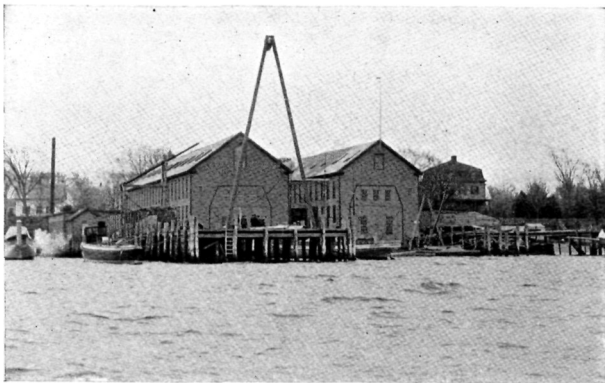
The president of the Herreshoff Manufacturing Company, John Brown Herreshoff, was born in 1841, and, like his father before him, manifested an early interest in boats. He was an expert sailor in his early teens, and if blindness had not overtaken him at the age of fifteen he might have become a phenomenal marine designer. As it is, he has a wonderful knowledge of speed qualities in a boat, and by passing his hand over a model can tell more about its value than most men who have the use of their eyes. His part in the company, however, is chiefly of a business character. He can carry accounts in his head to a surprising degree; and one story that is told of his experience with the representatives of a South American country who had been despatched to New York to contract for three American-built torpedo boats illustrates his mastery over details. The South Americans summoned him to New York to figure on the craft, and after describing them to the blind man, asked him what his price would be for the construction of them. "I shall require



THE HERRESHOFF BROTHERS' FIRST SHOP.

some time to consider the matter," said Mr. Herreshoff. "But how much time?" he was asked. The craft were of a novel pattern and possessed some features that made the task of calculating their expense especially difficult. "Half an hour," said the builder; and at the expiration of that interval he presented figures that were so satisfactory to the South Americans that the boats were ordered. In due time they were built and delivered according to the agreement.

Mr. Herreshoff has been married twice, and has one daughter by his first wife. He lives in a comfortable home on High Street, Bristol, at the head of Burnside Street, near by the machine shops of the company and within sight of the workshops at which the crack sailing yachts are built. He is a familiar figure on the streets of the town, going about freely, but always accompanied by an attendant, sometimes a member of the family. He makes frequent journeys away from home



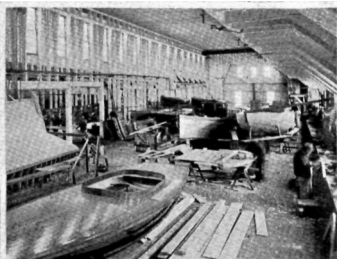
THE PRESENT SHOPS.

in connection with the business of the company, and in spite of his affliction is as shrewd a business man as could be found in many a long day. His advice is sought in the construction of most of the boats that are built at the Herreshoff works; but it is upon "Nat" that the burden of the designing and constructing comes. Indeed, so far as the *Defender* is concerned, it is doubtful if the members of the syndicate who ordered her have had any transaction with the president of the company. It is with the younger brother that they have had their dealings, and to him will be due whatever credit may accrue to the boat.

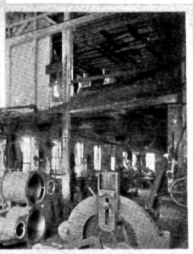
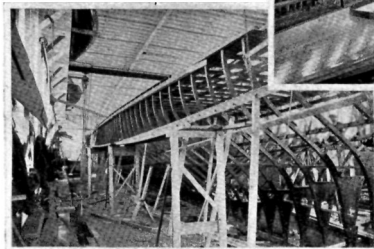
John B. Herreshoff has now been building boats more than thirty years; and in that time a great fleet of vessels, steamers and sailing craft has been launched at Bristol.

the work of their predecessors. They have not merely availed themselves of the achievements of Mr. Burgess and those who went before him, but have struck a new vein, so to speak, and one which has already produced most plentifully.

While his elder brother was building up his business gradually at Bristol, "Nat" Herreshoff was preparing himself for his future career there by study at the Massachusetts Institute of Technology, a apprenticeship at the Corliss Engine Works

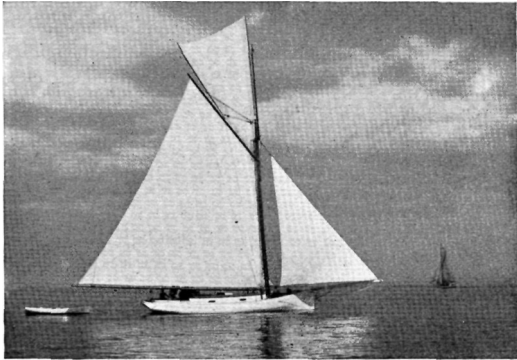


INTERIOR OF THE  
HERRESHOFF SHOPS.



It would be next to impossible to enumerate all these boats, nor would the public be interested in the recital, any more than the average youthful student is anxious to master the Homeric Catalogue of Ships. But there have been certain epoch-making craft produced at the Herreshoff yards which are worth the study of every intelligent American. Nobody can note the record of the *Gloriana* and the *Wasp* without feeling that the Bristol designers have done something more than copy and elaborate

in Providence, where he had a hand in the construction of the great engine which moved the machinery at the Philadelphia Centennial Exposition, and a course in engineering abroad. He visited some of the best-known ship-yards in Europe, and on his return to this country was well qualified to enter upon the work that has since kept him so busily employed in his



"SHADOW."

native town. But all his boyhood had contributed to this result. Like his brothers and his father before them, he had been a boat-builder and a sailor while scarcely in his teens, and even as a little child, if he could not be found about the house, he was sure to be discovered at play on the shore of the harbor. During his boyhood he employed himself much of the time in guiding his blind brother, and the constant association of the two naturally resulted in a mutual understanding which has been of great value to them in the years of their business partnership.

It was shortly after his return to Bristol in 1877, when he was about twenty-nine years of age, that "Nat" Herreshoff brought out his famous catamarans. Catamarans had been constructed before; but he made use of a novel idea in the method of joining the two sections of which these queer craft are composed, and revolutionized their construction. Hitherto they had consisted of two hulls united by an unjointed series of braces; but he introduced a joint, by means of which the hulls acted almost independently of each other. They accommodated themselves to the waves in much better fashion; and the result was that "Captain Nat" beat nearly every craft he encountered. One

day he lay in wait off the mouth of Bristol harbor for the steamer from Newport. When she came abreast, the wind blowing briskly up the bay at the time, he headed his novel yacht in the same direction, and beat the steamer to Providence so badly that the fame of his boat spread far and wide. It is said that on one occasion he made twenty-one miles in an hour over a measured course in one of these catamarans. At another time, on the occasion of a yacht race off Sandy Hook, he hung about the starting line with his double craft until all the contestants had gotten far down the course. One of the crew on board the boat which the older Herreshoff, the father of "Captain Nat," was sailing, says that they saw the queer craft putting out long after they had set off on the race, and watched its progress with interest. Nearer and nearer she came, and before long had passed not only this particular boat but every yacht in the fleet. This was one of "Nat's" quiet little jokes.

He is very quiet, by the way, and seems to like his own company better than the association of many friends. His head is evidently full of new plans, and he does not have to depend on anybody but himself for entertainment.

Judging by the number of new ideas he has evolved and published to the world in the course of his eighteen years of work at Bristol, he must be "thinking up" something new during most of his waking moments. He walks along the street with his head inclined forward, as if he were in search of some novel notion, though there is a local saying that he acquired the habit from watch-

father and son, a greater number of times, probably, than any other one man. He says he never saw "Nat" excited in a race but once. It was in a race in Gowanus Bay, and the future designer of the *Defender* was at the helm. The breeze slackened, and it was thought advisable to raise a top-sail, but in the course of this operation one of the corners got away from the crew, and the sail went



"GLORIANA."

ing his rivals in his races, craning his head in order to see them from under the boom.

Captain Bennett, already referred to, a Bristol veteran who went to sea for the first time as long ago as 1826, and has crossed the ocean sixty-four times in sailing vessels in the course of his long career, has sailed with the Herreshoffs,

flapping high into the air. Captain Nat took off his cap and flung it down on the deck, and the language in which he indulged himself for a moment is said to have been extremely forcible. "But that's the only time," says Captain Bennett, "that I ever saw him when he seemed to be excited." As the yachting public knows very well, he is uniformly cool and



"WASP."

careful in a race, sailing his craft for "all she is worth," and making few errors.

On one occasion he was steering the *Ianthe* in a race in the vicinity of New York, when the breeze almost deserted the boats and left them idly moving in the direction of home, but at a snail's pace. There were two or more classes of yachts in the fleet, but the skipper of the *Ianthe*, steering wide of his comrades, ran into a little breeze he had seen far to starboard, and beat all the classes over the finish line. It is by carefully observing the possibilities open to the wide-awake helmsman in every race that he has won his great reputation as a sailor.

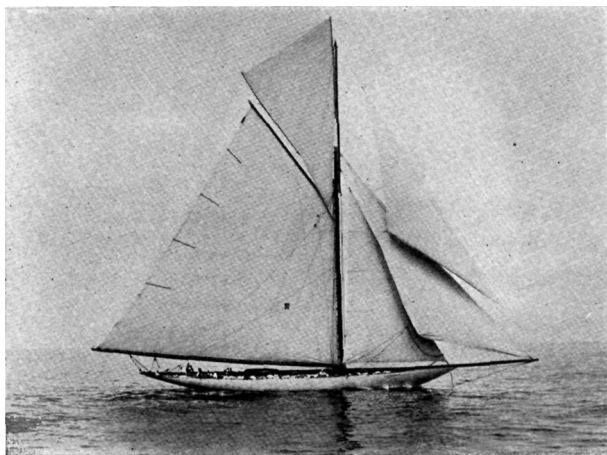
Captain Nat's home at Bristol is a comfortable one. The house is a spacious structure at the foot of Hope Street, not far from the workshops of the company, and with its back to the street. It has been said that its isolation and the fact that it fronts the water are indicative of the attitude of its owner toward the general public. He likes to be let alone, and his chief inspiration has always come and always will come from the sea. His windows look far down Narragansett Bay, with Popasquash Point stretching to

the south, and Prudence Island in the foreground. It is a picturesque bit of scenery, and as Captain Nat has an interesting family it is no wonder that he is satisfied with his home. Five of his six children are boys; and some day, he says, he is going to man a boat of his own construction with these youthful representatives of the Herreshoff family. Mrs. Herreshoff was Miss Clara De Wolf of Bristol.

One of his most famous inventions is his coil boiler. He has given much attention to the designing of the machinery for the steam craft he and his brother have built, and in the course of his long years of work and experiment has made many improvements in the engines with which they have been equipped. One of the earlier Herreshoff steamers to make a name for itself was the *Stiletto*, which created a sensation ten years ago. She was a long, narrow craft, and so promising were her speed trials that she sought out the *Mary Powell* on the Hudson and challenged her to a race. The *Powell* had long been known as the fastest steamboat in this country, but the *Stiletto* kept on even terms with her, and at the end

of the course, if memory serves, she ran across the bow of her big rival. The speed of this audacious little vessel pleased the government officials, and they purchased her for a torpedo boat. She has never been fitted out with torpedoes, but has served the authorities at Washington as a despatch boat, as has the *Cushing* also, which was ordered for the Navy from the Herreshoffs on account of the fine work of the *Stiletto*. The *Cushing* is said to have struck a thirty-mile gait on one occasion, and on her official

been called the fastest steam yacht in the world, and it is certain that she is at least one of the very fastest. Efforts have been made time and again to race her against the speedy *Norwood*, but the match has never occurred. Probably if she were beaten, "Nat" Herreshoff would stop work on his sailing craft long enough to attempt the construction of a steamer that would be unquestionably the fastest yacht afloat. The construction of steamers, it should be noted, was for many years his chief concern. His



"VIGILANT."

trial trip covered twenty-three or twenty-four knots an hour. She is 138 feet in length, with abeam of 14.6, draught, 3.7, horse-power, 1720, and tonnage, 115. She carries three guns, and her cost is put at \$83,000.

Among the other famous steam productions of the Herreshoffs are the yachts *Now Then, Say When, One Hundred*, all of these three craft being built primarily for speed qualities; the *Henrietta* and the *Vamoose*, the latter ordered by Mr. Hearst of California. The *Vamoose* has

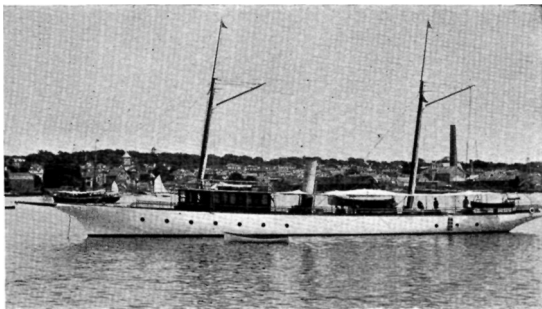
work at the Institute of Technology, the Corliss shops and abroad had all been calculated to increase his interest in steam craft and make him more proficient in building them and their machinery. As long ago as 1876 he produced a torpedo boat for the torpedo school at Newport, which was only sixty feet in length, but achieved a speed of twenty miles an hour. The officers of the school called it the *Lightning*, and compared with the average naval vessel of the day it deserved its title. It is

recalled that on the trial trip of the craft the designer was at the engine, showing that he could manage a steamer as well as a sail boat, if the necessity arose. Indeed it has been said that he knows more about high-speed engines than any one else in the country.

His years of study along this line away from Bristol were supplemented by several years of valuable experience there, during which the government stationed a staff of officers at the Herreshoff works for the purpose of experimenting with high-speed machinery, no other firm in the country making a specialty of that grade of production at the time. Chief Engineer Benjamin F. Isherwood and a

investigator from Washington left him superior, in his own particular line, to any other American boat-builder. It is no wonder, when we consider his natural genius, that his steam craft have proved speedy vessels.

There is money in the construction of fast steam yachts; and that fact probably accounts for the comparatively recent development of the big sailing yacht at the Herreshoff yard. John B. Herreshoff is a shrewd business man, and he has been more anxious to put by something for a rainy day than to win glory for himself or his brother by building swift sailing vessels. It is said that when a yacht was needed to



"BALLYMENA."

number of naval colleagues were at Bristol intermittently for four years, studying compound and triple expansion engines, the arrangement with the Herreshoffs amounting practically to a partnership between them and the Navy Department. The government furnished the expert knowledge required for the investigations, and the Herreshoffs supplied the shops and the other requisite facilities. There can be no doubt of the value to the younger Herreshoff of these years of association with the government experts. He had already become a master mechanic with few equals, and the hints he received in the course of his intimate acquaintance with the experienced

meet the *Genesta*, back in 1885, Mr. Herreshoff was approached and asked for figures on such a boat. The price he set was \$30,000, as the story goes, and the prospective purchasers, considering the amount too high, placed their order with Edward Burgess, who designed the *Puritan* for them. What seems strangest about this story is that \$30,000 should have been regarded as too great a price to pay for a cup-defender. The Vanderbilt-Iselin-Morgan syndicate will be out of pocket many times that amount when they have settled for the new aluminum and bronze vessel from Bristol.

During his long years of work in build-



"COLONIA."

ing boilers and hulls for steam yachts, Captain Nat was by no means uninterested in sailing craft. He kept storing up ideas for future development, and no doubt he felt that some time he would have an opportunity to turn to the construction of a sailing yacht of sufficient size to bring him into the first rank among the designers of such boats. He had been known before as a successful sailboat designer; his *Shadow* of the early seventies had taken more prizes, perhaps, than any other sailing craft ever built. But there is a certain prestige attaching to the construction of a successful big yacht that does not attach to the construction of smaller racing vessels. Edward Burgess's name became widely known for the first time when he had created his fast ninety-footer, although he had been building fast boats for a good many years.

"Nat" Herreshoff yearned, without doubt, for the time to arrive when he would be able to show the world what he could do with a big racer of modern design. And as all things come to him who waits, this opportunity at length arrived. Now that the Herreshoffs are possessed of a reasonable competence, the designer is able to give as much time as he desires to the development of any notion that may come into his head, though it ought to be added that in the case of the *Defender* the notion pays very well.

The "cat yawl" is a Bristol variety of boat. Not that there are no cat yawls anywhere else, but at Bristol they flourish like the traditional green bay tree.

Captain Nat built one of these for Commodore Edwin D. Morgan some years ago, and so pleased was the latter that he ordered a twenty-six-footer constructed along the same general lines. As the result, the *Pelican* was launched in December, 1890, and on the seventh of that month the designer and his brother Lewis made a trial trip in her, although the gale in which they sailed was one of the severest of the winter. The craft proved stiff and fast, and it was seen at once that her model was a success. The



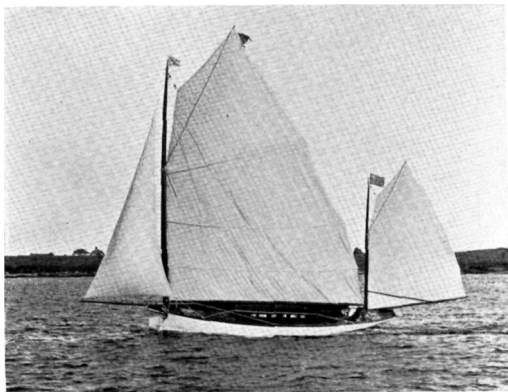
"HANDSEL."

history of this boat is important because the *Gloriana*, racer of glorious memories, was the direct outgrowth of the *Pelican*.

Mr. Morgan recommended the Herreshoffs to Royal Phelps Carroll, who was intending to build a boat for the season of 1891, and the result was that the order for a forty-six-footer, the future *Gloriana*, was placed at Bristol. Meanwhile Mr. Carroll married and went to Europe, and this event changed his plans for the season to such an extent that the new yacht was ultimately constructed for Mr. Morgan. It has been said that the *Gloriana* was a lucky accident; but those who are familiar with the care and thought that the designer put into her are aware that such a notion is entirely er-

up before him. And that, in a word, was precisely what he did. The *Gloriana* was a success from the start, and at the end of the season was confessedly the swiftest and ablest boat of her size on this side of the ocean, if not in the world.

The launch of the famous craft took place early in May, Mr. Morgan having gone to Bristol in a special car to witness the event. Four or five hundred people watched her as she glided into the harbor; and while her model was seen to be peculiar, there was something about it that suggested speed even to the untrained eye. Her name was suggested by a line in Spenser's "Faerie Queene," "That greater, glorious queene of faery land;" and when she won the race

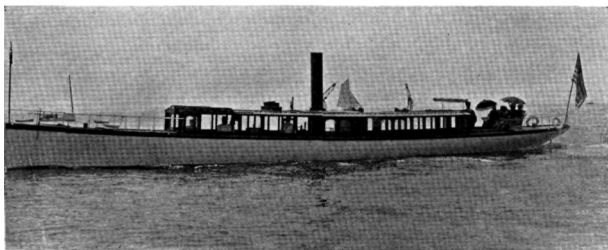


"CLARA."

roneous. Here was a turning-point in the career of Captain Nat. If he failed to build a fast boat, it would be said of him that his forte was the construction of steam craft, and that he would best stick to that branch of marine architecture in the future, at least so far as craft of large size were concerned. On the other hand, if he should produce a boat far and away superior to the existing vessels of her class, unlimited possibilities would open

against the *Beatrix* off Newport in August, her trophy was a beautiful silver cup designed and made by the Whitings, on which a feminine figure was engraved, representing Her Majesty of the faery race.

The *Gloriana's* chief characteristics are her raking stem and overhang stern, which make her look very different, viewed broadside on, from the racing yachts of former days. Instead of the perpendicular bow of her predecessors,



"POLLY."

it is scarcely an exaggeration to say that she has almost nothing forward, everything being reduced to the minimum at this point in order to give the least possible resistance while she is gliding through the water. She seems to sweep over the sea rather than push it to either side of her, and her deep keel enables her to get a "grip" far down below the surface, while at the same time her displacement is not increased. It might be supposed that with almost no forefoot it would be difficult to keep her from falling off in a strong wind; but the reverse is true. She hugs the breeze in a way to delight the soul of the old salt, and minds her tiller as quickly as could be desired. In her first race around the Scotland lightship, when she started home on a reach, Captain Nat, who was at the tiller, called a member of the crew aft to assist him in case of necessity. But no necessity arose. The boat responded to the slightest touch, and the skipper sailed her the entire distance home with only one hand.

The season of 1891 will long be remembered for the series of races between the forty-six-footers. This class of yachts had succeeded, in natural sequence, the forty-footers, and the contests between them were among the most interesting in the history of the sport. It is worth while to notice that among all the aspirants for honors, only one boat of any importance, the Burgess yacht *Beatrix*, was a centreboard. On account of this fact it was desired, from the beginning of the

season, that the *Gloriana* should encounter her; and as race after race occurred and they did not come together, the popular interest in their ultimate meeting increased. In the first race in which the *Gloriana* started, on June 16, she was pitted against the *Nautilus*, *Mineola* and *Jessica*. The regatta was under the auspices of the Atlantic Yacht Club; and the Bristol craft beat the *Mineola*, her nearest competitor, by eight minutes and seventeen seconds. Two days later, in the New York Yacht Club regatta, there were six starters, but the *Gloriana* won from all her rivals. Two of the contestants were designed by Burgess, two were Fife boats, and a fifth was from the Wintringham shops; but the second boat at the finish was half an hour behind the Herreshoff wonder. In this race there were wind and rain in plenty, the breeze blowing at the rate of twenty miles an hour.

On the twentieth of June occurred the Seawanaka Corinthian Yacht Club regatta over the lower bay course off New York. A heavy mist overspread the water, and the yachts were invisible at a short distance. The rivals in this race were the *Nautilus* (Wintringham), *Jessica* (Fife), and *Gloriana*, the *Jessica* getting away nearly two minutes ahead of the Bristol boat, but the latter soon forging to the front and ultimately winning. On the succeeding Monday, the *Sayonara*, another Burgess craft, the *Jessica* and the *Uvira* contested with the *Gloriana*, and were handily beaten; and on Tues-

day, in a light breeze, the undefeated yacht won a fifth time, securing a handsome cup, valued at \$500, which had been offered as a prize by Vice-Commodore David Banks of the Atlantic Yacht Club. In these races Captain Nat was constantly in evidence, and a large degree of the success of the boat may be attributed to his wise seamanship, although in later seasons, without his presence, she has continued her former successful record.

In her sixth race, on August 7, for the Goelet cup, off Newport, the *Gloriana* won again; and on August 13 she secured

was again at the helm, and again the glorious craft crossed the finish line a winner, beating the Burgess boat *Oweene* by a little more than a minute, and the *Beatrix* by more than five minutes. This was the only time that the two rivals met during the season; but it was sufficient to give the *Gloriana* the undisputed championship in her class. She had won eight straight races, and in so doing had called general attention to her designer.

In the NEW ENGLAND MAGAZINE for September, 1891, a writer referring to Burgess, who had just then passed away, quoted this stanza:—



another \$500 trophy by defeating all the other boats of her class in a race designed especially for the forty-six-footers, though her margin on this occasion was only twenty-eight seconds. But as yet the *Beatrix*, which had been winning races in eastern waters, had not made her appearance against the Herreshoff boat, so that when the two finally met in the *Gloriana's* eighth race off Newport on the seventeenth of the month, popular interest was at its height. Captain Nat

"Ah, who shall lift that wand of magic power,  
And the lost clew regain?  
The unfinished window in Aladdin's tower  
Unfinished must remain."

But there were already indications that the dead designer's work would be carried forward to triumphs which he could scarcely have predicted. It was at the time of the *Gloriana's* great successes that a newspaper man went to Bristol to see "Nat" Herreshoff, and came away with this impression of him:

"The Bristol inventor by no outward sign shows the pride or exultation which would be justifiable in view of his success. He is the same quiet, business-like, industrious man that he was last April, when the *Gloriana* was on the ways and an 'unknown quantity.' If he has changed the style of yacht architecture for the whole world, one would never suspect that he realized the magnitude of what he has accomplished." Thus at the moment of Edward Burgess's untimely death, Herreshoff, who was of the same age as the Boston designer, was at the threshold of his widest fame. The one had put aside his pencil and paper forever, while the other was beginning to attract the notice of yachtsmen all over the world.

The success of the *Gloriana* revolutionized yacht-building. Everybody went in for the receding bow which had been made so familiar during her career, and the overhang stern, which in her had been carried to the extreme. In the fall of 1891 the *Dilemma*, a fin-keel boat and obviously an attempt to utilize the good points of the *Gloriana* in a superior creation, was launched at Bristol, and in the succeeding year the "new *Gloriana*" or *Wasp*, as she was ultimately named, was built for Mr. Archibald Rogers. The *Dilemma* proved to be a fast boat, and had a successful career until a few months ago, when she was wrecked at the entrance to a Long Island harbor. A local designer has reconstructed her since this catastrophe, being compelled to reproduce one entire side, and it will be interesting to note whether or not he has succeeded in preserving her original lines sufficiently to allow her to win races as before.

The career of the *Wasp* during the season of 1892 was in large measure a repetition of that of the *Gloriana* in 1891. She met the latter frequently, and in a majority of instances won from her simply because she embodied the result of the observations of the designer on board the *Gloriana* during her first season. The *Wasp* retained the good points of her predecessor, and added certain new ones which made it easily

the fastest forty-six-footer ever produced. She is larger than the *Gloriana*, though belonging in the same class, her length being between seventy-one and seventy-two feet over all, while the *Gloriana* is a few inches shorter. Her keel runs practically parallel to the water line along its entire distance, and at the forward end there is an abrupt break, the broad-side view showing a direct rise for several feet, after which the stem continues to the bow in a straight line. The water lines forward are fuller than they would be if the stem were permitted to reach direct to the keel, and the stem has a greater rake even than that of the *Gloriana*, the lead being farther aft. The races between the two craft have afforded much interest in every season since they first came together; and last year, out of fourteen meetings, the *Wasp* came off victorious ten times. Thus it is fair to argue that yacht designing, despite the critics who called the *Gloriana* a lucky accident, is a real science and art at Bristol.

Early in 1893 Mr. Royal Phelps Carroll had the satisfaction of seeing at last a Herreshoff boat of his own afloat. She was eighty-four feet on the water line, and a hundred and twenty-six over all, emphasizing thus the peculiarities of the smaller yachts that had preceded her on the ways at Bristol. She was designed to win the new international trophy abroad, the Royal Victoria cup, and to bring back to this country the Cape May and Brenton Reef trophies, which had been won in 1887 by the British cutter *Genesta*. The preliminary trials of the *Navahoe* were not entirely encouraging, and her subsequent career in British waters was not equal to the hopes of her designer and owner. But one of her contests was as remarkable a race as was ever sailed. She started with the *Britannia* on the twelfth of September, in competition for the Brenton Reef cup, the course being from the Needles to Cherbourg, France, and return, a total distance of one hundred and twenty miles. Wind and sea were both heavy, and during most of the race the yachts were within a minute of each other. It had been predicted

that the American craft would be at her worst in just this kind of weather, but she won the race by two minutes and a half second, and the trophy in consequence. Her competitors at various times during the summer were the *Britannia*, the *Valkyrie*, the *Satanita*, the *Calluna* and the *Iverna*, and out of nineteen starts she won but three first prizes. Six seconds were placed to her credit, however, five thirds and two fourths, and in one race she was disabled. The percentage of victories won by the *Britannia* was 52.63, of the *Valkyrie*, 41.66, and of the *Navahoe*, 15.78.

After this experience the American yachtsmen began to regard the situation in respect to the approaching international regatta with increased seriousness. The *Vigilant*, another Herreshoff boat, had proved her superiority to her competitors on this side of the ocean; and yet the Herreshoff *Navahoe* had not shown up encouragingly in British waters. The *Valkyrie* left England on August 23 to sail for the cup in the autumn races off New York, and observers were not lacking on this side of the ocean who predicted her success. But the *Vigilant* had given great promise in her preliminary contests. Four boats had been built for the purpose of defending the trophy, — the *Pilgrim*, launched at Wilmington for Stewart A. Binney of Boston; the *Jubilee*, a South Boston fin and centreboard combination boat, designed by John B. Paine and owned by General Paine, the veteran yachtsman; the *Colonia*, ordered from the Herreshoffs by a New York syndicate with Archibald Rogers at the head; and the *Vigilant*, launched at the Herreshoff yard on June 14, and owned by another syndicate including Commodore Morgan and C. Oliver Iselin. The *Vigilant* is a centreboard yacht, combining with that type, however, some of the best features of the keel model, and having a coating of Tobin bronze. The *Colonia* is a larger *Wasp*, being of the familiar keel variety of later seasons and possessing great depth. Following are some statistics of the four craft: —

	Length over all.	Beam, ft. in.	Draught, ft. in.
<i>Vigilant</i> ,	124 feet.	26	14
<i>Colonia</i>	123 "	24	16
<i>Jubilee</i>	123 "	22 6	13 6
<i>Pilgrim</i>	122 "	23	22 6

During the early season the *Vigilant* had indicated her superiority as an all-around boat, although the *Colonia* showed up well, and many people believed that with some slight changes in her rig the *Jubilee* might exhibit her heels to her rivals. The official trial races began on September 7, off Sandy Hook, when the *Pilgrim* and *Jubilee* were disabled, and the *Vigilant* won on actual time, the race going to the *Colonia* by six seconds, however, on time allowance. The course in this contest was fifteen miles to windward from Scotland lightship, around the stakeboat and home. Two days later, in the second trial, the course was a triangular one, ten miles to each leg. The *Vigilant* won over the *Pilgrim*, her nearest competitor, by two minutes, nineteen seconds, and the *Colonia* was fourth. In the third and last race the course was the same as in the first. The *Vigilant* won with ease, and the *Colonia* came in second, about seven minutes behind. The *Vigilant* was accordingly chosen to defend the *America's* cup against the *Valkyrie*; and the Herreshoffs had the satisfaction of seeing their other boat, the *Colonia*, selected as the alternate defender. That was considerable glory for one season, despite the comparative failure of the *Navahoe* to accomplish the purpose for which she had been built; but there were greater glories to come. Captain Nat was anxious to show the British yachtsmen that his latest creation was superior to the *Valkyrie*, notwithstanding the defeats of the Carroll boat.

The length of the *Vigilant* on the load water line was officially determined as being 86.19 feet, while that of the *Valkyrie* was 85.50. Thus the American boat was compelled to allow her rival one minute and forty-eight seconds in each contest. The first of the series occurred off Sandy Hook on the seventh of October, the attempt to sail two days previously having ended in failure. The course was fifteen miles to windward and

return, but unsteady wind rendered the race a series of alternate beats and reaches. Captain Nat was at the helm of the American craft, and at the finish she was five minutes and forty-eight seconds ahead of her competitor, corrected time. Such a fleet of steam and sailing vessels as were on hand to witness this contest had perhaps never before been assembled; and when the victorious yacht crossed the line a winner by nearly six minutes, she was greeted with an uproarious demonstration.

The second race of the series was the most successful one from the Herreshoff point of view. The wind was strong at the start, and increased until it blew at a rate of thirty-two miles an hour at the finish. The course sailed was a triangular one, and at the end the *Vigilant* was ten minutes, thirty-five seconds in the lead. When the day for the third race arrived, the sea was high and choppy and the east wind was blowing half a gale. The yachts were sent to windward fifteen miles and return, and the *Valkyrie* was ahead of her rival at the turning mark. On the run home, however, the Yankee craft began to gain, and at the finish she was forty seconds ahead on corrected time. The *Valkyrie* sustained several mishaps on the homeward run, and if she had not split her silk spinnaker at a critical moment there is no telling how the race would have resulted. Lord Dunraven, her owner, was not satisfied with the result of the series; but the *Vigilant* had won in three straight contests, and the cup stayed on this side of the sea. There are a great many "ifs" in yacht racing, but the boat which holds together at critical moments is entitled to some credit, whatever it may be supposed her competitor would have accomplished if she had not met with this or that misfortune.

The career of the *Vigilant* last year is familiar. Mr. George J. Gould purchased her to race in British waters, and in June she crossed the ocean in the short time of fourteen days, seven hours and fifty minutes, — the best time, it is said, ever made by a sailing yacht over the same distance, with one exception; the exception, moreover, was when the *Henrietta*

beat the *Fleetwing* in a race across the ocean, with all possible sail set, of course, while the *Vigilant* proceeded under short canvas. The American champion was distinctly a disappointment on the other side of the sea. Captain Herreshoff was at her helm in many of the races she entered, but owing to one cause or another she came in first in only four contests, while the *Britannia*, which was unquestionably the swiftest British yacht of the season, owing to the sinking of the *Valkyrie*, won twelve firsts. It would be profitless to discuss the reasons for the failure of the American yacht on these occasions; but in general it may be said that she was built for sailing in American waters, free from the shifting winds and currents of inland bays, and that in her career in the United Kingdom she was constantly at a disadvantage on this account, the British skippers knowing their ground thoroughly, and the British boats having been constructed with a view to racing under just such conditions as prevail over most of the English, Scotch and Irish courses.

This year the construction of the *Defender*, the yacht which in all likelihood will meet Lord Dunraven's *Valkyrie III*, in the fall, has drawn the eyes of the yachting world again to Bristol. The greatest secrecy has been maintained regarding her lines; but it is known that she is a keel craft of great beauty, plated above the water line with aluminum for lightness and below with manganese bronze. She has been ordered by a syndicate composed of Messrs. Iselin, Morgan and Vanderbilt; and her cost has been estimated as high as \$180,000. She has a bow that is cut away even more than her predecessors at the Bristol shops, and her stern is in large measure of the familiar type of recent seasons. She is an improved *Gloriana*, *Wasp*, *Colonia* and *Vigilant* all in one; and if she does not sail away from the latter yacht in the preliminary races this summer the public will be treated to a genuine surprise. She measures about eighty-nine feet on the water line, and her spread of canvas will undoubtedly be greater than that of the *Vigilant*, Captain "Hank" Haff, the hero of numberless yacht races, will

be in command of her; and her crew, which is composed of "down-easters" from Maine, will be as fine a lot of American seamen as can be found anywhere. For weeks they have been cruising on the *Colonia* in preparation for the races of the season; and by the time the *Defender* enters her first contest they will be able to work together with precision and confidence.

Thus the latest and finest product of the Herreshoff works and of the keen mind of Captain Nat Herreshoff enters

upon her career. Her surroundings during the months which have brought her into being have been humble, for the Herreshoff shops are not pretentious structures by any means. But she is, to all appearances, the greatest sailing yacht ever designed, and we shall all be grievously disappointed if she does not prove her title to the international championship. May prosperous winds go with her, and her races prove her, as our fondest hopes already proclaim her, the unquestioned Queen of the Seas!

