

Cost of an America's
Cup Defender

YACHTING

Effect of Steel Construc-
tion on Racing Craft

IN the opinion of many well-informed yachtsmen the extreme limit in the building of America's cup defenders has been reached. Nothing short of a good sized fortune will suffice to construct a cup contestant along the lines that have come into vogue during the last decade, and the time when it is necessary to call a halt seems to have arrived. Various statements that coming years will witness radical changes in international cup racing have been made, and it is very probable that Constitution and Shamrock II will be the last 90 footers to compete for the coveted trophy. The advantages of matches between smaller craft will be readily seen. The sport would thus be established on a more sensible basis, and a much healthier tone would result.

Contrary to popular belief, the hull of the modern cup defender does not constitute the most expensive part of the boat. Spars, sails and gear are the features that now make the yachtsmen dive deep into their pockets. The "clothes that dress the lady" supply practically unlimited opportunities for cash disbursement, and the cost of equipment relegates the structural account to the rear.

The limit of speed possibilities, too, has probably been reached. True, Nat Herreshoff has shown ability to build year after year boats considerably faster than their predecessors, but, aside from variations in hull and keel lines, a vessel's swiftness depends on the relation of sail area to resistance, and designers have attained a point in the shaving off of weight that will permit of no further indiscretions. While wooden spars will never again take the place of the "made up" mast, with boom and gaff of steel, there is sure to be a return to more stability of and thoroughness in the forming of these metal spars. In the mishaps to Defender, Columbia, Shamrock II and Constitution the mast, however, was in no way the origin of the trouble. The fault lay with either a whisker, a weather spreader or some part of the wire standing rigging, usually a bobstay or a topmast stay. A stay is a form of guy or brace, and it is quite natural for a metal mast to buckle or double up when its support gives way, placing increased strain on the spar. Metal masts at best are but huge putty blowers stood on end, except that they are made of steel instead of tin and are re-enforced inside with brass and trusses.

Should the cup be won this year by Shamrock II, which is very unlikely, the chances are that America would challenge with a 90 footer just to show John Bull that it is possible to beat him at his own game. In the event of the Constitution winning it is now fully decided by those who ought to know that the next challenge for the cup, whether from England, France or Germany, will be made in behalf of a 35 footer. The cup then of a certainty would be in danger, for experts like "Wall" Fife and George Watson are probably without superiors in building yachts of small dimensions. Americans have, in fact, often been surprised that the Britons did not throw down the gauntlet for a moderate sized craft.

When Boston defended the cup with the Puritan, Mayflower and Volunteer, the cost was insignificant compared with existing conditions. There were many reasons for this. In the first place, Designer Edward Burgess did not know the value of his services, and his fees were most democratic in comparison with the demands of the Herreshoffs for designing a defender. But, then, Burgess simply drew the plans, while the Herreshoffs not only designed, but built, turn out the rigging and make most of the frocks that go to adorn the queens of the water.

The cost of Constitution, from keel to truck, is five times as much as General Paine had to spend in turning out the Mayflower. The general once stated that the Mayflower involved an expenditure of from \$25,000 to \$40,000. Those were the days of wooden hulls, strongly braced, copper bolts and locust treenails. The expensive aluminum, Tobin bronze and nickel frames have made most of the difference in cost. The replacing of the wooden mast with the steel affair has also added to the expense, but the innovation adds a vessel of at least two tons in weight, and that means much when a yacht is well

down under a beam wind, plugging away at the waves.

The Mayflower and Puritan period was noted, too, for its standing rigging of manila rope instead of the costly wire gear of today. Mayflower met the Puritan, Priscilla and Atlantic in the trial races. The latter was built entirely of wood, her keel, stem and stern post being of white oak, her frames of oak and backstays and her planking of pine. Her mast was a splendid stick of Oregon pine 19 inches in diameter, her bowsprit being of the same wood, 16 inches in diameter.

Priscilla was the pioneer of steel craft for cup purposes and naturally was more expensive than her predecessors. A. Cary Smith designed Priscilla, and she was built by Harlan & Hollingsworth of Wilmington, Del. She proved to be a remarkably swift boat in light airs, beating the Puritan under those conditions.

A comparison of the spars of former and modern 90 footers will prove interesting. Priscilla's wooden lower mast was 78 feet high, the topmast, also of wood, 48 feet; main boom, 77 feet. Forty-seven tons of ballast were sufficient to make her stable and seaworthy. Constitution's topmast measures 64 feet in length, and she carries 97 tons of lead in her keel. Independence carries a lower mast 108 feet long, while her main boom is almost as large. Notwithstanding the fact that Priscilla had a hull of steel, her total cost was but \$30,000. The cheapness of her wooden spars and hempen rigging may be readily appreciated.

During the period between 1886 and 1893 prices in yacht building material took a decided jump. In the latter year the Vigilant was built at a cost of \$125,000, and the same year the Pilgrim, Columbia and Jubilee, which were used in the trial races, cost on an average \$30,000. When maintenance is added to the initial expense, the total becomes enormous. Take the Columbia, for example. While actual building consumed about \$55,000, yet to thoroughly fit her as a training ship for the Defender necessitated a total outlay of \$185,000. Of this \$25,000 was used to procure four suits of sails; drydocking cost \$2,000; towing a like sum, burying material for construction another \$5,000, tender for the men, 125 days at \$50 a day, a total of \$6,250; wages, food and clothes for the crew for four months, \$30,000, and bonus for the men \$5,000.

When 65 men are, as at present, required to operate a cup racer, the cost of their services constitutes a most important item. Racing sailors of the proper type get \$4 a day. For each winning race they receive a bounty of \$5 a man. Many persons will doubtless be surprised to learn that more than three score sailors are necessary on a cup yacht. It does not appear strange, however, when it is known that there are usually four quartermasters, a man for the lazaretto, two men for the sail locker and hands at such points as starboard masthead runner, starboard stay-sail sheet, starboard jib topsail sheet, assistant on topmast, backstay, spinnaker backstay, main boom starboard lift, capstan, starboard jib sheet tackle and port forestaysail sheet tackle.

The famous sloop Volunteer of 1887 cost \$50,000. She was owned by Charles J. Paine of Boston and carried a huge steel centerboard. Captain Hank Haff, now skipper of Thomas W. Lawson's Independence, sailed the Volunteer and by handily defeating the Thistle in consecutive races off Sandy Hook established his claim to recognition.

If the America's cup deed did not require the challenger to cross the ocean on her own bottom, it is believed that



Photo by Marceau, New York.

ELSIE LESLIE, WHO WILL PLAY GLORY QUAYLE.

Elsie Leslie, who will be the feature of the support of Edward J. Morgan in "The Christian" next season, will interpret the role of Glory Quayle, made famous by Viola Allen. Elsie Leslie first won fame in 1899-90 in the titles of "Little Lord Fauntleroy" and "Prince and Pauper." She was regarded as an infant prodigy and, like all infant prodigies, was expected, with increasing years, to "putter out" in the matter of histrionic ability. She disappointed the prophets who made these discouraging predictions concerning her, and when she was still a very young woman was playing leading roles with Joseph Jefferson, whose company she left only to accept the engagement in "The Christian." There are those who predict that Miss Leslie is destined to become one of America's great actresses.

The limit of instability would be extended to boats of the eggshell variety, which could be shipped in sections and be put together at the scene of the matches. The question of stability is, however, a peculiar one. When the well known yacht Alisa was at the height of her success in her races against the then Prince of Wales' Britannia, a prominent yachting expert made the following statement:

"Atlantic storms are more to be trusted than Lloyd's surveyors in placing vetoes on flimsy builds, and Mr. Watson has no doubt been gaining experience as to the requirements for safely crossing the Atlantic. Alisa's experience seems to prove that to go 'one more' is impossible. Laid over to the skylight as she was recently in the Mediterranean is quite different from being tumbled over in an Atlantic squall, with the sea doing all it can to burst the hull away from the attenuated keel. Even the old Valkyrie had to be run off the wind when the correct thing was to luff up."

"That our modern racing yacht is not a seagoing vessel is becoming more evident. Unless certain restraints are insisted on challengers will no longer be able to reach New York on their own bottoms unless, as a mountaineer insisted Thistle had done, they 'come round by the coast.'"

Since the foregoing was said Alisa has made a successful voyage across the pond, arriving in perfect condition.

She appeared in several of the recent regattas in the east. It was also claimed that Vigilant could not withstand an ocean voyage, but she did, and not a single bolt or rivet head was strained.

E. H. TIENT.

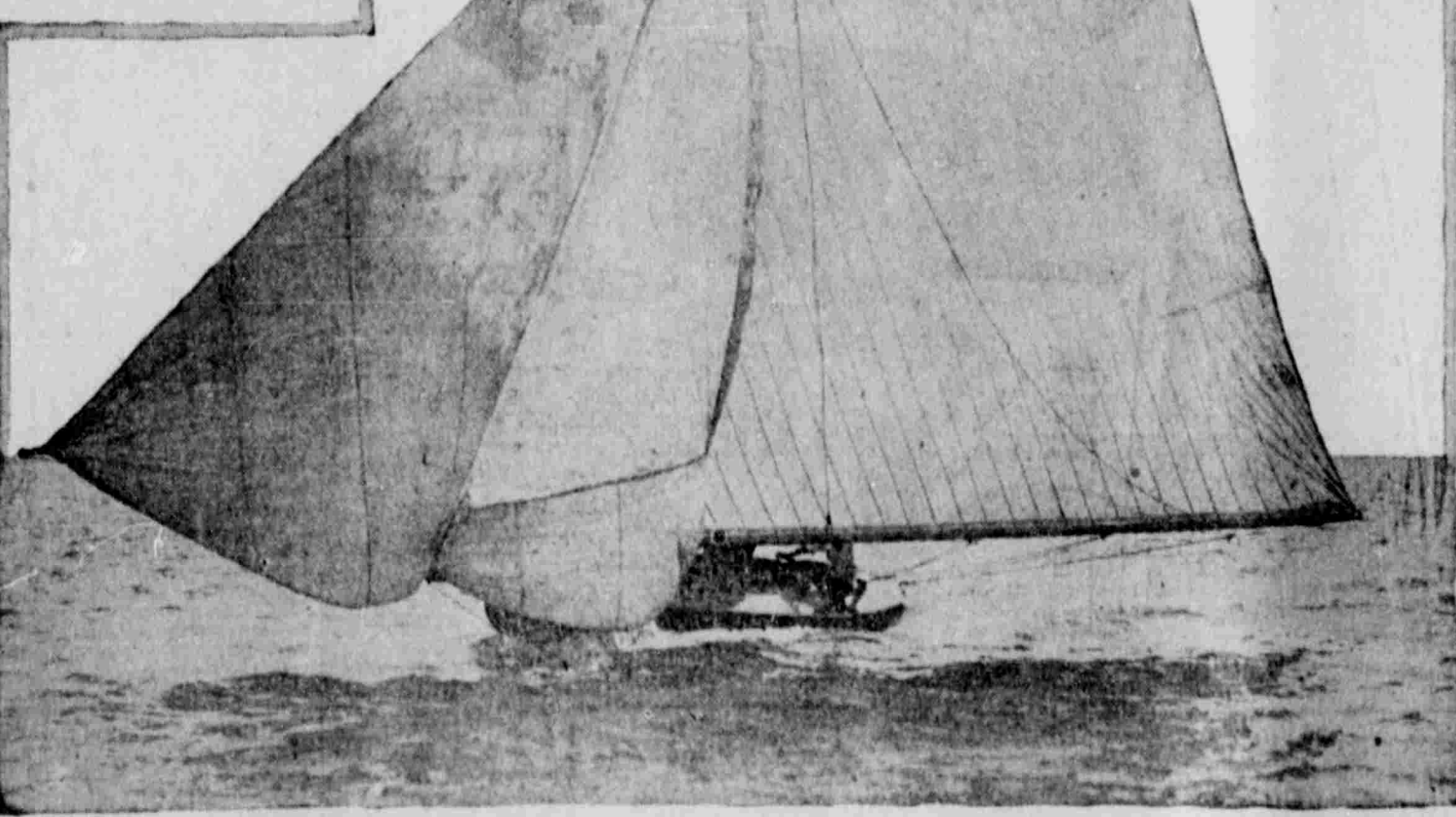
HICKOK ON THE THROTTLING SEASON.

The veteran California reinsman, Orrin Hickok, now in the east, in speaking a few days ago of the prospects of the racing season and the great match race between Cresceus, The Abbott and Boralma, said:

"To my mind, this year will be the greatest in the history of light harness racing, and those match races should add interest to the game. Which do I think will win? Well, I think that both Cresceus and Boralma have a great chance to beat The Abbott. I figure it this way: The Abbott is a great horse, but he has had much hard racing. To my mind, he is all in. He has done his best, while the other two are younger, fresher and improving all the time. They are 'coming,' while The Abbott 'has arrived.' Charley Herr is a great little horse, but not in the same class as Cresceus and Boralma. The contest between Cresceus and Boralma should be a royal battle, while The Abbott-Cresceus race should be almost equally as exciting."

TIGER COACHES ANNOUNCED.

The head football coach of Princeton university for next fall has been officially announced by Captain Pell. "Duffy" Lea, 36, will be the man. Garry Cochran, who did splendid work with the Annapolis team last fall, will have charge of the ends, while Addison Kelly, '98, will attend to the half backs. Jesse Higgs will handle the guards and John Baird the full backs. The above men are among the best in their positions who ever donned football togs for Princeton. "Doc" Hillsbrand will take Cochran's place at Annapolis.



THE HALF RATER ASTHORE UNDER A STAGGERING PRESS OF CANVAS.

ON AND OFF THE STAGE.

Grace Cameron is spending her vacation in the Indian territory of Nebraska and South Dakota, making her headquarters at Chadron, Neb. She says that she will take to New York a large collection of cow punches and "Poor Lo." Miss Cameron is an enthusiastic camera fiend.

Nixon & Zimmerman have imported

the entire scenic equipment and costumes of the London Gaiety theater production of "The Messenger Boy," to be utilized in their American presentation of this piece at Daly's theater, New York, in September. This musical comedy scored a two years' run in London. Miss Alice Coburn of Philadelphia was married recently to Frederick Mur-

phy, formerly a member of Julia Marlowe's company and later head of a musical comedy company. Miss Coburn is well known in Philadelphia educational circles. The best man was Dodson L. Mitchell, lately of John Drew and Julia Marlowe's organizations. Mrs. Murphy will become an actress in her husband's company.

John E. Iace announces the following engagements for the melodrama, "From

Scotland Yard." Charles Hildesley, Lilian Seymour, Rupert Berland, J. J. Crowley and J. A. Manly.

Louis Mann and Clara Lipman have met Paul Potter in London and are greatly pleased with the new comedy he has written for them, especially with their own parts, which they regard as very strong. Mr. Mann has sent to William Harris of Rich & Harris, his managers, models for the scenery,

which will be painted by Physloc. Before returning to America Mr. Mann and Miss Lipman will make a trip through France, Germany and Switzerland.

Klaw & Erlanger have engaged the Grigolatis aerial troupe for their coming presentation of the Drury Lane fairy extravaganza, "The Sleeping Beauty and the Beast," at the Broadway theater, New York, in November.

These performers were one of the big hits of the original production in London last year.

F. F. Proctor, after several weeks' negotiation, has closed a contract with Joseph Arthur for the exclusive rights to produce "Blue Jeans" in New York, Albany, Newark and Montreal. The Proctor stock company will give the comedy-drama an elaborate revival at the Fifth Avenue theater, New York.

The cast may embrace some of the players who were in the original production, and Mr. Arthur is to supervise the rehearsal and production.

William Collier begins his next season in "On the Quiet" under the management of Jacob Litt at the Montauk theater, Brooklyn, Sept. 2.

May Dufrene has been engaged for "The Rogers Brothers in Washington" company.

Amateur -
Professional

SPORTS

FUNNY INCIDENTS AT THE THEATERS.

Many very comical happenings occurred during the long run of "Ben-Hur" at the Colonial theater in Boston. One afternoon a man walked up to the stand of John Curran, who was selling souvenir books of the play, and picked up a volume. The agent, thinking he had a customer, took a great deal of pains and described every picture thoroughly. He thought he had made quite an impression and had a good listener when the man pulled out a pad of paper and a pencil.

and wrote, "I am deaf and dumb."

A country merchant asked for two good 11 tickets. The ticket agent informed him that the 11 tickets were all sold. He said: "That's a fine way to conduct a business. When my stock runs low, I buy more."

A ruralite came to the door and presented a railroad ticket for admission. The doorkeeper told him that he had made a mistake—what he had was a railroad ticket. He said: "No; that's meant for admission to this concert. It's simply a misprint."

A suburbanite, with his son, came into the lobby, pointed to a picture and told his hopeful to look at it. He then walked to the book stand and asked, "Is this a moral show?"

The young man who sells the book replied, "Yes; 'Ben-Hur' is quite a moral play." The suburbanite responded, "I just want ter know, because if it wa'n't



JOHN T. FISHER, THE CHICAGO SPRINTER.

of the foreign scorchers now in the United States. In fact, he appears to have but one man between himself and the professional championship—"Major" Taylor, the negro flier. Kramer and Taylor would afford the greatest sprint match of the year. They should by all means be brought together without delay.

Fred Titus is now on his way home from Europe. His theatrical company has come to grief, and he will probably become a member of Johnny Nelson's acting team. Titus is reported to have accepted a proposal to occupy the rear seat on one of the Swede's motors. At any rate it is absolutely certain that Titus will never again enter the fight for individual cycling honors.

E. Carroll Schaeffer, America's fastest amateur swimmer, is to go to England shortly to compete in the British championships. The tide of international athletics has struck an unprecedented rise, and the only question now seems to be, "Where will it all stop?"

J. H. Sterret of Philadelphia, a leading authority on amateur swimming, has stated that Schaeffer is surely going abroad to attempt to bring back a championship emblem.

Mr. Sterret says: "I am now working to get the money to send Schaeffer across. He is the only American I know of who is practically sure to win against the best English swimmers."

The Philadelphia is known as a man who accomplishes his end, so Schaeffer's trip is certain.

Schaeffer is the present A. A. U. champion at 220 and 240 yards. His record for the 220 is 2:53 3-5 and for the 240 6:48 3-5. He is now a member of the National Swimming association. Formerly he competed for the New York A. C., but under the rules as recently revised he cannot represent the club any longer.

The new rules permit only college undergraduates to compete for organizations outside their own district. Schaeffer belongs in the Atlantic district and lives in Philadelphia.

BEN TAVIS.

I'd send Eben some other place and go and see it myself."

One night about 10:30 a man rushed up to the book stand and said:

"Is that the book that describes the play?" The young man answered it was.

"Well, give me one of them. My wife gave me \$2 tonight and sent me to see the play. I'll take this book and look it over and tell her all about it."

A man who gave his home address at Ponkapog, Mass., came to the ticket office and said:

"Giv' me a 50 cent seat." The ticketagent gave him a seat in the second balcony. He went to the main door and presented the ticket.

The doorkeeper informed him that the entrance to the second balcony was "outside on the right." He walked outside, turned to the right and examined the building thoroughly.

Then he went back to the ticket office and said:

"Here, I want a ticket for the inside—not the outside."

A lady of uncertain years came to the stand one day and said, "What is the price of those books?" After being informed that the price was 25 cents she said, "Well, I'll have one, because I want to join in the chorus of the service inside."

A man from Ipswich, Mass., asked, "When does the lecture start?" Being informed, he picked up one of the souvenir albums and asked the price.

When he was told that the price was 25 cents, he said, "Oh, phaw! I could see a whole show for that."