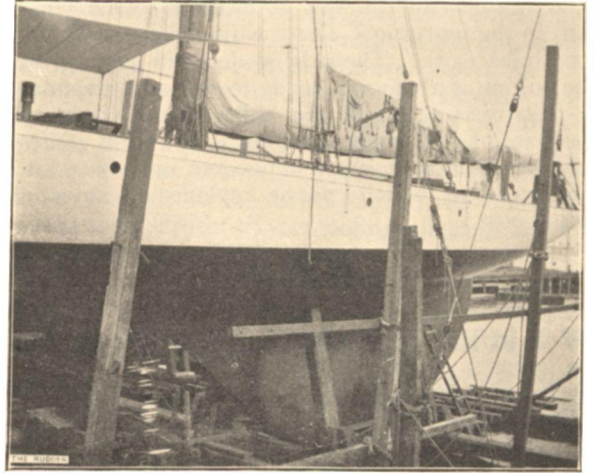


The Seventy-Footers

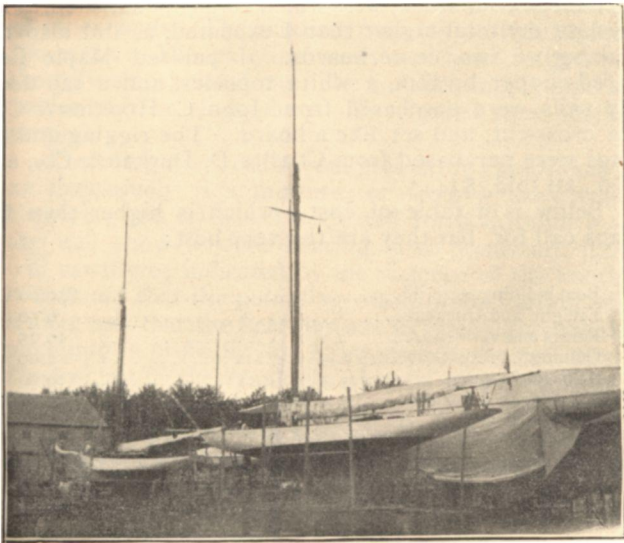
THOROUGHLY up-to-date and full of Herreshoff wrinkles and labor-saving devices in hull, rigging and fittings, are the four one-design 70-footers turned out by the famous Bristol firm for that widely-known quartette of millionaire New York yachtsmen, August Belmont, Cornelius Vanderbilt, W. K. Vanderbilt, Jr., and Harry Payne Whitney. An eye accustomed to the peculiarities of the previous productions from Bristol can see Herreshoff all over these yachts as plainly as if the word were written on every part, and yet a close examination shows several new inventions and improvements over even that finest of finely-fitted racing ships, the successful cup defender Columbia. Little Columbias the new yachts have been called. Above water, at least, they deserve the term, for in external appearance they much resemble that peerless craft. They do not indeed show the tremendous tower of canvas that made the hull of the Columbia look small underneath it, for they carry only about half as much sail; but there is no thing small about their spars and sails, even



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in sail and power over the extreme racing craft. The yachts will not be as expensive to maintain as a cup defender, and at the same time promise plenty of sport. In short, they are the combination in a 70-footer of the racer and the cruiser, that has been found successful in the restricted 21-foot raceabouts and knockabouts, as well as in the Newport one-design 30-footers from Herreshoff's hands. There is apparently no good reason why the experiment with the 70-footers should not be equally successful.

Coming down to details on the boats, an investigator will find that they are 106 feet over all, 70 feet water line, 19 feet 8 inches beam, and 14 feet draught, with about 40 tons of lead carried in a bulb at the bottom of the wooden keel. They are composite in construction, having steel frames and deck beams with wooden planking. The frames are firmly rivetted to a steel keelson, which in turn is bolted to the wooden keel. The bulb of the lead is held in place



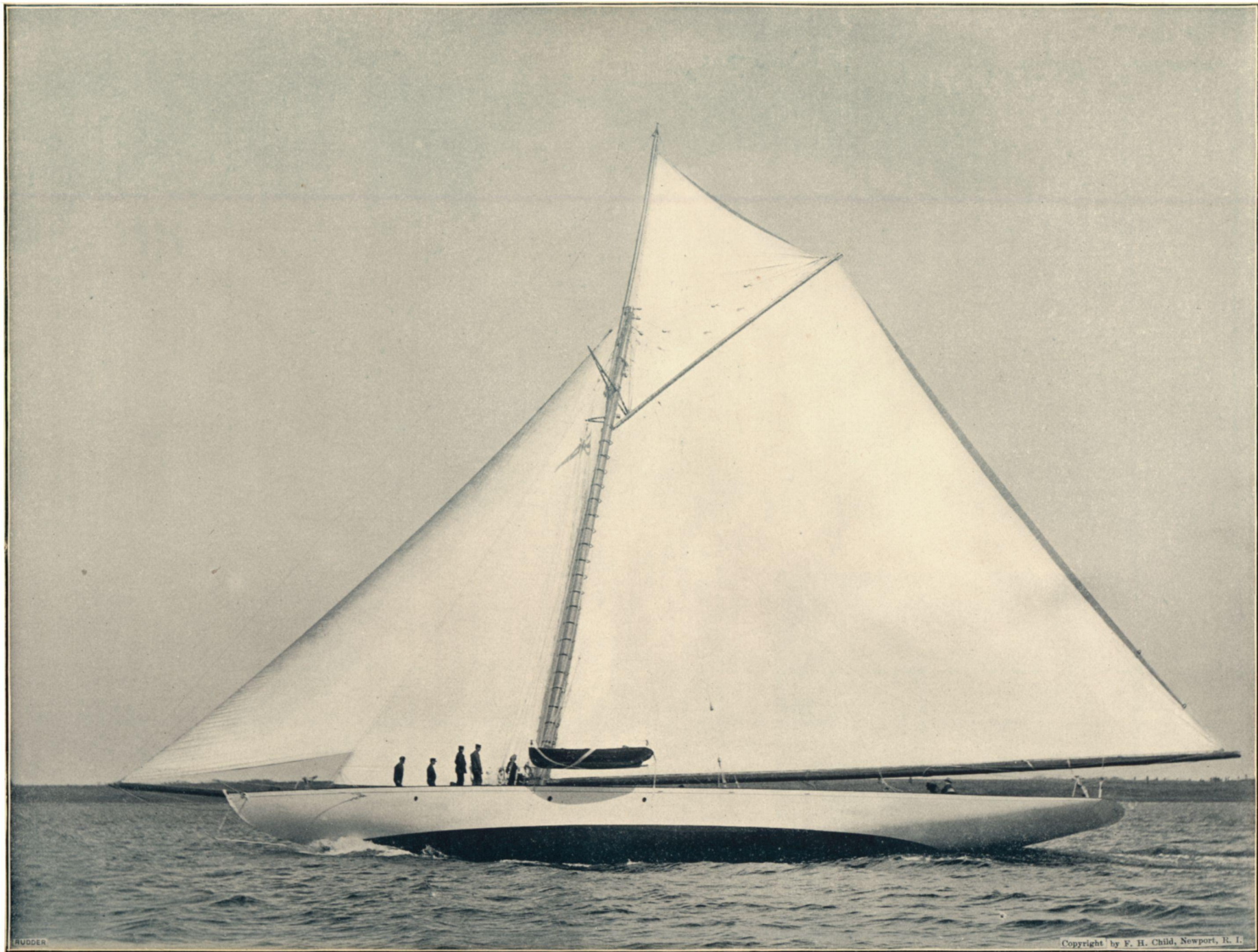
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at that, while their hulls give the same impression of beauty, power and speed, that was so marked in Columbia, even to the non-nautical eye.

Below the water the boats resemble Defender rather more than Columbia; but the reason is not far to seek. Their owners did not desire the extreme speed that would be necessary were they to meet all comers, and hence did not demand that extreme cutting away of the underwater body found in Columbia, nor the same exaggeration of the proportions of sail and ballast. They carry about half as much outside lead. So the 70-footers, while showing Columbia characteristics in the shape of the lateral plane and the disposition of the lead, have at the same time rather more of Defender's sharper floors, rounder bilges and shorter overhangs. Yet they are extremely well-turned boats in model, and should keep up the Herreshoff reputation for speed and ease in handling. Fifteen men are deemed a sufficient crew for one of the seventies, where Columbia carried forty, and this gives another reason for the decrease



MINEOLA, COLUMBIA, DEFENDER



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BUDDER

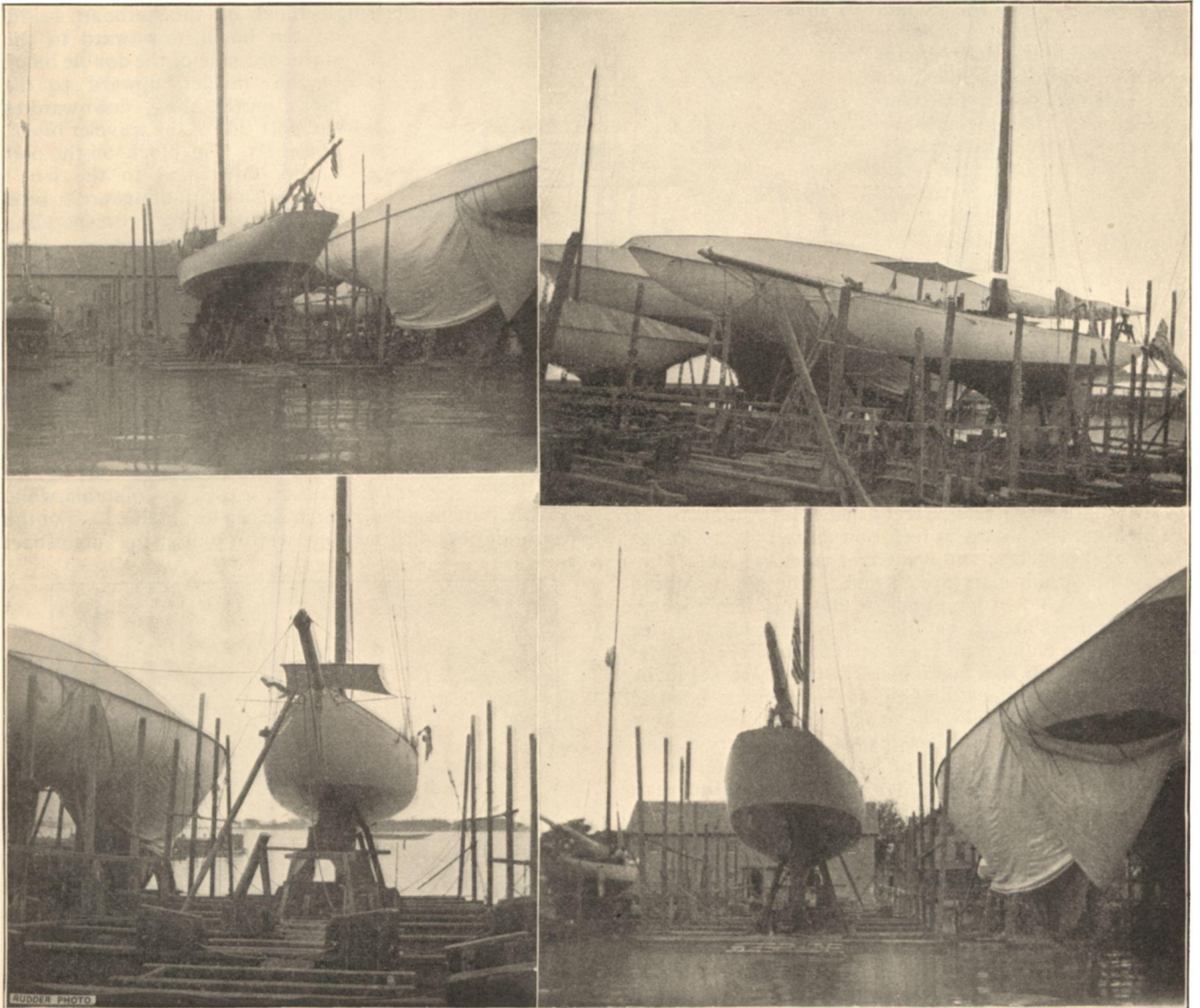
Copyright by F. H. Child, Newport, R. I.

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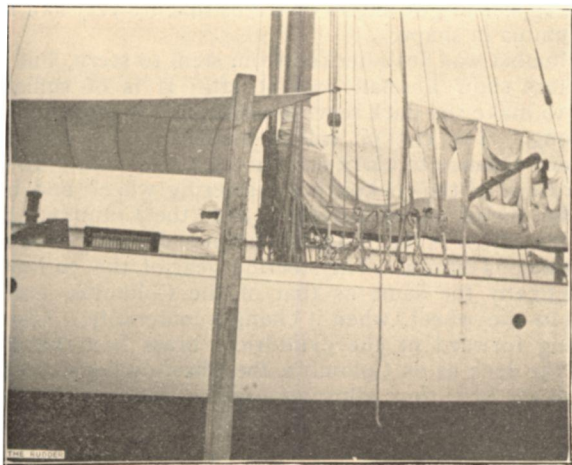
by heavy bolts through the wooden keel and steel keelson, and is further fastened by broad bronze straps on the outside, that are sunk into both wood and lead and firmly screwed there. There are twelve of these straps on either side, and if the big lump of lead ever gets out of their clutches it will be from a heavy pounding on a hard bottom, and not from ordinary use. Frames and deck beams are of nickel steel, light, yet strong, and show the same bulb on the web or inner flange of the angle that was shown on Defender and Columbia. The planking is of yellow pine in long lengths and the deck of white pine. Skylights, companionway and hatchways are of mahogany; and while all the deck fittings are light and neat there is not the same sacrifice of ornament that there was in Columbia. The Mineola and her sisters are painted white above the water line and green below. The green paint is a patent, non-fouling combination of Herreshoff devising. The white of the topsides is relieved by a gold stripe just beneath the rail, a bit of ornamentation that adds materially to the looks of the boats, but that was not deemed necessary in Columbia. The rails are also higher than on the out-and-out racer, and there is more of a look of comfort all around. The

names appear in gilt letters on sterns that are very like that of Columbia in shape.

Columbia was flush-decked from stem to stern, but the 70-footers show a small cockpit aft. It is of sufficient depth to make the deck serve as a seat, and is about a dozen feet long. The cockpit rail is planted on the deck at a sufficient distance to carry out the deck-seat plan. In the forward end of the cockpit is the steering wheel; and here is to be found an improvement over the Columbia, that shows how busy is the designer's brain in devising advances over previous efforts. The steering gear of the 70-footers is practically the same as that of the Columbia, until it comes to the wheel, when it changes materially. Instead of being forward of the cylindrical brass box that rises above the deck as on Columbia, the wheel on the 70-footers is aft of the box, thus allowing greater freedom of movement to the helmsman, and at the same time permitting of the placing of the binnacle on the top of the box, a saving in weight and space all around. The placing of the box and wheel in the cockpit also brings it lower than on a flush deck, and places the helmsman more out of the way of the low-swinging boom. Like that of Columbia, the steering



MINEOLA ON THE WAYS

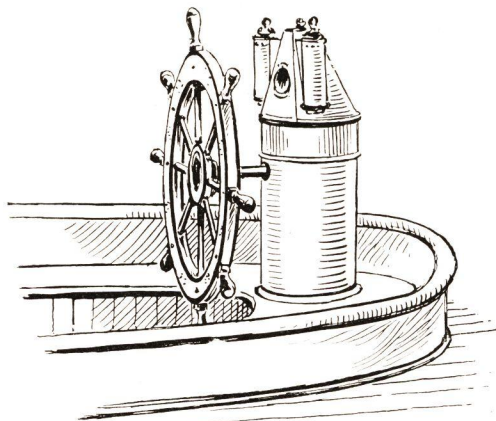


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gear on the 70-footers consists of a quadrant firmly fastened to the rudder head, and projecting aft at right angles to it. Bevel teeth on the quadrant engage similar teeth on a bevel wheel fixed to a vertical shaft properly supported and extending upward into the cylindrical brass box on deck. Bevel teeth in a similar wheel on the upper end of the shaft engage the teeth of a pinion on the horizontal shaft that carries the steering wheel. The power from wheel to rudder is gained in the arrangement of the teeth in the gear, which arrangement is a Herreshoff secret not likely to be easily found out. Since it serves its purpose, who cares?

The spars for the 70-footers are of selected Oregon pine, and come from the shop of the Boston Spar Co., on Condor St., East Boston. Manager Wm. E. Bailey of the Company took special pains with Columbia's spars, and has spared no effort to make those of the 70-footers their equals in every respect. The principal spar dimensions are as follows: Masts, 78 feet 5 inches long; topmasts, 47 feet 4 inches; main booms, 75 feet; bowsprits, 25 feet 8 inches; gaffs, 42 feet 9 inches; and spinnaker poles, 58 feet. Two sets of clubtopsail spars are carried. The No. 1 clubtopsail poles are 48 feet long and the clubs 36 feet 3 inches. The No. 2 poles are 35 feet 4 inches and the clubs 27 feet 3 inches. The clubtopsail spars are flattened on the sides, a new departure in spar making. The masts are $15\frac{3}{4}$ inches in diameter at the deck and $16\frac{3}{4}$ inches greatest diameter just below the hounds. The masts are 57 feet deck to hounds and have a 14-foot masthead. They bury about 5 feet below the deck, where they are stepped in steel cones similar to that on Columbia. The booms are 12 inches extreme diameter; topmasts, $8\frac{1}{2}$ inches; bowsprits, $10\frac{1}{2}$ inches; gaffs, 8 inches; and spinnaker poles, $7\frac{1}{2}$ inches. 18 feet of each bowsprit is outboard.

The rigging is of steel wire, that for the running rigging being specially flexible. Many of the Herreshoff wrinkles in rigging and gear speak for themselves in the accompanying sketches. Some of them have been seen in Columbia, but the mainsheet device is entirely new, and merits a special description. Its main object is to distribute the pull of the sheet equally over quite a length of the boom, while at the same time to secure a purchase for speedy handling. Two long wire bridles, one on each side of the boom, carry each a single

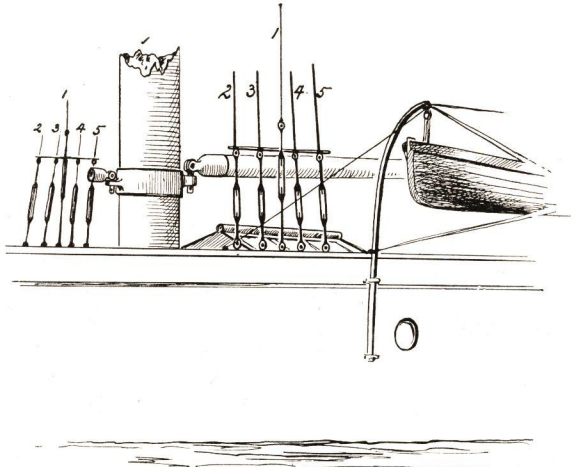


COMBINATION STEERING GEAR AND BINNACLE

block, while another single block is carried on a sling from the boom about halfway between the ends of the bridles. There is a double block on the traveler and the customary single blocks on the deck at each quarter. The lead of the mainsheet is from bitts on the starboard side abreast the cockpit to and through the starboard quarter block; thence upward through the single block on the starboard bridle

on the boom, downward to the starboard side of the double block on the traveler, upward to the block on the sling, downward to the port side of the traveler block, upward to the block on the port bridle, downward to the port quarter block, and forward to bitts on the port side corresponding to those on the starboard. Seen aboard the yachts the device looks complicated; but a little study show its various parts and their value, and also that it is simpler than it looks. Both ends of the sheet can be used at once in getting the boom inboard for a jibe, and either end may be used for flattening the boom in for a turn to windward. The blocks are lighter than those used on Columbia, while

probably fully as good a purchase can be obtained. For the purpose of obtaining a last powerful pull at the mainsheet



1. TOPMAST SHROUDS. 2. and 3. MASTHEAD SHROUDS. 4 and 5. SHROUDS TO HOUNDS.



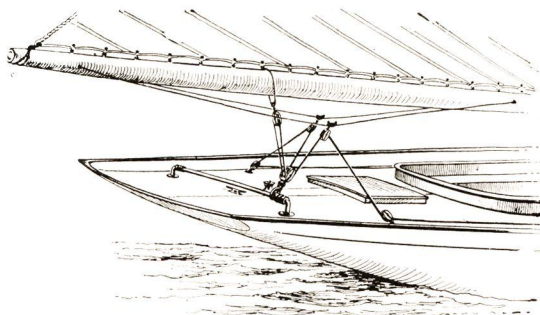
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THE RUDDER

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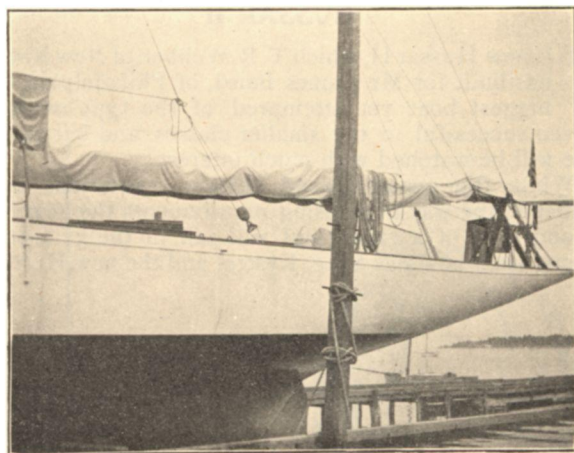
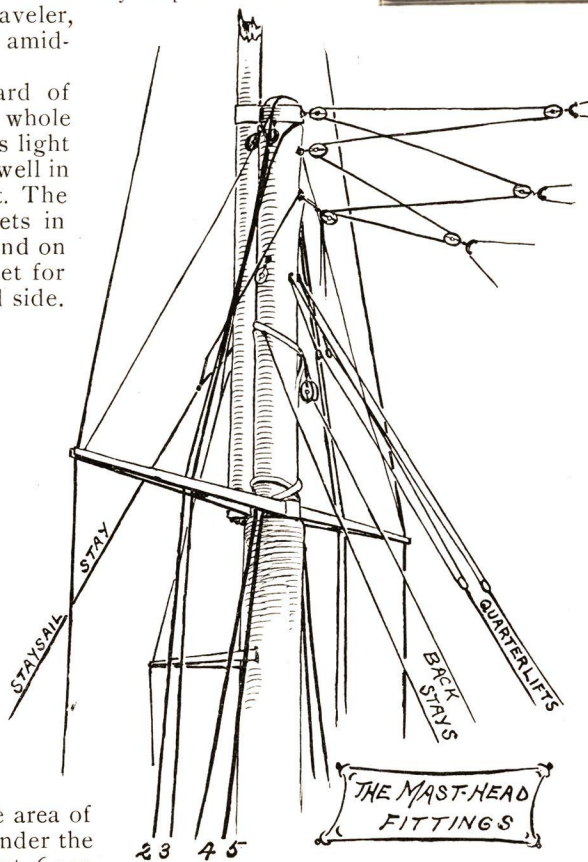
Photo by F. H. Child, Newport, R. I.



THE MAINSHEET DEVICE

a small brass capstan is planted on deck at either side, about halfway between the wheel and the companionway. A similar capstan for a pull on the balloon jibtopsail sheet is placed just forward of the traveler, while there are a couple more amidships for general work.

The topmast is rigged forward of the mast in the usual way, but the whole effect of the masthead rigging is light and strong. The forestay leads well in on deck aft the heel of the bowsprit. The jib sets flying. The mainboom sets in the usual gooseneck, and the band on the mast that carries it has a socket for the spinnaker pole on the forward side. The sails are from the Herreshoff lofts, and are of a fine quality of cotton duck. They are of the fashionable cross-cut variety, with the cloths running at right angles to the leach. The deck plan shows a sail hatch, just aft the cockpit and a skylight between the cockpit and the companionway. The companionway has seats at the sides. There are two more skylights between the companionway and the mast, and one forward of the mast. The fore hatch completes the list of deck openings. Two boats are carried, one on each side, on davits just aft the shrouds, and these boats are lightly built and of special Herreshoff design. The area of the working sails as measured under the New York Yacht Club rule is about 6,000



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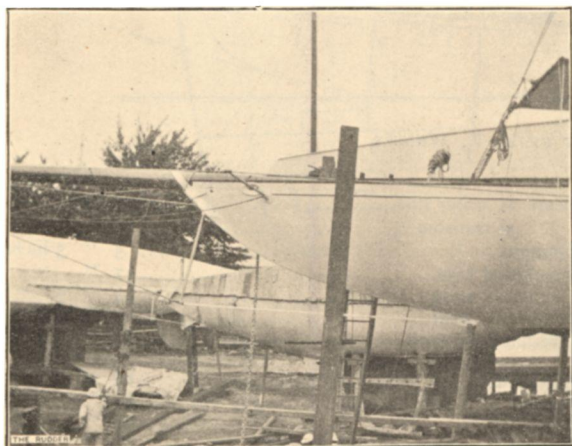
square feet, and the yachts ought to carry it in good shape.

There will be plenty of racing for the class throughout the season by the New York, Larchmont and Seawanhaka Clubs. Many of the races will be sailed off Newport, which will be the headquarters of the class for the summer. The change of classification made by the New York Yacht Club, so that the new boats would not meet the Columbia, Defender, or any of the large sloops that might be in commission, will add interest to the racing in the runs and special events of the club's annual cruise to the eastward. The yachts will also be seen in the race for the Astor Cup at Newport. Still further interest in the class will be awakened by the entrance, by consent of the owners, of W. O. Gay's 70-footer Athene. This boat is of Herreshoff design and build, of composite construction, and is deep-draught centerboard. She carries a cruising rig of about 5,500 square feet of sail; but Mr. Gay thinks he has chances with the new boats in breezy weather.

Athene will be eligible to race with the new ones in the New York Cruise, since her owner holds membership in that club, as well as in the Eastern and other clubs.

Since the new boats are alike in design and fittings, more than usual interest will be taken in the handling. August Belmont's Mineola is to be handled by Capt. Bob Wringe, of the Shamrock, with an English crew. Cornelius Vanderbilt's Rainbow will also have an English crew, commanded by Capt. George Parker. W. K. Vanderbilt, Jr.'s, Virginia will be sailed by Capt. Hansen, formerly of Vigilant, and Scandinavian crew, while Harry Payne Whitney will be his own skipper, and will have an American crew under him. He will have the assistance of Herman B. Duryea, also widely known as a clever amateur. It goes almost without saying that there will be no little international rivalry in the racing, and consequently sport to correspond.

Eighty-foot steam tenders from the Herreshoff works will accompany the boats. Scout is the name of the one attached to the Mineola, and Mirage that of Rainbow's attendant.



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