

Keels or Centerboards

An Answer to Fenger's Article on this Subject in the May Issue

By HENRY HOWARD



MR. FENGER'S very fair and friendly criticism of my article about *Alice*, and of centerboards in general, in the May YACHTING is very interesting but not convincing. His opening statement should always be kept in mind, viz.: "For I must frankly admit that practically all my off-shore sailing experience has been in the keel type, and that against this I can put forward no parallel experience in any centerboard craft."

In other words Mr. Fenger's doubt of the relative seaworthiness of the centerboard type is largely theoretical. It is not supported by such facts as I have been able to get together, and I believe we should base our conclusions upon facts and accumulated experience when they are available, rather than upon theories.

First let us have a clear understanding of what we are discussing. We have under consideration light draft centerboard boats 30 feet to 60 feet overall, designed primarily for cruising and off-shore work — craft that in the old days of sail power only would have been convertible into excellent fishing boats. In other words, we are considering the possibility of building comparatively shoal draft centerboard boats that can stay off-shore in safety and take the weather as it comes.

Regarding Mr. Fenger's remark about my experience in "the heaviest norther of the winter" in which I crossed from Havana to Key West under whole mainsail and with engine running, I entirely agree with him that northers in the tropics are not really very bad. I have not seen any that would compare in viciousness with northwest gales that one finds off Race Point, Cape Cod, during the winter. In the tropics the air is warm and there is not much weight in the wind. Those who have had experience know that the additional "weight" in the wind in cold weather is far from imaginary. That is to say, a 35-mile wind with a temperature of 80° to 90° F. is extremely different in its effect on a sailing vessel, and the sea itself, from a 35-mile wind with a temperature of 30° to 40° F.

My norther, in March, 1925, was the strongest of that winter in those parts. I never intended to convey the idea that it was equal to a winter's gale off Cape Hatteras or Cape Cod. It was not.

It was, however, a strong breeze, about 35 miles per hour and, combined with the Gulf Stream current, kicked up a rather nasty sea. The *Alice* under these conditions was more comfortable than any keel boat I have been in. She was on top of everything, but with a slow and remarkably easy motion, owing to the skilful combination in her design by Commodore Munroe of very moderate beam and good deadrise. A wide centerboard boat such as Mr. Fenger seems inclined to favor would have been uncomfortable. I know, because I cruised in company with one last winter.

We had heavy spray but no solid water on the forward deck at any time, and this in spite of *Alice* being driven into the sea by all the sail she could stand as well as by the full power of the engine. Very little spray came aft so that we were able to keep open the after side of the saloon skylight during the entire crossing. In keel boats with which I have had experience, under the same conditions, we would have been battened down from stem

to stern, and while we might have gone a little faster it would have been decidedly uncomfortable.

Regarding keel boats, of course I am speaking of those having the majority of their ballast fixed outside. I have no doubt that a keel boat with substantially the same model hull as the *Alice* and with all her ballast inside would have behaved in substantially the same manner as the *Alice*, but the keel in such a boat would not add any stability. Does it not seem far better, therefore, on a cruising boat, to substitute the centerboard and be able to cruise as you will in shallow harbors, all over the Bahama Banks and through the inland waterways which extend along most of our coast line south from New York to the Mexican border? (See the new Inland Waterway Coast Pilot from Key West to the Rio Grande.)

Mr. Fenger wonders what would have happened to the *Alice* in a January "snorter" between Beaufort and Georgetown. The *Alice* was favored with fine weather during this passage but her sister ship, the *Carib II*, actually encountered a "snorter" in this exact spot on her way South in December, 1924, and under most unfavorable conditions. Her owner, Mr. Mauran, had done no yachting for many years and was in exceedingly bad health when he left New York. He was warned by his physician to avoid any over-exertion on account of a doubtful heart. Combined with this he started South too late and was caught in snow and ice and, in addition, had much trouble with his crew. He arrived at Beaufort completely tired out, was joined there by a young man, Mr. J. P. Gundry, of Cleveland, who had been my guest on the *Alice* from New York to Miami. Mr. Mauran discharged his captain before sailing from Beaufort and when he put out from that port his crew consisted of Mr. Gundry, an inland banker who had never been on a cruise before, a Swedish cook and a boy they had just shipped.

They sailed from Beaufort about 8 P.M. The first night passed pleasantly and about noon the next day they passed outside Cape Fear Light Vessel laying their course for Charleston Light Vessel. At this time the wind was moderate and enough to the southward so that they could lay their course on the port tack. About 3 P.M. it began to breeze up, but not very rapidly at first, and as everyone except Mauran and Gundry were helpless with seasickness, shortening sail was delayed much too long. In the middle of the afternoon the engine stopped — due as was found later to a little air getting into the oil supply pipe — but as she was going along nicely under sail no attempt was made to start it again until after the gale was over. About 9 P.M. it breezed up so strongly that the boat was completely overpowered and hove down on her beam ends, everything movable below decks went to leeward and things generally were in a mess. With great difficulty and with only such help as Mauran was able to give, Gundry succeeded in lowering and securing the mainsail. Shortly after this the gale increased greatly in violence and they tied in two reefs in the mizzen but were afraid to tackle the jib and expected it to blow away momentarily. However, it was made of No. 7 duck, and heavily roped the whole length of the foot and leech, so that it held.

My story of the details of this run were obtained a day or two ago from Mr. Gundry. He has had much experi-

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ence in rough water, having spent the whole winter of 1918 on a Naval Patrol boat in the English Channel and its approaches. He tells me that he can heartily agree with Mr. Fenger's remarks about the severity of "snorters" off Cape Fear in winter. He says that the one I am telling about was worse than any gale he encountered abroad in 1918 with the exception of the one which the *Corsair* encountered when approaching Brest, and which blew her across the Bay of Biscay to Spain.

Gundry further says that *Carib II* behaved wonderfully and that at no time did he fear for their safety. After sail was shortened she was able to take care of herself with lashed helm all that night and the next day, during which time they made little or no headway. The third night the wind moderated and with all sails set and engine running they again headed for Charleston Light Vessel which they picked up in due season and anchored in Charleston Harbor without having parted a rope yarn. Mr. Gundry is of the opinion that the wind reached a velocity of 50 to 60 miles per hour in the height of the gale.

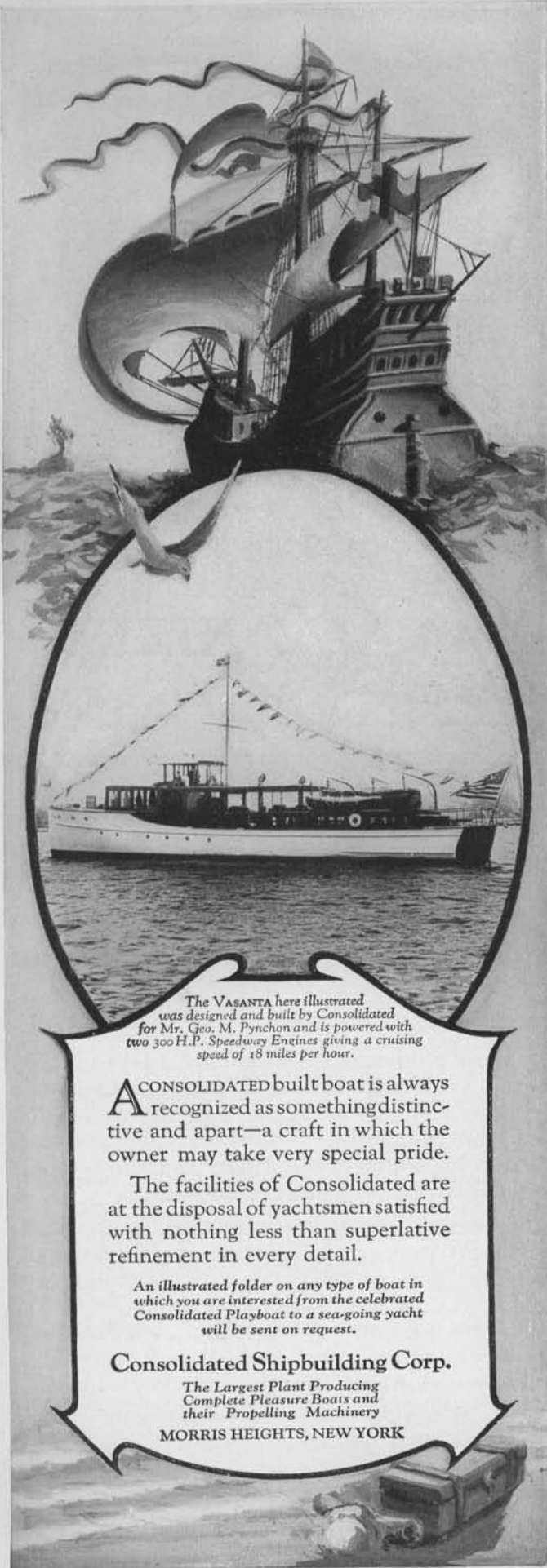
This experience certainly speaks well for Gundry, Mauran and the boat. It would seem to fulfill the tests Mr. Fenger desired. She got the knockdown as the result of carrying sail much too long, but her deck could not act as a leeboard because of the 23' 6" of raised deck amidship which gave an additional freeboard, buoyancy, and righting moment and could not be submerged.

I agree with Mr. Fenger that *Alice* undoubtedly has less sail carrying capacity as she is than if she had a keel with ballast on the bottom. I maintain, however, that the inside ballast with reduced sail spread makes her a better sea boat and far more comfortable in rough weather. In ocean going vessels, both sail and steam, the bad effect of even getting the heavy weights in the cargo too low has been well known for years.

Another important point in the design of *Alice* in which Commodore Munroe has scored, is her ability to steer and handle easily under sail alone in exceedingly shallow water even in a strong breeze. I believe this is largely due to her perfectly straight keel and comparatively deep forefoot, so that when she begins to drag the bottom she does it for the full length of the keel. Last winter I found I was able to beat her to windward in short tacks without any board down. It was in a strong offshore breeze at Coconut Grove in water so shallow that she was resting on the mud when on an even keel. Again when sailing in a fresh breeze across the Bahama Banks we crossed a very shoal spot and only noticed it by the change in the color of the water, which caused us to sound. Just ahead a friend in another boat, but with fore foot somewhat cut away, reported very wild steering. *Alice's* steering was not noticeably affected.

Another proven instance of the seaworthiness of a properly designed light draft boat is that of the original *Carib* from whose lines both *Alice* and *Carib II* were built. After her original owner, Mr. Haigh, sold her she was purchased by a professional fisherman who used her for winter fishing along the Atlantic coast between the Jersey beach and Hatteras. In the summer she was moored off the Jersey beach at a point where there was no harbor. Fishing parties were taken out from a hotel at that point. But whenever a storm came up she was obliged to slip her moorings and stand out to sea until it was over. I am informed that she was kept in these two services, winter and summer, for about seven years.

Light draft fishing boats, sloops and schooners, with all ballast inside, about the size of the *Alice*, have sailed out of Edgartown, Mass., for years for fishing on Georges Banks, and the boats in this business have to take the



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weather as it comes. It is certainly no service for unseaworthy types.

Other instances will be found without number in the far east. We all are familiar with the Chinese junks, as much has been written about them in the last two years. The Japanese sampans, which are of still lighter draft, should not be overlooked. Stuart D. Lansing, who bought and still owns my Stamford schooner *Alice*, after reading the articles about the new *Alice* in YACHTING last winter, wrote as follows, from Honolulu:

“ . . . Allow me to congratulate you upon the clearness of your arguments for a shallow draft vs. deep when in big seas. I know you are right. . . . If you ever try another shallow draft you must look over a sampan, a Japanese fishing boat . . . goes through typhoons, and the wildest monsoons right side up, shaken but whole. They go off 600–800 miles fishing in 24- and 30-footers. A 30-foot boat draws 20 inches of water. . . . You may know all about these craft, but if you don't, they will help your contention, that a shallow draft boat is safer in a bad sea than a deep, heavy keel boat. These animals, remember, go anywhere at any time and always come back, and a great number have come out 4,000 miles, Japan to Hawaii. . . . I notice in 'Under the Lee of the Long Boat' the editor does not like your ideas and wonders whether on a lee shore and with a broken down engine you would not wish for the old *Alice* back again.”

“The answer is that you are a bit more careful not to get in a rotten position on a lee shore—and engines don't break down.”

The above is particularly interesting, coming as it does from the present enthusiastic owner of my “old” *Alice*, one of the Cox and Stevens Stamford schooners. I wish to take this opportunity to say a good word in her behalf. Her ability to go to windward in a heavy sea and gale of wind was remarkable and it was great fun to sail her under these conditions. One year, on October 31st, I was caught about sundown in a sudden northeaster off Chatham and beat her around Cape Cod under a storm jib, double reefed foresail and four reefed mainsail with a wind of 35 to 40 miles velocity. Another year, on November 1st, we beat from Plymouth to Boston Lightship, against a gale from the North to N.N.E. which the Weather Bureau reported as reaching over 50 miles in the squalls. We did the entire distance at the rate of 4 knots per hour. During much of the trip we were rail down under a four reefed mainsail, two reefed foresail and storm jib. I am perfectly sure, however, that in very rough weather at sea my light draft ketch *Alice* would be much more comfortable and would ride out any ordinary gale with safety. If it came to a very bad time I would much rather take my chance in her than in my old schooner *Alice*. But aside from this the draft of the schooner *Alice* barred me from many of the inland water ways and from many of the most fascinating harbors in the Bahamas and Florida.

Would not the *Diabliesse*, good as she undoubtedly is, be even a better cruising boat and more comfortable in a heavy sea if her sail spread were slightly reduced, her ballast all placed inside, and her keel replaced by a good centerboard?

She would certainly be able to enter many harbors in the Bahamas, Cuba and elsewhere, which are now closed to her. Moreover, with light free winds under sail, and also when under power alone, it is quite surprising how the speed is increased through the reduction of wetted surface when the board is raised.

Sixty years ago an article of this sort in the United States would have been superfluous—it was something that everyone knew about. Outside ballast was then practically unknown and centerboard sailing craft with all ballast inside were in wide use in many trades requiring staunch seagoing boats.



LAST year when *Advance* created such a sensation amongst the schooners, almost everyone credited her fine showing to the staysail rig developed by Commodore Lawrence as a result of the researches and experiments of Prof. Warner. This season, with all the other schooners hastily jamming on the same, or practically the same, rig, *Advance* calmly goes out and gives them all a more decisive trimming than she did before. As I mentioned almost a year ago, no one knew definitely whether it was the rig or the hull which was responsible for her showing, she never having been tried with the gaff rig. Right now, doesn't it begin to look as though there wasn't quite so much to the staysail rig as a lot of people thought?

* * *

Speaking of rigs, that certainly is a unique affair which Fritz Fenger sprung on us in the last issue, and, offhand, it would seem to have a lot of merit, though nothing but actual tests will prove much. One thing that strikes me is that Fritz will run into trouble trying to stay his mizzen, for in addition to the forward pull of the mizzen staysail stay is the forward pull of the "main trysail" sheet — they all pull the head of the mizzen forward. Permanent stays from the mizzen masthead, leading aft, won't do — I've tried 'em, and you can't let the mizzen out when going free on account of chafing. Preventer backstays? Awful nuisance, fine chance of breaking your mizzen boom in case of a jibe, and to be avoided if at all possible. Maybe Fritz can enlighten us.

* * *

A number of people have asked me what I thought of the design of the Alden centerboard schooner in the July issue. Well, it "listens good," and although I am a keel adherent as a rule, there is no reason why a centerboard boat, with outside ballast placed reasonably low, shouldn't be perfectly safe, a fine sea boat, reasonably fast, and have a lot more room in her than the keel boat of the same length. The advantages of only 4'2" draft in a 43-footer can't well be denied, and the extra room isn't to be sneezed at. I have no love for centerboards and centerboard trunks — I've seen too many of them give trouble. But the many successful boats built from Commodore Munro's plans and specifications pretty well prove that a trouble-proof board and trunk *can* be built, and that's that. After the trip which I hope to take in the first Alden centerboarder maybe I'll have some real dope to spill.

The owners of four boats announced definitely this spring that they would sail their craft across the Western Ocean and have a go at the Britons in the Fastnet Race. After getting the Britons all steamed up about the threatened invasion of the Yankees, three of the boats were withdrawn, two at the last minute, leaving only the *Primrose IV* to carry on and prove that there was at least one owner with earnest intentions and gameness enough to go through with the deal.

And hand it to *Primrose* and her crew for the splendid record they made on the crossing. She probably won't win the Fastnet Race, for she is far from the fastest schooner of her type afloat, and her crew is inexperienced in racing, either long or short. But I have a hunch she'll make a pretty fair showing at that. Good luck to you, *Primrose*.

* * *

Well, I was initiated into the racing game in Narragansett Bay; sailed in three race weeks at Marblehead, and several odd races; sailed a number of races in Buzzard's Bay and Chesapeake Bay, and a season on the Delaware River; but for the flukiest, most uncertain racing conditions I have ever experienced, the present season on Long Island Sound wins the watermelon. With the possible exception of three or four races, flukes have affected the finishes in almost every class. Of course, the local experts have a considerable advantage, as a rule, on doping out what the fickle winds will do — but even they go absolutely wrong at times, as is definitely proven when Bill Swan wanders across the line in 10th place amongst 20 Sound Interclubs, or Coryn Shields trails the entire fleet, as he did in the Stamford Y.C. regatta. It's certainly depressing to have your boat tuned to concert pitch, get away to a flying start, keep your nearest competitors well covered, and then find that half the fleet has split tacks, picked up a favoring slant, and relegated you to 12th or 15th place in the twinkling of an eye. How I long for the fair, true breezes of good old Narragansett Bay!

* * *

Speaking of the Sound Interclubs — what a whale of a class to race in! With 20 or more boats in every race, half of them will crash the line in the smoke of the gun, and the rest are close enough to smell the powder. A dozen or more boats are sailed hard and well. Anyone who can win must sail a perfect race, and get the breaks besides — the smallest mistake, the slightest bad break, and you're done for. Verily, the winner has a lot to be thankful for.