

THE HARRISON BUTLER ASSOCIATION



"Edith Rose"

NEWSLETTER No: **33**

SUMMER 1991

The Crag
St Mawes

May 1991

Dear Members,

Another wet day so I can finish my letter. Whenever the time for writing my piece for the HBA Newsletter crops up I always seem to be in the midst of magna opera - usually because, as now, I am down here and when it's fine, I am out doing battle with brambles, sloes, ivy and other pests. All my friends and relations who come to stay get roped into the slave-labour camp. Indeed, Brian Hawkins was sent up a ladder to clear the gutters of pine-needles when he, Jane and Gavin paid a much too brief visit here last October. Luckily, **The Crag** is a bungalow so there's not far to climb and I do it myself if there's no one around to do it for me.

Frank Hart spent a couple of nights at **The Chestnuts** in December so that as well as having the pleasure of seeing him, I also caught up with some of the Australian news.

Whenever I look at my right middle finger I am reminded of my first meeting with Malcolm McKeand for when he came to lunch with me in the winter I shut it - almost - in the front door and now it's a race between my new nail and his acquisition of an HB boat. I hope he wins. Despite this mild trauma, we had an interesting afternoon.

To my shame, I am now back at **The Chestnuts** and Peter is having an even longer wait than usual so, hurry, hurry and on with the rest of the news.

The A.G.M. was remarkable on two counts: first, because I had all the names of those who were coming by the due date, a week before the meeting. The only bother was that I didn't really believe it and kept expecting other people to send their names during the week. However, I do thank you: it made things much easier for me.

The unusual happening was that we had thirteen members and potential members who had never been to an A.G.M. before - almost a one for one ratio.

My long-suffering niece and great-niece bravely took on galley-slave duties again and lost much sleep thereby but were a great help in the food factory and thus contributed to the pleasures of what was a very happy meeting. You can read what transpired in the Minutes and I hope you will do so.

Please note that the 1992 A.G.M. will be held on February 29th, Leap Day.

The Laying-up Supper this year is again to be held at the R. Southamton Yacht Club's Gin's Farm Clubhouse on the Beaulieu River. Kind John Lesh has made all the arrangements and the notice comes with the Newsletter. Do remember that Association Members should come to swell the fleet, along with the HB boats. The date is October 5th - bring your woollies!

There's a restless spirit abroad and there has never, in the life of the Association, been a time when there have been so many of the "larger" boats on the market at the same time. Before going to print we will make an up-to-date list of those still available, including the little boats as well.

As I write, the following names come to mind but negotiations are proceeding with some of them. They are: **Davinka, Naida, Dorado, Mat Ali, June, Kelana** and, hopefully soon, **Rama II**.

Roy Aldworth has bought **Omega** and has thereby graduated to Full membership. Boyd and Desiree took me to see Roy and **Omega** last month and we saw what a daunting task he has ahead before she is restored to her original condition. I suspect, however, that she will enter the water in even better condition than before as Roy is a superb craftsman, as we saw when we were in his workshop, among the beautiful oak kitchen cabinets which were either under construction or completed. He used to teach woodwork.

We then moved on, to **Arbrook's** mooring, and looked down on her from above. She was looking very smart and as there was a tool-bag in her cockpit and all the hatches were open we surmised that Richard Saw would not be far off and we found him outside his cottage where we chatted with him for a while.

Desiree dropped Boyd and me off in Torpoint where we found Jim Broad busy underneath **Zante**, busily anti-fouling her. He was very ill last year and in such circumstances, many would have swallowed the anchor but, to celebrate his recovery, Jim ordered a new mainsail. I hope he will have much use of it.

Incidentally, Roy Aldworth has a "Folkboat" for sale. He has restored her to pristine condition and she is well worth the figure he is asking but she is not utterly authentic as a Folkboat - hence the "....." - as she has an extra plank in the topsides which, of course, gives more room below.

David and Ann Batstone have bought **Rose of Arden** and she is at Maldon where Ariane and David Plummer are restoring her. This releases **Kelana** on to the market - unless she is sold already. Ariane wrote and said that **Lady Mary of Woodbridge** was expected soon in Maldon which will bring the number of HB boats there to five. Ariane is hoping to have her own boat, **Jacaranda**, sailing this summer.

It is a very sad thing to see or to hear of any boat (but most of all for me, an HB boat) which has been abandoned or just left to moulder through inattention. Some people can't bear to part from a well-loved boat even when they are no longer able to carry out the necessary maintenance; others may not realize, when they buy a wooden boat, the scale of work which is required to keep her in a seaworthy condition. It is kinder to sell the boat to a new, caring owner than to let her disintegrate. Even two years of neglect can take a lot of time and money to put right.

Peggy Wise kindly sends me the Little Ship Club's journals and in the Spring issue there is an article written about Claud Worth's old boat, **Tern IV**, which I saw first when she was being built in Phillips' yard on the Dart, when I was thirteen and, many years later, in St Mawes. I last saw her in Malta, in 1975 looking as beautiful as ever but I was horrified to see a photograph of her in the article shewing what I can only describe as a shed on deck. There seems to be a lack of aesthetic sense around these days.

Edith Rose is the flavour of the month this time. The design started its life under the name, **Vindilis II**, for it was to be an improved **Vindilis**. **Edith Rose** was the name of the first one built (by Moody's, who built **Vindilis**, **Lindy II** and **Zingara**) and my father appropriated the name for his design. She is a metacentric version and has a canoe stern, to which T.H.B. became somewhat addicted in his later designs.

As far as I know, only three were built: **Edith Rose** herself, last heard of in Washington, on the West Coast of the U.S.A. - would that someone would find her for us. **The Lady Mary** and **Keepsake** are the other two.

Geoff Taylor wrote to me from Gibraltar, where he is overwintering and mentioned a package of Calculator Programmes which he has developed to simplify celestial calculations for Astro Navigation: his letter is enclosed.

Geoff is back in Cremyll, getting **Watermaiden** into sailing fettle. He no longer has to share his affection (and time) with his "other boat". I'm looking forward to seeing her sailing: it's been a long time.

Bruno Veronese has done me the honour to make a metric version of **Prima** which he calls **Prima II**, and he has made a very generous offer of plans in case anyone has a yen to build her. His letter is enclosed.

In the nineteen-thirties, three Cyclone IIs were built by Dickie's of Tarbert: **Cruinneag**, **Graelan** (in Scotland and needing to be located) and **Ard Chuan**. We have known that **Ard Chuan** went to America but nothing has been heard of her until recently when I had a letter from Edgar Shealy, her present owner, who

lives in South Carolina. He was seeking information about her past history and I rang my ninety years old brother-in-law who used to sail in her with her first owner, a surgeon by the name of Dickie: no relation. He gave a good report but, understandably after such a long time, was rather vague. I dug out some names from Lloyd's Registers and sent plans and other information and I hope he's now an HBA member but I haven't heard from him since.

Rod Nevols has done a major job of restoration on **June** and she is now virtually a new boat. He wants to sell her so that he can buy one of the larger sizes.

I hope to see lots of members at the Laying-up Supper on October 5th but that is a long time ahead and I hope that our northern hemisphere members will have had plenty of good sailing by then and, for those in the southern half of the world, I hope you'll have a good winter and be able to get all the maintenance work done for your next sailing season.

To all members, please continue to keep your eyes open for HB boats as there are still several which we know to have been built but which we have not yet located.

I'm afraid this letter may not be with you in time to let you know about the Plym Y.C.'s Classic Boat Rally at Oreston, Plymouth, on July 20th - 21st. It's a good idea to look in **Classic Boat** in which there's a Calender of Events in each issue. There are several which members might like to attend and shew the HBA flag.

David and Diane Kingsbury have bought **Naida** and so have graduated to Full membership. Brian and Pat Terry have bought a larger boat - sadly, not an HB - as they intend to do more extensive cruising when Brian retires. One never quite knows whether to hope they like their "other boat" or to miss their HB! Good luck, anyway.

And now it just remains for me to send you all my very best wishes,

Yours aye,

Joan.

Letter from Geoff Taylor

Dear Joan,

I don't know whether the HBA members are at all interested in Astro Navigation but over the years I have been sailing I have developed a good package of calculator Programs to simplify celestial calculations. These have saved me hours of work and simplified the whole process and made it much more interesting. I have always borne the novice navigator in mind.

They are adapted for the Casio* 730 P for which I can get a moderate discount. If any members need details they could write to me, c/o 15 Cross Park, Crofthole, Torpoint, Cornwall, and I shall send them details.

Geoff.

* It may not be Casio - could be basic: the writing is not clear but Geoff will be able to tell you. O.J.J.B.

16146 Genoa 24 Apr. 1991
Via Capo Santa Chiara 25

Mrs Joan Jardine-Brown
2, The Chestnuts
60 High Street
THEALE
Reading, Berkshire
England.

Dear Joan,

Just for the fun of it, I took the pleasure of re-drawing the plans of PRIMA to the metric system (scale 1/10), and since she is a yacht you designed, assuming that perhaps they may interest you, I am forwarding you a copy of them, enclosed herewith.

All the calculations have been worked out as far accurately as possible, including the weights of the hull and of the ballast keel, the longitudinal positions of their respective C.G., the displacement of the yacht and the positions of her C.B., both upright and heeled down to 25 $^{\circ}$, which practically coincide, so that she should be perfectly balanced under sail. The vertical position of the C.G. of the whole yacht is about at water level.

The ballast keel has been re-drawn to be cast in iron, to cut down cost, and the emplacement of the wooden keel accordingly altered.

Owing to the shape of the hull, this wooden keel, around one third of its length (from fwd.) would turn out quite wide, but it is not really necessary it to be one piece in width (provided that it is one piece fore and aft), and two "wings" glued and horizontally through-bolted, may be added in the proper place to make up for the required width.

The structures of the hull have been worked out according to the dimensions specified by Lloyd's Register of Shipping, but they mostly agree with the original ones of PRIMA.

The general arrangement plan has been re-drawn in order to make the yacht more comfortable. The coachroof has been extended forward of the mast, incorporating the forehatch (with more headroom over the lavatory placed amidships under a locker); the cockpit has been lengthened, also affording a place for an auxiliary engine on the centre line. A single cylinder light diesel engine of 6/10 HP would drive this vessel at about 5 knots, and a two-bladed propeller should be used with a paint mark on the flange connecting the engine to the shaft, in order to be able to keep the propeller in its vertical position while under sail thus reducing drag; alternatively, a feathering propeller may be used. The weight of the engine complete has been considered to be 80 Kg (180 lbs).

The two berths have been shifted forward in order to make room for the galley just inside the coachroof from the cockpit; there is a place for a 60 cm (2 feet) long galley to port with a single burner swinging stove and a sink fed by a pump sucking water from a collapsible neoprene tank placed under the port berth and containing about 70 litres (15 gallons) of fresh water: if required, a similar tank may be added under the starboard berth. To the starboard side there is room for a hanging locker, extending to the coachroof and a sideboard with a chest-of-drawers underneath. Alternatively, if doing without the hanging locker, a small chart table may be arranged here, with a recess for charts and a few drawers underneath.

Keeping the main hatch open, the cook can stand with his head above the coachroof, in port possibly under an awning stretched over the boom which has been raised.

The sail area is near to the original one although the sail plan has been slightly elevated and narrowed both for efficiency and for doing without a bupkin aft. A step is cut at water level over the rudder blade to help climbing on board while swimming alongside.

To take advantage of the modern materials, the hull may have normal carvel planking, edge glued, or strip planking also glued and edge nailed with bronze anchorfast nails. The deck and coachroof top shall be of 12 mm ($\frac{1}{2}$ inch) marine plywood with canvas glued on top, thus obtaining a light and leakproof cover.

The bolts supporting the ballast keel are of stainless steel (dia. 25 mm = 1 inch), and bolts No.3 and 4 (from forward) may have lifting rings welded to the nuts, to shackle on them a lifting sling passing through a proper aperture (with screwed cap) on the coachroof.

The boom shall be solid, square section, of spruce or fir or Oregon pine and the mast, hollow, of the same woods, of elliptical section, or built up box type, for saving cost. Alternatively, light alloy spars may be used.

The standing rigging (shrouds and stays) shall be of plough galvanized steel or stainless steel, of 5 mm diam., either 6 x 7 strands, if spliced, or 1 x 19 strands if swaged ends are used (in my opinion a 5 mm diam. wire spliced is safer), with turnbuckles of adequate size. Halliards shall be of flexible (6 x 19) wire, galvanized or stainless, hoisted by means of two small halliard winches placed on the mast at boom level; alternatively, wire halliards with rope tails may be used to hoist sails by hand, with tack purchases to tighten them down once hoisted. The topping lift (steel flexible wire or pre-stretched rope) shall pass over a sheave on top of the mast above the mainsail halliard sheave so that it could be used as an emergency halliard both for the mainsail and for the foresails. A couple of small winches may be installed over the cockpit coamings for tending the foresail sheets.

Personally, having become old, I have also become lazy, and I did not feel like drawing the tracings in ink any more, as I used to do in past times. So pencil they are (however (however as most people do nowadays), but still understandable, I hope.

In case a member of the HBA could be interested in building this new edition of PRIMA, I would be only too happy to supply him with a set of plans (including the wooden keel, iron keel, and spars drawings) at the cost of the printed copies and mail charges.

Having sold a couple of years ago my old yacht, because she had become too big for me, PRIMA II° would be the boat exactly suiting me now, besides being just under the size above which, according to the Italian law, registration is compulsory. Unfortunately, the costs for building today a wooden yacht have become so awfully high that, I am afraid, for the time being, she would remain a dream.

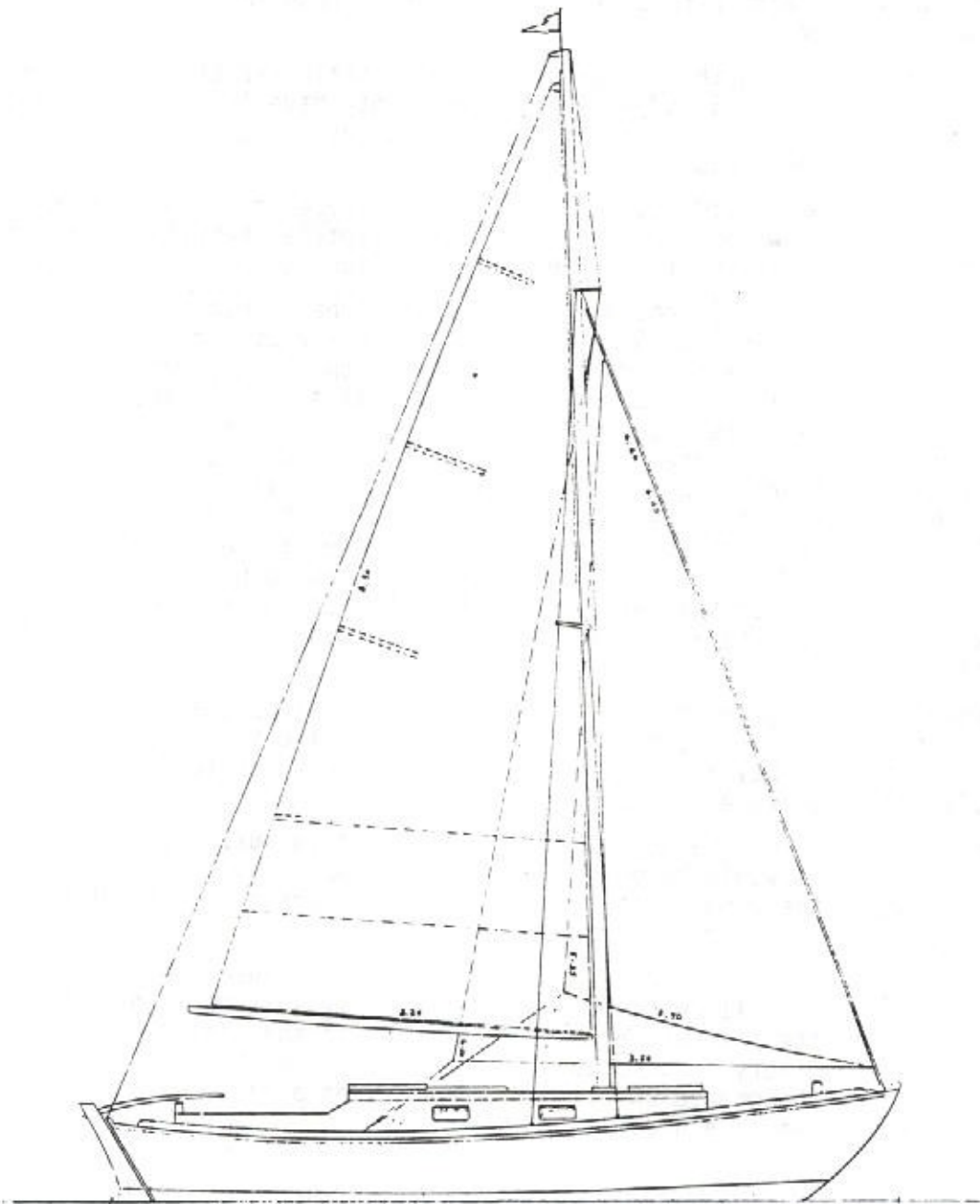
Very sincerely yours,

Bruno Veronese.

POSTSCRIPT

Sadly, Bruno Veronese has died since he sent me the plans of PRIMA II°. I learned of his death only because my last letter to him was returned with "Decudato" given as the reason.

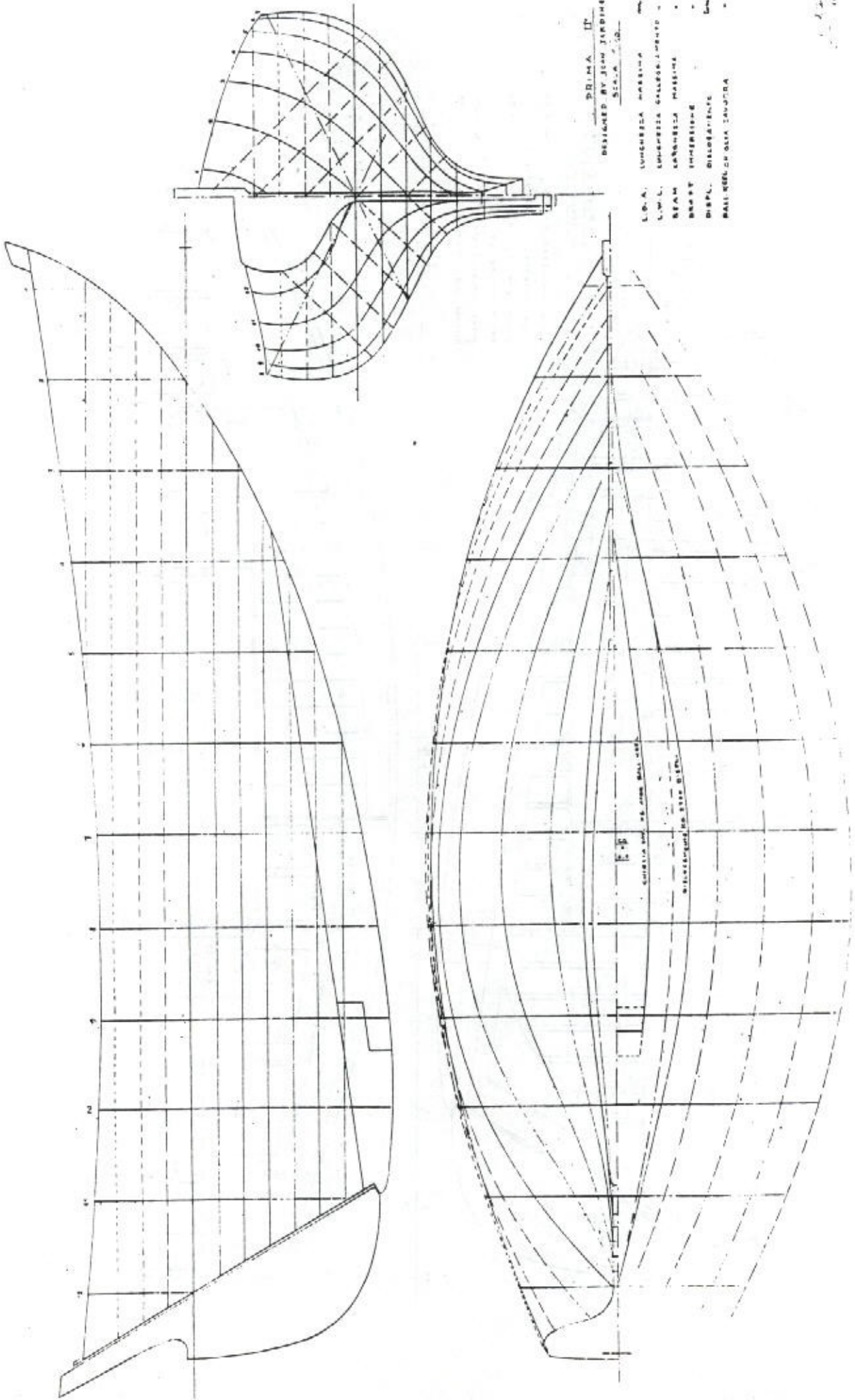
Q.J.J.B.



PROJ. 117. Série 15a
- RIGGING PLAN -
MAY 1918

DESIGNED BY JAMES BROWN

J. Brown
1918



PRIMA II

DESIGNED BY JOHN JORDAN BROWN
Scale 1/100

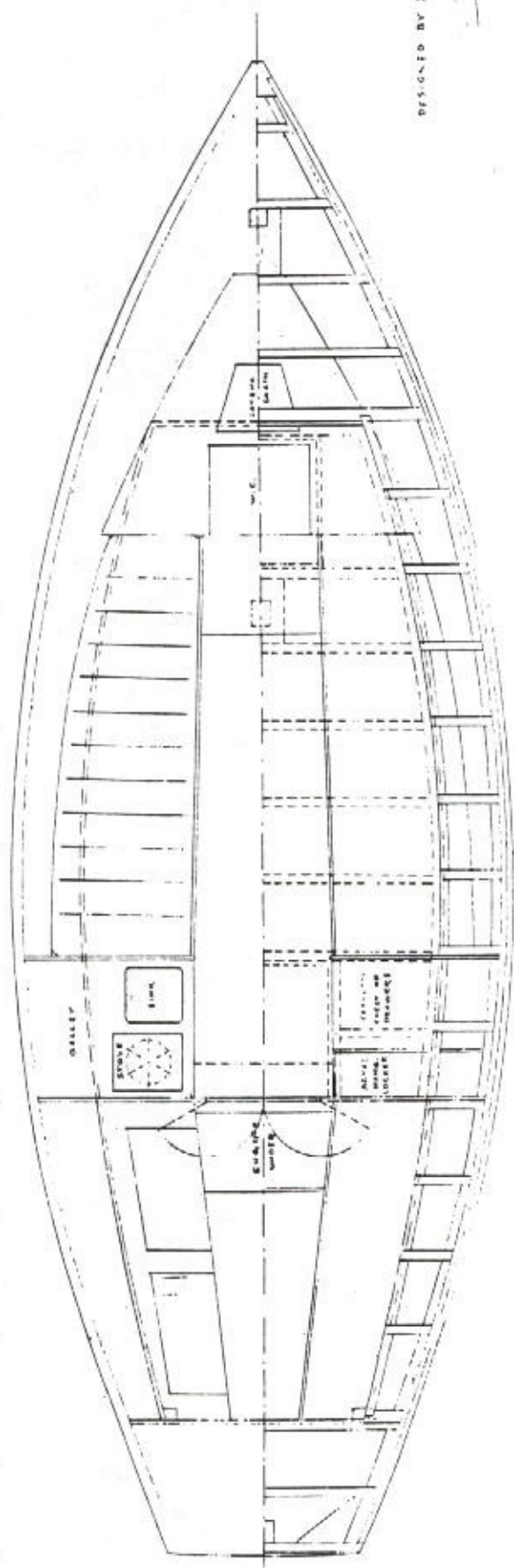
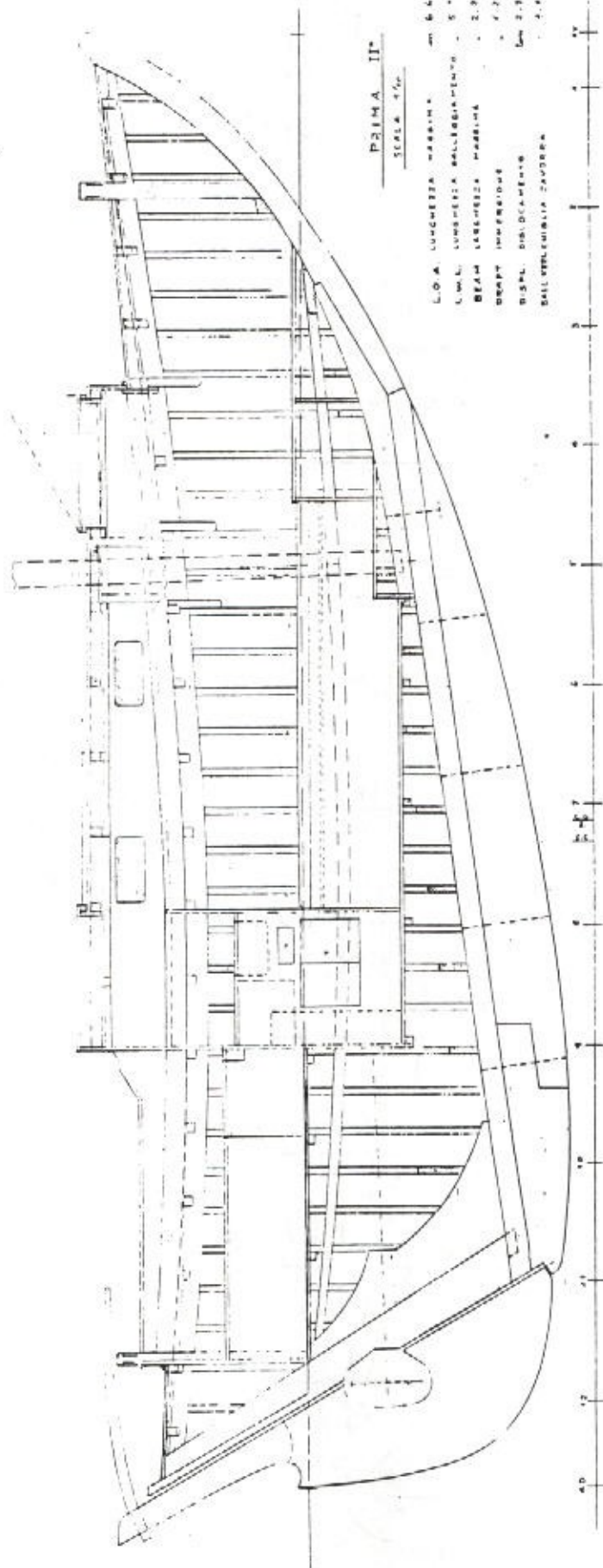
- L.O.A. LENGTHENED MAXIMA = 6.30
- L.W.L. LENGTHENED CALLED LENGTH = 5.10
- BEAM MAXIMUM = 3.20
- DEPT. IMMERSING = 1.30
- DRYPL. DISPLACEMENT = 1.70
- WALL KEEL ON GUN TOWER = 4.10

1880

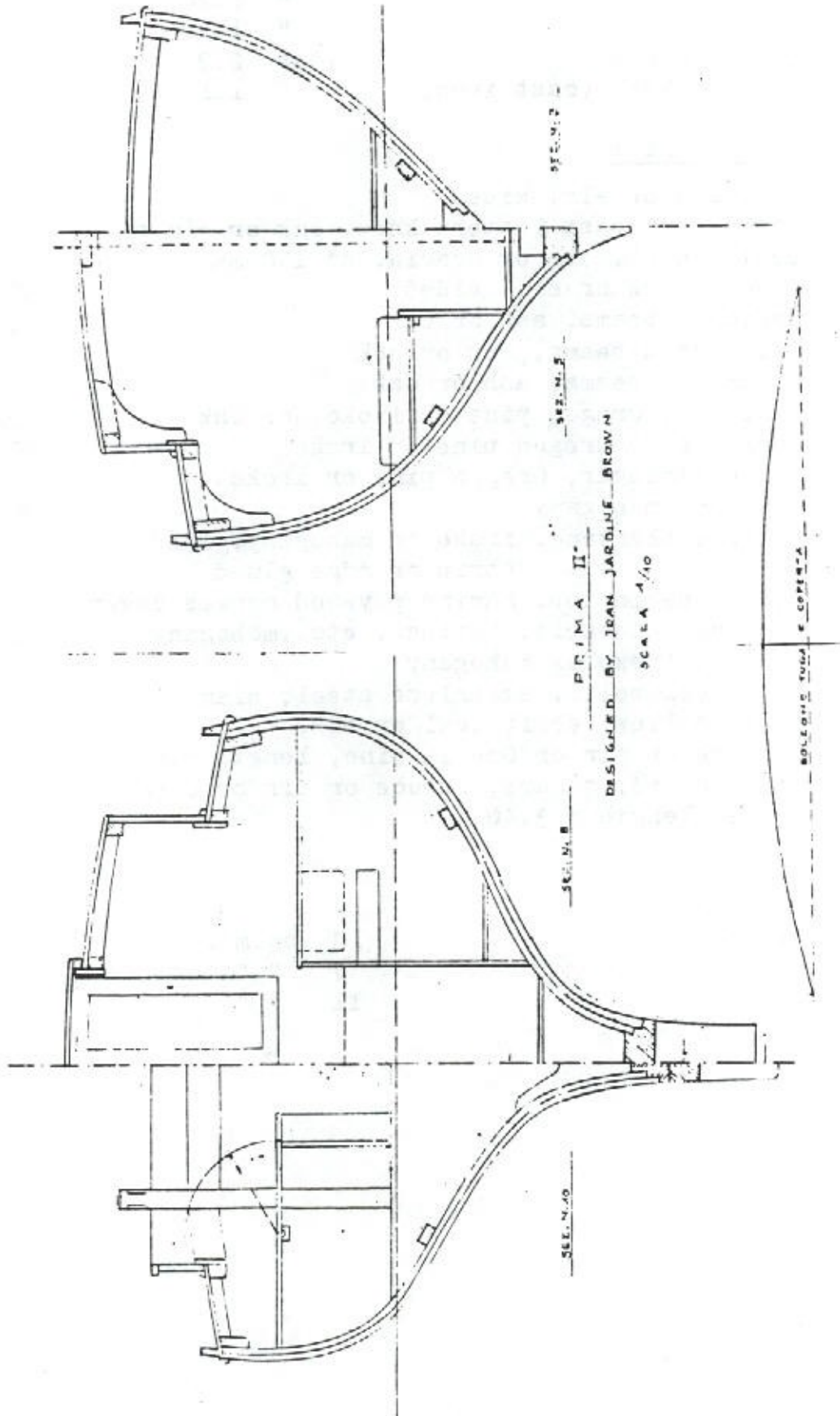
1950

PRIMA II*
SCALE 1/100

- LOA LUNGHEZZA MASSIMA m 6.40
- L.M.L. LUNGHEZZA ALLARGIAMENTO m 5.45
- BEAM LARGHEZZA MASSIMA m 2.20
- DRAFT IMMERSIONE m 1.20
- DISM. DISLOCAMENTO ton 2.50
- SAL VELOCITÀ ZUPPERA m 4.16



1930



PRIMA II°

Main dimensions:

L.O.A.	m	6.60
L.W.L.	"	5.50
Beam	"	2.20
Draft	"	1.20
Displacement	tons	2.7
Ballast keel (cast iron)	"	1.1

Scantlings :

	mm
Keel, oak or elm, sided	90
Stem, stern post & stern knee, oak or elm sid.	90
Bent frames, elm or acacia, at 150 mm	30 x 25
Floors, oak or elm, sided	30
Ordinary beams, ash or oak	60x40 to 40x40
Reinforced beams, ash or oak	60x45 to 45x45
Coachroof beams, ash or oak	50x40 to 40x40
Carlines, Oregon pine or iroko, or oak	60x40
Deck shelf, Oregon pine or iroko	80x30
Bilge stringer, Oregon pine or iroko	60x30
Transom, mahogany	30
Outside planking, iroko or mahogany, glued, strip or edge glued	20
Deck & cabin top, marine plywood canvas cover.	12
Coamings, cockpit, hatches, etc., mahogany	20
Rudder, iroko or mahogany	40
Iron keel bolts, stainless steel, diam.	25
Mast, hollow, elliptical or box, spruce or fir or Oregon pine, length o.a. m 10.25	
Boom, solid, square, spruce or fir or Oregon pine, length m 3.40	

Sails :

Mainsail	13	sq.mt.
Foresail	7	" "
Genoa	11	" "

A Tale from the South Atlantic

HMS Challenger was a 200' three-masted square-rigged wooden 'steam corvette' of some 2,300 tons displacement, which between 1872 and 1876 circumnavigated as a floating laboratory studying oceanography. The Challenger Collection of marine specimens and deposits is still housed (in twenty cabinets) in the National History Museum. The skill employed dredging - the sailors called it drudging - these specimens from the ocean bed three or four thousand fathoms deep excites both pity and admiration. They covered 68,890 nautical miles and established 362 'observing stations'. John Murray published an illustrated account of the voyage in paperback in 1972, well worth reading.

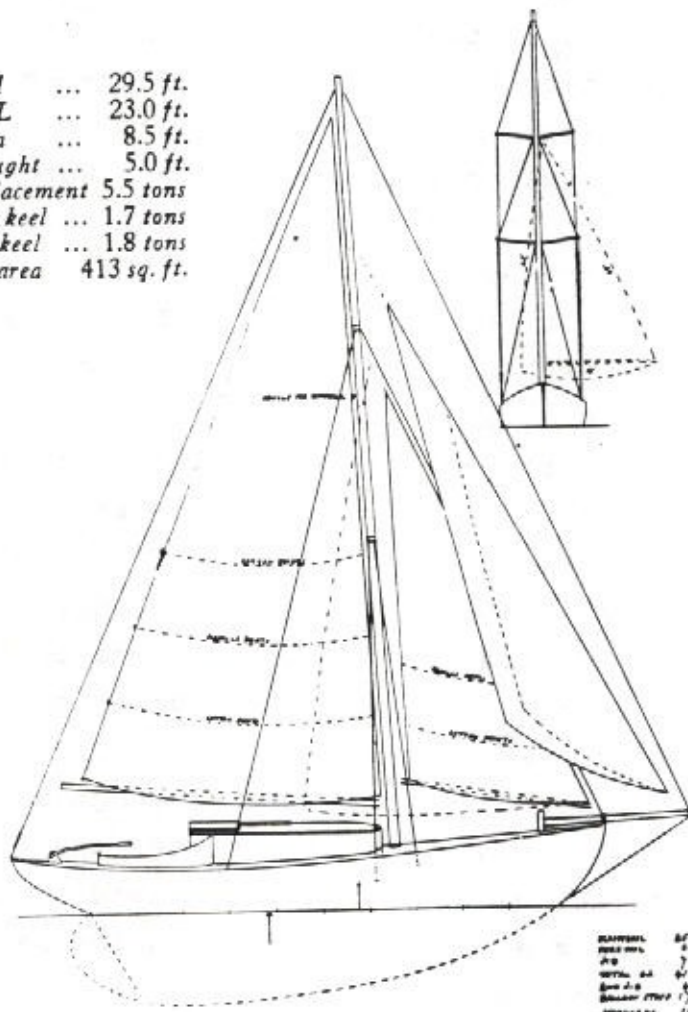
Challenger was commanded by Captain Nares RN, as a lieutenant author of a definitive manual on sailing square riggers and later an arctic explorer. One of his officers was Sub-lieutenant Lord George Campbell, youngest son of the 8th Duke of Argyll, who kept a diary of the voyage until he left the ship on promotion, to return from Valparaiso across the Andes by mule ('A society for prevention of cruelty to animals would have its work cut out in South America', he wrote) to Monte Video thence by steamer home, and it is one of his stories that I thought worth repeating, if only as an example of human attainment falling short of expectation. It is about two German brothers who in November 1871 landed on a remote island near Tristan da Cunha hoping to trade in seal skins. Their diet consisted of penguin's eggs, a few potatoes and wild goats. In the winter they separated, the elder brother living on top of the island to kill pigs, the younger remaining at their hut to tend the garden and melt the pig fat thrown down to him by his brother. Challenger took them off in October 1873, 'the pigs were sold to our crew and not much cared about'. The seal skin business was presumably unsuccessful, for one brother 'got a good situation as a clerk in a business house at Cape Town', and the younger 'went home'. One thinks of the two men on a small yacht (not a THB boat I am sure) who, no longer on speaking terms after some months, were reduced to writing each other notes at change of watch.

Edith Rose, 7 tons

Dr. Harrison Butler's Latest "Metacentroid"

The latest design from the board of Dr. T. Harrison Butler is, like his others, a development of a previous design. In this case, **Edith Rose**, just completed at Moody Bros.' yard Swanwick Shore, Hants, to the order of Mr. L. Crosley, is based on the designer's own boat. Of **Edith Rose** Dr. Harrison Butler says:

LOA ... 29.5 ft.
LWL ... 23.0 ft.
Beam ... 8.5 ft.
Draught ... 5.0 ft.
Displacement 5.5 tons
Lead keel ... 1.7 tons
Iron keel ... 1.8 tons
Sail area 413 sq. ft.



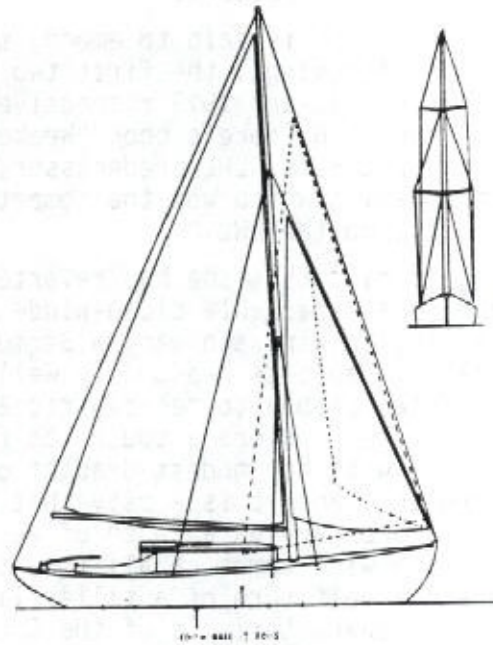
Edith Rose has a neat cutter rig.

"When I published a description and design of my own yacht **Vindilis** in the YACHTING MONTHLY, Vol. LVIII, page 435, and Vol. LX, page 267, I suggested that Mr. Robert Clark and myself might together design a more perfect craft, that would harmonize with the metacentric shelf principle. Mr. Clark found himself too busy to carry out this joint effort, but he very kindly gave me some suggestions for modifying the bow and stern so that the design might become "metacentric." I adopted his advice regarding the bow, but used the afterbody of **Englyn**. **Edith Rose** is the result. She is a metacentroid and has an excellent metacentric shelf. The bow waterlines of **Vindilis** were filled out and the after waterlines contracted. The waterline length has been increased 6 in. to 23ft., and the draught to 5ft.

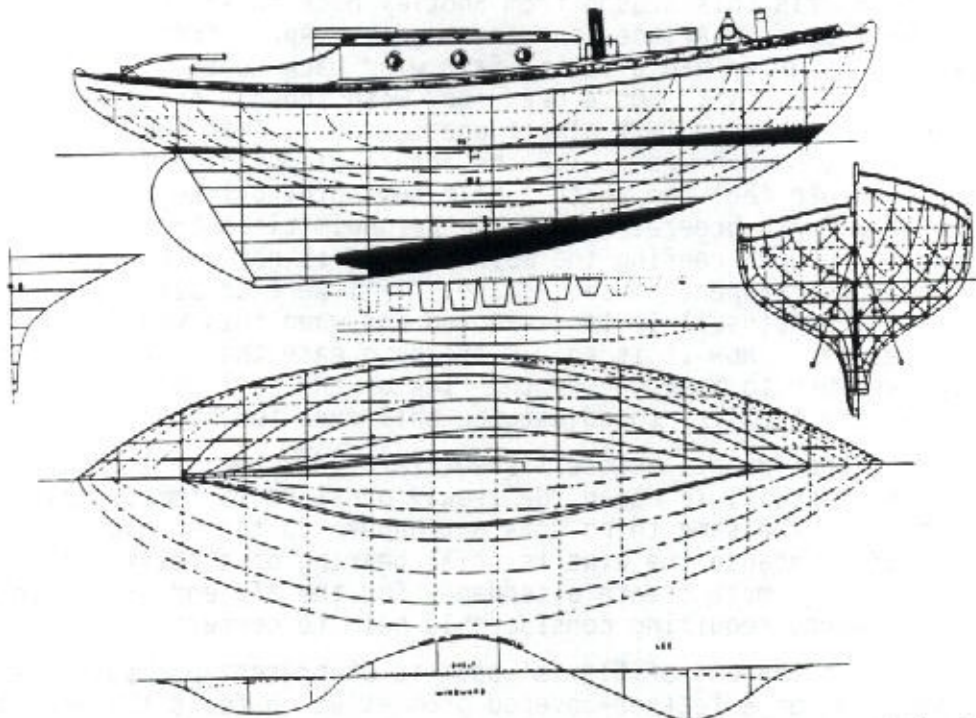
'The increase in waterline length was adopted mainly to give 6in. more length in the fo'c'sle, and so afford more room for hanging oilskins, etc. This is the only fault in the layout of **Vindilis**, and the extra six inches will cure it. The canoe stern was chosen because in a beamy boat it is difficult to match the fine after waterlines with a shapely counter. In spite of the extra length on the LWL, the canoe stern shortens the LOA by six inches, so the two yachts will cost the same to build.

'The drawings show the lines, the metacentric analysis and the sail plan. The cabin plan will be the same as in **Vindilis**, except that the fore bulkhead will be six inches farther aft. Two rigs are given - cutter and stemhead sloop. Whereas the balance of the hull will be good (it should be perfect), the sloop rig can safely be adopted without any fear that the yacht will pull too much in a hard wind."

YACHTING MONTHLY, March 1937.



The sloop sail plan has 260 sq. ft. in the mainsail and 100 sq. ft. in the foresail.



The lines of Edith Rose are a development of Vindilis. The metacentric shelf, also shown, is said to be "excellent."

A Cure for Weather Helm?

The design for the tabloid cruiser **Elgris** first appeared in *Yachting Monthly* in 1920 under a gaff sloop sail plan but was published again, in 1929, with three inches less draught and what would be regarded today as an old-fashioned Bermudian rig with an overhanging boom not much shorter than the gaff version! This modified design was awarded first prize in a competition judged by the readers.

The basic design is said to embody the best features of **Memory** and **Seagull** (now **Fleetwing**), the first two boats to be built in the U.K. to HB designs, in 1912 and 1913 respectively. In his description of the Englyn design in Francis B. Cooke's book "Weekend Yachting" the designer made reference to Englyn's 22ft.6ins. LWL predecessor, *Yonne*, as being "practically an enlargement of the design which won the competition held by the *Yachting Monthly* for a yacht of 18ft. on the LWL."

Bearing in mind that she has reverted to the original gaff sloop rig of 1920, **Elgris** is remarkable close-winded in smooth water and is capable of out-sailing to windward many a Bermudian cruiser of her size. Out of the water, the hull appears reasonably well balanced although I suspect that it would not respond favourably to metacentric analysis: her shoulders being a little too weak and the quarters a touch too full compared with later designs by HB. Nevertheless, with her modest draught of 3ft.6ins. she makes an ideal East Coast "pocket cruiser" and it is a pity that more were not built for that purpose. On the wind, she carries a touch of weather helm (which personally I like) but as soon as the wind comes at all free the most distressing hard-headedness develops and a half turn of a tiller line becomes necessary. This, you will recall, was a characteristic of the *Cyclone II* design. In so far as I am aware, *Yonne* does not have it. She was rigged as a cutter but, then, so was *Cyclone II*. Both these yachts are Bermudian rigged, so it is nothing to do with gaff rig per se.

When sailing **Elgris** this season from Shotley back to Woodbridge I was fortunate to have as crew Ariane Van Wageningen. Apart from a gentle beat out of Harwich Harbour we had a light, fair wind back to the Deben, ideal for "playing with the strings". On a dead run, with the jib goose-winged on the boathook, the helm could be left almost unattended. This seemed to suggest that there is not too much wrong with the actual disposition of the sail plan. On a reach, one could feel the weather helm but nothing like to the degree as when sailing in a fresh breeze. This weather helm tires the crew and slows down the boat. So does reefing the main when it is not actually necessary. "I wonder what would happen," mused Ariane, "if I were to slack off the clew of the main?" The mainsail is loose-footed and when this was done the pressure on the tiller eased. Now it is an old trick to ease the clew of the mainsail in light weather to improve the the flow of the sail but what would be the effect if I had the facility to adjust the sail even further?

It is obvious that when a headsail sheet (provided the sail is not boomed like a cutter's staysail) is eased the leeway pressure is immediately released. It seems to me that the same thing does not happen to the mainsail, even with the boom well off, because the wind is still bearing on a relatively flat surface, which surely must create a tendency for the aft end of the vessel to be slewed to leeward, requiring considerable helm to correct.

The apparatus at the end of **Elgris'** boom is at present not suitable for my purpose, consisting of a leather-covered grommet which fouls the bee-blocks as soon as the clew is released a few inches. Therefore, I intend to scrap the grommet and invest in about 2 feet of heavy-duty track and slider. You may wish to conduct experiments of your own but, in any case, I shall report in a future issue how I get on!

Peter M.

Theory and Practice

THE PRESIDENT of the LITTLE SHIP CLUB on BALANCE

by Dr. T. HARRISON BUTLER, A.I.N.A.

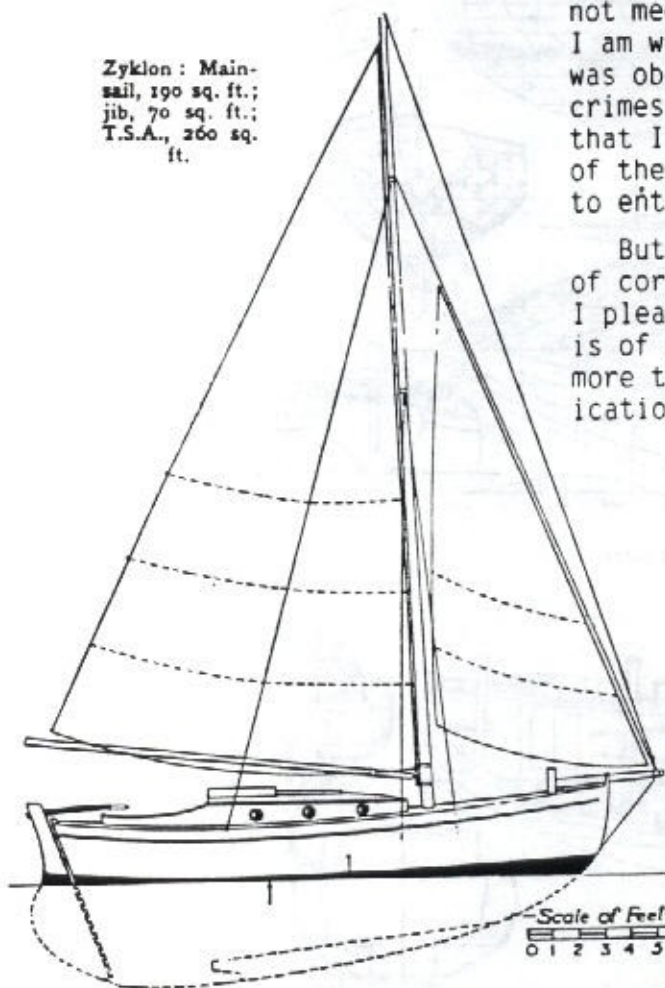
In the spring of 300 B.C. Socrates was tried, found guilty, and executed by poisoning by the Athenian State. Xenophon tells us in his Memorabilia that the indictment against him was to this effect: "Socrates is guilty of rejecting the Gods acknowledged by the State and of bringing in strange deities; he is also guilty of corrupting the youth."

Without in any way assuming that my wisdom is comparable to that of Socrates, I feel that my case is somewhat like his, and I hope that I may not meet with a similar fate. In fact, I am worse than Socrates, for whereas he was obviously not guilty of any of the crimes laid at his door, I freely admit that I do not recognise the Gods beloved of the orthodox, and that I have helped to en throne new and I hope better Gods.

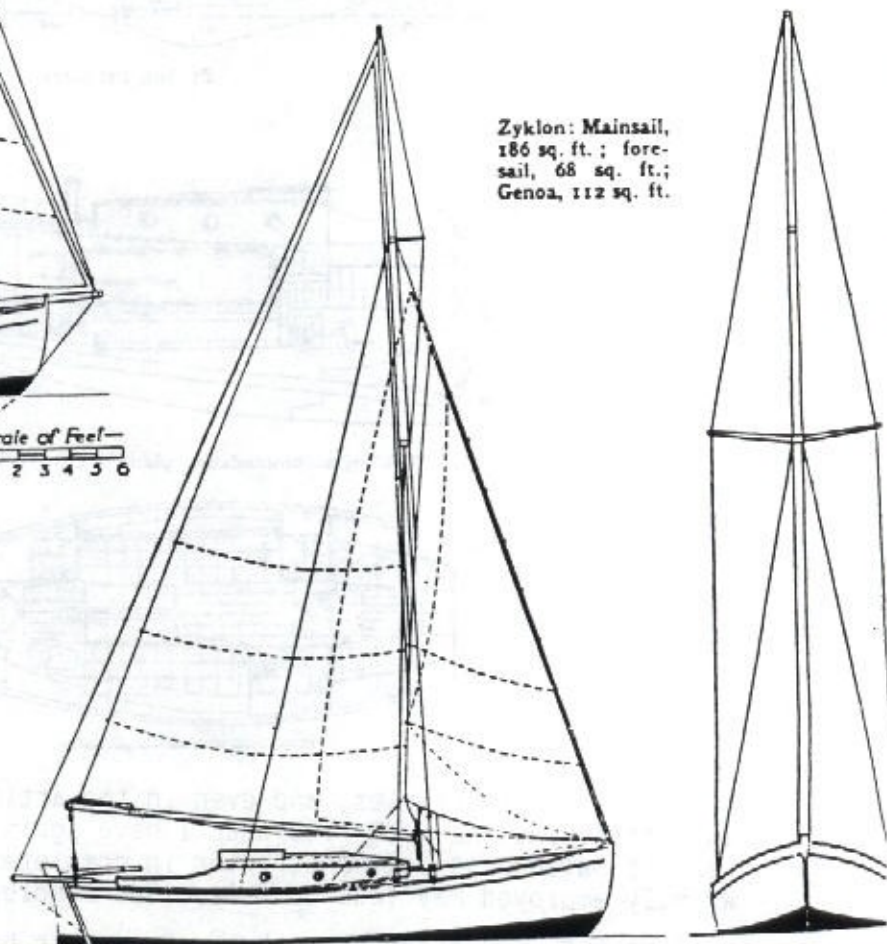
But when I am accused, as I have been, of corrupting the young yachtsmen, then I plead not guilty. There is much that is of interest in Mr. Paul's article*, more that requires, shall we say, amplification and modification. He heads his

Zyklon : Main-sail, 190 sq. ft.; jib, 70 sq. ft.; T.S.A., 260 sq. ft.

Zyklon: Mainsail, 186 sq. ft.; fore-sail, 68 sq. ft.; Genoa, 112 sq. ft.



Scale of Feet—
0 1 2 3 4 5 6

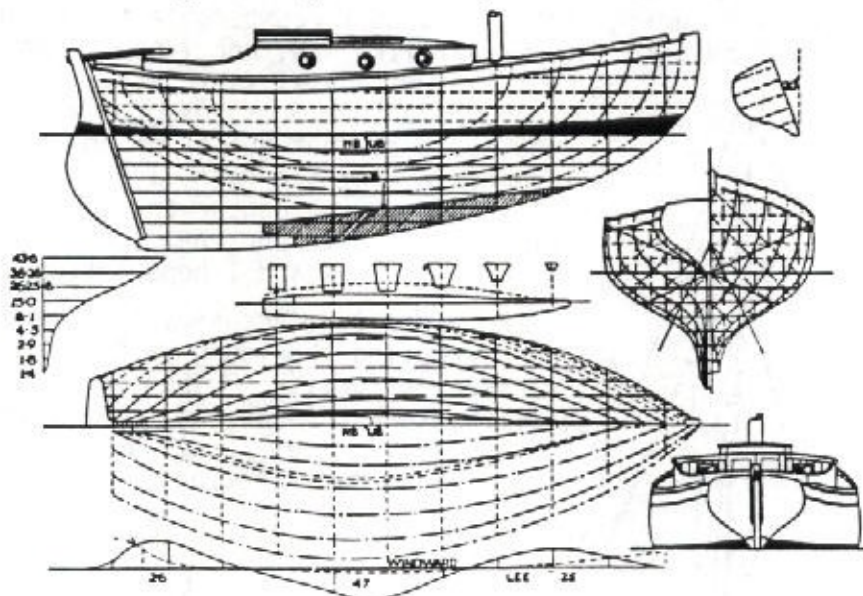


DIMENSIONS OF ZYKLON	
LOA -	21ft.
LWL -	19ft.
Beam -	7ft. 2in.
Draft -	4ft.
Displacement -	3.3 tons
Iron Keel -	1 ton 2 cwt.
Inside Ballast -	5 cwt.
Stability Factor (Turner) -	18

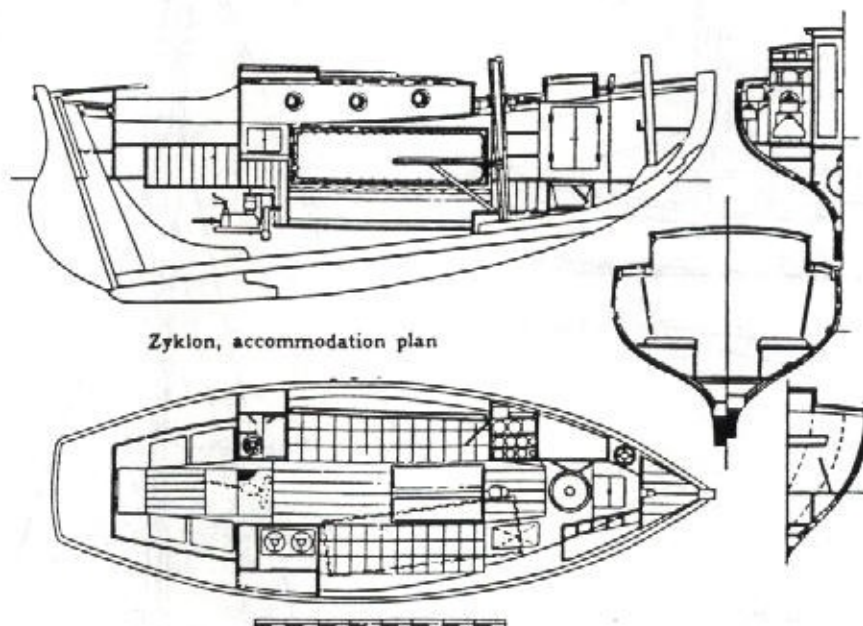
*The article is not available but it is easy to follow its sense from THB's reply. The author was evidently Mr. Rodney W. Paul, some of whose designs appear in Lloyd's Register of Yachts.

article, **Practice versus Theory.** I prefer **Practice and Theory.** If theory is not borne out by experiment and practice then the theory is wrong.

I will first deal with Mr. Paul's accusations. I am glad that he recognises that my work has, on the whole, had a wholesome effect: I take comfort from this. But he goes on to say that I "give new theories an importance out of all proportion to their due, and announce as axioms statements that ought not to be accepted without criticism." If Mr. Paul will carefully read what I said in my articles published in this journal, already referred to, he will find that I have dealt with hull balance in a most general way and have not given any undue weight to metacentric balance.



Zyklon, her lines



Zyklon, accommodation plan

In all these articles, and even in the article upon the Winslow 20 that he is criticising, he will find that I have again and again stated that metacentric balance is only one factor in complete hull balance, and one that if wrongly employed may lead to fallacious conclusions.

I have stated and repeat that metacentric balance does not cover the whole of the ground. Coincidence of the centres of upright and inclined curves of area must be achieved, the in-and-out wedges must harmonise. Finally, I have never accepted Admiral Turner's view that the problem is purely static.

I believe that there is a dynamic aspect, and this is most elusive and at present incapable of pure theoretical treatment.

Mr. Paul accuses me of being an enthusiast. In any discussion it is not uncommon for one of the antagonists to call the other an enthusiast when he means to suggest that he has lost his analytical powers, is intoxicated with the subject, and has become mentally unbalanced. If Mr. Paul does mean this then I am not an enthusiast. If by the word he suggests that I am doing all that I can to produce a balanced cruising yacht, then I accept the term.

And now for **Mystery II**. I hardly think that Mr. Paul should say that "I lavished inordinate praise" upon this yacht. I was greatly impressed with the perfect balance, a thing that I had never before experienced. Far from inordinate praise, I began by saying that **Mystery** was very tender. I went on to say that when we came to try her out against Dyarchy and Askadil she gave me the impression of being rather on the slow side. No inordinate praise here. But when I talked about her balance under sail then I became really enthusiastic. I discussed the reason for the lack of stability and for her apparent lack of speed.

Not experimental

Mystery has a stiff form, and there is nothing whatever experimental about her. Her lack of stability, in my opinion, was that she needed more ballast. This she has had and her stability has been greatly improved. She is a very ordinary looking yacht of the modern cruising type, and none who did not understand the matter would notice from her lines that her stern matched her bow. Several other editions of the design have been built with modifications in scantlings and disposition of ballast to cure the faults of **Mystery**, and they are quite satisfactory performers, and certainly have won ocean races.

Mr. Paul tells us that a model is a bad example for a real cruiser. With proper modifications I am sure that he is wrong. A model has to have draught that in proportion to a real yacht is deep; this can be altered in the larger edition because she does not require this extra draught. Apart from this, much that is good in a model is equally good in a yacht.

We are not at the moment considering expense, but hull balance, and that is not a function of money. Any kind of yacht, cheap or dear, can be balanced without extra cost.

When Mr. Paul tells us that most yachtsmen do not require a balanced hull, then he begs the whole question. There are so many yachts that pull on their helms more or less that the yachtsman who does not want balance can easily satisfy himself and to any degree. He can have even small boats that need tiller lines, or even a wheel. I am not interested in this type of yacht. I have for years tried to obtain balance, and not till I mastered the Turner system could I attain it.

I must really criticise Mr. Paul when he says that a hull balanced metacentrically is crank. The system has nothing to do with stability. A rolling pin with no stability is perfectly balanced, and a Thames barge with enormous initial stability is equally well balanced. I am tired of saying this again and again. Give me an unbalanced yacht and I will balance it without influencing its stability, or will increase it if it is of a type that can be balanced. **Sunshine** is given as an example. To balance her I should certainly fill out her bow somewhat and fine in her quarters till the two harmonise. My **Zyklon**, which as the Z 4-tonner has been largely built to and thoroughly tried out, is a similat type, and she is cheap to build, has plenty of room inside, and is a thoroughly sound performer, for at least two of them have weathered a seventy-mile-an-hour gale in the Eastern Channel. **Zyklon** is absolutely orthodox with no unusual or expensive characteristics. Just a plain cruiser of the Falmouth Quay Punt type. I believe Mr. Paul is a professional naval architect, and he knows perfectly well that the modifications suggested to **Sunshine** would not diminish her stability. He can, if he has the time and inclination, get out two stability curves to demonstrate the

alteration.

And now for my statement which Mr. Paul goes so far as to deplore. Eddy formation is one of the dynamic factors in poor performance that calls for investigation. I am not responsible for the statement that eddy formation takes place when the angle of the waterlines is greater than 18 degrees, nor that such eddies are potent causes of hull resistance.

Has Mr. Paul looked up the authority that I mentioned A. Hawkins Clark? The author of **Yacht Efficiency** is an engineer and he has made most extensive experiments upon the causes of hull resistance. He quotes the figures for the angles that diminish hull efficiency and says that they are the results of tank experiments. I cannot disprove them, but I am prepared to accept them. Of course, no-one suggests a water line with an angle of 18 fore or aft, but all that I do urge is that the smaller the angle the less the eddy formation, and that, therefore, the finer waterlines aft that I am now adopting for my designs, as in **Zyklon**, not only enable me to attain hull balance, but to diminish eddy formation.

Finally, about shifting ballast. Mr. Paul has dealt with my remarks as though I was a moron rather than a fairly reasonable person. If I had a **Zyklon**, and I should very much like to have one, then I should have 200 lbs of inside ballast. It would be, I think, reasonable if I were contemplating a single-handed cruise to shift this 200 pounds farther aft to make up for the loss of the usual crew of two.

I cannot see any cause for merriment in such an eminently scientific procedure. If a small yacht is trimmed for two persons in the cockpit she is out of trim for one, whether she be a **Sunshine** or a **Zyklon**. If trim can be maintained, why not maintain it?

I have never even hinted that all yachts, even with a crossed shelf, are not comparatively balanced in actual practice. I sailed for 22 years in **Sandook** with the worst form of balance, sharp **V** forward and flat **U** aft, and she was not at all badly balanced in actual practice. There are so many dynamic factors that mere static balance is not decisive.

Mr. Paul brings in the practice of the Olympians, Charles Nicholson, Olin Stevens and William Fife, naming such well-known successful vessels as **Endeavour**, **Stormy Weather** and **Evenlode**. The most successful yacht designed by Nicholson was **Istria**. She was so great that she wiped out the class. **Istria** has a perfect metacentric analysis. **Evenlode** has also a good analysis; **Enterprise** was perfect.

I have been in correspondence with Olin Stevens on the subject, and I have a letter from him in which he says that he thinks that a good metacentric analysis conduces to speed. Another well-known American designer tells me that he was very dissatisfied because so many of his creations were so hard on the helm. He took up the metacentric system, and his results were so good that the paid hand of a cruiser was mystified that the yacht needed no helm to windward. The owner said he would apply to the builder for a rebate on the tiller, which was unnecessary!

I have now had a large number of small cruisers built to metacentric designs, and as far as I can ascertain all of them are well balanced. So I go entirely by practice and not by theory.

Yachting World, December 1941.

SUMMER 1991

Fetching the milk from Gin's Farm!



Easter, 1936.

(Youthful members of the Butler family: L.to R. Nora, Joan, Cynthia, Cynthia's fiance, Nora's husband).

