The Cruise of the *Alice*

Part II — A Discussion of Navigating Equipment, Rigging, and Sails for an Offshore Cruise in a Small Yacht

By HENRY HOWARD

TWENTY years ago there was much interest in what was then frequently called "The New Navigation." The methods all consisted of improved procedure for determining a "position line" upon which the ship is located and gave a much truer interpretation of the observation than old methods of calculating the longitude and locating the ship's position on that meridian of longitude by the dead reckoning latitude from the nearest noon observation.

Perhaps the simplest conception of a position line is to think of the latitude calculated from the altitude of the sun taken at noon. This calculation indicates the particular parallel of latitude on which the ship is located, and this parallel of latitude is the position line of the ship at that time. It will be noticed that in this noon observation the position line runs east and west, while the bearing of the sun is south. The position line, in a similar way, is always at right angles, or 90° from the true bearing of the observed body, sun or star, at the moment of observation and, generally, the calculation simply gives the true bearing or azimuth of the sun and the altitude of the body observed for an assumed position, which by some methods is the dead reckoning position and in others is near the D.R. position, but is chosen to eliminate fractions or parts of degrees so as to simplify the table and calculation. Of course, the Marc St. Hilaire method was, and still is, used a great deal, but it requires the use of a good many logarithms, thereby not only taking more time but increasing the chance of making errors.

One of the first "New Navigation" methods was Aquino's, about 1910. This is still one of the best methods — it requires no logarithms and as later improved by Lieut. Aquino requires no interpolations in the tables. However, the description and directions given in Aquino's book were so condensed that I found it necessary to rewrite the description of how to use his tables before I was able to use the method successfully. I prepared a printed form and supplementary description which I think may still be available if anyone is interested in this method. The Aquino method is suitable for all cases and has the advantage that, if after a long spell of bad weather your D.R. Latitude is very doubtful, you may take the sun or stars' true bearing by compass at the moment of observation and substitute this for the Latitude when entering the table. Speaking of Aquino reminds me of a very simple but valuable statement made in his book which I have not noticed elsewhere — that if only one observation can be taken because of bad weather or other cause, the most probable position of the ship will be at the intersection of the position line — found from this one observation with a perpendicular dropped from the D.R. position at the moment of the observation.

A comparatively recent advance was made by the United States Hydrographic Office in H.O. 203 and 204 which carried out the monumental work of calculating the simultaneous hour angle and azimuth corresponding to every degree of altitude for every degree of latitude between 60° N. and 60° S. and for every degree of declination between 0° and 63°. The tables, although very bulky, are easy to use but have the disadvantage that they do not give accurate results and should not be used when the sun or other observed body is within one hour of its meridian passage.

Alice, alongside bulkhead at the end of her West Indies cruise.

The ink was hardly dry on these books when Commander Weems, U.S.N., worked out his method which is based on the preliminary work of Engineer S. Ogura of the Japanese Navy. Weems' book is only one-quarter inch thick, nine and one-half inches high and six inches wide and, together with the nautical almanac, contains all the tables and data necessary for the solution of all observations of the sun, moon, planets or stars. Weems' method, however, has one slight objection — the Azimuth of the observed body is obtained by the graphic method by use of "Rust's Modified Azimuth Diagram" and it is easy to make a mistake in this. To cover this point the United States Hydrographic Office has just printed another new method by Dreisenstock (H. O. 208) which seems to be nearly identical with Weems' except that the exact azimuth of the sun or other body observed is obtained from the tables. All of these methods give the azimuth of the observed body; therefore if another observer can take the accurate compass bearing of the observed body at the moment of observation, the compass error will be determined at the same time.

The whole art of navigation has been given a great impetus by the development of the airplane and Weems' tables were developed with this use particularly in view. We used his book exclusively and found it most satisfactory, with a substantial saving in the number of figures required. This brings up a point, however, which seems to be frequently overlooked — that is the importance of having a regularly printed form for whatever method you are in the habit of using. The following is one which S. L. Cluett and the author devised for Weems' method. We have them prepared in block or pad form, and after the calculation is complete we tear the sheet off and paste it in the log book.

I have read many discussions and comparisons of different methods of navigation in the *Proceedings of the United States Naval Institute*, in which the number of figures required are counted. The argument is that the system requiring the smallest number of figures is the best — not only because it means less labor, but because the chance of making clerical errors or stupid mistakes, as well as the time required, is in direct proportion to the number of figures.

It seems to me that in any method the chance of making stupid mistakes is greatly decreased by use of a printed form and that the time saved by its use may be considerably greater than that due to the difference in the number of figures in, say, Weems' method as compared with Aquino's. Some 12 years ago I prepared printed forms for use with Aquino's method, one for the sun and another for the moon, stars and planets. Recently S. L. Cluett kindly prepared for me a table for Weems' method. I personally prefer this method to the Aquino because I find the tables simpler to use and the chances of error considerably reduced. The printed form for star observations by Weems' method is reproduced herewith.

These forms are particularly desirable for yachtsmen or anyone who is likely to go for months, or even several years, without taking an observation and their use will be found a great comfort in such cases.

The question of star identification has always been a difficult one for me as my knowledge of astronomy is limited. Now, however, this has been taken care of very simply by means of Rude's "Star Finder and Identifier." This should greatly increase the use of stars by inexperienced navigators. For instance, suppose that shortly after sundown or before sunrise, when the horizon is clearly visible, you see a bright star through an opening in the clouds. Do not bother to identify it but simply take its altitude and the exact time by the chronometer, which is then converted into local sidereal time. This data, with your approximate latitude and a rough bearing of the star, when set up on Rude's diagram, makes the identification so positive that there can be no question about it. Besides this, it will show at a glance all of the usual navigation stars and planets that will be visible at twilight or dawn and will also give, for any hour of the night, the altitude and true bearing of any star or planet you may wish to find. This "Finder and Identifier" is sold by the U. S. Hydrographic Office under the number H.O. 2102 for $5.00.

Perhaps the greatest difficulty in small boat navigation at sea is to get a good horizon to work from. In the trade wind belt which we were navigating, the rollers were very large, running, we estimated, from an average of about 15 feet to an occasional 25 feet, measured from trough to crest of wave, making it necessary to add one-half of this, or, from seven to twelve feet to the height of eye above sea level when calculating an observation. The true horizon was visible only momentarily when we were on the crest of a wave. As the height of my eye above sea level is only eight feet when standing on deck in smooth water, it will be seen that failure to estimate the height of the waves, with reasonable accuracy, might introduce a considerable error. I found it desirable to have someone call "time" whenever we were on the crest of a wave, and I would try to catch the altitude at that moment and then, of course, take the average of three such altitudes and their respective times as provided on the forms. I was very fortunate in having with me Vincent Gilpin, a competent navigator, so that we were able to check one another's work by independent observations. Gilpin would take the time and write down the altitudes for me, and then I would do the same for him, so that the observations would be perhaps ten minutes apart. Then, if our position lines did not check within two or three miles, we would take another set of observations. This kept us pretty busy, as for the first day or two and in this very rough water, we were sometimes 10 or 15 miles apart. Later on as we became more skilful in catching the sun from the tops of the waves, our observations checked very closely, generally within two or three miles.

Here, again, it looks as if we were to be still further indebted to aviation for the perfecting of the bubble sextant. I have had no personal experience with the instrument, but two of my friends who have used it tell me there is no difficulty in getting readings accurate to within one minute of arc. If this is true it makes a daylight observation in a heavy sea on a small boat almost as easy as on a large one. It would also make it possible to get an observation when the horizon is obscured by a fog but the sun clearly visible overhead — a condition very frequently encountered. Still more important, it makes it possible to take accurate star observations all night long, as no natural horizon is necessary.

This instrument is, I believe, still in its infancy and further development should be very rapid with the pressure of an increasing demand from aviation for a good instrument. The one used by Weems was, I believe, developed by the U. S. Bureau of Standards and sells at about $400.

The Booth bubble sextant is an English instrument

Form for WEEMS LINE OF POSITION BOOK,1927. S.L.Cluett.1928

STAR or PLANET observed. .....

..... Civil Date:.....19...

ShipTime,about. h m
Reading,Pat.LOG. mi.
Lat.by DR. ° '
Long.by DR. ° '
Index Corr. ' "
Chro. Corr. m s
Height Eye. ft.

Bearing of * Obs.....
Azimuth of * Obs.....

W. h m s / h m s / h m s
Mean. C-W. h m s
C. C.C. h m s ±
Date. h m s
(.....)G_cC.T.
SidT.of 0^hGCT.
RedTabIII,NA.
+ G.S.T. h m s
- R.A.*.
HA.* From Gr. h m s
HA * Degrees. ° '
Long.Assumed. ° '
L.H.A. ° .....A
Lat.Assumed. ° '

Obs.Alt.* ° ' " / ° ' " / ° ' "
Mean. Index Corr. ° ' " ±
Obs.h. Corr.- ° ' "
TRUE h..... ° ' "
Dec* 0^hGMT. ° ' "
HD. h "±
Int.GCT. ' "±
Corr.
( )True d.....
....K. ° ' "
R K ± d.
A + B.....

RA*,0^hGCT. h m s
HD. h
Int.GCT. m s
Corr.
True RA.*. h m s

Computed h. ° '
TRUE h. ° '
Diff. .....

If True h is GREATER than Computed h, move point of assumed Lat.&Long.TOWARDS*

and I am informed that it is used by British aviators. It can be purchased here for $350. The French firm of Lorieux, Lepetit Suc., Paris, makes a bubble sextant which impresses me as being better than the British one and sells in this country for $250 and, finally, Brandis & Sons, of Brooklyn, New York, make a bubble attachment for an ordinary sextant which costs $125 installed.

With the bubble sextant perfected, Lieut. Weems again comes along with his star altitude curves, but which as yet cover only from Latitude 30° N. to 50° N. These curves are most ingenious, easy to use, and by their use both latitude and longitude are obtained at once. It is not even necessary to know the dead reckoning position or the declination, right ascension, hour angle or azimuth of the stars observed. All that is needed is the Greenwich sidereal time and the observed altitudes of two stars of which Polaris is always one. This book is called *Star Altitude Curves* and is published by Rodney Stokes Co., of San Diego, California. I certainly advise anyone interested in navigation to get a copy.

The question of accurate time was a particularly important one because we were running due south toward a part of the world abounding in coral reefs with no lights or buoys to mark them. Therefore an accurate knowledge of our longitude was essential if we were to make a good landfall. There was no question of being able to run down our latitude, as our course was nearly due south.

Of course, we carried one chronometer, which was likely to change its rate after transportation by steamer and automobile to Elizabeth City. This, however, did not seem to affect it. But once we forgot and let it run

Form for WEEMS LINE OF POSITION BOOK, 1927. S.L.Cluett.1928

Body Observed, SUN .....

Civil Date:.....19...

Ship Time, about. h m
Reading, Pat.LOG. mi.
Height Eye. ft.

Lat. by DR. ° '
Long.by DR. ° '

M

Bearing of Sun Obs.....
Azimuth of Sun Obs.....

W. h m s
h m s
h m s

Obs.Alt. ° ' "
° ' "
° ' "

Mean. h m s
C-W.

Mean. ° ' "
Index Corr. ±

C. h m s
C.C. ±

Obs.h. ° ' "
Corr.

G.C.T. h m s
Eqn.t.

TRUE h. ° '.....

G.A.T. h m s
G.H.A.

d. ° '.....
Corr.

GHA.(degrees) ° '
LONG.assumed.

( ) True d. ° '.....
....K.

L.H.A. °
LAT.assumed. °

.....A

B K ± d.

A + B ° '
Computed h. ° '
TRUE h.

Diff. .....

If True h is GREATER than Computed h,
move point of assumed Lat.&Long.TOWARDS obs.Sun.

28 hours instead of 24 hours before winding. This caused the rate to double immediately, but after four or five weeks it gradually worked back to the old rate and continued at that. This is enough to show the importance of being able to get time signals.

The question of selecting a radio was not so simple. We learned, however, that the usual type used in the North Atlantic is not satisfactory for the West Indies because of the large amount of static in that region. I am greatly indebted to Mr. Alex Hammond who planned for me nearly a duplicate installation of the one he put on Mr. Paul Hammond's *Nina* for the Spanish Ocean Race and with which they were able to get time signals from Arlington until they reached the Spanish coast. We were never out of reach of Arlington, and at Fort de France, Martinique, which was our farthest point, the signal would come in so loud you could hear it all over the cabin from the ear phones.

Our set consisted of a Silver-Marshall Round the World Four, neatly incased in a small aluminum box. The aerial was a rubber covered wire, running without break from the receiving set in the cabin to the mizzen masthead where it went through an insulator and back to the deck. This latter end was just long enough to reach from the mizzen truck to the main truck and could be hoisted up when we needed it. It was not necessary when receiving time signals, but gave a vastly improved reception when we were listening to music from a broadcasting station.

As *Alice* has a gaff-headed mainsail we could not have a permanent aerial between the main and mizzen trucks, but could easily hoist this up by the signal halliards when we needed it. From the marked improvement we experienced when the aerial was extended from the mizzen to mainmast truck it seems fair to assume that this would enable us to get signals when they are no longer audible with the aerial simply running to the masthead. The question of using a rubber covered aerial as compared with using one of the shrouds is a point on which I should like to have more light. I was advised by several men who are considered experts that better results will be obtained with an insulated aerial than with a grounded one and, surely, in rough weather, when everything is wet with salt water, the shrouds, even on a wooden hull, must be pretty thoroughly grounded. It would be interesting to have the results of more experience on this point. Of course the use of the shrouds as an aerial is greatly to be preferred if the results are approximately as good.

From the lessons learned during a long offshore cruise, Weston Martyr in his book, *The Perfect Ship*, gives some most convincing arguments against the jib-headed mainsail for offshore work. The mere fact that others may have had great success with this rig is not, to my mind, by any means conclusive in its favor since they may not have encountered the severe conditions which Martyr describes.

Is not the main reason for the rapid growth in popularity of the jib-headed mainsail the fact that it is faster to windward? This is a comparatively unimportant point in ocean cruising, as is proved by the fact that in the old sailing ship days the fastest voyages were made by the clipper ships, which were always square-rigged, and not by schooners, although the latter could sail one or two points closer to the wind than the same vessel square-rigged. The fact is that beating to windward in an ocean voyage is an uncommon and very unprofitable procedure.

In our cruise of 1928–29, we sailed 5500 statute miles without encountering any head winds other than when

working into or out of port. This was not simply good luck; it was what we expected after making a careful study of the pilot charts and planning our cruise in accordance with the lessons learned therein. It appears, therefore, that the speed to windward is not nearly as important in offshore work as in coastwise cruising, and while, of course, desirable, may easily be offset by other considerations.

A piece of rigging which is rarely used on yachts but which, in my opinion, has a most important bearing on the question of gaff *versus* jib-headed rig, is a vang. A vang, as used on the *Alice*, is a guy from the end of the gaff to a tackle on the weather quarter. It has many advantages.

(a) It holds the gaff just where you want it and prevents it from lurching off to leeward in a strong wind and sea.

(b) When running before the wind it makes it safe to slack the main sheet until the boom just clears the rigging, the vang being adjusted to hold the gaff just clear of the rigging. Many gaffs have been broken at or near the jaws by slacking the sheet off so far that the gaff would lurch against the shrouds, with the result that either the shrouds would part or the gaff snap off.

(c) It makes it very easy to roll in reefs with our roller reefing gear even while running dead before a strong wind, without hauling in any sheet and without altering the course in the slightest degree. All that is necessary is to haul in enough on the vang tackle to keep the gaff clear of the rigging as the sail is lowered and as the reef is rolled in. This puts no strain on the jaw rope.

As we were not racing, in the strong trade winds we generally rolled in one or two reefs at sundown so as to make it safe to leave only one man on deck during the night watches.

(d) It makes the sail draw better when a boat with started or free sheets rolls to windward, especially in a heavy sea and moderate wind, for the gaff is then pushed to leeward and this in turn lifts the boom. When the boat rolls back, the gaff and boom both return to their original position, but incidentally a lot of wind is shaken out of the sail and the vessel is slowed down in consequence. The use of a vang absolutely prevents the gaff from swinging to leeward, and this, in turn, prevents the boom from lifting or being lifted and the wind from being shaken out of the sail. With a jib-headed sail, the boom is lifted by the leech sagging.

(e) Under the conditions outlined in (d), the rolling of the boat is reduced to a marked degree. Anyone who has been shipmates with a squaresail knows how much this steadies a boat with the wind abeam or on the quarter with the yard rigidly braced. This same effect is produced when the gaff is held rigidly in place by a vang, which action is similar to that of a brace on the yard. It is also interesting to note that the vang was, and is today, always used on square-riggers on the gaff of the spanker and for practically the same purposes as noted here.

(f) The vang obviously materially reduces chafing by greatly steadying the sail in rough weather. On a larger vessel with a heavy gaff it would undoubtedly be well to hold the gaff rigidly with two vangs, one to windward and one to leeward as is customary on the spanker of a square-rigged ship. However, on the *Alice*, I have had excellent results with a boom guy on the main boom and a single vang on the windward side of the main gaff. As used on the *Alice*, the vang consists of a 5/16-inch diameter galvanized steel wire rope with a thimble spliced in each end. It is attached to the outer end of the gaff by a one-half-inch diameter double manilla strap and is attached to the strap by a shackle to a thimble seized in the bight of the strap. The lower end of the vang, when not in use, is led forward and is attached by a lanyard to one of the mast hoops within easy reach of the deck. When in use it is hooked into a tackle consisting of one double block and one single block with becket and the single block shackled into an eye bolt at the weather rail a little abaft the mizzenmast. Sufficient drift is given to this tackle, and the vang is made short enough so that the tackle will not be two blocks when the sail is reefed.

E. G. Martin in his interesting book, *Deep Water Cruising*, gives some of his experiences with a vang, and curiously enough, while considering it a most valuable piece of rigging, he does not mention most of the advantages I have just described and which are the result of my experience with it since 1892 on every boat I have owned or chartered. I was obliged to abandon the manila rope vang he describes as it would not stand the sudden jerks and strains unless it was made too heavy and unwieldy.

(g) It increases the speed of the boat (I am always speaking of conditions with started sheets), because it makes it possible to hold the whole of the mainsail at its most effective angle. Ordinarily, in order to make the upper part draw properly, the boom must be sheeted in much flatter than would otherwise be desirable. When a vang is used, the gaff is hauled to the desired position and then the main sheet is adjusted so as to bring the boom into the same plane as the gaff. This enables carrying more sail in a breeze of wind than would be advantageous without the vang.

In our experience with a strong beam or quartering wind, the whole sail may be made to draw perfectly with the sheet eased off much farther than would be possible without the vang. It is equivalent to a single reef as far as the angle of heel is concerned. Another point affecting speed in a heavy sea is the degree to which a boat is rolling. Increased rolling undoubtedly decreases speed. Twenty-five years ago the German navy experimented with the Schlick gyroscopic stabilizer on a torpedo boat running in the trough of a heavy sea at the mouth of the Elbe River. With the wind against the tide it was found that when the gyro was turned on the speed of the boat was increased and the amount of water coming on board greatly reduced. Without the gyro the boat rolled 15 to 20 degrees and with the gyro one to one and a half degrees each side of the perpendicular.

An experience of mine three years ago also shows the effect of rolling on the speed of the *Alice*. I started to cross the Gulf Stream from Caesar's Creek, Florida, to Gun Cay, Bahamas. The wind was light, about five or six miles per hour, and dead ahead. I estimated that with the three and a half-mile current, we would do better to run straight to windward on the motor alone. For one hour, with sails furled, we made only about three and three-fourths nautical miles by the log and rolled heavily, making it exceedingly uncomfortable. For the purpose of checking the roll I then hoisted the main and mizzen sails, sheeting them both as flat as possible. This greatly reduced the roll, but as the sails were shaking in the wind I feared the speed would be further reduced. I was much surprised to find that instead of slowing down, the distance run in the next hour had actually increased to four and three-fourths nautical miles. This was so unexpected and surprising that I immediately repeated the experiment, running the third hour without the sails and the fourth with the

(*Continued on page 92*)

The Cruise of the *Alice*

(*Continued from page 62*)

sails, proving beyond all doubt that under those conditions the boat made better speed dead against the wind with the mainsail and mizzen hoisted. Possibly, the rolling may have had some influence in producing a fanning motion of the sails which would tend to push the boat ahead a little. However, the fact remains that reducing the rolling does increase the speed of a boat materially, and I believe this was the main cause of our increased speed.

Following this thought further, would not a square topsail of moderate size be a very useful sail in any ocean voyage, even on a boat as small as the *Alice?* It should be rigged so that the yards could be braced sharply enough to make the sail draw with the wind one or two points forward of the beam. Such a sail would still further check the rolling of the boat, thereby increasing its speed. It is also probably fair to say that a considerable portion of the energy absorbed by the square topsail in checking the roll of the boat is transformed into an extra push forward, the amount depending upon the angle to which the squaresail is braced. The advantage of a square topsail, as compared with the loose-footed squaresail ordinarily used on yachts, is that it can be used effectively with the wind abeam or even one or two points forward of the beam. With the wind aft, an additional loose-footed squaresail or "course" will be carried below the square topsail as well as a raffee above it.

My apology for taking so much space for the discussion of this subject is that it seems to me to have a vital bearing on the important question of gaff *versus* jib-headed rig for offshore cruising. My own impression is that a gaff-headed mainsail without a vang is inferior to the jib-headed sail, and with a vang is superior to it for a cruising rig. I also wish to emphasize the point that my arguments are intended especially for offshore cruising. Cruising along the coast, with frequent harbors available, is a very different thing, and for this kind of work the advantages of the jib-headed rig may easily outweigh the disadvantages.

I cannot omit from this discussion the very interesting paragraph by Martin in *Deep Water Cruising*. Having lived with vangs on my boats for more than 35 years I thought I had pretty well exhausted the subject, but Mr. Martin has developed some methods of use which are new to me. He writes as follows:

"A fitting which is unusual in yachts, but which we used both with the big mainsail and with the trysail, is a 'vang' upon the gaff end. It is a piece of strong manila rope, long enough to reach the deck, and it enabled us to set the mainsail, or get it off her, without bringing the ship to, at times when we could not possibly have done so without it. There is a trick in using a vang when lowering the mainsail which I discovered by accident soon after we started. The peak halliards are slacked away first, until the gaff is at right angles to the mast, and the vang is hauled taut, bringing the gaff end amidships. Given half a turn around a cleat, the helmsman can tend the vang while he steers and the others lower the sail. It will be seen from the sketch (6) that once the gaff is at right angles to the mast, the vang becomes tauter as the throat halliards are slacked away, and thus the helmsman, by carefully easing the vang as the sail comes down, can keep the gaff amidships.

"It is necessary to have a very strong jaw rope, as the whole tendency of the vang is to pull the jaws away from the mast. When the gaff is swinging about as the ship rolls in a light air, the vang can be taken forward and used like a boom guy. It proved to be one of the most valuable ropes in the ship, and I do not intend ever to cruise in a vessel rigged with a gaff without fitting a

vang. When one is running before a fresh breeze it is very comfortable to know that one can depend upon making a good job of lowering the mainsail without having to bring the ship to."

The above quotation shows that Mr. Martin, while he believes most strongly in a vang for offshore work, has apparently never tried it for most of the purposes for which I have found it to be so valuable.

(*To be continued*)

A Bird's-Eye View of Great South Bay's Annual Cruise

(*Continued from page 64*)

The Stars were quite clearly better kept up and more keenly raced than any other class on the bay. The seaweed which was so annoying last year was bothersome only at Babylon and there only to a minor degree.

INDIANS. For the first time in many years, Harry Meislahn in his famous *Montauk* failed to lead the class in all the races. A one-design class takes on a new lease of life when a consistent winner is defeated, even though that winner may be as popular as the former Princeton football star.

MORICHES BAY ONE-DESIGNS. It is to be regretted that these splendid little boats are all from the yacht squadron of the Westhampton Country Club. Most of the other classes are pretty well strung out along the South bays, and there is as keen competition between localities as between boats. The more I see of the Moriches Bay one-designs, the better I like them.

SHORE BIRDS. The change in rule last year which permitted Shore Bird owners to buy sails from any sailmaker has improved the performance and appearance of many of these beautiful little boats. The class has thinned out somewhat, but there are still enough to furnish keen competition.

S SLOOPS. The "S" boats furnish a catch-all class. Every boat that cannot fit into any other class is put into this division. As a result, it furnishes keen racing, but a lot of problems of arithmetic must be solved before the winner is known. After all, Class S furnishes the best opportunity for designers and builders of new boats.

CC SLOOPS. The advent of nine new boats owned by the Juniors of the Bellport Bay Yacht Club enlivened the competition among the youngsters. The "CC's," "SS's," "M's" and "W" Cats sailed a shorter course than the big boats, rounding marks placed about 100 yards inside the regular marks. Although these inner marks caused some confusion and some of the big sloops rounded the inner marks instead of their proper marks, the innovation is a distinct improvement over the old courses. With the little boats out of the way of the larger sloops, the congestion at the turning points was greatly relieved, the number of fouls considerably cut down, and the speed of the course greatly improved.

THINGS I LIKED ON THE CRUISE: The apple pie at Babylon. Ditto at Bay Shore. The roast beef at Bay Shore. The aprons on the waitresses at Bellport. Harry Growtage's giddy neckties and seagoing scarfpin. The fact that Doc Rice did not use a megaphone to broadcast his comments to passing racers. Ex-Commodore Ketcham's jury-rig mark at Babylon. (It could be seen further and it survived more fouls than any mark on the bay.) The weather. The Regatta Committee's split-second gun firing. The cafeteria style of service at Bellport — most efficient and free from confusion. The buttons of admission to the lunches. (It was very easy to feed the whole family by passing the button around.)

THINGS I DID NOT LIKE ON THE CRUISE: [Editor's Note: This section has been deleted to save the author's scalp at next winter's meeting of the G. S. B. Y. R. A.]