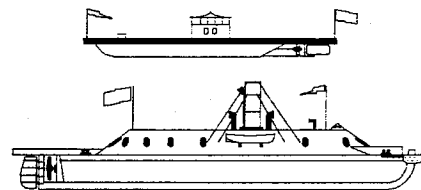


Logbook!



No. 130

APRIL, 1997

FROM THE PILOTHOUSE



Last month I mentioned that I had joined my first ship modeling group, *not* coincidentally, within a month after our marriage. The direct cause of the life-changing event—the second one!—was that my father-in-law paid us his first post-honeymoon visit (and Jane reminds me, correctly, that it was closer to six weeks, since he came to New York City to perform the marriage ceremony for her roommate, whose anniversary we know as well as our own), and it was he who spotted a little news item in the *Times* about the Shipcraft Guild's exhibit, where I was hooked before the day was out.

Which is a long lead-in to the subject of our wives (and I can properly use that gender-biased term here, rather than "spouses," since HRSMS does not include among its members any of the handful of female modelmakers I have known) and what we owe them. My case may be an extreme one, since I owe Jane—and her dad—for nearly 35 years of sociable modeling and all that sprang from it along the way. In addition, she has borne the brunt, I think at least eight times, of my playing "host" to Society meetings.

So it is fitting that, perhaps before most of you read this, we will have thanked them with our customary tribute of a nice evening away from the kitchen and a pleasant gathering with friends. A small and pleasant price—or privilege—to pay for the many hours they allow us in the shop or on research outings, and for the many other forms of their support, or at least their tolerance.

Among them, we owe special thanks to Jeanne Bobbitt, who, ironically, helps Jack (or is it the other way around?) with the arrangements for these dinners. ⚓

—Alan Frazer

To Build A Ship Model



The March meeting was held at Karen and David Tagg's home and our speaker for the above series of talks was Jack Bobbitt. Jack's presentation was well attended, so much so that our hosts open staircase, at one end of their living room acted as a balcony for the overflow of guests, adding to an already buoyant atmosphere.

The subject for the evening was to be plank on frame construction and how to apply this method to a scratch built hull. Our speaker began with a slide presentation showing the lines plans and waterlines he used to build the Sunny South a Chesapeake Bay craft and the Virginia a United States Navy frigate. Additional information was drawn from the works of Steele, Lloyds and formulas devised by Charles Davis. This provided the data for frame construction as well as the number to be used and the spacing required. Armed with this information additional plans were drawn on mylar showing the placement of frames within the hull and when used in conjunction with the lines plans points were generated on a graph to plot the shape of each and every frame. This is an accurate method. All the points are then connected using French curves. Though the ensuing work is repetitive a disciplined regimen will enhance working efficiency in this phase of creating a new model.

After all preparatory stages were completed our speaker took us to the point at which all the frames have been made and ready for attachment to the keel however, before this begins we are advised that starting with the broadest frame, those to be laid aft should be lettered alphabetically while the frames to be laid forward should be numbered in sequence.

Now the hull is about to take shape but once again the ever present issue of accuracy and the avoidance of asymmetry has to be borne in mind. Reference to certain types of jigs used for holding the frames in place during construction were discussed. Other methods for assuring accuracy were used instead and these included the use of spacers between the frames and employing a try-square in conjunction with the base line to ensure the frames are set perpendicular. An

MINUTES



The meeting was called to order at 2006 Hours by the new skipper Alan Frazer with 26 members and two guests present. Thanks were given to the out going slate of officers for a job well done. The membership joined in the praise. Alan noted in his opening remarks that the ship model competition is under the auspices of the Mariners Museum and not the Nautical Research Guild (NRG). The format for the meetings will be: opening remarks, welcome guests, corrections to the minutes, old business, new business, formal presentation, show and tell. Alan asked that members refrain from show and tell topics in the business portion of the meeting.

Two guests were present, Rick Wellons and Dean Warden. This was Mr. Warden's third meeting. He was affirmative when asked if he would like to become part of our society. The guests were asked to remove themselves from the meeting while we voted on Mr. Warden's membership. After the traditional debate, Dean was welcomed into the club.

Corrections to the March minutes:

new business- Alan reported (not read) a letter from Bill Fleming, passed around (not read) a letter from Buddy McLaughlin, Show and tell- Call Bob Comet (not Alan Frazer) if you are interested in repairing a pond model.

It was noted that several issues ago that an article was on lap strake (not streak).

Thanks were given to the new Logbook publishers and the previous editor and publisher, Len Wine.

Old Business:

The tour of the Norfolk Naval Shipyard Dry Dock #1 is postponed until April 19th. The Wisconsin and the America will be pierside. Wives and friends are welcome to join us on this outing.

Jack Bobbitt will talk to the director of the Watermen's Museum about the use of their facilities for future meetings.

Banquet reservations should be sent to Bob Comet.

The members discussed participation in the NRG homepage. It was decided that we will begin that endeavor at the discretion of the Logbook publishers.

The Skipper proposed John Hightower as a possible speaker for the annual banquet. There was discussion as to whether we wanted a speaker. Joe McCleary made a rather lengthy motion that we invite Mr. Hightower to speak. The motion was second and passed.

An announcement was made that dues are due.

New Business:

Joe McCleary informed the membership that Claudia Pennington had been hired as curator at the Mariners Museum. Alan Frazer added that her title was director of the museum.

The NRG conference will be held in Boston during the later part of October. The guild will sponsor a trip around New England prior to the conference. NRG members will have a one month advantage in making reservations for this trip.

Bill Clarke gave the Purser's report. With a moderate amount of fanfare, the records and accounts were passed to the new Purser, Bob Comet.

Bill Altice said that he is going to update his cross reference to NRG Journal. He requested other reference material for inclusion.

Presentation:

Jack Bobbitt, "Building Plank on Frame Models"

Show and tell:

Bob Comet said that A. J. Fisher is a good source for linen line and that they had 1/16 in. eyelets that were good for sail grommets. Jack Bobbitt added that a mixture of bee's wax, turpentine and linseed oil was useful in reducing the fuzz on cordage. Graham Horne said that Warner West was also a source for linen line.

Bill Peach informed us that the Navy at Norfolk Operations Base has opened it's hobby shop to the public. Hobby shop brochures were distributed. (Directions to the hobby shop were given, but the secretary needs to brush up on speed writing.)

Gene Burger brought copies of the Subcommittee Report.

Joe McCleary circulated a catalog from the Woodworker's Supply Center and initiated a discussion on pin vises.

Hugh Melton showed a woodcarving knife that he procured in the Richmond area and praised it's ability to hold an edge.

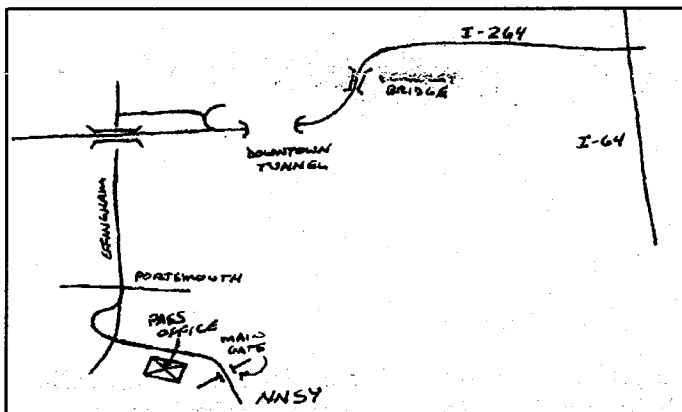
Meeting adjourned at 2145 hours.

Tour NORFOLK NAVAL SHIPYARD DRY DOCK #1

Plans have been finalized and security passes arranged for those who signed up for the tour of Norfolk Naval Shipyard's Dry Dock #1 on Saturday 19, April 1997. After visiting the first dry dock built on the North American continent, the tour will stop at the USS WISCONSON (BB 64) and the America. Unfortunately, we will not be allowed on board but we may walk the pier. The tour will then proceed to Trophy Park for a tour of armaments from torpedoes to field pieces, AA guns to 16" gun barrels. Trophy Park is the only location that may be photographed.

From all points, take I-64 to I-264 west bound into Norfolk. Proceed across the Berkeley Bridge and through the Downtown Tunnel, staying in the right lane. Immediately after exiting the Tunnel, take the first exit and stay left, following signs to Effingham Street, Turn left onto Effingham Street (this takes you back under the highway) and proceed about five or six blocks to the stop light at Portsmouth Boulevard, following signs to Norfolk Naval Shipyard. Stay in the tight lane and take the first turnout that will take you back across Effingham Street (a New Jersey left turn) and to the entrance to the Main Gate. We will meet at the Pass Office on the right just before the Main Gate at 0900 and receive our security passes (participants must bring a photo ID or drivers license). We will use two large white vans for the tour. ↓

Lt. Kenn Knittle



To Build - From Pg. 1

additional aid for centering the frames from above is to run a line dead center fore and aft. Rather than the use of cotton or wire utilize a strand of rubber, it will not bend, sag or snap and if it is disturbed it will always revert to its original position. As work progresses the laying of deck members helps secure the frames in place in addition to the frames being mounted to the keel.

As an aside and yet in keeping with his subject Jacks final slide showed a model of Admiral Vernon's flagship, H.M.S. Burford This model of a third rated ship was a good example of the type of hull to which this talk was devoted, only partially planked in order to show construction and interior detail, deck by deck.

This was a very good presentation and it certainly held everyone's attention, especially for those who might aspire to this level of craftsmanship and expertise. As mentioned earlier, we are fortunate to have in our midst members whose work has been recognized in premier competition and to whom the rest of us can turn too for inspiration and advice.

As always the time flew by and a fine evening was rounded out with a display of David's radio controlled, United States Navy flotilla, then a tour of our hosts workroom and finally a lingering impression of Karen working feverishly in her kitchen, surrounded by bodies of men everywhere, eating and drinking and engaged in lively conversation.

Our speaker for the April meeting will once again be Bob Comet, he will address, what he calls the fun part of building a hull, Planking. ↓

Graham Horne

What is Pewter?

Pewter has had an almost infinite number of different compositions through the ages and even today there are still numerous varieties. The only common factor is a relatively high tin content which is hardened by additions of other elements. Today in most countries pewter is a lead free alloy usually being hardened with additions of antimony and copper, and usually containing over 91% tin.

In the past pewter often contained lead but as awareness has grown into the harmful effects of lead it has now been eliminated. Modern pewter can be polished to a bright silver like finish or if preferred chemical darkeners can be used to simulate the patinas associated with old pewter.

Corn Metals Pewter Page

NOTABLE EVENTS

APRIL

- 5 H.R.S.M.S. Annual Banquet; James River Country Club
 11 H.R.S.M.S. Monthly Meeting: host Bob Comet

MAY

- 9 H.R.S.M.S. Monthly Meeting: host Bill Clarke
 16-18 5th Mid-Atlantic Maritime Festival;
 (Chesapeake Bay Maritime Museum),
 St. Michaels, Md.

JUNE

- 13 H.R.S.M.S. Monthly Meeting: host Ulrich Guenther

JULY

- 11 H.R.S.M.S. Monthly Meeting: host Dean Sword
 25-27 6th Sub Regatta; (Subcommittee) Groton, Cn.

AUGUST

- 8 H.R.S.M.S. Monthly Meeting: host Southside Bunch
 17 Task Force 50 Regatta; Lake Redman, York, Pa.

SEPTEMBER

- 11-13 Warfare Exposition and Symposium; (USNI) Virginia Beach, Va.
 12 H.R.M.S. Monthly Meeting: host Williamsburg Chapter AARP

OCTOBER

- 2-4 Naval History Symposium (USNA History Dept.), Annapolis Md.
 10 H.R.S.M.S. Monthly Meeting: host, Graham Horne
 31-Nov 2 NRG Annual Conference; Boston, Mass.

NOVEMBER

- 14 H.R.S.M.S. Monthly Meeting: host Heinz Shiller

DECEMBER

- 12 H.R.S.M.S. Monthly Meeting: host Jack Bobbitt

WATCH, QUARTER AND STATION BILL



Skipper:	Alan Frazer	(757) 865-7300
1 st Mate:	Joe McCleary	(757) 253-1802
Purser:	Bob Comet	(757) 934-1279
Clerk:	Tom Saunders	(757) 850-0580
Historian:	Chuck Reynolds	(757) 548-0844
Editors:	John Cheevers	(757) 591-8955
	Bill Clarke	(757) 898-6809
	Tom Saunders	(757)-850-0580

NEXT MEETING

APRIL 5, 1997

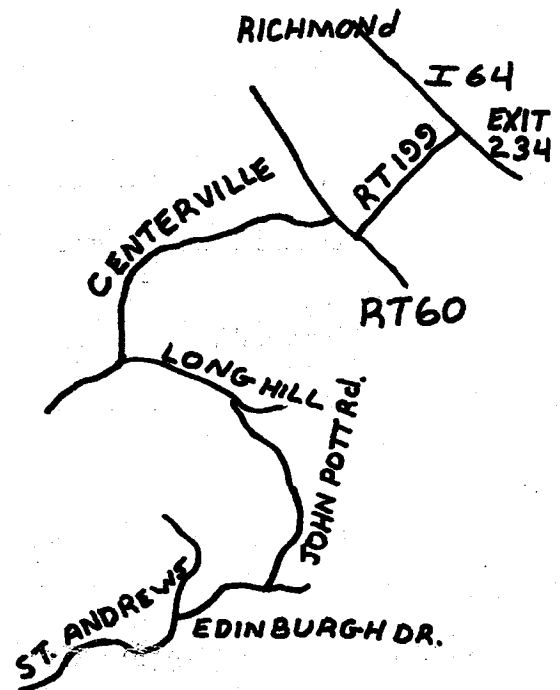
HOST BOB COMET

Ford's Colony Swim and Tennis Club

Directions to Ford's Colony "Swim and Tennis Club"

From I-64 north or south

Take exit 234 (Rt. 199 south) exit 234A if your coming from NN Go to Rt. 60 exit turn left (RT 199 passes over Rt. 60 and loops back to Rt. 60) go short distance to first traffic light (Rt. 614 Centerville Rd.) turn left go 3 miles to Longhill Rd. (Rt. 612) turn left go .7 mile to Ford's Colony entrance on the right (John Pott Rd.) go through entrance gate check in at the security office (off to the left) continue on John Pott Rd. Drive 1.0 miles bear to the right on Edinburgh Drive go.5 mile to St. Andrews Dr. make left turn go .9 miles to the Swim and Tennis Club on the right.



EDITORS NOTE

The editors encourage participation in the Logbook by the membership. Articles, tips, sources, plans, photos and news are welcome. Submissions should be received 15 days prior to the next meeting. Items may submitted by mail to:

Thomas E. Saunders
 11 Eldorado Ct.
 Hampton, Va. 23669
 E-mail: t.e.saunders@worldnet.att.net
 FAX (prior arrangements required)

Comments and suggestions are welcome.

Because some of my presentation at the March meeting was technical, Tom Saunders has agreed to incorporate the following in the newsletter so you will have it in writing.

DEFINITIONS :

ROOM & SPACE: ROOM: space occupied by the frame. (Remember that each frame consists of two components with staggered floors and futtocks that are fastened together with treenails or bolts.)
SPACE: open space separating two frames. Each couplet of room and space has one frame. Exception: Goodwin says that wooden warships usually had one or, more commonly, two filling frames in each space. This created a "wall" of wood. Frames were separated by only an inch or so of space to allow the wood to breathe. Some large clipper ships also had filling frames.

SIDED DIMENSION: Fore and aft scantling or dimension.

MOULDED DIMENSION: Athwartship or vertical scantling.

Charles Davis' Framing Rules: (Page 21, Ship Model Builders Assistant)

Room & space for warships = .0172 x length of ship between perpendiculars.

Room & space for merchant ships = .027 x length of ship between perpendiculars.
Frame occupied 0.47 (47t) of room and space.

Example: Warship of 150 feet.
Room and space = .0172 x 150 = 2.58 feet
Each frame (sided dimension) = .47 x 2.58 feet = 1.4 feet.

Number of frames: $\frac{150}{2.58} = 58$

Merchant ship of 150 feet.
Room and space = .027 x 150 = 4 feet
Each frame (sided dimension) = .47 x 4 feet = 1.88 feet
No. of frames = $\frac{150}{4} = 37.5$ frames (nominally 37 or 38).

LLOYD'S RULES and DIMENSIONS of MATERIAL TABLE :

(Note: These rules did not change to any degree over the years. They were the same in 1854, 1886 and 1920.)
Scantlings were based on determination of tonnage by using the following formula from Bureau of American-Shipping:

$$\frac{L \times B \times D}{100} = \text{Tonnage}$$

- L = Length from after part of stem to fore side of stern post. (Usually length between perpendiculars on plans)
- B = Breadth over all at widest part
- D = Depth from top of ceiling alongside keelson to underside of main deck, to be measured at fore end of main hatchway.

In figuring dimensions between tonnage figures in following table, take difference to determine scantling figure. For instance, timber and space for a 750 ton ship would be 31 1/4 inches plus 1/2 of difference between 700 and 800 ton ships. 800 ton ship would be 31 3/4 inches so difference would be 1/2 inch. 1/2 of this 1/2 is 1/4 inch so 1/4 added to 31 1/4 inches giving 31 1/2 inches for a 750 ton ship.

TABLE 3B—LLOYD'S SCANTLING TABLE

Minimum Dimensions in Inches, of Timbers, Keelson, Keel, Planking, Etc.

TONNAGE	100	200	300	400	500	600	700	800	900	1050	1150	1250	1350	1500	1750	2000
Timber and Space—Inches.....	19	21½	24½	27½	30	30½	31½	31¾	32½	33½	33½	33½	33¾	34	34½	35
Floors, S & M at Keelson, if Squared.....	7½	8½	10½	11½	13	13½	13½	13¾	14	14½	14½	14½	14½	15½	15½	15½
Double Floors, S & M at Keelson, if Squared.....	6½	7½	9½	10½	12	12½	12½	12¾	13	13½	13½	14	14½	14½	14½	14¾
1st Futtocks, S & M at Floorheads, if Squared.....	6½	7½	8½	10	11	11½	11½	12½	12½	13½	13½	13½	14½	14½	14½	14¾
2nd Futtocks, Sided, if Squared.....	6	7	8	9	10	10½	10½	11½	11½	12½	12½	12½	13½	13½	13½	13¾
3rd Futtocks, Sided, if Squared.....	5½	6½	7½	8½	9	9½	9½	10½	10½	11½	11½	11½	12½	12½	12½	12¾
Top Timbers (Short), Sided, if Squared.....	.....	.....	.....	.....	9	9½	9½	9½	9½	10	10½	10½	10½	10½	11	11½
Top Timbers, Moulded at Heads, if Squared.....	4½	5	5½	5½	6	6½	6½	6½	7	7½	7½	7½	8½	8½	8½	9
Breast Hooks and Wing Transom, S & M in Middle.....	8½	9½	10½	12	13	13½	13½	13¾	14	14½	14½	15	15½	15½	15½	16
Keel, Stem, Apron, and Sternpost, S & M.....	9	10½	11½	13	14	14½	14½	14¾	15	15½	15½	16	16½	16½	16½	17
Keelson, S & M.....	10	11½	12½	14	15	15½	15½	15¾	16	16½	16½	17	17½	17½	17½	18
Wales.....	3½	4½	4½	4½	5	5	5½	5½	5½	6	6	6	6½	6½	6½	7
(e) Bottom Plank, from Keel to Wales	2½	2½	3½	3½	4	4	4	4½	4½	4½	4½	4½	4½	4½	4½	5
Sheer Strakes, Top Sides, Upper Deck	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clamp (No Shelf): Lower Deck, Clamp with Shelf.....	2½	3½	3½	3½	4	4	4½	4½	4½	4½	4½	4½	5	5½	5½	5½
Ceiling Below Hold Beam Clamp.....	1½	2½	2½	2½	3	3½	3½	3½	3½	3½	3½	4	4	4½	4½	4½
Waterway:	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hardwood.....	4	5	5½	6	6½	6½	7	7	7½	7½	7½	8	8	8½	8½	9
Fir.....	4½	5½	6½	7	8	8	8½	9	9	9	9	9½	9½	9½	9½	10
Ceiling Betwixt Decks.....	1½	2	2½	2½	2½	2½	2½	2½	2½	2½	3	3	3	3½	3½	3½
Bilge Plank, Inside, Thick Strakes and Limber Strake.....	3	3½	4	4½	4½	4½	4½	4½	5	5½	5½	6	6½	6½	6½	7
Lower Deck Clamp (No Shelf) and Spiketting.....	3	3½	3½	4	4½	4½	4½	4½	5	5½	5½	5½	5½	5½	5½	6
Upper Deck Clamp (With Shelf).....	2½	2½	2½	2½	3	3½	3½	3½	3½	3½	3½	4	4	4½	4½	5
Planksheer.....	2½	2½	3½	3½	4	4	4	4	4	4	4	4	4	4½	4½	5
Flat of Upper Deck.....	2½	3	3	3	3½	3½	3½	3½	4	4	4	4	4	4	4	5
Scarpha of Keelson Without Rider.....	4'9"	5'3"	5'10"	6'6"	7	7	7	7'3"	7'3"	7'6"	7'9"	7'9"	8'	8'	8'	8'
Scarpha, where Rider Keelson is added, also Scarpha of Keel.....	4'3"	4'9"	5'2"	5'6"	6'	6'	6'	6'3"	6'3"	6'6"	6'9"	6'9"	7'	7'	7'	7'
Main Piece of Windlass—Inches.....	14	15	15	16	17	18	19	21	22	23	23	24	24	25	25	27

STEPS FOR DRAWING FRAME:

1. Figure 1: make mylar blanks for frame drawings. Number needed will depend upon whether a merchant or war ship,
2. Figure 2: Add horizontal waterlines and vertical buttock lines to two mylar blanks. Transfer forward body sections to one side of a blank, aft stations to a second blank. Use bow compass to establish points for opposite side on each drawing so you end up with both port and starboard sides on one drawing.
3. Figure 3: Place mylar blank over body section (Figure 2) so baseline and midline exactly coincide. Using bow compass, transfer points for any frame from sheer plan to blank.
4. Figure 4: To get new frame drawing, connect points in 3 by extrapolating between adjacent body sections in Figure 2. Use French curves for this. Be sure that your new frame lines are fair, i.e.: free from bumps and angles.
5. Figure 5: Add inner (inside) frame section lines to drawing. See Lloyd's scantlings for moulded dimensions. Frame sided and moulded dimensions in the floor timbers are usually about equal. Frames generally taper from floors to tops; top timbers about one half floor moulded dimensions. If you are working on an earlier ship (17th and 18th centuries) and have doubts, check scantlings in 1804 Steel's Architecture.

Add an inner line for bevel at different levels. This is derived from the narrow face of body section. (Aft face if station aft of 0, forward face if forward of 0.)

6. Figure 6: Cant frames. (Not covered in my talk.)
 - a. Spacing of frames at outer waterline should be equal to spacing of square frames.
 - b. Try to keep the outer edges or faces of frames square to outer waterline. Do this by positioning the canted (angled) faces of frames in the half-breadth plan.
 - c. Cant frame measurements are taken with the bow compass along the cant as in AC or AE. Do not measure along a right angle from the keel.
 - d. Both faces of canted frames will be the same (or at least nearly the same) if you square the heel as with the dashed lines.
 - e. The bevel of the frame heel is added after the frame is shaped. Measure the angle from the sheer plan. This can be cut in several ways but the easiest is on a disc sander. Do Not Depend On The Angles On The Sander Table control. They are not accurate enough. Get this angle with a protractor. Make a card template or set the angle on a sliding bevel, then use this to set the table on the disc sander. The sliding bevel is the way to go if you are cutting the angle by hand.

Drawing frames as described above may seem like a long, time consuming process. I have timed this, however, and found that a frame drawing can be done in ten to twelve minutes. It's like any other repetitive model making procedure; it goes much faster when you take the time to get into the rhythm of the procedure.

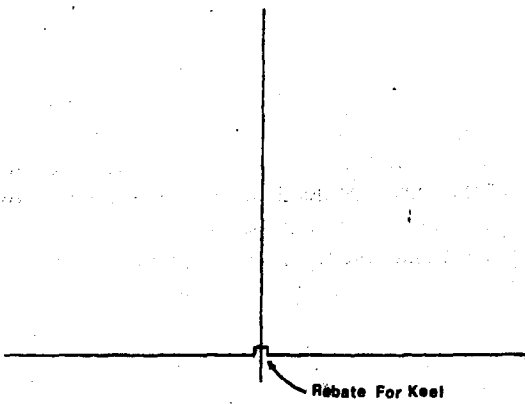


Fig. 1

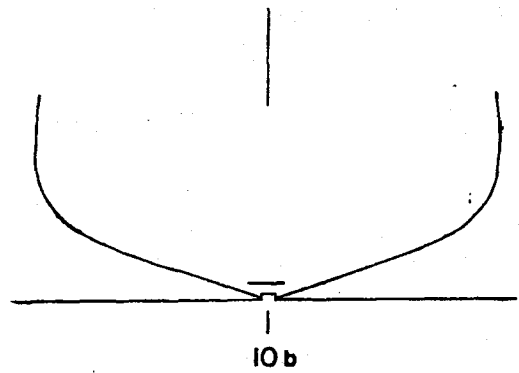


Fig. 4

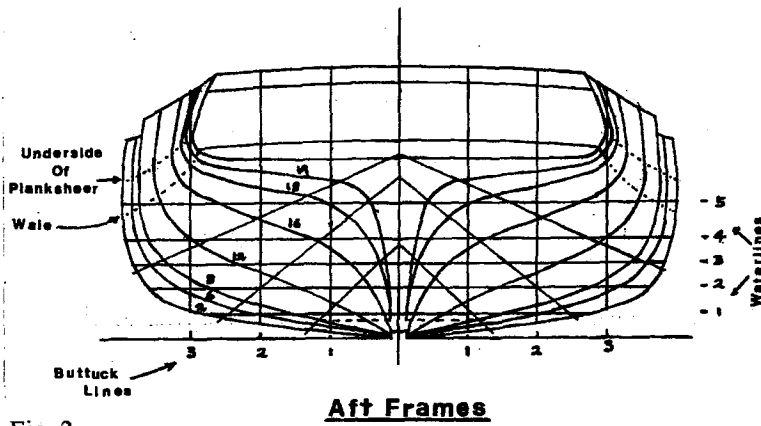


Fig. 2

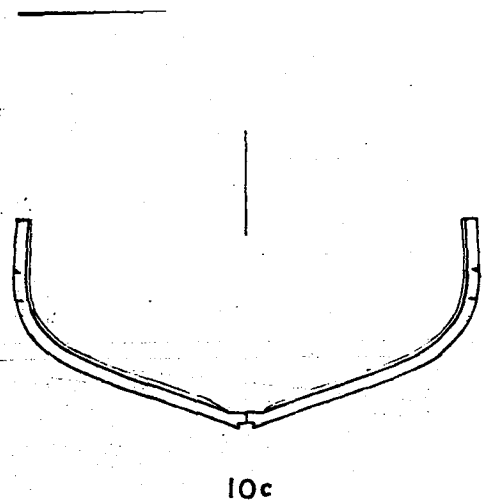


Fig. 5

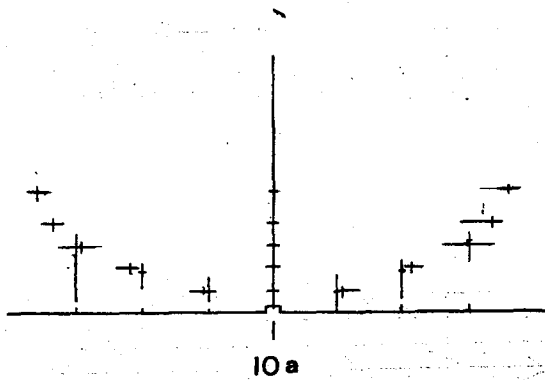


Fig. 3

Fig. 6

