



THE BROADAXE

NEWSLETTER

of

THE SHIP MODEL SOCIETY OF NEW JERSEY

Founded in 1981



Volume 27, Number 7

July, 2009

MINUTES OF THE REGULAR MEETING June 23, 2009

The meeting was called to order by President **Bob Fivehouse** at 7:40 PM with 22 members in attendance. We had 1 visitor this evening, **Nicky Starace**, Nick Starace's grandson. Nicky brought two models he built (with a little help from mom) for Show and Tell this evening. For his effort, the membership unanimously voted to make Nicky a regular member of the Ship Model Society of New Jersey. Welcome aboard, Nicky!

Comments, questions and or corrections to the June issue of the Broadaxe were requested. There being no corrections, the June 2009 issue of the Broadaxe was accepted into the minutes.

Al Geigel presented his Treasurer's Report to the members. He mentioned that the Club took in over \$600 from baseball cap sales to help defray the purchase cost. There are still 34 caps left so if you want to purchase a cap, please contact Tom Ruggiero. There being no other discussion or comments on the report, the Treasurer's Report was accepted into the minutes.

Bob Fivehouse reported on the meeting recently held at **Barry Rudd's** house by the Jim Roberts Award committee. The committee has come up with 5 specific criteria which are based on the quality of construction. The criteria are *Effort, Construction, Finish, Proportion* and *Overall Effect*. A model will be given a score from 1 to 10 for all criteria except for *Construction*, which will be scored from 1 to 20 as it will be considered the most important factor in judging the model. A total of 60 points can thus be earned if a model received the highest point value in all categories. The Committee will meet again to refine the definitions of each criterion. A dry run of the judging process will occur at the upcoming Ocean County Library model display to get a better idea of the length of time required to properly judge a model and to resolve any grey areas found in a particular criterion before it is disseminated to the other Clubs attending the Joint Clubs Conference in New London.

Henry Schaefer brought in a map he constructed showing the directions to the Ocean County Library from the Garden State Parkway. Henry cautioned that you must make a quick right turn off the exit ramp and it's easy to miss. Henry will be providing us with the specific date and time for the model drop off at the July meeting.

Ossie Thalmann reminded everyone that their models must be picked up this coming Saturday, June 27th. He will be calling each person on Thursday to remind them again. The display was a great hit at the library and they told Ossie they would love to have us back every year. The members thanked Ossie for all of the time and effort he spent setting up and checking on the models every day.

Bob Fivehouse reported on the Executive Board meeting held earlier this evening. In accordance with the Club's Constitution, dues are to be set annually by the Executive Board. Since the Club had an adequate bank account balance to cover its expenses and did not need any funds relating to the NRG 2008 Conference, last year's dues were waived. **With respect to the new fiscal year beginning July 1, 2009, the Executive Board has determined that dues for regular members will be \$20 and for new members \$25**, a reduction of \$5 from the amount set in 2007. As a reminder, your dues must be paid no later than December 31, 2009. If you are unable to attend the meetings, please send a check to Al Geigel so that you can maintain your regular member status.

Although the June meeting is normally when officer elections are held, no current officer positions were up for re-election this year.

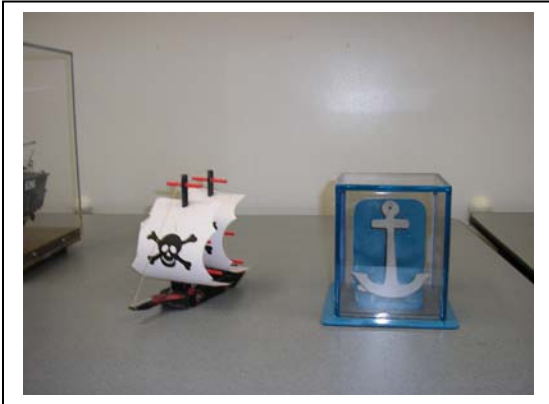
Don Otis passed around a brochure he obtained from his recent visit to the USS *Intrepid* museum. He said that it was much better after its recent dry docking and refurbishment and is well worth visiting. Don noted that the submarine *Growler* is now open to the public as well.

With the new hall opening at Annapolis in October, the consensus is that we will plan a trip to the Naval Academy in mid to late October.



SHOW AND TELL

First up this evening was our newest (and youngest!) member **Nicky Starace**. Nicky brought in a very nice pirate ship, well painted, I might add, along with a ship's anchor in a very nice display case. Very well done, Nicky, and we hope you keep modeling and come back again!



Bob Fivehouse had 2 models of the British liner *Minnewaska* which was built in 1909 for the Atlantic Transport Line. The larger model is in 1:384 scale (1" = 32') and the smaller version is in 1:1200 scale. The *Minnewaska* carried 300 first class passengers along with freight. The ship was lost in World War I.



Ed Hegstetter showed us his completed PT Boat 596, an Elco 80' torpedo boat placed in service in the Philippines in May 1945. The model is kit built with some very nice photo-etch parts. Ed took the time to paint tracer rounds on many of the ammunition belts on his model. Ed used a Gator paint mask with the camo pattern on the mask to paint the hull and Archer dry transfer letters in place of the decals that came with the kit. The model is in 1:35 scale.



Bob Markovic brought in a 1930 Chris Craft Runabout, his very first model. The model is a Dumas kit in 1:8 scale of plank on bulkhead construction. Bob asked for some feedback on the flag that came with the kit thinking it was too large for the boat. The consensus was that it was probably the right size and members offered some suggestions on how to make it look more realistic once mounted on the stern.

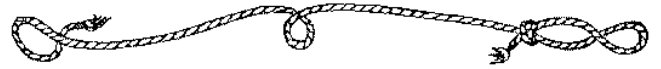


Steve Fletcher used the hull from the *Phantom* pilot boat to construct his model of the pilot schooner No. 17, *Fannie*, which was built in Brooklyn, NY in 1860. Steve fabricated all of the rest of the components for his model. The *Fannie* was one of the last schooners to be used as a pilot boat in New York harbor. The boat has a family connection for Steve as one of its captains, Capt. Alfred Baesler (1896-97) is a relative of Steve's wife. Steve also brought along a folk art model of the schooner built by Capt. Baesler about 80 to 90 years ago.



TOOL TIME

Larry Friedlander took the opportunity to show us the electric plank bender he has been using on his current model. The tool is by Model Shipways and is available from Model Expo. The heating element is a circular disk at the end of the tool. Moistened planks are placed on a wooden form and are then shaped to the appropriate curve by pressing the heated disk against the plank which is in position on the wooden form. Thanks for taking the time to show us this particular plank bender in operation, Larry!



TECH SESSION

Tonight's session on Resin Casting was presented by Capt. Nick Starace. Nick made considerable use of this process in constructing his static model of USS *New Jersey*. Modern war and merchant ships have a lot of the same parts which makes resin casting the ideal solution to having to replicate numerous similar parts. Nick made all of his turrets and many of the smaller components from resin castings. He purchased all of his supplies from Micro Mark as a kit which included everything he needed to make his mold and cast his parts and he paid less than \$100. Nick used a single mold process for all of the parts he cast as they all had a flat base which could be attached to the base of the mold box. If a particular part was complicated, he would break it up into two or more components and then glue the sub-assemblies together. Nick could not stress enough the importance of being meticulous in making your master plug. Any imperfections in the plug will be replicated in the casting so if it's not perfect, do it again and again until you are confident that your casting will be without blemishes. Nick brought in a piece of butter board which is an excellent material to make your master plug from, although it is a bit expensive. Styrene or wood can also be used to make your plug. If wood is used, it must be well primed and sanded to cover the grain otherwise the grain will also show up in the casting. Hand outs were available and included a one page illustration from Micro Mark on how to make a two part mold. The tech session was also recorded and if anyone would like a copy of the tech session, please contact Mike Gutsick.

Thanks, Nick for showing us what a time saver resin casting can be!

The meeting adjourned at 9:55 PM.

Upcoming Meeting Topics

July 28, 2009 – **Al Geigel** will discuss photo-etching using Micro Mark's photo-etching set.

August 25, 2009 – **Ernest Connor** will show us how to make oars for your models

September 22, 2009 – **Allan Yedlinsky** will discuss his technique for hull frame construction

MARK YOUR CALENDARS

**September 2009 - Model display at
Ocean County Library, Toms River, NJ**

**October 6-11, 2009 – NRG
Conference, Buffalo, NY**



FROM THE EDITOR

For those of us who were unable to get to the Parsippany Library to see our display, I'm including some photos I took of the layout. Ossie did a great job and we also owe some thanks to the library staff that allowed Ossie a free hand to set up the display. The models really looked great and were an immediate attention grabber.



Mike Gutsick

The '**BROADAXE**' is published monthly by The Ship Model Society of New Jersey, a nonprofit organization dedicated to teaching and promoting ship modeling and maritime history. Membership dues are \$25.00 for the first year and \$20.00 per year thereafter

Visit our Web Site at: <http://www.njshipmodelsociety.org> where a Web version of the **BROADAXE** can be found. The **BROADAXE** is distributed by both US mail and e-mail in PDF format.

Regular meetings are held on the **FOURTH Tuesday** of every month at 7:30 P.M, at the Millburn Free Public Library, 200 Glen Avenue, Millburn, New Jersey.

Guests are always welcome.

Contributions to the **BROADAXE** are always welcome, and SMSNJ members are encouraged to participate. Articles, shop hints and news items may be submitted directly to The Editor as typed manuscript or electronic files, either on discs or by e-mail. Handwritten notes or other materials will be considered depending on the amount of editing and preparation involved.

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SILICONE MOLDS & RESIN CASTINGS MADE EASY

1. What is Resin?

2. Why Resin Castings?

- Many identical parts can be made quickly
- High quality end product; virtually no shrinkage

3. This discussion covers a single mold technique for parts with a flat bottom or side.

4. Materials Needed:

- Silicone mold rubber
- Casting resin
- Mold release
- Mixing set
- For plugs (pattern) - butterboard, or styrene, or wood, or sample part
- For mold box - wood or particle board, wood screws

Cost will probably be under \$100 depending on the scope of the project.

5. Fabricate the plug or use a sample part as the plug. Ensure plug surface simulates surface of the end product. For example, if the end product is say a deck cabin in oak, choose a wood for the plug that looks like oak in scale.

Tip: The plug can also be used as a vacuum forming plug.

6. Build a mold box starting with the base. Give enough space around the finished plug(s), say 1" all around. Build the walls around the base making the height about 1" higher than the highest point of the plug. Ensure a good fit all around to avoid leakage of the mold rubber.

7. Attach plug to the base using screws or silicone adhesive. Several different parts may be cast simultaneously. Brush on mold release agent to entire plug and inside walls of the box. It will prevent the mold from sticking to the plug, base and sides.

8. Following the manufacturer's directions, mix parts A and B of the silicone mold rubber. To avoid layering mix enough to fill the mold box in one application. Be sure work area is well ventilated. Try not to mix in a lot of air as air bubbles may ruin the mold. Pour the mold rubber into the box slowly as a thin strand from about 6" above the highest point of the plug. Avoid pouring into the corners or directly on the base. Fill the entire box.

Tip: a. If part has overhang it may need to be cast separately as 2 or more pieces.

b. Larger molds can take quite a bit of silicone. To help conserve it, old molds can be cut into chunks and added to the newly poured rubber as fill. Be careful to place them away from the plug(s), against the box sides.

9. After 16-24 hours the mold should feel firm and be ready to de-mold. Remove the screws holding the side walls, and peel away the walls.

10. Carefully work the mold off the base of the box and the plug. You now have a perfect impression of the original plug, including any wood grain, nicks and scratches that may have been left in the plug!

11. Following the manufacturer's directions mix parts A and B of the casting resin solution and pour it into the mold. Resin will set in 10-15 minutes after which the casting can be removed. Make a "throw-away" casting to clean out the mold. If it's good, use it. Make as many parts as you want; the mold will not deteriorate. No preparation between pours is necessary.

Tips: a. Small parts can be cast in a "mold box" made of Klean Klay modeling clay.

b. Color tinting is possible; pigments available from Micro-Mark.

c. Castings can also be made from low temperature alloys.

BEAR IN MIND THE CASTINGS WILL BE ONLY AS GOOD AS THE QUALITY OF THE PLUG. IT IS THEREFORE ADVISABLE TO BE VERY METICULOUS IN MAKING THE PLUG!

Note: For those of you who may wish to make complex parts, such as a part that has shape all around, please refer to the attachment, HOW TO MAKE A TWO-PART MOLD.

Presented by Nick Starace at the SMSNJ June 23, 2009 meeting.

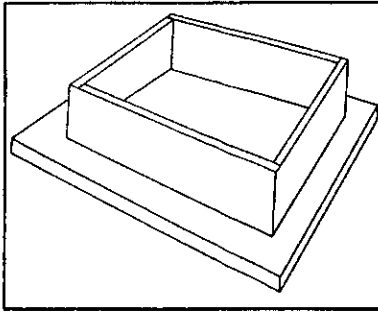
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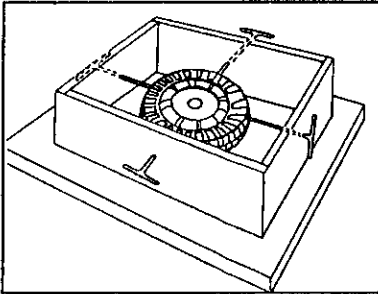
340 Snyder Avenue, Berkeley Heights, N.J. 07922-1595

HOW TO MAKE A TWO PART MOLD

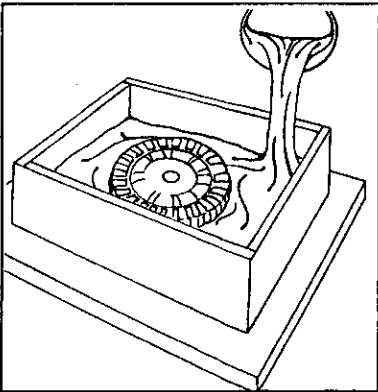
The pattern selected for casting may be a part from a kit, or a part you have built or modified yourself. If a complex part is used, such as a figure with an extended arm, it may need to be cast as two or more pieces. The mold is made from ONE-to-ONE RTV (room temperature vulcanizing) Silicone Rubber, which will cure within 18-24 hours. CR-300, the resin casting material, will solidify in about 10-15 minutes. Read through the instructions below before beginning. Refer to the mixing directions included with each product.



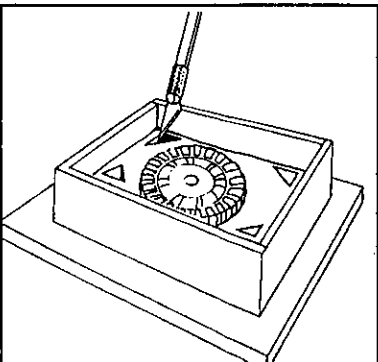
1. First build a mold box from wood, plastic* or heavy cardboard. Small pieces can even be cast within a "box" made of modeling clay. Build the mold box slightly larger than the pattern, allowing about 1/2" of space around the pattern on three sides and approximately 1" on the fourth side. Coat the inside of the box with RTV Mold Release.*



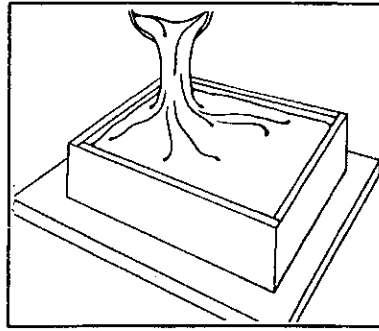
2. Punch or drill small holes in the pattern and sides of the mold box, about midline. Coat the pattern with mold release. Suspend the pattern in the mold box using T pins, heavy wire or small dowels. The pattern should be suspended in mid-air.



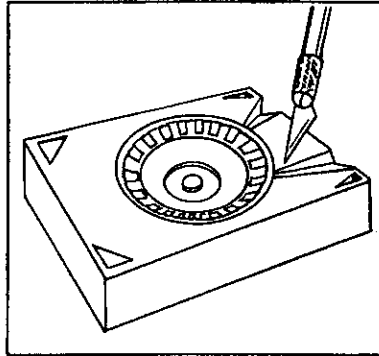
3. Follow the mixing instructions for the molding rubber, and mix enough material to surround the pattern up to its midline. Pour the rubber slowly into a corner of the box, allowing the rubber to flow freely around and under the pattern until it levels off at the midline of the pattern.



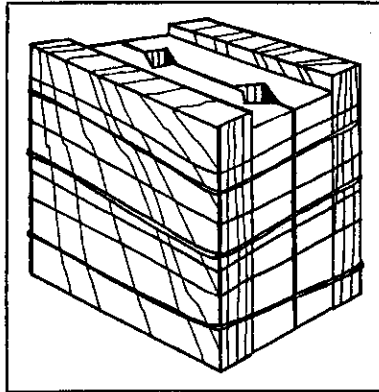
4. When the rubber has cured, use a sharp knife to form locking keys in each corner of the mold. A simple triangular wedge shape is fine. These keys will help to assure correct alignment of the two part mold when casting.



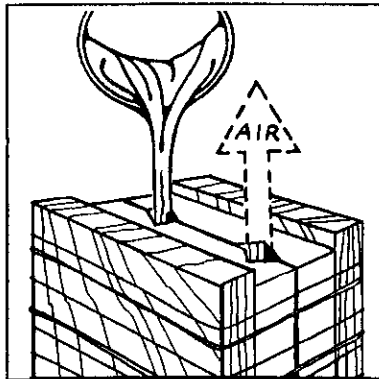
5. Next coat the mold with RTV Mold Release. Make sure mold release coats the inside of the locking keys also. The Mold Release will prevent the two mold halves from sticking to one another. Now mix enough of the Mold Rubber to complete the second half of the mold. Pour slowly as before and then allow rubber to cure.



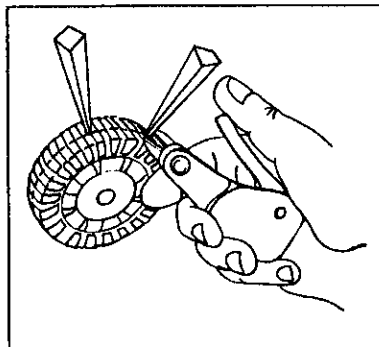
6. Separate the two mold pieces and remove the pattern. Now cut two wedge-shaped channels in the wider end of the mold. One of these sprue holes is for pouring the casting resin, and the other is a vent to allow the escape of displaced air while casting.



7. Place the two mold halves together between two pieces of wood. Use rubber bands to clamp the mold and wood securely.

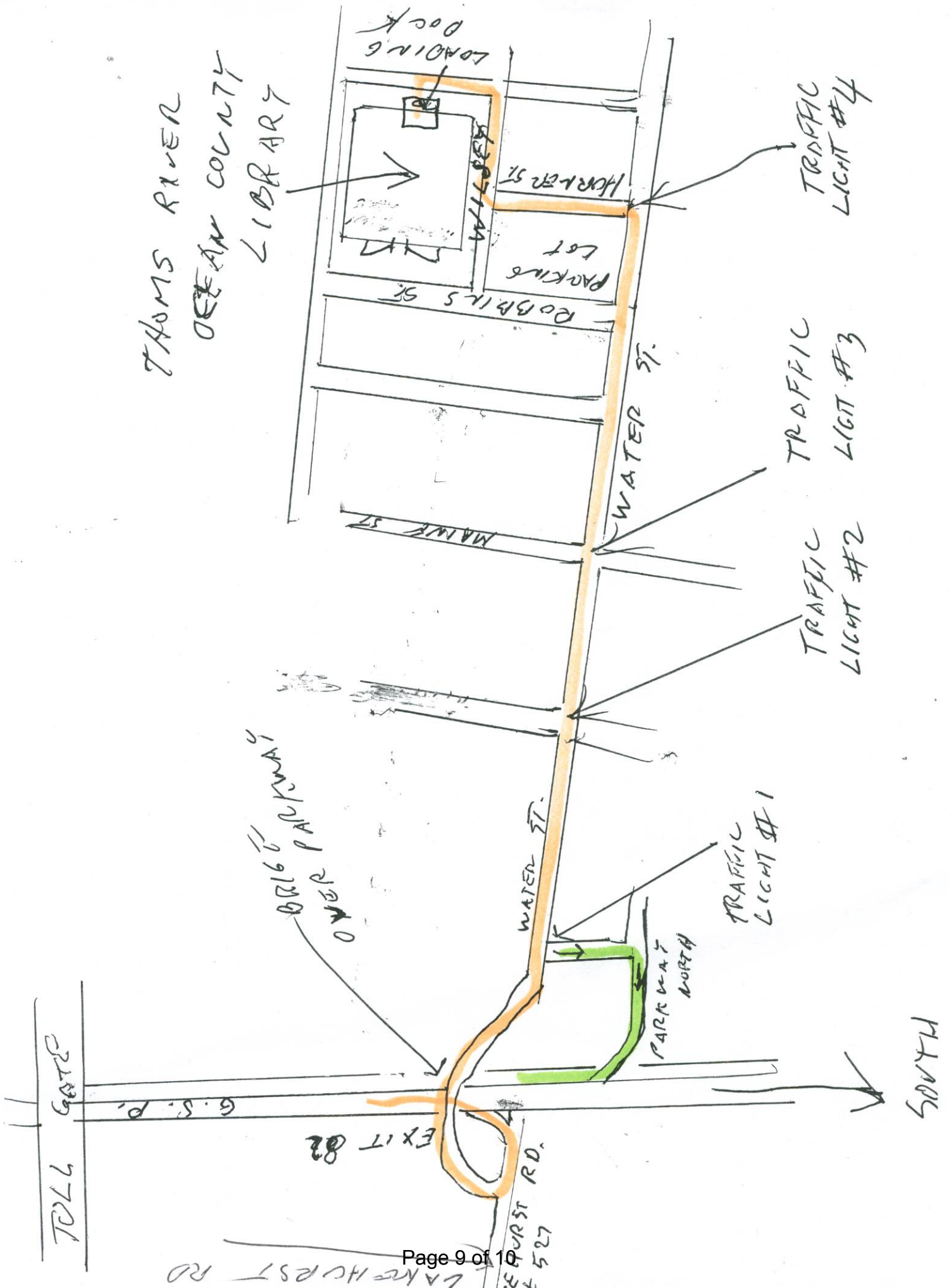


8. Mix the CR-300 resin according to directions. Slowly pour the resin into a sprue hole. Fill up to the top of the sprue. Any remaining air bubbles will surface by gently squeezing the sides of the wood pieces.



9. After the CR-300 in the sprue hole has cured, separate the mold and remove the casting. Cut off the sprues close to the cast piece. If there are any surface blemishes, they can easily be removed by sanding.

THOMAS RIVER
OCEAN COUNTY
LIBRARY



THE BROADAXE

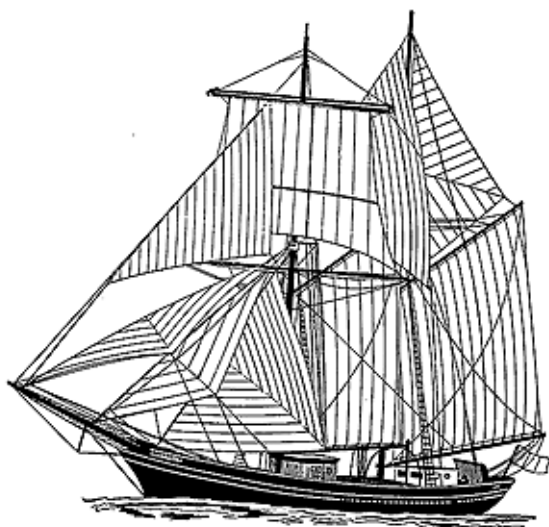
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NEXT MEETING:

July 28, 2009

7:30 PM

MILLBURN PUBLIC
LIBRARY

Tech Session

Photo-Etching

By

Al Geigel