THE BROADAXE

NEWSLETTER
of
THE SHIP MODEL SOCIETY OF NEW JERSEY
Founded in 1981

Volume 27, Number 1 | January, 2009

MINUTES OF THE REGULAR MEETING
December 16, 2008

The meeting was called to order by President **Bob Fivehouse** at 8:00 PM with 17 members in attendance, this in spite of the horrible weather. We also had 1 visitor this evening, **Bob Bendetson** from Morganville, NJ attending his third meeting. Bob briefly told us about the model he brought in (more about that in Show & Tell). A motion was made to accept Bob as a regular member which was duly seconded and a unanimous vote was received. Welcome to the Club, Bob!

The members were asked if there were any comments or corrections to the December Broadaxe. One correction was received by the Editor via e-mail. The site of the NRG Conference was incorrectly stated to be Memphis. The Conference was in fact held in Chattanooga. There being no other comments or corrections, the December 2008 issue of the Broadaxe was accepted into the minutes.

Treasurer **Al Geigel** was unable to attend this evening due to a scheduling conflict. There was no Treasurer's Report given tonight.

Tom Ruggiero had a sample hat available with the Club's logo and initials embroidered on the front and back, respectively. There were some comments regarding the lack of a crown on the hat. Tom said he will place the order for 75 caps which will have a crown (the two styles were identical in price) and thought that they would be available for purchase at the January meeting. (*Ed. Note: I received an e-mail from Tom stating that the hats will definitely be available for the January meeting. Interested members should bring $15 in cash to purchase a hat (or 2!)- sorry – no volume discounts!)*

Gary Kingzett informed us that the Belski Museum has approached him and asked if the Club would be willing to provide some models for a special display the museum would like to have showcasing the top 10 displays the museum has had in the past. Gary felt that our model display was, if not the best then at the very top of the list of shows that have been held at the museum (as reported to him by museum staff). The downside of the display is that they are seeking only smaller scale models that will fit in one glass display case and they want the models by early January. Gary noted that he will be contacting several members directly to ascertain whether or not they have models available for such a display (The show will run for two months – January and February).

Michael Storch (our Web Master) provided us with an update on his plans for improving the Club's website. He apologized for being somewhat behind schedule due to health reasons but is now focusing on revamping the site and updating its content. Michael indicated that he will bring some sample printed web pages to the next meeting and that within two to three months the site enhancements will be complete.

As noted earlier, we didn't have a lot of members on hand and far less than our usual quantity of goods available for purchase. The snowy conditions kept many of us away and there was even some consideration given to postponing the auction. The majority of those present, however, decided that having braved the elements, the Auction should still go on! Bob Fivehouse called for a quick coffee break and then commenced with the auction. **Jim Caulkins** made a motion that the refreshments should be "On The House" tonight which was immediately seconded and unanimously approved! (Sorry, Al – there won't be any refreshments receipts for the Treasury tonight!).

SHOW AND TELL

We normally don't have any models on hand on Auction night. However, our newest member, **Bob Bendetson,** brought in his very first model for Show and Tell. This is a Constructo kit model of *HMS Bounty.* The hull is plank on bulkhead construction, extremely challenging for your first ship model. Bob managed to complete the construction and rigging and admitted that he did take some short cuts to get the model done. He has decided that his next model is going to be a River Boat primarily because it has almost no rigging, to which Bob Fivehouse declared that that is why he prefers to build modern steam ships!

The next order of business was the White Whale Auction! **Bob Fivehouse** once again stepped up to run the auction, ably assisted by **Tom Ruggiero** and **Michael Storch.** Some of the goods available are shown below. A complete accounting of the results will be provided at the January meeting.

The meeting adjourned at 9:30 PM

Upcoming Meeting Topics

January 27, 2009 **– Bob Fivehouse** will discuss making simulated water and waves for waterline model bases

February 24, 2009 **– Larry Friedlander** will present a hands on discussion of painting friezes on bulkheads. *ALL MEMBERS WILL BE ABLE TO PARTICIPATE!*

March 24, 2009 **– Jeff Fuglestad** will share his expertise in constructing model cases

April 28, 2009 **– BRING A MODEL NIGHT**

May 26, 2009 **– Michael Storch** will explain how to properly sharpen your chisels

June 23, 2009 **– Capt. Nick Starace** will discuss resin casting techniques he used on his static model of the USS *New Jersey*

FROM THE EDITOR

"Oh, the weather outside was frightful ---!" Of all the nights to have bad weather! Many of our regulars who bring so much stuff for sale like Ed and Len were sorely missed. We still had some interesting items for sale like a couple of scroll saws and a Microlux drill press that turned out to be great bargains for the lucky bidders and boxes of clamps and twist drills, pliers and scissors were great deals as well. Although small in numbers, we had a great time at the auction. I would also like to remind the members that Club hats will be available for sale for $15 each starting in January. From the sample that Tom Ruggiero brought in, it's going to be a nice looking hat. Here's hoping we run out and need to reorder!

Mike Gutsick

LOOKING FOR SOMETHING TO DO IN JANUARY?

Dave Roach sent me a newspaper clipping of a festival to be held January 24-25, 2009 at Rockland Lake State Park in New York. Of particular note will be ice carvings that will be made of a 20' replica of Henry Hudson's ship *Half Moon* and Fulton's steamboat *Clermont* along with tours of the remains of a historic ice house, live music, fireworks and much more entertainment to celebrate the 400th anniversary of Henry Hudson's discovery of the Hudson River, the 400th anniversary of Samuel de Champlain's discovery of Lake Champlain and the 200th anniversary of Robert Fulton's successful steamboat voyage on the Hudson River. For more information on the Festival, visit their website at www.KnickerbockericeFestival.com.

Soldering for the Inexperienced Part II

By Mike Gutsick

In a previous issue, I discussed a few soldering tools that I personally have. There is one more I would like to mention, that being the ***Small Torch*****.** This particular torch utilizes two tanks; Bob Hunt explains its operation in his mini-practicum on silver soldering. This particular model uses a propane tank and an oxygen tank as its fuel source. It's a bit more complicated and pricey (over $100) for my needs, but it is another possible tool to use for your soldering projects.

I had made three oyster rakes prior to getting some much needed advice from Bob and Ozzie. I used the soldering iron, the Cold Heat gun and the Berz-O-Matic torch to assemble the components. Of the three heating tools, my preference was the butane torch. While the soldering iron had a fine tip, I didn't like having to wait for the iron to heat up to the correct temperature. It also seemed to take longer to heat the area before the solder melted. I also didn't like the idea that I had a very hot iron sitting on my work bench while I was getting prepared for the next operation. The Cold Heat gun didn't have those problems. The problem I had was getting the tip in proper contact with the metal so that the little

red light on the gun would light up, telling me that it was now generating current to heat the metal and melt the solder. I found I was focusing more on the little red light than on the area I needed to heat up. In other applications, the Cold Heat gun might be an excellent tool for soldering. I just found it a bit difficult to use in soldering the oyster rake frame components. The tips appear to be graphite and are extremely delicate. When I first opened the case to assemble the unit, the tip that came with the gun fell on the floor and broke. I find I am overly cautious with the tool as a result. For me, the Berz-O-Matic torch worked the best. It was much quicker in heating the metal and melting the solder than the other two tools mentioned. I could turn it on and off quickly and it comes with a base that makes it stand upright and can be used hands free should it be necessary to reheat the wire to disassemble the piece. The one drawback I found with this torch is that it requires you to pull down on a trigger release button before you can press the trigger to light the torch and it might take a couple of pulls before the torch is lit. You also need to slide a lever on the handle to lock the torch in the ON position. I thought that these were a lot of steps to take every time I was soldering a connection so I purchased a *Blazer* micro torch with a Pizo ignition system which I found much easier to use than the Berz-O-Matic. It's also about twice the price, unfortunately.

I had some difficulty in constructing my oyster rake. To begin with, I had no plans for the rake. Searching several web sites, I found pictures of the rake in use and one site mentioned that the rake was 13' long (a later search noted that the rakes were 15' long). I used two photos as my primary guide to build the rake, which I am including here (see Photos 1 & 2). I chose wooden handles for my rakes. The handles appeared to be 1"x4" stock (a total guess on my part) at the rake end and tapering towards the other end. At my scale of 1:24, the scale stock I used was 1/16"x 3/16". I used both white pine and bass wood strips and made both 13' and 15' lengths (6-1/2" and 7-1/2", respectively). Lacking plans with dimensions, all of my work has been by trial and error and what looked reasonably close to the photos. I decided to use 1/16" brass tube (I.D. 0.033") for the part of the rake that held the teeth, 0.033" brass rod for the frame, 0.022" for the cross members and 0.015"x0.060" flat brass bar for the center bracket (see Photo 3). Using one of the photos, I decided that the width of the rake itself appears to be about 3' (1-1/2"). Once I had these general dimensions for the rake, I began to form some frames. Once again, it's all by trial and error, bending here, twisting there, until I got a form that I thought worked. Once I settled on a particular frame, I traced it on a piece of scrap wood to use as a pattern for the rest of the frames I needed to make (see Photo 4). The frame ends were then inserted into the ends of the brass tube and soldered in place. The next component to be made was the center bar, again shaping by eye and trial fitting into the frame. Photos 5 and 6 illustrate these steps. These first units were "rough drafts" and I wasn't paying attention to the actual size the final rake would be but rather getting accustomed to the whole soldering process. One I got comfortable with the process and the order of assembly, I then made some measurements of the finished rakes and determined that the frame and center bar arcs were too large. I reduced the frame and center bar arcs on subsequent frames.

Before soldering the individual pieces together, each piece should be cleaned. I dipped the pieces into a cup containing rubbing alcohol and rinsed them off with plain water. I also wiped the pieces with fine steel wool and extra fine wet dry sand paper (which ever was closest at hand). For the first series of rakes, I held the piece to be soldered with the "helping hands" tool, a pair of flexible alligator clips (Photo 7). I was then soldering each cross member one by one, a very time consuming process. I also needed to use the Heat Shield paste quite a bit and found I needed to clean up the part quite often, further slowing the process. Ozzie told me that what I needed to do was position all of the cross members on the frame and then solder whole sections at a time. This was not an option with my current method so I needed to revise my technique. It was then that I ordered magnesium blocks and pinned the frame unit onto the block (Photo 8). On a couple of the frames I bent the cross members to shape and stuck the ends into the magnesium block (Photo 9) and then soldered one end, moved to the center bar and then to the other end. It was a faster and better process compared to what I used earlier. The downside of this method was that I was tearing chunks out of the block when removing the completed frame. As an alternative, I placed a small block of corian (which I got from one of our White Whale Auctions) on the magnesium block and pinned the frame assembly on top of it (Photo

10). I filed small notches in each end of the frame to position the cross members and then placed each cross member on the assembly. I held them in place using fine copper wire (stripped from a lamp cord) and then soldered the ends and the center bar (Photo 11). I would coat the previously soldered joints with the Heat Shield paste before soldering the next set of joints. I experimented with the different solders I had using the Tix brand, the Stay Brite silver solder brand and the silver solder paste. The Tix brand does melt very quickly. The trick with both Tix and Stay Brite is positioning the pieces (I cut off a piece less than a millimeter in length) on the curved ends and center bar (Photo 12). They had a tendency to fall off and had to be repositioned several times. Both Tix and Stay Brite require flux to be applied to the piece. Both of these fluxes contain acid so care should be taken in applying the flux and the soldering should be done in well ventilated areas and in all soldering operations avoid inhaling any fumes that are generated during the operation. Use of safety goggles, masks and gloves are often recommended by the manufacturers while using their products. The silver solder paste was a better alternative for the curved surfaces and as with the other solders, finding just the right amount of paste to apply to the joint is a learning process. After the part had been completely soldered I would then rinse off the Heat Shield paste in my utility sink and then soak the part in a margarine cup containing white vinegar (a tip I found on the internet) to neutralize the acid in the flux and then a final rinsing with clean water. A completely soldered rake is shown in Photo 13. I had considered soldering the teeth onto the brass tube as well but decided to glue the teeth into the holes I had drilled in the brass rod using CA glue. A completely finished oyster rake can be seen in Photo 14.

In conclusion, I hope that you all have learned something about the soldering process from these two articles and that if you have avoided any soldering in your projects so far, you will now give it a try. The tools required do not require a large outlay of cash and the techniques do not require months to master. As with all of our modeling efforts, our skills improve with practice and use and I hope you will now add soldering to your modeling skill set.

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 $30.00 for the first year and $25.00 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.

Direct All Correspondence To:

BROADAXE EDITOR
Michael Gutsick, 34 Junard Drive, Morristown, NJ 07960
(973) 206-1004 E-mail: mikejgutsick@optonline.net

OFFICERS

PRESIDENT:
Robert Fivehouse, 53 Ironia Road, Randolph, NJ 07869
(973) 927-3426 E-mail: Fivehouse@verizon.net

VICE PRESIDENT:
Thomas McGowan, 36 Clover Hill Lane, Colts Neck, NJ 07722
(732) 946-8322 E-mail: jmcgcla@optimum.net

TREASURER:
Al Geigel, 237 Maple Avenue, Dunellen, NJ 08812
(732) 968-5969 E-mail: algiegel@optonline.net

SECRETARY:
Michael Gutsick, 34 Junard Drive, Morristown, NJ 07960
(973) 206-1004 E-mail: mikejgutsick@optonline.net

WEBMASTER:
Michael Storch E-mail: whynot3d@earthlink.net

Photo 1 – A work boat in action. I used this for adding details to my workboat and making general measurements of the oyster rakes.

Photo 2 – This is a picture I took of a work boat on display at the Mariner's Museum. I used the rake in the background as a guide for my scale rakes.

Photo 3 – The raw materials for my scale oyster rakes.

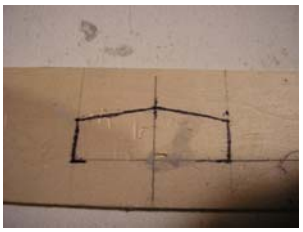

Photo 4 – The pattern used for shaping the basic frame.

Photo 5 – The basic frame has been inserted into the tubing and is ready to be soldered.

Photo 6 – The center bar has been positioned and is ready for soldering. Note the small pieces of Stay Brite solder positioned on the piece.

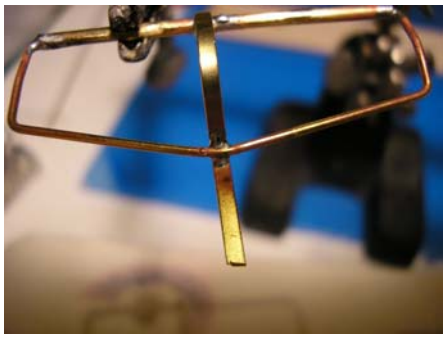

Photo 7 – The assembled frame is held by one of the alligator clips in the "helping hands". The next step was to solder the cross pieces individually in the initial batch of rake frames.

Photo 8 – Two frame assemblies have been pinned to a magnesium block for soldering.

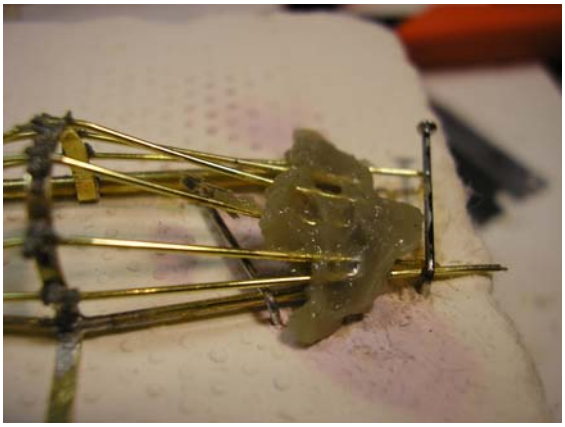

Photo 9 - Cross member pieces have been bent to shape and the ends pressed into the magnesium block. The right end has been soldered and is covered with Heat Shield paste. Soft silver solder paste has been applied to the center bar and is ready for heating.

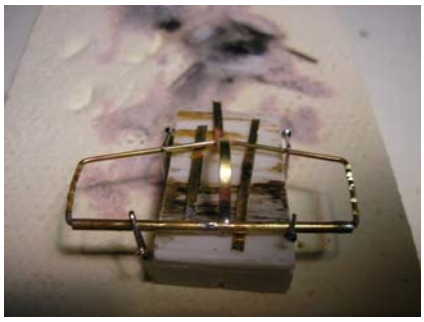

Photo 10 – Using a small block of Corian, the frame has been raised off the surface of the magnesium block.

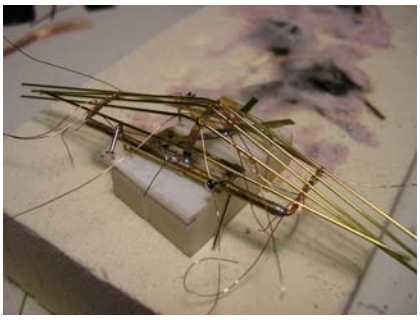

Photo 11 – The cross members have been positioned and are held in place with copper wire.

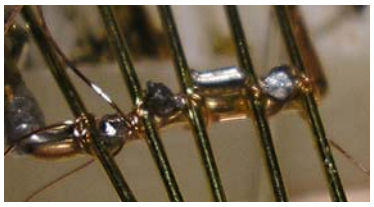

Photo 12 – Tix flux has been applied and small pieces of Tix silver solder have been positioned on the frame.

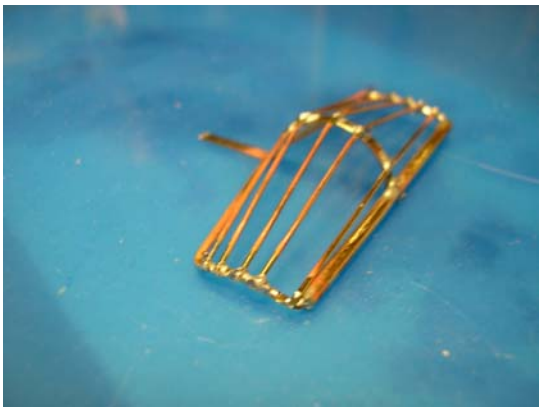

Photo 13 – A completed frame assembly after cleaning and with the ends filed smooth.

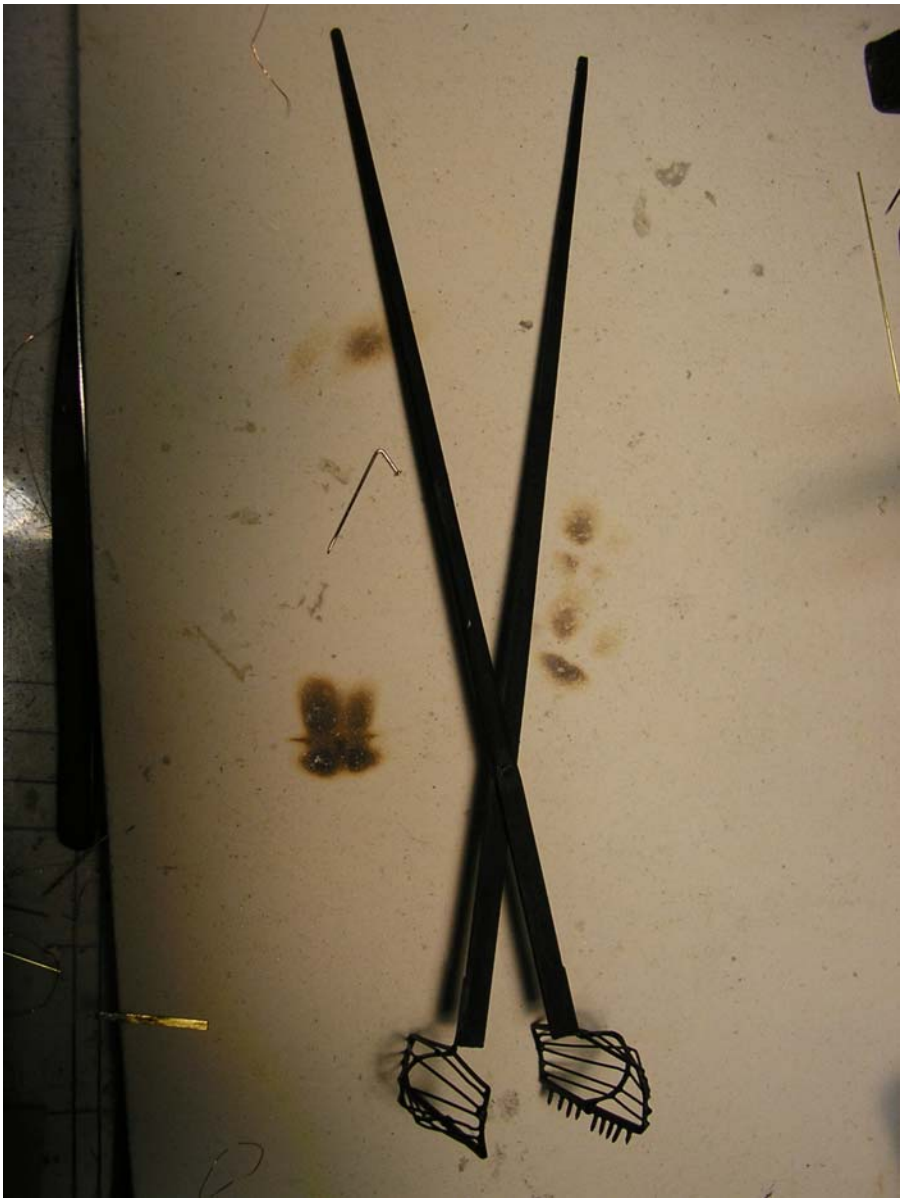

Photo 14 – A completed oyster rake in 1:24 scale.

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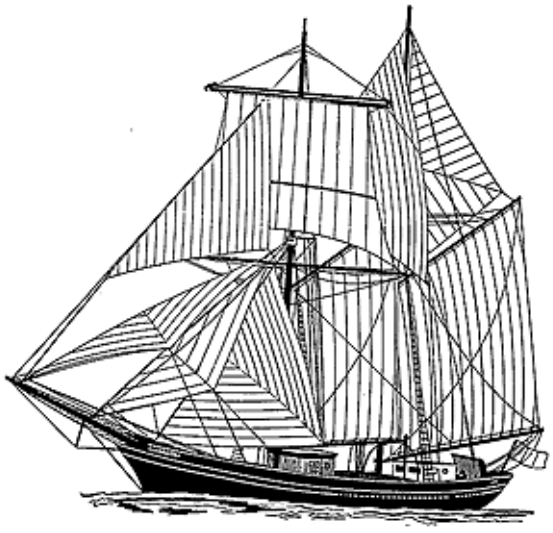
Newsletter Editor:
Michael Gutsick
34 Junard Drive
Morristown, NJ 07960



NEXT MEETING:

January 27, 2009

7:30 PM

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Simulating Water & Waves on a Base

Presented by

Bob Fivehouse