The MSB Journal

Vol. II Issue IV

The Matthew Project
Part X: The Decking

Your Own Lumber Mill

Bell Bottom Trousers

Rotary Tool Treenails

Blocks & Things

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On the Cover

Schooner Model at
The National Marime Museum

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In This Issue

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Editors Notes

Well, another month has come and gone and summer is almost upon us here in our little part of the world. I must say, it's been too long a time in coming for my liking! :-)

Lots has been happening around here with the new deck hand! She's been keeping us quite busy swashing the decks, the tables, the furniture and just about anything else she can spit up on! :-)

You should find a few interesting articles in this issue. Gene Bodnar rounds up his series of articles on "Types of Hull Construction" with "Admiralty Models". A great series Gene. We received lots of emails telling us how helpful they were.

We have a reprint article from Eugene Larson on milling your own lumber for those who wish to learn more about how to do this. There's all kinds of wood in our own backyard that ends up going to the dump that we don't' even realize is great for model building. This article will show you how to mill it.

We also have the continuing article on the construction of the Matthew, which is soon coming to a close.

Another interesting article is on how to make treenails using your dremel by Leigh Smith. Any modeler that uses treenails will find this one helpful!

As well there's all the usual sections we are told make very enjoyable reading.

If you have any ideas or requests for future articles by all means let us know and we'll see what we can do to get them in here for you. Just drop us an email at: msbjournal@modelshipbuilder.com

Happy Modeling Everyone!

Winston Scoville
www.modelshipbuilder.com

TYPES OF HULL CONSTRUCTION

PART IV: ADMIRALTY MODELS

by Gene Bodnar

The so-called "Admiralty model" is, according to Wolfram zu Mondfeld, one of the most "magnificent achievements in model shipbuilding of all time." It is the ultimate creation of the true expert modeler. Admiralty models are also known as "Dockyard models" or "Navy Board models."

The true Admiralty model can have a variety of characteristics, but they always contain a hull built plank-on-frame style below the waterline, with a fully planked hull above the waterline. Sometimes the frames are not continuous from keel to sternpost, so there may be gaps between the frames. Most of the deck, or at least a major part of it, is left unplanked in order to display the interior of the ship, which will include deck beams, knees, carlings, and other features as well. Some admiralty models also display guns, but this is neither necessary nor important for the purposes of its construction. It could also be a half-hull model. Frequently, admiralty models only have stumps for masts; however, others are fully rigged in every detail.

The idea of an Admiralty model is strictly an English invention of the seventeenth century. During this period the British Navy never built their own ships; instead, ships were built by contractors approved and hired by the Lords of the Admiralty, which was also called the Admiralty Board, which was a collection of aristocrats, nobility, and civil servants. A diorama of such a meeting of the Admiralty Board appears on the following page. Unfortunately, none of the members of the Board could interpret plans for a ship, so they required that any proposed ship be presented in the form of a model, which they presumably could understand, along with a set of plans. Based on their discussions of the model and plans at hand, they would decide whether or not to expend the funds necessary for its construction.

Decision of the Admiralty Board
By Raul Guzman

Of course, to build an Admiralty-style model requires a great deal of theoretical knowledge and lots of practical experience, too. Few modelers will attempt to build one, and then only after many years of experience with building the types of models discussed in earlier parts of this series of articles.

The following (and picture at the beginning of this article) outstanding example of an Admiralty model is the *Oliver Cromwell* built by Raul Guzman (www.guzmanshipmodels.com), who is also a member of www.modelshipworld.com

What Ship Is This?

Last Issue

In the last issue was the 1877 square rigged barque **Elissa**. This ship had a long and interesting history since it was launched from the shipyard of Alexander Hall & Company, in Aberdeen, Scotland. A trading ship under British flag, she begins sailing the world dealing in small cargoes. With the age of steam about to begin in earnest, she is literally one of the last of her kind.

You can read more about this ship at the

Elissa Website

From the Files of
Ship Wreck Central

Supply Ship Pollux AKS-2

The Pollux (AKS-2) was laid down by the Federal Shipbuilding and Dry Dock Company, Hoboken, New Jersey as SS COMMENT on 26 May 1939; lauched 16 December 1939; acquired by the U.S. Navy 16 January 1941; converted to a general stores ship by the Brewers Shipbuilding and Dry Dock Company in Hoboken, and commissioned as USS Pollux (AKS-2) on 6 May 1941 with Commander Hugh W. Turney in command.

Pollux was ready for sea 24 May 1941 and served with the Atlantic Fleet on regular provisioning cruisers. On 18 February 1942, Pollux and Truxton grounded during a storm off St. Lawrence Harbour, Newfoundland at Laun's Point and Chambers Cove respectively and were lost.

Last Voyage On February 15th, 1942, three American warships, The Pollux, the Truxton, and the flagship Wilkes, sailed from Portland Maine bound for the American base in Argentia Bay, Newfoundland. The Pollux and Truxton never arrived.

The USS Truxton, an old four stacker, joined the Wilkes off Casco Bay, Maine, and together they escorted the supply ship, the USS Pollux, sailing into a winter storm on the North Atlantic, where two of the ships, the Truxton and the Pollux, smashed onto the cliffs of the Burin Peninsula in Southern Newfoundland.

Two sailors, Edward Pettison and Edward Bergeron, were able to get off the ship and scale the cliffs.

The Wilkes ran aground west of Long Point and was able to reverse engines and back off into open waters.

For 12 hours the ship banged against the cliff. The bow ad cracked and broken apart. The King posts buckled and sank. Bombs and munition rolled from the deck.

Two sailors, Edward Pettison and Edward Bergeron, escaped from the ship and climbed the cliff. Pettison waited in a shack they found at the top of the cliff, while Bergeron walked three miles through the icy cold to get help. He found it from miners from the Iron Spring Mine on the outskirts of the Village of St. Lawrence.

The Newfoundlanders strapped sailors on their backs and hauled them up the cliffs. They were able to rescue 186 sailors from certain death.

The U.S. rescue efforts focused primarily on salvaging a decoder from the Pollux.

In gratitude for the rescue, the U.S. government built a hospital in St. Lawrence.

Learn more about the Pollux and the Truxton
at the ShipWreckCentral Website

The Matthew Project
Part X

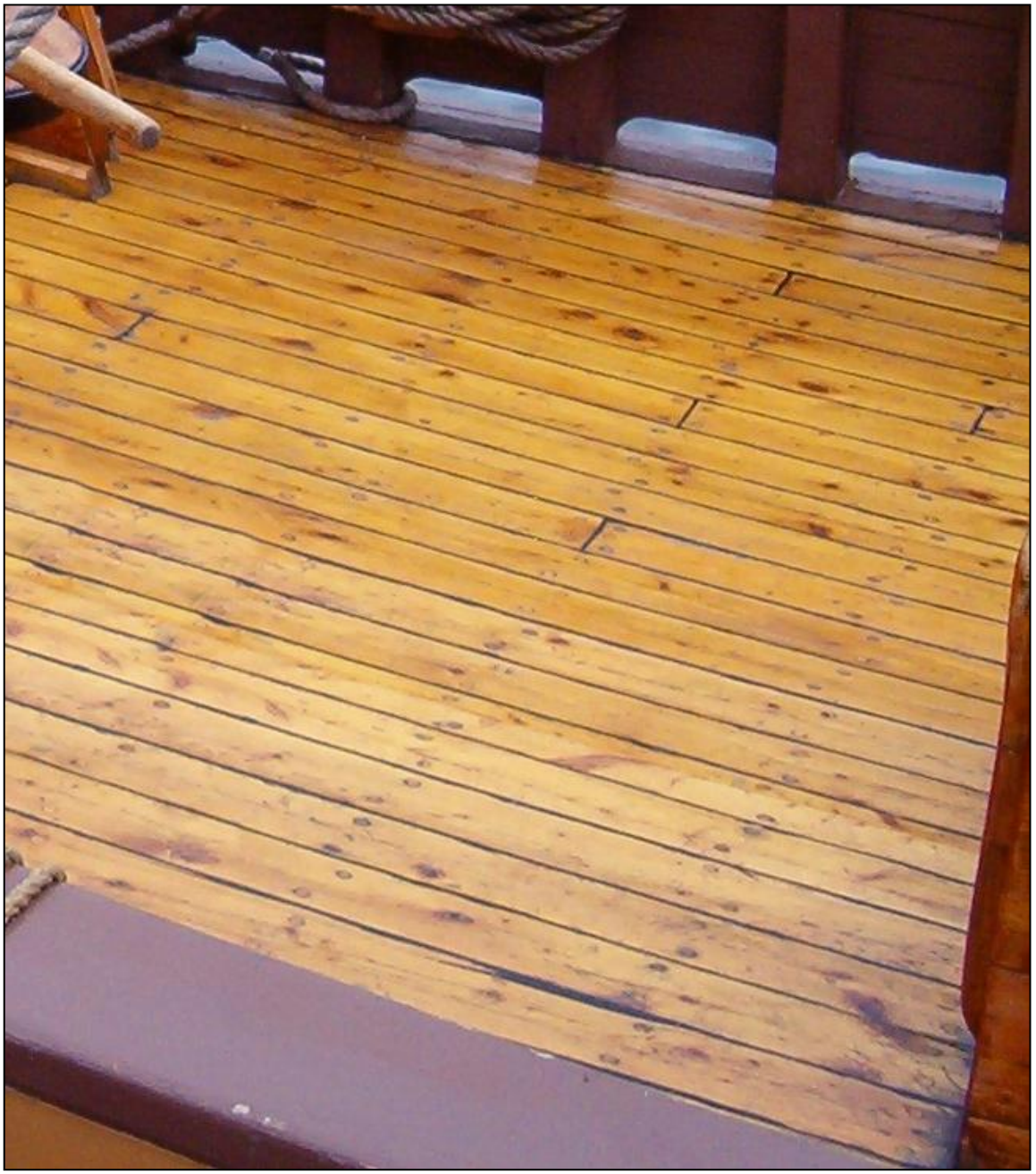
Planking the Deck

Before we begin laying the deck on the model of the Matthew lets first take a look at some real decks. Model builders will use Holly for decking, however, this wood is stark white with no figure or variation in color and produces a somewhat unrealistic looking deck. The original Matthew most likely was planked with White Oak, which turns a dark gray when exposed to the weather, when given a finish White Oak has a light tan color. For the Matthew model Sugar Maple was selected because of its honey color and hardness. Another style of decking in model ship building is to use strips of black paper between the planks to represent caulking giving the deck a very contrasting striped appearance. Some model builders will also pepper the deck with over sized tree nails. Looking at the photos of the deck you will notice the caulking is very subtle and you cannot see any treenails or spikes.

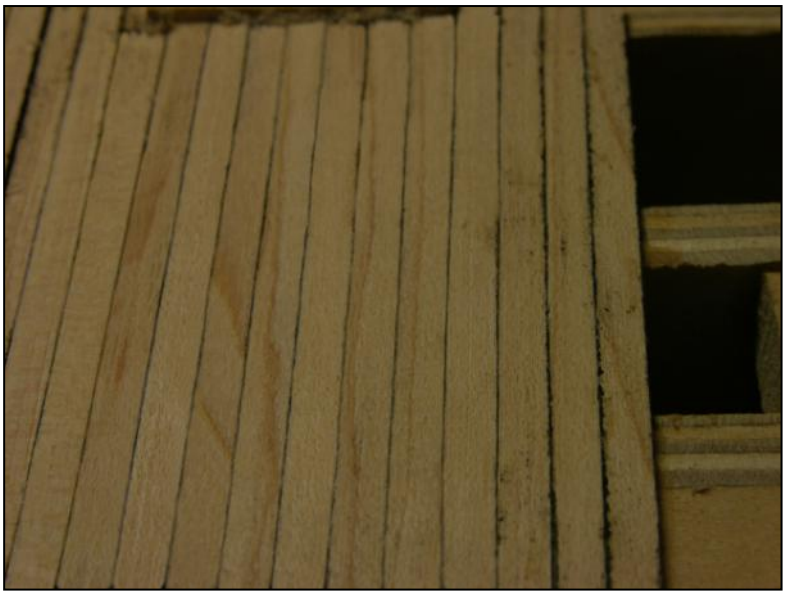
Getting closer to the deck and you still cannot see treenails or caulk lines. Finally getting right up close to a section of the deck you can see counter sunk spikes with wooden plugs used over the spikes. Measuring the wooden plug the size is one half an inch, at one quarter scale that is .010 so small you wouldn't see them.

It is up to you the model builder what you want to show on your model.

The above examples are that of a shipwreck where the decks have not been attended to and are weather beaten. Lets take a look at the Matthews deck which is fresh and new as compared to the above examples. The Mathew deck appears to be planked with Pine thus the yellow appearance. The caulk lines are very clear and if you look you can see the wooden plugs, the plugs don't exactly jump up at you like the black dots you see on some models. If this deck were reduced to quarter scale the caulking would be as fine as a hair and the wooden plugs would disappear. Someplace between the reality of a deck and a modelers interpretation and how the modeler want to portray the deck is left up to the model builder.



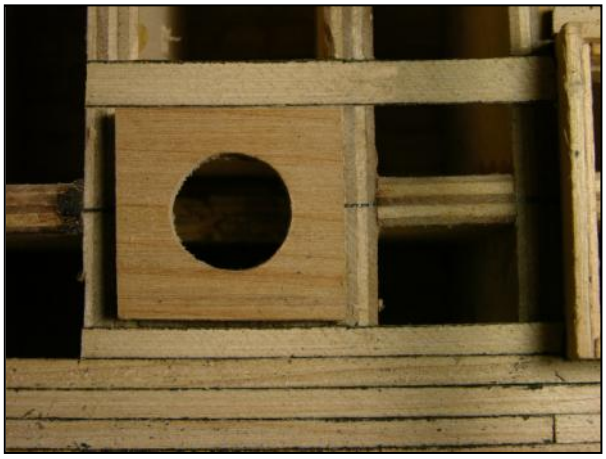
Caulking can be simulated by a number methods. One is to use black construction paper between planks another is to use a black marker or paint and paint the edges of the planks. A problem with markers and paint they might bleed into the wood leaving a fuzzy edge. The sample in the photo looks ugly because it is a very close macro shot of caulking being applied to the edge of a plank. After trying many different methods the best one is to use a simple black crayon. The wax crayon does not stain the wood or bleed into the wood.



When the decking is laid down the wax crayon looks a little bad because of the flakes of crayon all over the surface, and the crayon lapping over the edge of the plank when its applied gives an appearance of wide caulking.

The decking material is Hard Maple also known as Sugar Maple, which is a hard wood and the crayon does not sink into the wood grain. The deck planking supplied has a sanded finish close enough so further sanding is not required. To ge the desired result, once the deck is laid it is then scraped and not sanded to a finish, which cleans up the crayon very nicely.

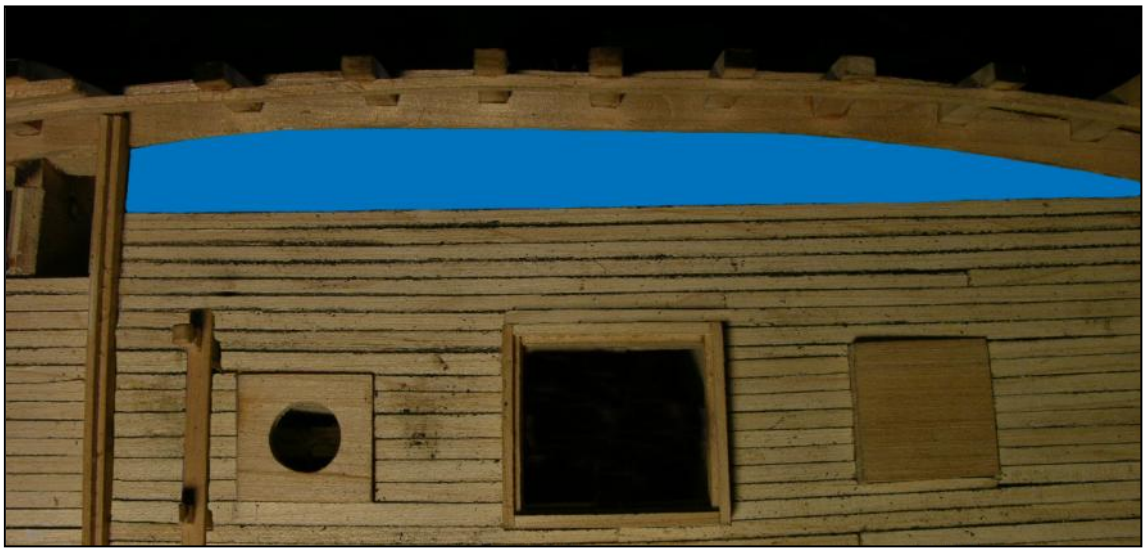
The decking process begins down the center of the hull and working out on both sides to the waterways. A deck such as the Matthew has a pronounced sheer and the deck planks will need to be clamped down. The best method is to lay about 4 to 6 planks at a time and use the block and rubber band method.



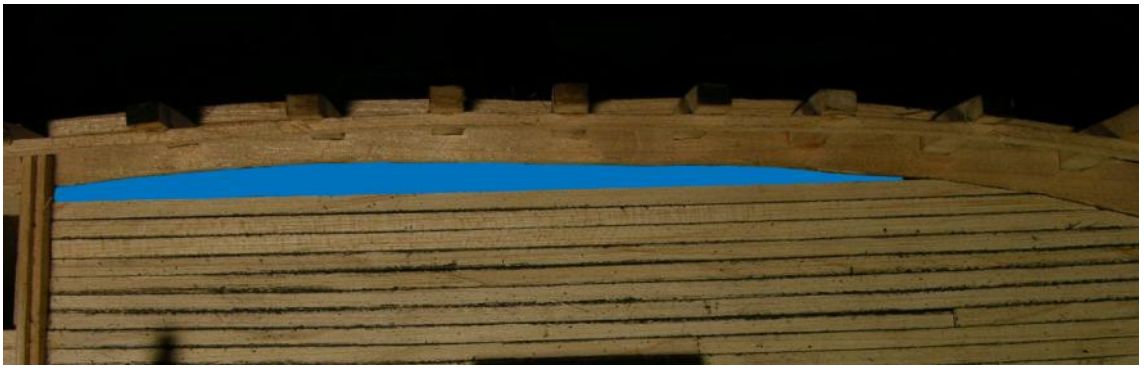
The hardest part of laying the deck is having to work around the hatch, mast partners, capstan base and pin rail. If you end up short of an object such as the mast partner, do not use a sliver plank to fill in the gap. Use a wider plank as shown above the partner. There will also be some notching required. Hard Maple is not as easy to work with as the Willow so cutting and notching the planks will take a little more time and effort.

Once you have reached the waterway the last plank has to be cut and shaped to fit. Before laying all the planking to this final plank it is best to make a pattern of the plank.

Take a piece of cardboard, cut and fit it into the space shown in the photo. You may need a piece of two sided tape to hold it down.



Continue to fit the next few planks right on top of the cardboard until you have reached the final plank that will run along the waterway. Using a sharp knife cut along the edge of the last plank creating an exact pattern for the final plank. Now remove the planks that were placed on top of the cardboard and the cardboard pattern. Then, continue to glue the planks down. Use the cardboard pattern and cut out the final plank. It should drop in place with minimal adjustments.



The deck in the cabin area was planked over even though there will be a bulkhead at the break of the quarter deck and the quarter deck itself will be decked over. With this arrangement the cabin deck will be totally closed in and not seen. If you go this route you can skip over planking the cabin area, if it's not going to be seen there is no need to add it to the model. If you intend on not adding a bulkhead then you will have to eliminate the bulkhead sill and continue the deck planking uninterrupted all the way to the stern like the Matthew is built. Another arrangement is to add the separate cabins, hatch and the tiller with its rigging. To show off the work under the quarter deck you can leave off the quarter deck planking or just add a few planks down the middle and along the sides. Whatever you choose for you model now is the time to add anything under the quarter deck.

Well folks, the Matthew Project will soon be coming to a close. I know it's been a real learning experience for me and I hope for you too.

In the next issue we'll be letting you know about the kit, it's availability, plans etc. Everything is now in the final stages, final parts lists being drawn up and confirmed, plans being completed and prices being determined.

Once I have all the details in place, I will be contacting everyone personally who has contacted me regarding the kit/plans since the project started to let you know the details. If you'd like to be added to that list, just send us an email to:

thematthew@modelshipbuilder.com

BELL-BOTTOM TROUSERS

by Gene Bodnar

In the United States Navy, bell-bottom trousers were probably introduced before 1813, but not every ship's crew wore exactly the same style clothing. In the early days of the Navy, each ship's captain decided what clothing to buy for his men. The year 1813 is a good starting point, however, because Commodore Stephen Decatur wrote in that year that men on board the frigates *United States* and *Macedonia* were wearing "glazed canvas hats with stiff brims, decked with streamers of ribbon, blue jackets buttoned loosely over waistcoats and blue trousers with bell bottoms."

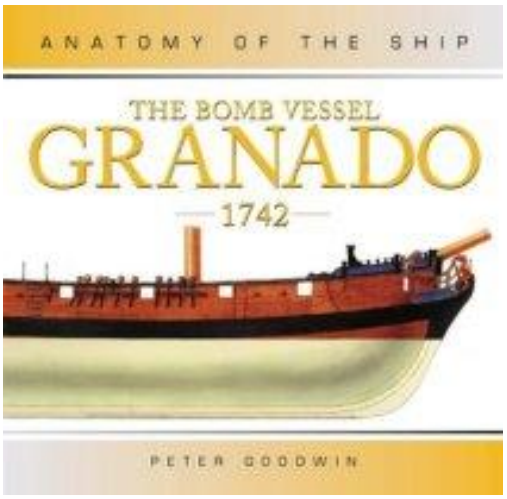
The future H.R.H. King Edward VIII dressed in his big bell bottoms trousers

The British Royal Navy wore bell bottoms in the mid-1800s, but they had no official uniform until 1867. Furthermore, they're "bell bottoms" were wide-legged trousers, lacking the distinct bell shape at the bottom. In the 1870s, Queen Victoria chose to dress her children in sailors' uniforms, which resulted in a new fad called the "Sailor Boy Craze." Soon, the general public as well as the Royal Navy togged themselves out with big bell bottom trousers.

There isn't any documentation as to the reasons why navies wore this style of trousers, but there is some credibility given to number of theories that have been proposed. For example, bell bottoms were much easier to remove than regular trousers if a sailor fell overboard. If a sailor had to swab the deck, bell bottoms could be turned up over the thigh quite easily, and wet trousers took a long time to dry. Bell bottoms also provided a measure of warmth to the sailor's feet, since sailors rarely wore shoes, except for formal occasions. From the tailor's point of view, such trousers provided a more efficient use of the fabric, since a bolt of serge always came in a 54" width.

Although the bell bottom trousers are still retained by the US Navy for its dress uniform, wearing bell bottoms for everyday use was abandoned in 1998, and the last pair was issued in 2000.

MSB Book Nook



The Bomb Vessel Granado 1742: Anatomy Of The Ship

(Anatomy of the Ship)

By Peter Goodwin

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Anatomy of the Ship Series. Built as a floating siege engine able to withstand the recoil of shell-firing mortars, the Granado was one of twelve bomb vessels supplementing the depleted British fleet at the outbreak of the War of Jenkins' Ear in 1739. This book begins with a brief description of the development of bomb vessels, from the early galiote a bombe built in 1682 to the World War II monitors used for coastal bombardment, and continues with an in-depth description of the Granado, a summary of the ship's career, and more than 250 detailed illustrations. The book also provides insights into fictional hero Jack Aubrey's first command, the Sophie, a 14-gun brig-sloop with a quarterdeck and stern windows. First published in 1989, this reprint includes a new fold-out large-scale plan on the reverse of the book jacket. 11 photographs. 263 line drawings.

Get your Copy Here

In the Anatomy of a Ship Section

Rotary Tool Treenails

By Leigh Smith

The pinnace I am scratch building requires over 2000 trenails (treenails, trunnels). These have all been made using a Dremel drill, an old hacksaw blade and a file. Some years ago I searched the internet for a reasonably priced draw-plate that could be ordered by post and delivered reliably in acceptable time. I was too impatient to wait so I decided to make my own. However, I had too few drill bits in the range required for systematic intervals between starting and finishing diameters and my "drawplate" was not successful. One day I simply sharpened to a point one of the too large pieces of bamboo satay stick I use to make trenails, put in the chuck of my Dremel and pushed it at the hole of the required diameter. It went through and promptly snapped off. Since then I have refined this discovery to a procedure for making trenails. Here it is in point form:

The Requirements

Take an old hacksaw blade and drill two holes in it about two centimetres apart – one about twice the required diameter and one the final diameter (For the current model 1mm, however, small diameters are possible - see Figure 1). This is then mounted vertically in a vise with the larger hole closest to the jaws.

Fix a file on a flat surface (see Figure 1) as a means to get to an approximation of the larger hole.

The bamboo comes from satay sticks available at your local Asian food market.

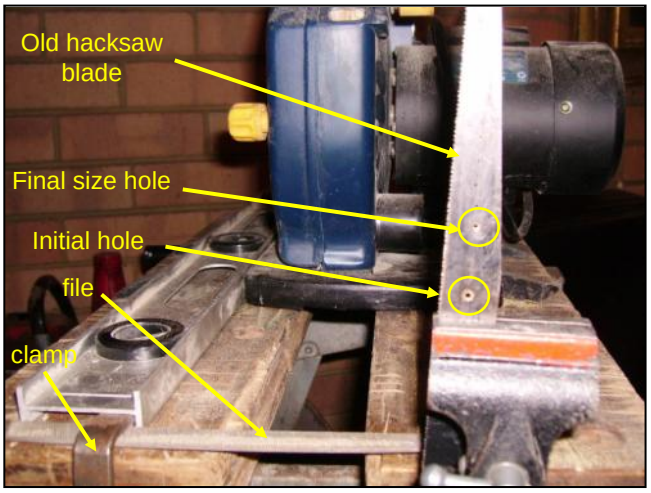


Fig.1 The Setup

Getting Started

When selecting the satay sticks make sure they will fit the chuck of the Dremel. The quality also varies so check for reasonable uniformity in the packet.

Cut the satay stick into pieces a bit longer than those shown in figure 2.

Insert a piece in the chuck and tighten it (see figure 3). Remove the excess length by running it at low speed against the cutting edge of the hacksaw blade. (See picture). The remaining piece should be about 3mm longer than the trenail (too long will snap).

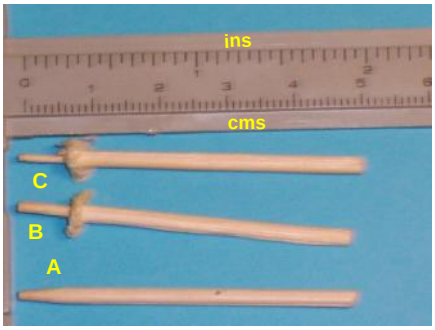


Fig.2 Three Stages of shaping the treenail

Use the file to approximate the diameter of the large hole (say 1½ times – *this does not need to be accurate*) and taper the tip to a point that can be introduced in the hole (figure 2A). This should be done at low speed. I am not sure of the effect of bamboo dust but you probably should probably wear a dust mask.

At full revs push this through the larger hole. Stop just short of the chuck (that extra 3 mms). The process will peel off the excess wood leaving a "beard" (see picture 2B) in front of he chuck. Pull it out of the hole with the drill still running.

Fig.3 Piece of satay stick in dremel—un-trimmed

And trimmed

Now offer it up to the smaller final size hole. Do not force it; just use sufficient pressure to move it through. Remove it with the drill still running. These somewhat vague terms are learned by trial and error. You will soon get the hang of it.

Remove the finished trenail from the chuck. It may be a bit reluctant to come out. Push it back toward the drill, this will loosen the jaws. If necessary a small pair of long-nosed pliers will get the blighter out. It helps to tap the open chuck a few time every few trenails to get any swarf out as this can cause difficulty getting the blank in and the finished product out.

Some tips and advice

- Have a close look at the satay sticks before you buy them. They vary a lot in quality and consistency of diameter. In my experience darker (yellow-brown) is better than pure white, which tends to break more easily.
- Do not force the bamboo through the holes – steady pressure is best.
- You will have breakages! I have about 5%. You get better with practice. If the rate goes up during a session you probably need a rest.
- For some applications you might need to trim the beard. For planking it does not matter as it all needs sanding later.
- The hole in the model should be the same diameter as the finishing hole in the hacksaw blade.
- Dry fit the trenail first. This smooths it and clears out dust from the hole. You do not want it jamming halfway in when it is covered in glue. Sometimes a quick twirl in a folded piece of fine sandpaper around the trenail helps.
- Use the trenail dipped in glue (aliphatic), inserting it couple of times, to fill the hole with glue. This should make sure the glue goes all the way down. A hypodermic syringe can also be useful for filling the hole with glue.
- Push the trenail home using the shank while giving it a bit of a twist. (see picture)

- Cut off the shank with a flat cutter.

While this may sound somewhat detailed and time consuming it nevertheless works well once you get the knack. I have made thousands of trenails this way (with the same original hacksaw blade and holes – they still come out the correct size!). The chuck on the Dremel also seems none the worse for wear.

Leigh Smith, Perth, Western Australia.

Your Own Lumber Mill For Ship Model Builders

By Eugene L. Larson

Reproduced here in its original form and content but with minor changes for significant differences due to progress over the years. First published in *Ships in Scale Magazine*, July/August 1987.

The purpose of this article is to present some thoughts on processing woods from bulk pieces acquired at lumberyards, specialty wood sources, the forest, or orchard. Many comments made here are based upon my association with the Nautical Research Guild (NRG), Washington Ship Model Society (WSMS), and model builders I've met in general. I especially want to thank Ken Dorr for his help in compiling the list of woods (coming in Part Two) and sharing his techniques in processing lumber. Neither the ideas nor the list is intended to be all inclusive. If anyone has additions, corrections, or comments, I'd appreciate a letter. A future update to this article is then possible if enough material is collected.

A common question is how to obtain the properly dimensioned woods required for a model. A few years ago before I had acquired a caliper, I bought some 1/32" (0.8mm) sheet walnut from a hobby shop to make gratings. All the notches were carefully cut on a small table saw with a 0.032 blade. Then came the assembly. I was shocked when the strips wouldn't fit in the notches. I obtained a dial caliper and discovered that the 1/32" wood which had been checked with a ruler wasn't 0.031, but 0.042 - more than enough to prevent assembly. In some cases variations of 0.010 aren't critical, in others like this, it's essential to have a closer tolerance. So how is wood processed to dimensions within 0.003 to 0.005?

If a few short pieces are needed, a sanding block and arm power will provide the necessary stock. Some wood may be wasted by sanding too much, but it isn't a great loss. However, the requirement to process a large quantity of special wood such as apple, pear, holly, maple, or the more exotic types presents a significant problem. All the solutions I've tried or been exposed to have advantages and disadvantages. I'll try to cover these with the purpose of letting you decide how to go. I don't wish to endorse any product and especially not to criticize them.

SAWS

There are several miniature saws on the market which are good for thin cuts and short pieces. Generally, the motor is small (1/12 hp) which causes stalling on thicker cuts. Also, the bearings holding the blade mandrel are usually loose. This results in an intolerable play in the blade when cutting. The thinner blades furnished with the machines don't have a set to them. Thus cuts are limited to 1/4" (6.5mm) thickness or less, depending on the hardness of the wood, or burning occurs. Other thin blades can be purchased from companies such as Thurston, and are available in a variety of thicknesses. However, they are designed for metal slotting and slitting, and don't have any set to their teeth.

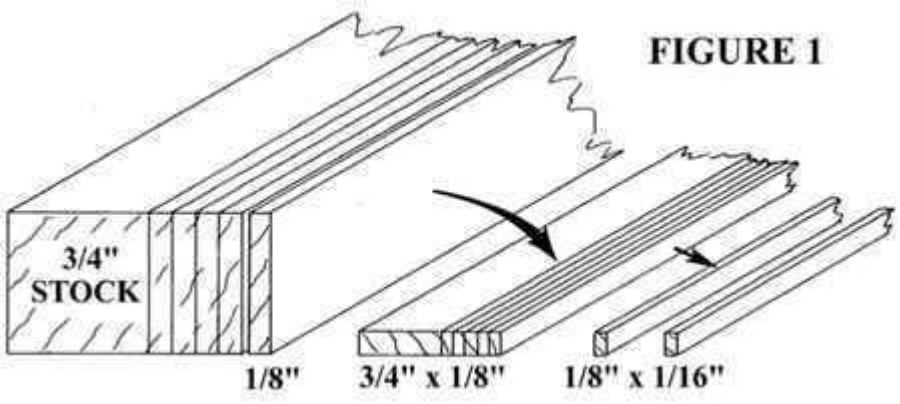
The 100-tooth Dremel 4" blade does have set and will do a decent job on thicker cuts if there is no bearing play and the motor doesn't stall. A new miniature saw advertised by Preac Tool Company is represented as having solved the problems noted above. The advertisement states that the high-quality blade produces a cut so smooth that sanding isn't required. It comes with a 4" x 6' table and is quite expensive ($300.00 range). I haven't tried the saw, so can't comment further. (I since have acquired the saw and it does in fact perform well. Micro-Mark also offers a saw with carbide tip blade option.)

Whether I use a 10" table, radial arm, or 2" miniature, I can't consistently saw long planks without getting teeth marks and slight thickness variations. It's difficult to hold the wood to the fence throughout the cut, and after a few passes, the blade will dull just enough to prevent the ultra-smooth surface, especially when working with harder woods like cherry, maple, and walnut.

Jack Kitzerow of the NRG and Nautical Research and Model Ship Society, Chicago, has designed a miniature circular saw table which utilizes any motor from 1/15 to 1/4 hp. The larger motor avoids the stalling problem and the bearing arrangement eliminates play in the shaft. A much smoother cut is produced as long as the appropriate blade is used. However, the disadvantage is that a metal lathe is required to make some of the parts. Details of this saw have been printed in The Fife Rail, a copyright publication of the Chicago society. (Perhaps) They will send a copy of the article if you provide a self-addressed stamped envelope with $2.00 (see addresses at end).

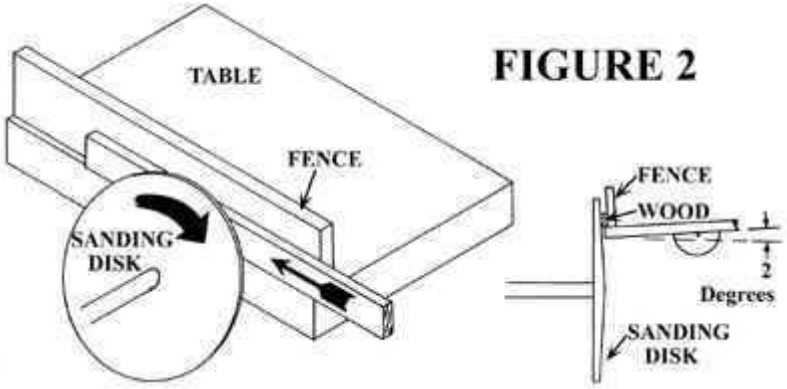
I've cut wood rather accurately on a 10' saw table with a carbide-tipped blade. As mentioned earlier, the tolerance may not be enough for the project. Also, it isn't always cost effective to waste more wood than is produced. The saw cut is over 1/8" (3mm) which is twice as much sawdust as is saved when cutting 1/16" (1.5mm) planks. Wastage should not be a prime concern, since most modeling projects don't require so much wood that even 200% waste would be a major cost factor.

When using any saw, the best method I've found is to cut the thicker dimension first, then slice off the desired planks. This gives more control of the wood and, therefore, the cut (Figure 1). The initial stock should be planed smooth and square on at least two adjoining sides. This can be done by the lumberyard or specified when ordering through the mail. Otherwise, a jointer and perhaps a planer are necessary to do the job - no small expense, and only justified if you're really into production or have other woodworking needs.



Disc Sanding

During the construction of a large kit model which I was drastically modifying to achieve greater accuracy, I discovered the walnut planks were of very poor quality. They were cut on a bias, not with the grain, and every attempt to bend them resulted in splitting and breaking. I purchased some high quality, close - and straight - grained walnut and cut 3/4" x 3/16+" (19 x 5mm) slabs on my table saw. A Sears sanding disc which has a 2 degree bevel on one side and flat on the other was purchased and placed on my Shopsmith. I used the beveled side to sand the slabs to their final 3/16" dimensions by running the wood through a fence arrangement next to the sanding disc. The bevel provides a single point of contact for the sanding. Tilt the table and fence 2 degrees relative to the disc to make the fence face parallel to the disc at the sanding point. Use the top portion of the disc so the sanding is nearly parallel to the direction travel of the wood (Figure 2).



Disadvantages are that only a small portion of the disc does the sanding resulting in uneven wear, and thin strips can fall into the slot between the disc and table. Also, this is a very awkward arrangement and several lengths of wood were wasted trying to get a smooth finish. It was difficult to hold the wood against the fence to avoid chattering due to

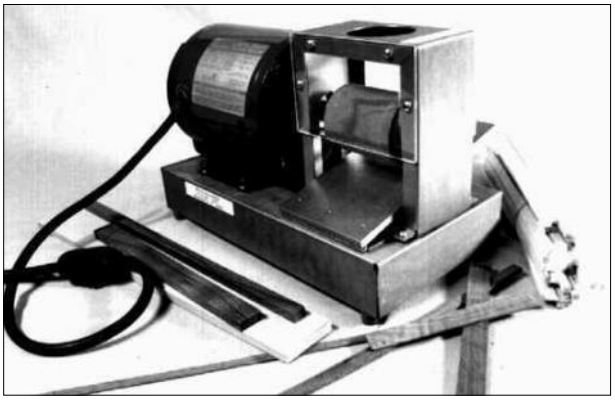
the disc's large size.

The amount of dust produced was incredible, and a shop vac hose held near the sanding didn't help much. However, the required planks were eventually produced. The 3/4' x 1/16" slabs were then sliced on a miniature saw to 1/16" X 3/16' size. These were not sanded, since the cuts on the 3/16" surface would be sanded away later by hand on the model. This isn't always possible.

Drum Thickness Sander

Another method to process planks is to rough cut them on a band saw, table saw, or radial arm saw, and then use a drum thickness sander to obtain the finished surface. The band saw produces the least waste in the cut and is one of the more common tools in a home workshop. There are large, commercial thickness sanders on the market which run up to $1,500.00. This is usually out of our price range. For several years, I offered plans and instructions for a model builder's drum thickness sander, and was finally pressured into producing a completed unit. It's available through the Model Ship Marina (No longer available. Preac design is a follow-on, but with a less powerful motor.) The sander (was) expensive due to its metal construction, large motor, and specially machined parts.

A disadvantage of thickness sanders is the amount of dust they produce. A shop vac is essential. A home vacuum isn't recommended, since the bag clogs very quickly with the fine dust. Also, a dial caliper is essential to check the thickness for any given setup, since the machine can not be calibrated to the tolerances required due to variations in and wear of the sandpaper. The end product can be held to tolerances of 0.004 or less. A thickness of 0.005 or less (thickness of this page) can be achieved if the wood grain structure will permit it.



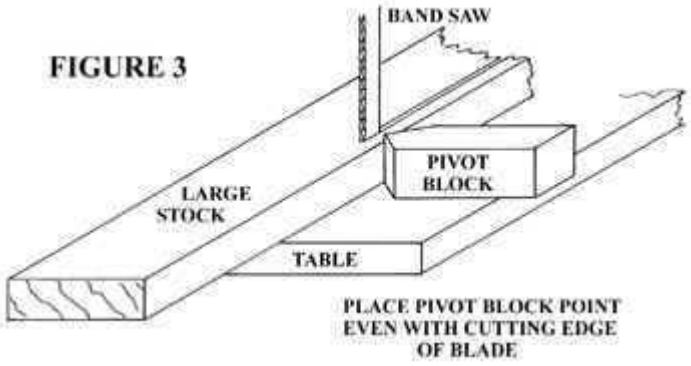
Consideration must be given to the type of sand- paper on the sanding drum. I try to avoid the slotted drum where the sheet must be wrapped around it, the ends inserted into the slot, and secured. This works well while the paper is tight, but with use it stretches and the resulting poor fit affects the sanding.

Plans for my earlier homemade sander called for gluing the paper onto the drum. This works fine until it's time to replace the paper. Regardless of the adhesive, there is always a mess. The least messy is the glue produced for holding the sheets of paper to the flat discs used in auto body work. There is also a solvent available. Check the local auto paint store. A removable sleeve is best, but in this case the width is limited to 3" (76mm). It should accommodate most projects. (A later design of my sander pictured here used a new-to-the -market 6" long drum).

My sander is based upon a rotating drum over an adjustable flat plate table. This design is several steps of refinement (hopefully) on a unit used and demonstrated by Marvin Bryant

of the Hampton Roads Ship Model Society. Ken Dorr and I built several similar units and changed them to their present configuration (see photo). To use it and similar sanders, slabs are again sliced off the large stock to the thicker dimension. These pieces are sanded, the thinner dimension is cut, and then this face is sanded. Since I have the machinery for my half hull kit business, I use a band saw to cut the wood to approximately 1/32" (0.8mm) oversize, After each cut, I pass the original large stock through a jointer to obtain a smooth surface. This isn't necessary, only convenient. For band saw cuts on both faces, just make the strips thicker to accommodate the extra sanding. With a band saw, it's easier to cut the wood straight if a fence or pivot block is used (Figure 3).

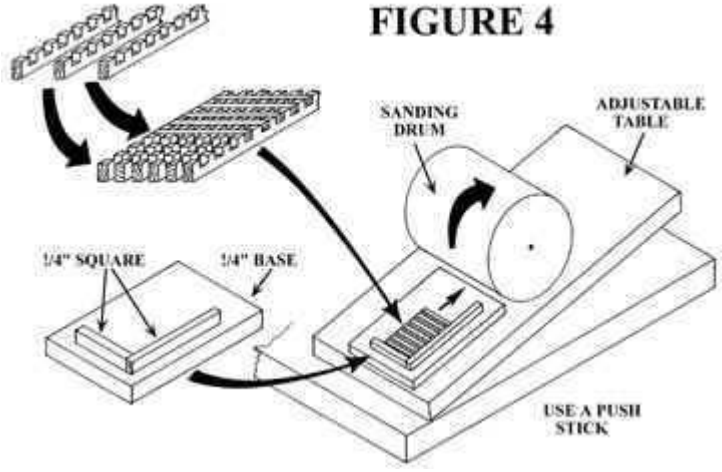
FIGURE 3



The sander controls the thickness of the wood by a positive-action adjusting mechanism. The final dimension is achieved by running the wood through the sander a few times, adjusting the thickness accordingly. Several thin sanding passes are better than a single deep one. If more than one piece is to be dimensioned, run all through the sander before a thickness adjustment is made. This achieves a very accurate consistency.

A continuous push through the sander is essential, since any stopping will produce a "dip" in the wood. On all sanders, a push stick is necessary when handling short pieces, and some kind of guard should be incorporated to prevent sanded fingers and/or throwback. Always push the wood against the rotation of the sanding disc or drum, or the machine will pull the wood from your hands and hurl it like a missile.

FIGURE 4



A thickness sander does more than just make planks. After a grating is assembled, it's usually necessary to sand it flat. If you've tried to do this with a sheet of sandpaper on a flat surface or using a sanding block, you probably have achieved a smooth top, but rounded edges. By building a simple sliding jig to hold the grating and making very light passes, the grating can be sanded flat without chipping the "teeth" (Figure 4).

Another use for thickness sanders is for the production of multi-wood rudders. For my finished half hulls, I assemble three 3/32" (2.4mm) pieces of wood; usually cherry, maple (waterline), and walnut. When the glue is dry, I pass the assembly through the sander to obtain a 1/16" (1.5mm) dimension. A push stick is essential! The rudder is then cut to shape (Figure 5).

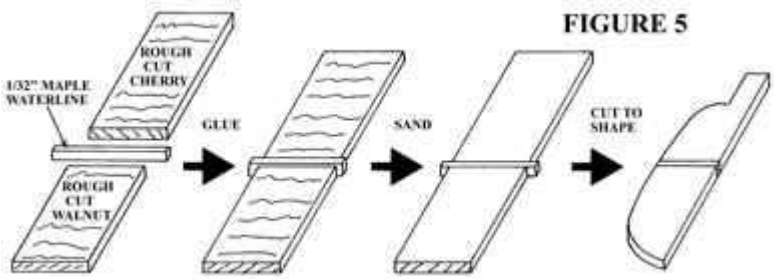
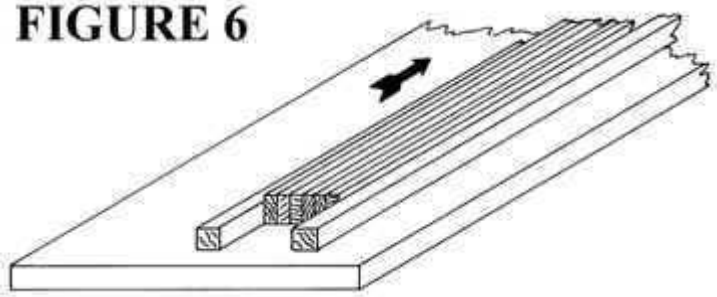


FIGURE 5

Away from modeling, this method works well for finishing inlays and parquetry, as well as making the initial stock for this work. When the project is assembled and dry, lightly pass it through the sander, especially for thin inlays. The surface comes out flat without rounded corners. A secondary advantage is that any glue accidentally smeared on the face is removed. The sander can also produce edge veneers from special woods for finishing plywood projects.

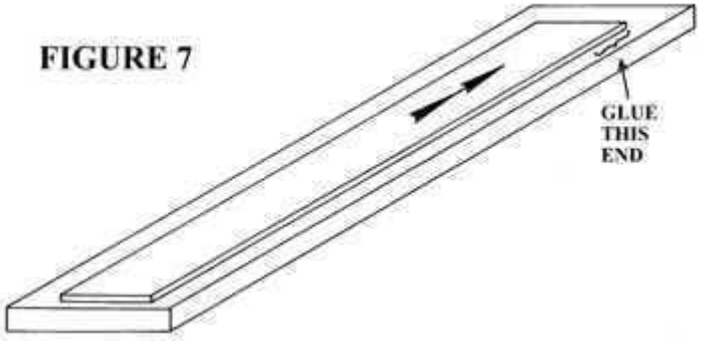
FIGURE 6



In case you have planks already cut and did not do the thicker dimension first, the edges can still be sanded smooth with another sliding jig (Figure 6).

Very thin sanding can be accomplished by gluing the leading tip of the piece to be sanded to a sliding jig which has been sanded flat. It's impossible to push very thin stock through the sander without buckling it. By gluing the wood to the jig, the result is a pull instead of a push (Figure 7). I've sanded walnut to as thin as 0.005. After that it disappears!

FIGURE 7



The advantages of a thickness sander are: 1) the ability to consistently produce accurately dimensioned material to any length, 2) the variety of woods that become practical, and 3) its many associated uses. The disadvantages are: 1) the cost or effort to build one, 2) dust produced, and 3) the support equipment necessary or desirable; vacuum, band saw, and jointer (helpful).

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Nautical Research Journal, Nautical Research Guild, 6413 Dahlonega Road, Bethesda, Maryland 20816. Address has changed, see web site)
Scale ModelSailing Ships, John Bowen, Conway Maritime Press.
Ship Modelling Hints & Tips, J.H. Craine, Conway Maritime Press.
Ship Modeler's Shop Notes, Nautical Research Guild.
The Fife Rail, Nautical Research and Model Ship Society, 620 Saddle Road, Wheaton, Illinois 60187.
The Main Wale, Great Lakes Society of Model Shipwrights, 2118 Belle Avenue, Cleveland, Ohio 44107.
Wood Magazine, Better Homes and Gardens, 1716 Locust Street, Des Moines, Iowa 50336

ADDRESSES

Nautical Research and Model Ship Society, 237 South Lincoln Street, Westmont, IL 60559-1917
Preac Tool Co., Inc., 1596 Pea Pond Road, North Bellmore, NY 11710-2926, 516-333-1500.
Thurston Manufacturing Company, 45 Borden Street, Providence, Rhode Island 02903.

Online Discussion Forums

In this issue we continue on with our list of discussion forums. These are online forums where model builders can connect to discuss all aspects of model building. They are listed in no particular order of importance as all have something unique to offer you the modeler. If you know of a good discussion forum you think others would like to know about, by all means let us know by sending us an email.

Marine & Modelisme D'Arsenal
http://forum.aceboard.net/?login=5500

A very active Discussion forum. Though I don't know the French Language, I have been able to make great use of Googles Translation tool (available as part of the Google Pack or as part of the Firefox with Google Toolbar available free from Google) to help me read many of the interesting discussions going on here. For those of you who understand and can read French, I envy you! :-)

Hobbyfanatics
http://www.hobbyfanatics.com/

Another fairly active forum I came across. While their focus is not mainly ships there are some active forums there, covering figurines, planes, RC etc. Might be worth checking out.

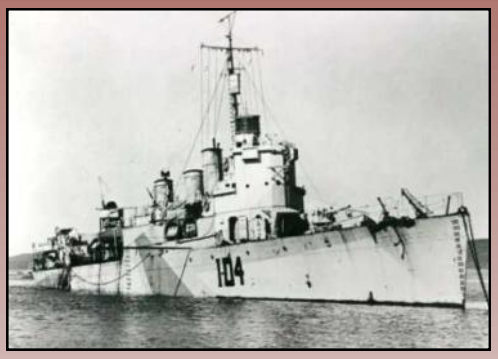
Ropemaking
http://groups.yahoo.com/group/ropemaking/

This is a Yahoo group whose focus is …. Well….let's see if you can guess??? :-)

I haven't had a chance to check out this forum with any great detail but I thought it might make for an interesting read for those with some knowledge of rope making. Perhaps there is something to be learned? If you think so, please let us know and we'll pass on the information to everyone.

Badges:

Heraldry of Canadian Naval Ships



HMCS ANNAPOLIS

Description:

Blazon Gales, a bend wavy argent charged with a like bendlet azure, and over al/a cypher of the letters AR entwined in ornamental script ensigned by an ancient crown, all gold.

Colours:

Gold and scarlet

Motto:

To excel

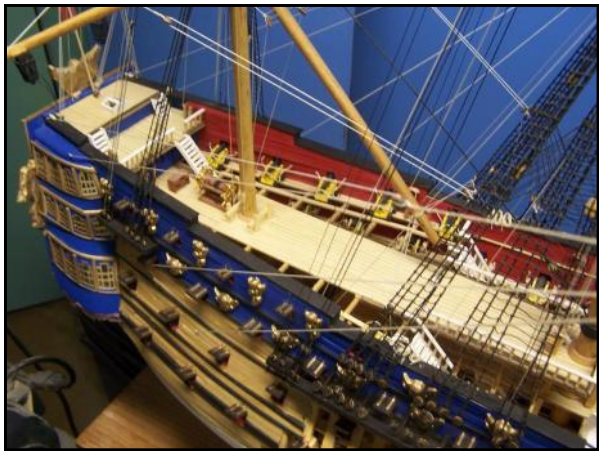
Battle Honours:

Atlantic, 1941-1943

Source: readyayeready.com

Contributors Pictures Section

To start off in this issue are some pictures from Mr. Gene Bodnar of his recently completed project the Royal Angel (based on the Royal Albert).

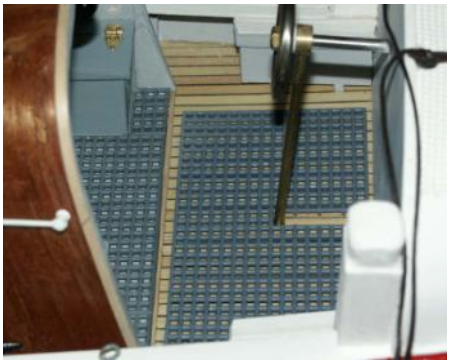


You'll soon be able to see more pictures of this nice model at the Model Ship Builder website on Gene's Model Ship Builder's page.

Here are the last collection of pictures from Mike Pendlebury on his build of of a 1/12 scale self-righting lifeboat - RNLB Civil Service No4. She looks great Mike!

The lifting rudder has been fitted along with the appropriate lift lines.

The bow bumper was crocheted by my wife and when fitted gives the boat its typical RNLI 'look'.



The grid on the decks has been cut to size and fitted for the crew to stand on out of the water on the decks.

All the engine controls have been fitted inside the mechanics shelter and the working compass hung where the helmsman can easily see it.

The lifebelts and their holders have been made and fitted to the rear bulkhead.

The boat has finally been given its name and the RNLI bow flag insignia!!

The display stand for the boat has been built and the electrics for the boat's functions fitted inside out of sight and safe.

The nameplate gives the details of the boat's name, its Operational Number and the length of service in Whitehills, Scotland.

Last picture of the forward area of the deck with the last of the details fitted.

At last the boat is completed and ready to 'return to station' which was the object of the exercise at the beginning.

These are the last pictures of this build from Mike. If you remember back when Mike first started this project it was a commission from someone who had purchased the boathouse that this boat operated from and was converting the boathouse into a home. This model is a replica of the first boat that was stationed at the boathouse.

Mike has been commissioned next to build a model of the last boat that was stationed at the boathouse, so we'll be seeing more from mike in the upcoming months. As well, he still has his monster lifeboat project from last fall to work on as well!

Blocks & Things

Over the next couple of issues we'll look at various components used on real ships. To start with in this issue we'll look at some Blocks. Next issue we'll carry on with a look at more.

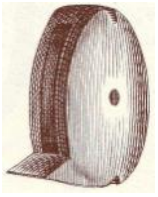
There are various types of blocks that were and are still used on ships. Each are shaped according to their use.

Typically, a block consists of a Shell, Sheave and Pin. From the number of sheaves it derives its name. For example, a block with one sheave is called a "single block", with two sheaves a "double block" etc.

In model building today blocks are made from various materials ranging from wood, to plastic to metal. There are some very realistic looking blocks recreated at small scales using most of these materials.

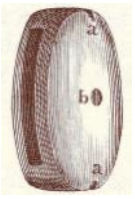
The Single, Double and Treble Blocks

These blocks are used throughout the ship in varying sizes for numerous purposes . They probably represent the largest number of blocks used on a ship.



The Topsail Sheet Block

The topsail sheet block has a projection at the lower end. This is to prevent jamming of the sheets or the ropes that reeve through them



The Shell

The Sheave

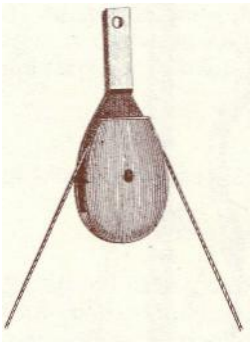
The Pin

Long Tackle Block

Long tackle blocks are a combination of two blocks in one block. A larger one placed at the top and a smaller one in the lower end of the block.

Shoe or leg-and-Fall Blocks

Also made of two block, but the sheave of the lower block is contrary to that of the upper.



The Snatch Block

The snatch block has one side of the shell open above the sheave through which the bight of the rope may be quickly placed in or removed from as necessary without having to reeve the end through. A hole is bored through the upper end for a lashing. Small ones are typically used for hauling the deep-sea-lead while large ones are iron bound for receiving the bight of the Hawser when warping the ship.

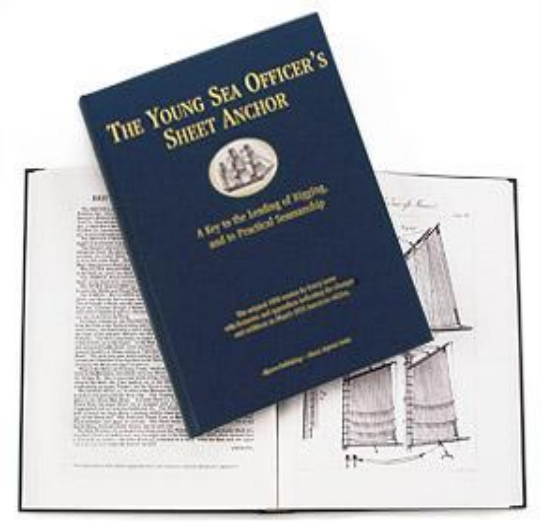
Sister Blocks

Sister blocks have two sheave holes, one above the other. Frequently, in in the merchant service, only a round hole is in the lower block instead of a sheave (as shown). A score (g) is cut between the blocks, and one at each end for seizing. They are hollowed out on each side of the shell for a shroud to lie in.

Clew-line Blocks

Clew-line blocks are strap-bound….that is, they have a shoulder on each side of the cheek, next to the end where the rope reeves. In these shoulders are holes, bored vertically (h) to receive a strap.

You can learn more about blocks and rigging in "The Young Sea Officers Sheet Anchor (A Key to the Leading of Rigging, and to Practical Seamanship)". There are a couple of variations of this book available on the market. The one I would recommend you acquire if you have a store in your area is the one put out by Lee Valley Tools as part of their Classic Reprint Series.



This edition includes the original Darcy Lever publication of 1808 and the updated 1858 version by George W. Blunt (commonly referred to as the American edition).

This latter edition includes in its latter part a lot of interesting detail on total canvas for different classes of vessels, weights of chain and cordage, details on the clipper ships (just coming into service at the time of publication, weights, characteristics and testing methods for armament (ball and shot), and notes and illustration describing the Porter anchor and Forbes rig.

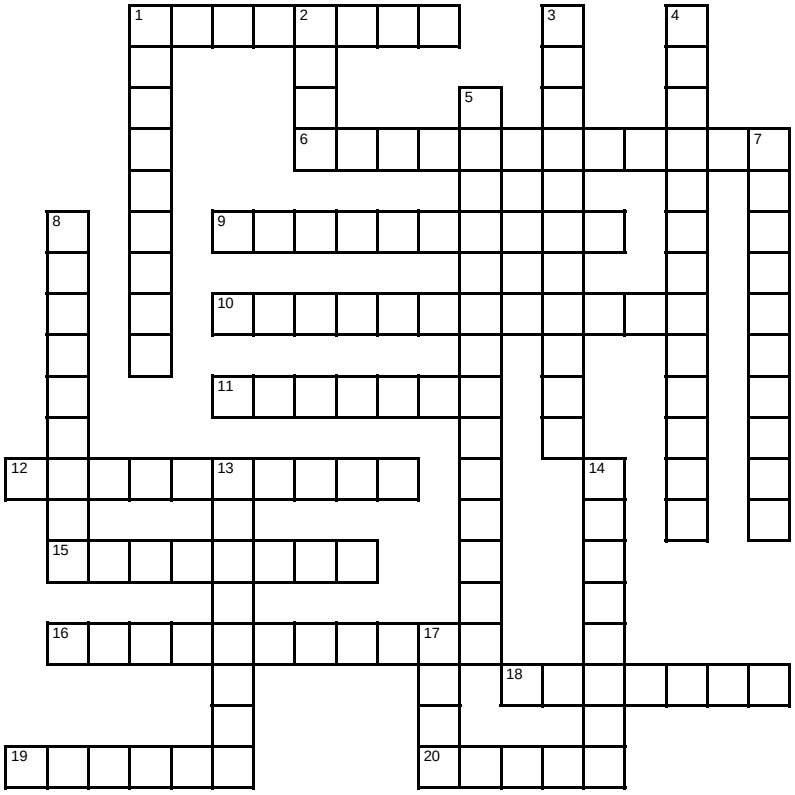
Various footnotes are provided wherever Blunt's text differed from Lever's, and contains an appendices containing all the material Blunt added.

If you don't have a Lee Valley store near you, you can get the newer edition at the MSB Journal Book Store. Either book is a good addition to your library.

Source for this Article: The Young Sea Officer's Sheet Anchor—Classic Reprint Series from Lee Valley Tools

Standing Rigging

by Gene Bodnar



Across

1 Ropes leading from the end of the bowsprit to the stem, holding the bowsprit down against the strain of the foremast stay

6 Iron devices on a vessel's side holding the deadeyes to which the lower ends of the shrouds are secured

9 Any ropes used as additional security for another

10 Horizontal ropes running between the mast caps

11 Eyes in the end of a shroud looped over the masthead

12 Ropes under the tops bracing the lower end of the futtock shrouds, making more room to brace the yards around

15 Aftermost shrouds on fore and main masts

16 Ropes passing down from the jib-boom end to the dolphin striker, staying the jib-boom against the upward pull of the jib and jibstay

18 Ropes with eyes in the upper ends which go over the topmast head, and with tackles attach to the other end, using for lifting heavy weights

19 Strengthened areas of a sailing ship's hull to which the shrouds are attached

20Small lines with its middle attached to a stay, and blocks or thimbles fitted at the free ends to act as fairleads for other ropes

Down

1 Ropes or chains for staying the dolphin striker

2 Lengths of thick rope by which a yard is hoisted

3 Ropes set up in heavy weather to prevent a yard from slipping out of place

4 Short pieces of wood attached to the upper part of the shrouds, to which the catharpins are secured

5 Short lengths of rope or chain supporting the top of a lower mast

7 Wooden or iron bars lashed horizontally across the shrouds, just above the deadeyes to prevent twisting

8 Ropes which support the mast against the forward thrust of the sails

13 Horizontal lines running across the shrouds at short intervals, forming a series of rope rungs

14 Short lengths of line securing shrouds and stays

17 Loops of a shroud or stay to go over a mast

Standing Rigging Answers