



President - Lloyd Donnelly Vice President - Don Schmid
Secretary - Wes McNeal Treasurer - Rick Mannarino

Editor: Tom Ringenbach Email: tommamie@charter.net

Calendar of Events

- May 7 Tool Swap and Sale. Tugaloo Pavilion 4:30 p.m. (Note time!)
(This replaces the regular monthly meeting.)
- May 23 Board Meeting. Tanasi Grill 8:00 a.m. All members welcome.
- June 4 Regular Monthly meeting, Yacht Club 7:00 p.m.
Program: Spring Challenge "Emphasizing Wood Grain"
- June 9 Field Trip: Riverwoods Home Furnishings (production shop and retail store)
Meet at Cooper Center 8:15 a.m.

New Leadership

If you were not at the April club meeting, the names on the masthead of this Newsletter may have taken you a bit by surprise. Last month, club members elected two new officers and reelected two others.

The first order of business is to extend our heartfelt gratitude to Tom Borloglou for two years of selfless dedication to our club as President. Tom never flinched when the need arose to provide leadership for the club, as well as being there to actively support nearly every club event. Tom, your guidance and leadership will continue to have a positive impact on our club for a long time to come. Thank you.

Stepping up to president is Lloyd Donnelly, and to Vice President is Don Schmid.

Continuing for an additional term of office are Treasurer Rick Mannarino and Secretary Wes McNeal.

All of these members have generously agreed to take on responsibilities which require significant dedication and time. Let's make their jobs easier by volunteering to help when the need arises (as it will many times) over the next year.

Dues Notice

Club membership fees for 2015 are now due. If you haven't already paid, mail your check for \$20 to:

Chris Campbell
107 Okema Way
Loudon, TN. 37774

Board Meeting Highlights - 4/25/2015

The TV Woodworkers Club Board met on Saturday, April 25, 2015 at Tanasi grill. The following items were discussed.

Currently, there are no pending requests for community service projects. Four projects were recently completed; two are in progress.

Rick Mannarino, Treasurer, reported an overall balance of \$4762.70 in the Treasury, of which \$2524.16 is held for amortization of the kiln. The Board voted to use a 20 year amortization of the kiln (3 years have passed) and to put \$50 per month into the account.

There was discussion regarding club sponsored tool sales when the owner is in disagreement with club pricing. Dick Hoffmann agreed to draft a policy for Board consideration.

Immediate Past President Tom Borloglou took over the task of maintaining the club Resource Book.

Hugh Moore reported on the status of the Club's audio-visual upgrade project. The Board will pursue purchase of a couple of needed items.

The Mentoring Survey is now complete. An email will be sent out to club members seeking participants.

New Member

Bob Ware

Welcome to the Club!

April Club Meeting

Charlie Anderson

At our general meeting in April our members were rewarded with an interesting presentation of a different side of woodworking, Half Hull models. A half hull model ship, (also known "half ship") is a wooden model ship featuring only one half of a boat's hull without rigging or other fixtures. Prior to the 20th century, half hull model ships were constructed by shipwrights as a means of planning a ship's design. The half hulls were mounted on a board and were the exact scale replicas of the actual ship's hull. Computer aided design has taken over the need for this craft except for decorative nautical and hobby art.



Presenters Mel Fischer and Bob Martin explained how this woodworking art is accomplished. They start off by acquiring, if at all possible, the plans of a particular wooden sailing vessel. Patterns outlining the shape of the boat are then drawn and transferred to "lift" stock, lines are cut and are then carefully assembled, layer by layer, to form the shape of the hull. A great deal of cutting and trimming (by spoke shave), sanding, clamping and gluing is then accomplished to form the proper profile. Careful finishing will result in a beautiful model that can be mounted on a backboard.

April Club Meeting (cont.)



This last paragraph almost makes it sound simple, but it appeared to all of us at the meeting that you must possess a good dose of dexterity and patience to come up with a winning project.

From Our Members' Shops



A very stately red oak Mantle Clock created by Wes McNeal.



You can obtain more info on this interesting woodworking technique by Googling "half hulls".



Don Schmid's bowl displays all the beautiful and unusual markings elm has to offer.

From Our Members' Shops (cont.)



Bob Brown turned this beautiful specimen from pecan.



Chris Campbell turned these from cherry burl.



John Johnson's breadbox is both functional and a great addition to a kitchen decor.

Tools and Tips

(Editor's Note: Dick Hoffmann wrote this article as a follow up to the material presented on inlays at the Club's Mentoring workshop at Arrowmont in March.)

Router Kit Inlay Instructions

Overview: A router inlay kit is used to make perfect inlays that have no gaps and fits precisely into a routed recess. The inlays can be decorative or functional, such as bow ties to reinforce splits in boards or as joinery. The kits are sold by most woodworking business. All of them include a 1/8" down spiral router bit (1/4" shaft), a 7/32" bushing with locking ring that fits into the base of most routers and a 9/16" collar that friction fits over the bushing. Make sure the kit you buy also includes a centering pin. This pin is inserted in your router and is used to absolutely center the bushing in your router's base for percussion results.

Using a template (a board with a hole in it the shape of the inlay), you first cut out an inlay using a plunge router with the bushing "on" but the collar "off". Next step is to route out a recess for the inlay. This is done by using the same template but with the collar "on".

Effectively the inlay is cut with the 1/8" router bit on the outside edge of the inlay pattern. When the collar is put on, the router bit is moved 1/8" closer to the center of the template or to the inside edge of the insert pattern ... that is where the recess needs to be cut.

If you create a template by scroll sawing out the inlay shape or by buying a premade template, the process is fairly simple, however the hints below will help. If you need to make a precisely sized or an intricately designed inlay shape, the process can require making a temporary scrap inlay from which a template can be made.

Using a Premade Template:

1. Secure a scrap board so it will not move and place the inlay material (generally 1/8" thick) on it. Secure the inlay with double sided tape, especially the area where the inlay cut out will be. Position the template where you want to cut out the inlay and secure the template to both the inlay material and the scrap board (using counter sunk screws or double sided tape). If using tape make sure you use clamping pressure to set the tape.
2. With the bushing on and centered in your router, make sure the collar is "off" and pressing the bushing against the side of the template, route out the inlay. It's critical that the router stay firmly against the template edge or the inlay will be ruined. Steps to make sure you get a clean inlay are:
 - a. Make sure the router base is large enough to span the template and is stable. If it is tippy, add a frame around the template to keep the router steady.
 - b. Make a reference mark on the template and inlay. This will help you later when trying to orient the inlay for insertion.
 - c. Practice running the router around the template with the motor off. Make sure there are no hang-ups and there is nothing in the way.
 - d. Use multiple shallow passes (1/16") when cutting inlay to insure the router bit does not grab or wonder.
 - e. After plunging, move your hands to the base of the router. This will give you better feel and control.
 - f. If you get hung up, stop. Turn off the router and find out what's causing the problem. You can try reversing direction or move the router slightly and then restarting. Do not force it.
 - g. Make sure your final pass is deep enough to cut through the insert material and into the scrap board.
 - h. Remove and save the template and insert cut out. Use a putty knife to help free up the double sided tape.

3. Secure the board to receive the insert so it will not move when being routed. Position the template on the board and secure it with double sided tape. Put the collar "on" and set the router depth to be equal to the thickness of the insert. Press the router bushing with collar against the template edge and route out the interior of the pattern. Because you may have to remove a lot of material, the following steps may help:
 - a. Use the reference mark on the pattern to mark the board to help position the inlay for insertion.
 - b. Route several times around the template edge with good outward press to insure a properly sized recess. This can be done in a single pass. If the bit wanders, it will not hurt anything since all of the interior must be routed out anyway.
 - c. Clean out the interior using a larger router bit, making sure to only route out the material inside the previously routed cut. A good way to do this is to use a 1" bushing and a 1/2" bit. This insures the bit stays at least 1/4" away from the edge of the template.
 - d. If any small sections are left in the recess, clean them up with a chisel.
 - e. Leave the template on and check to make sure the insert with just minor sanding will fit into the recess. Make sure the inlay is correctly oriented with the reference mark on the board when checking. If it's too small, run the router with the bushing and collar around the edge of the template several times. Recheck.
 - f. Once the fit is good, remove the template.
 - g. Sand the edges of the inlay to slightly taper the sides. This will help fit the inlay into the recess. Avoid pushing it into the recess because once in, it is almost impossible to get it out for gluing.

Making a Custom Template:

Because the inlay kit uses a bushing to offset the router bit, the resulting inlay will be 7/32" smaller than the template. This means if you want a precisely sized inlay, you need to make a template with a 7/32" larger opening on all sides. This can be difficult or impossible, especially if the inlay design has curves or a complex shape. This is where a custom template works.

Making a Template:

1. Draw out the inlay, exact shape and size, on a piece of paper. Glue the paper to 1/4" thick template material.
2. Cut out the inlay shape and sand to the lines. This temporary inlay will be used to create a correctly sized template.

Secure the temporary inlay onto 1/4" template material with screws going through the template material and into the scrap backer board.

3. To help stabilize routing around the temporary inlay, it may be helpful to secure a frame around it so the router base is supported both on the temporary inlay and the frame.
4. Route around the temporary inlay, making sure to stay tight against the temporary inlay's edge. Use the routing techniques described above so the router bit does not wander. Cut through the inlay material.
5. After removing all the screws, you should end up with a template that is exactly 7/32" larger than the scrap inlay. Because the scrap inlay was the size and shape of the desired real inlay, the template made from it will now produce correctly sized inlays.

Making Inlays with a Border:

If you want to add a border that is precisely the same size around all edges of an inlay use this method. In simple terms you will create two inlays. The actual inlay is first inserted into the border material. Then a second inlay is created. This is the original inlay plus the border. At this point the second inlay is inserted just like a normal inlay as discussed in the above section. The secret of

maintaining a consistent border edge is using reference dowels to correctly make and position multiple templates. To add a border (this example is a 1/8" border) use the following steps:

1. Make a scrap inlay (as described above)
2. Secure 2 layers of template material to a scrap backer board.
3. Drill two reference point holes (1/4") through the template material and into the backer board. Make sure the dowels are positioned far enough apart to leave adequate work space between the dowels (for the inlay material and the board that will receive the final bordered inlay). Insert 2, 1/4" dowels into the reference holes, making sure the top of the dowels are flush with the top template board (material)
4. Secure the scrap inlay made in step 1 on top of the two layers of template material. Add a frame for router stability.
5. With the collar "off", route through both layers of template material keeping the router pressed against the scrap inlay edge.
6. Next with the collar "on", route through only the top layer of template material, again keeping the router pressed tightly against the scrap template edge.
7. Remove all screws. You will end up with 2 templates. The top template 1/8" larger than the bottom template.
8. Place the inlay material on the backer board, using double sided tape to secure the center area. Place the smaller template on the inlay material, and register it by using dowels inserted through the template holes into the backer board. The dowel tops must be slightly below the level of the template or the router will hang up on them.
9. With the collar "off", route out the inlay material.
10. Secure the border material to the backer board, with the same smaller template on top and registered using the 1/4" dowels route out the inlay recess using the router with the collar "on".
11. Insert the inlay into the border material recess.
12. Next secure the inlay inserted into the border material to the backer board with double sided tape in the center area. Place the larger template on the inlay/border material and register it using dowels, again slightly below the template surface.
13. With the collar "off" route out a new inlay. This inlay will be the 1/8" border around the previously inlay.
14. Next, secure the wood to receive the banded inlay onto the backer board. Place the larger template on top and register it using the dowels.
15. With the collar "on", route out a recess to receive the banded inlay.
16. Glue the banded inlay into the recess.

(Note the border width can be varied using different combinations of bushings and router bits shown below)

Border Size Given Bushing & Bit Size							
(Red shows Router Kit Bushing with Collar & 1/8" Bit)							
		Router Bushing Size					
Router Bit Size		7/8	3/4	5/8	1/2	9/16	3/8
	1/8	9/32	7/32	5/32	3/32	1/8	1/32
	1/4	11/32	9/32	7/32	5/32	3/16	3/32
	3/8	13/32	11/32	9/32	7/32	1/4	
	1/2	15/32	13/32	11/32	9/32		