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THE CHARLOTTE SAWDUST

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The Charlotte Woodworkers Association

www.charlottewoodworkers.org

Upcoming Program for September

September 16th – Tony Bradshaw and Mike Paterson will present a program on overarm routing.

Meeting Time

Meetings of the Charlotte Woodworker's Association are held the third Monday of each month, except for December. Meetings are typically held at THE WOODWORKING SHOP of Charlotte, 116M Freeland Lane, Charlotte, NC. Exceptions will be announced well in advance. If you need directions to the shop, visit their web site at <http://orders.woodworkingshop.com> and click on the link to "Store Locations".

Please note that our meetings start at 6:00 P.M., after a social and refreshment time that starts at 5:30 P.M. If you get there early, you can get to know your fellow members. Also, please be mindful of the graciousness of our hosts by not placing refreshment, etc. on their worktables and tools. Thanks for being good "guests".

CWA Mentor Program

The following members have offered their help to anyone interested in learning skills or new techniques in their area of interest. Contact each person to arrange times to get together if interested.

Name	Area of Interest	Phone	Email
Wayne Cooper	***	704-409-1417	cooper@ARconmfg.com
Bill Golden	Shopsmith & Totalshop	704-525-9691	popstoyshop@earthlink.net
Dwight Hartsell	Woodturning	704-598-6029	woodwight@aol.com
Jeff Jacobs	Any wood thing	704-309-1263	jacobj@meckco.com
Wayne Manahan	Sharpening	704-786-0768	wmanahan@vnet.net
Gil Milsaps	Windsor chairs	704-875-0758	GAD23ABOUT@aol.com
Alvin Tench	Any Woodworking	704-824-7717	Alvintench@netzero.net

*** Wayne Cooper has a fairly complete shop and would actually like an experienced woodworker to use it and teach him how to use it properly in exchange for use of the shop. If you'd be interested in helping Mr. Cooper, please contact him directly to make appropriate arrangements.

Anyone interested in offering their time and services as a CWA mentor, please send their information to Wayne Manahan at wmanahan@vnet.net

One Special Christmas – It's still not too late to start working on projects. See Dwight Hartsell for details.

Future Programs

October – Victor Ilnitskiy will talk about woodworking in the Ukraine and how he made a maple urn.

E-mail Option for receiving “Sawdust”

E-mail delivery of “Sawdust” is available. I understand that many members don't have convenient access to e-mail, but if you do, and don't already receive the newsletter that way, consider switching to softcopy.

When you receive the newsletter via e-mail you have the benefit of getting color photographs, and you get quicker delivery. To sign up for e-mail delivery, please e-mail a request to wmanahan@vnet.net and your delivery method will be changed.

July Raffle Winners

Donated by The Woodworking Shop
Router Bit Set
Bosch Drill

Tom Baloga
Shannon Duncan

Donated by Woodcraft
\$25 Gift Certificate

Bill Hawkins

Donated by CWA
\$25 Gift Certificate to Klingspor's WW Store
PortaMate

Jim Dotson
Wayne Cooper

New Members

We have six new members to the Charlotte Woodworker's Association. They are:

Patrick Perry
Lowell Logerwell
Edwin White
Herman Lynch
Tom Todd
John Cahill

Please take a moment to meet our new members and make them feel welcome!

\$\$\$ Shop on Meeting Nights for Special Savings \$\$\$

The Woodworking Shop is now extending a 20% discount to members of the Charlotte Woodworkers Association on all items (except for power tools and lumber) purchased on the day of the meeting. So if you

shop the day of the meeting, you'll save 20% instead of the usual 10%. We'd like to thank The Woodworking Shop for making these additional savings available to us.

Our Condolences...

Anita Genest, Ted Genest's wife of 38 years, passed away at 8:30 PM, August 7th, 2002 at Carolina's Medical Center. We extend our condolences to Ted and his family.

Classified Section

For Sale:

None this month

Wanted:

None this month

Please send your classified ads to wmanahan@vnet.net or to Wayne L. Manahan, 6516 Weldon Circle NW, Concord, NC 28027-8018. If you have the option of using e-mail, I'd prefer to get the ads that way. Thanks.

Building Mantle Clocks

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Written by Fred Miller, Photography by Susan Manahan

A clock case can be as simple or as elaborate as you want it to be. The first rule, though, is build the clock from the inside out. This means, the size of the dial (or face) and the size of the movement to be enclosed in the case will determine how large the case needs to be. For my clocks, I prefer using faces 7 ½ inches square overall, with a time ring roughly 5 ½ inches in diameter. The movements I use are Seiko quartz battery powered movements, and they are small enough to fit inside the case without any challenges.



Figure 1 – Various Styles of Mantle Clocks by Fred Miller

Once the size of the case is determined, cut the top, bottom, and two sides. The top and bottom pieces need to be sized to allow for decorative edge routing beyond the side pieces. The side pieces need to be spaced far enough apart (inside measurement) to house the clock face. Since the connection of the top and bottom is a critical measurement, it may be easier for you cut the top and bottom extra long, then mark and cut the mortises or dovetails in the top and bottom pieces, then trim the ends to correct size after the mortises have been cut.

The overall height of the side pieces needs to include the tenons or dovetails used to connect the sides to the top and bottom. The inside length (assuming use of ¾ stock) needs to be tall enough to house the clock face, plus ¾ inch top and bottom for spacer strips, plus additional length for the tenons or dovetails. Sides may also be butted together and attached to the top and bottom with nails or screws. The critical point here is the measurement – a small inaccuracy will be very apparent in a small piece like a clock case. Mark your cuts with a knife – not a pencil.

After the top, bottom and sides are cut and dry fitted, measure and mark for hinge mortises. Now is the time to cut all the hinge mortises, when the parts are unassembled. For the front door and back door, I use the same size hinges (usually 1X1 inch), so all my mortises are cut the same size.

Now is also the time to cut slots in the bottom, to allow the sound of a chime to get out of the case, if you've chosen a chiming movement. When cutting slots in the bottom I use a straight bit and table-mounted router. Space the fence the appropriate distances from the slot cut, and after marking the start/stop points use a plunge-and-lift technique for cutting the slots. Multiple passes and progressively deeper cuts are better than attempting to cut the slot with a single pass. After the slot is cut, you can clean up the start/stop points with a Forstner bit, and ease the edges of the cut with a small roundover router bit.



Figure 2 – Bottom of Clock Case with Routed and Drilled Slots

At this point you can apply decorative routing of choice to the sides and front of the top and bottom. No routing is necessary for the back edges of the clock case. A simple roundover or ogee shape is recommended. Keep in mind the ogee shape, if used, needs to be routed on the bottom side of the top, and the top side of the bottom, so they mirror each other. A simple roundover is fine to use on the top edge of the clock top. The bottom edge of the bottom piece isn't routed because it will sit in a rabbet in the base pieces.

Sand and glue the top, bottom, and side pieces together. Measure the base pieces, which are two sides and a front, and miter the front corners. The base has a shallow rabbet where the bottom of the case fits. The top edge of the base can be routed with a small roundover for decoration before assembly, and the bottom edges of the base pieces can be relief cut to form feet at the corners. Sand, assemble and glue the base pieces to the clock case.

Cut two $\frac{3}{4}$ inch spacer pieces for the bottom and top inside of the case. This provides a “frame” for the clock face. Sand and glue in place. Cut a $\frac{1}{4}$ inch piece of plywood to back the clock face, and glue inside the case to the spacer pieces. At this time, cut two small strips and glue inside the back of the case, to serve as stops for the back door. Cut the back door and mortise the door for the hinges. I use $\frac{1}{2}$ inch thick pine or poplar for the back doors.

A “crown” piece or several “crown” pieces can be cut, routed, and glued to the top of the case at this time. Center the crown piece(s) from side to side and flush to the back of the case. These pieces can be routed with an ogee, or I have found a mini panel-raising bit provides a good shape.

Measure for the door, which is four sides assembled like a small picture frame. Route a rabbet on the inside of each piece to house the glass, plus space for a small $\frac{1}{4}$ round strip to hold the glass in place. The inside edge of the door face can be routed with a roundover or other small shape consistent with the other routing on the case. You may also route a shape on the outside corner of the door, but it is not necessary. Be sure to mortise for hinges before assembling the door.

After applying the finish of choice, install glass in the door. Make small pieces of $\frac{1}{4}$ -round to secure the glass and glue in place with hot glue. The $\frac{1}{4}$ round can be made by routing a roundover on both sides of the edge of a piece of scrap stock. This provides a half-round edge that is then cut off using a bandsaw. The half-round is then ripped in two pieces on the bandsaw, yielding two pieces of $\frac{1}{4}$ round.

Attach the front door, and the latch of your choice (I use a small brass hook).

After the front door is attached, place the clock face in the case and mark the hole on the backer plywood. Remove the face, drill the hole, replace the face, and mount the clock movement and hands, according to the movement instructions. The movement mounting will hold the clock face in place. Depending on the fit around the face, you may want to install some small $\frac{1}{4}$ -round to frame the face. Mount the back door and latch, then mount the top handle. You may need to use longer screws for the top handle, depending on the thickness of your crown pieces.

When your clock is finished, be sure to sign and date it. Your great grandchildren will be proud to have it!

Tips:

- Measurements are key – use a marking knife to mark cuts, not a pencil.
- Cut the top and bottom pieces longer than needed, mark and cut the mortises where the sides attach, then cut the ends so the side pieces will be centered.
- Make all router cuts on the end-grain first, then long grain, and use a backer on the end-grain cuts to prevent tearout.
- Choose lumber so the best grain shows. Softwoods chip during routing, so hardwood is better – cherry, maple, walnut.
- Use glue conservatively – squeeze-out will mar your finish.

- Over-sand all end-grain pieces, and use a glue wash to prevent stain or oil from penetrating too much.

Hardware:

- Hinges are 1 X 1-inch solid brass. Try to use American-made hinges, due to the quality of the screws.
- Screws for hinges are from McFeely's
- Hook fasteners are from S. LaRose, ¾ or 1-inch size, order number 085183 or 085184.
- Top handle is standard Queen Anne or Chippendale with escutcheons, solid brass, 3 ½ or 4-inch size depending on size of crown piece. Handles are available from most hardware stores.

Clock Faces/Movements:

- Clock faces and movements from S. LaRose or Klockit.

Suppliers:

- S. LaRose: 800/752-7673 (orders) www.slarose.com
- Klockit: 1/800-klockit www.klockit.com
- McFeely's: 800/443-7937



Figure 3 – Fred Miller demonstrates the use of a jig

H & S LUMBER

Mr. Robert Boland, Manager
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Charlotte, NC 28205
704-333-3130 (sponsor)

THE WOODWORKING SHOP of Charlotte

Mr. Tony Collums, Manager
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704-521-8886
(contributing/sponsor – except power tools & lumber)

WOODCRAFT

Mr. David Boyuka
1725 Windsor Square Drive
Matthews, NC 28105
704-847-8300 (contributing)

Show your CWA membership card at any of the Listed places to receive benefits (except for WOODCRAFT, which is unable to provide sponsorship in the form of discounts).

2002 CWA Officers

President	Michael Rosenberg	704-643-7612 rosinbag@carolina.rr.com
Vice President	Mike McCabe	704-676-4869 aikenlaiken@aol.com
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Treasurer	Neil Brunck	704-521-8480 brunck@usairways.com

The Charlotte Woodworkers Association

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Next Meeting:
September 16, 2002
At The Woodworking Shop
