



February 2006

Raised Panel Doors are January Demonstration

By Jerry Schaible



The demo was given by Larry McCardel and Dave Hout. Larry indicated that he had to make an enclosed closet/cabinet for his daughter to contain all the kids outer clothes and shoes.

Because of the enclosure concept, Larry decided to make the raised panel doors. He indicated that George Vondriska had written an article in American Woodworker in April of 2001 giving instructions on raised panel door construction. The value of the doors was determined to be an outstanding look as well as a mark of a craftsman. The doors consist of three basic parts, such as the raised panel, the stiles and the rails. The panels in the center of the door are

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Project of the Month

The project of the month for February will be Simple unadorned bowls.

Rules:

No carving or decoration, Only domestic woods such as maple, cherry, walnut, no exotics (cocobolo, pink ivory, ebony etc.) Project bowls will be placed on a separate table designated for Project of the Month, a vote by the members for best Project will be taken during the break and the winner will receive \$10.00 from the treasurer. Lets have 100% participation to make this a successful new endeavor of our club and a learning experience for all. Every one bring your bowl to the meeting and participate.

The Presidents Soap Box:

I would like to thank the membership for your confidence in allowing me to be your president for the 2006 year. With all your help I will strive to do the best job I can to make this the club we all can be proud to belong to. Filling in for last years president Bruce Lance who was out of the country for much of the year was a learning experience for me and I hope that not too much damage to the club was done. We spent a lot of our treasury on equipment (2 large Powermatic Lathes, 8 Jet VS Mini Lathes with stands, 11 chucks, chairs tables and numerous other items). With this equipment

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(Continued from page 1) Demo

made of solid hardwood. The stiles are the vertical sides of the door and the rails are the top and bottom cross members. The rails and stiles should be made out of quarter sawn or straight grained wood because of stability. Raised panels are usually flat sawn with a cathedral look to the grain pattern.

Dimensions of the rails and stiles are 2 3/8 inches wide for the panel to slip into.

There is a 3/8 inch depth to the groove and therefore the door panel is exactly 4 inches shorter than the opening of the door size needed. This is considered to be the standard of the industry. Therefore the rail and stile needs to be 2 inches wide. The reason for this type of construction is that there is a lot of expansion and contraction of wood during the seasons. This is magnified if the doors are used in the kitchen. There one will experience increased moisture in the air from cooking facilities on the exterior of the panels and dry surfaces on the interior part of the door inside the cabinet. For a kitchen the standard is 2 inches wide for the rail and stile and the panel width is a maximum of 16 inches, there by making the door with of 20 inches width. The panel or doors are never longer than 26 inches, to prevent increased pressure on the corner glue joints and possible cupping and warping to twist the door. The width the panel is determined by the season of the year. Generally there is 1/8th inch expansion and contraction per foot of panel width. There will be no expansion in the linear dimensions. In the old days, the woodworkers would use match sticks in the grooves to prevent the doors from rattling inside the rails and stiles.

To create the door, one must have a set of matched cutters which will range in price from \$100 to \$125. Several sets of cutters are available, but one will have the best results with a set of matched cutters

made of two different router bits, one for the rail and another one for the stiles. All end grain cuts on the rails should be cut first to prevent chip out. Use a sled with a hold down on the router table for stability of the piece and good surface cuts. Then match the second cutter to the exposed tongue on the end grain. Start by making a very small cut to see if there is alignment of the rail and stile. Make adjustments as necessary. The third cutter is used to make the flat panels for the center of the door. Router tables are a must to provide stability when cutting the panels. Routers of 1 1/2 hp capacity are fine for cutting the rails and stiles but a 2 hp or larger model is needed for the large cutters used to cut the panels. If the diameter of the router bit is 1 inch or less, then one can run the router at higher speeds. If the panel cutter is used, and it is of the 2 1/2 inch or larger capacity, then it needs to be run at 10,000 rpm for the 3 inch cutters and 15,000 for the 2 1/2 inch cutters. Some raised panel bits have a double cutter and these are dangerous because there is a cutter that is exposed to the fingers. It also traps the wood between the cutters and therefore provides for a dangerous cut with increased opportunity for the router to throw the board out of the router confines. Some cut panels that are 5/8 inch thick in order to get the panels to be level with the rail and stiles. Dave Hout uses a large cove bit in the router to cut the back of the panel. It provides for much greater safety. Larry McCardel indicated that one should mark an "X" on the back of all the boards so that one cannot make a mistake of putting the wrong edge through the router. Only the corners of the rails and stiles are glued so that the panel has the freedom to move with expansion and contraction periods. When gluing up, one should not over tighten the bar clamps or it will bend the pieces. One can also use a caul to keep the glue up straight.

(Continued on page 3)

(Continued from page 1) Presidents soap Box

we have instituted a Turn & Learn Program for less experience turners and have the equipment suitable for any demonstrator. Our turn and learn is going very well and we would like to continue this program.

The raffle table has become more successful than in the past and hopefully will get better. We need your donation to this table to be successful.

The show and tell table has been a little disappointing. I would like to see more items on the table as we all learn from each other.

Last but not least, and very important is safety. We do not want any injuries while pursuing our craft. Remember, safety glasses, face shields, dust masks, etc. Do not rush and quit when your tired. If your not comfortable doing something in the shop. don't do it. Work safely and enjoy your woodworking and turning.

If anyone has any suggestions that would be of benefit for our club or any program you would like to see, please bring it to the officers attention and we will see what we can do to make it happen. Remember, this is your club and we want to make it an enjoyable experience. Now before I get down off my soap box I want to extend A big thank you to the following members for your donations to the club:

Hoby Horn donated an easel. This will be a great aid for our demonstrators & Turn and Learn sessions. It was already put into service at our January meeting

John Adams, our website editor bought an upgrade for the website which greatly expanded our capacity and donated it to the club. Check out our website and send any info or pictures of your work to John.

Ray Marr stepped up to the plate and volunteered to build the workbench for our club which will come in handy for any woodworking demo.

I personally built the storage cabinet for the Camp Y-Noah restroom we will now be using. Check it out.

Sincerely.
Larry McCardel

(Continued from page 2) Demo

It was noted that one should buy a good matched set to do the router work. Some good manufacturers are Whiteside, CMT, Amana, and Freud. These are usually made of thick carbide and will last for a long time. One should never sharpen these cutters by themselves because it is very easy to destroy the profiles and then get uneven cutting. If the cutters leave a burn mark, then it is probably because there is resin on the cutters. This can be removed by using lacquer thinner or oven cleaner. Never use WD 40 because that will wash out the bearing lubricant and the bearing will fail in a very short time. Always feed the stock into the cutter and use a fence for the cutting process. The fence does not have to be fancy and it does not have to be parallel to the side of the table. The width of the panel for the center of the door is determined by the season of the year. Expansion of wood panels is about 1/8th inch per foot. All panels should be finished prior to assembly of the doors. This is to prevent a line showing when the panels contract in the winter months. Generally doors are made as a 3/8 inch offset door or a full overlap door. Never try to make an inset door since they are very hard to fit into position and also will have to much movement during the seasons of the year.

Thanks to Larry and Dave for a very informative session on making raised panel doors.

Calendar of Events

February meeting at Y-Noah Saturday Feb. 18th

February demonstrator will be Dave Floyd on Deep Hollowing

March demonstrator will be Paul Cosmo on Segmented Turning

There will be a **Turn & Learn** again in March, after the regular meeting, and we will be turning platters.

The **Project Of The Month** for March will also be Platters

April demonstration is open

May BWWT Annual Auction. Start gathering up your unwanted wood items, tools, and other misc. stuff that someone else might want. This is our clubs major fund raiser.

June; AAW Symposium June 22-24 in Louisville Kentucky

Doll Lumber has requested turnings from our members for their spring auction. Complimentary Turning blanks are available from Doll for these projects.

B.W.W.T. Officers For 2006

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A Friendly reminder from our club Librarians, Do You Have Overdue Books?

The records of our Library show that the following books or video's should be returned at the next meeting. Please check your book shelves and shop to find and return these materials.

Name	Title	Date
Atkinson, Dale	Turning Greenwood	3/9/05
Dube, Darrell	Woodturning Design	4/24/04
Lewis, Rich	Understanding Wood Finishes, Finishing Basics, and Woodworking Projects	No Date
McCardel, Larry	Building Cabinets	No Date
McLaughlin, Tom	Kelton Wood Turning	10/18/05
Mineweaser, Louis	Fine Art of Small Scale Turning	
Morgan, Ty	Mastering Your Table Saw-Video	3/15/03, and 4/19/03
Nicholson, Walter	Turned Gift Projects - Video	1/15/05
Niehaus, Gary	Sharpening Basics-Spielman	No Date
Seto, Gordon	Intro To Wood Turning, and Sharpening Basics	10/16/04 , 2/19/05
Somich, Don	WoodTurning -	

Pracht 10/15/05

Taylor, Fred Adhesives & Glues
10/21/95
Adhesives and glues 10-15-05
Turning Wood - Raffin 11-15-05
Wood Turning Mag. June 86 , 6/21/03

Weinberg Practice of Wood
Turning - Video 4/19/05

Please note, if you returned the book and did not replace the card, see the Librarian's ,get the card, remove your name and place the card in the book or video. Thanks. Don Karr & Marty Chapman

Tools For Sale

Jet Mini Lathe, never used, \$200.00
Contact Adrian Cook 330-697-8284
Uniontown, Ohio

Mortising Attachment for drill press, 2" quill
Includes 1/4, 3/8, & 1/2" chisels \$30.00
Whiteside Rail & Stile cutter set together
With classic OG raised Panel bit. Never used, asking \$150 for all, or make offer.
Ted Chrest 330-673-0319 or see them at the meeting on the 18th.



Brian Ohler is shown above with his table at the January meeting.

Robert Nehus sent these photos taken at the January Turn & Learn. The young man in the Black T shirt shown with Dave Hout is the Evan Fix. The other young man in a black T Shirt is Brian Ohler. I believe you'll be able to identify most of the others.

Thanks Bob, for the photos.



Meeting Minutes

BUCKEYE WOODWORKERS

AND WOODTURNERS

Jan. 21, 2006

The regular meeting of Buckeye Woodworkers and Woodturners was called to order by Pres. Larry McCardel. He welcomed all the regular members and asked for visitors, Jim Eckman, Jesse Woods, and Bill Stubb, to stand and be recognized. Jim Duxbury, an elder statesman, and past member stood to be recognized also.

Lou Mineweaser, treasurer, stated that we had \$1406 in the treasury. He also stated that those who had not paid their dues by March of 2006 would be dropped from the membership rolls. He reminded the members that the club logo patches were available for \$5 and those who had purchased shirts can pick them up from him. He reported that the coffee and donut money came to \$27 and the raffle money came to \$200. All money would be deposited in our treasury.

Larry McCardel stated that our membership of \$20 entitles us to access to the club library, Turn and Learn sessions after the regular meeting, and meetings with professional turners from around the country. He also stated that the AAW membership of \$40, gives one the opportunity to receive their quarterly magazine, American Woodturner, as well as access to the national symposiums that are sponsored by the AAW, and also liability insurance for our club.

Don Karr, the librarian, reported that we had a new book donated to the library on Jewelry Making for the Lathe. We also

had Dave Hout demo DVD donated to our club and another DVD on "Hollow Forms Made Easy".

Members were reminded that we are to park in the parking lot and walk to the building, with the exception of those who need to park close to the building for access.

The new officers were recognized for the coming year. They are President Larry McCardel, Vice President Ben Fix, Treasurer Lou Mineweaser, Board of Directors, Dave Hout, Jim Arnett, and Bruce Lance, Demonstration Committee of Ralph Kubal, and Hoby Horn, Librarians Don Karr, and Marty Chapman, Membership List Coordinator John Dilling, Website Administrator John Adams, Social Chairman Ray Marr and Sec. Jerry Schaible.

John Adams, website administrator, stated that the Apollo server that we are using at present, informed us that they have doubled our capacity to 3 Gigs. He also said that we are currently using only 41 megs of space, so we could put considerably more information on there about our club. He also informed us that he would pick up the cost of the yearly fee for 2006, as a donation to our club. The members were greatly appreciative of his generous contribution.

Pres. Larry McCardel, informed us that the next AAW meeting is in Louisville, Kentucky and he hoped that since it was so close that we would have a lot of members attend. He said that the Instant Gallery is something to see.

The Pres. indicated that we need a workbench for our club to use during the demonstrations. One about the size of 2 foot by 4 foot top would be satisfactory. Hoby Horn is in charge of the project. He asked

for volunteers to help construct it. He had plans drawn up for the specifications that we need. Some of the ideas came from WOOD magazine. Contact Hoby if you are interested.

The Project of the Month for February will be to make a bowl of domestic woods and submit for viewing at the Show and Tell table.

The winning entry will receive \$10 for first place.

Larry McCardel informed our club that we now have 8 JET Mini Lathes, 8 Talon Chucks, and 2 Powermatics for club demonstrations. We have been making good use out of this equipment and will continue to do so in the future.

Our annual club auction will be held in May, so all members are requested to save wood and tools for the club donation so that we can have an effective and profitable auction.

For the Show and Tell table we had the following pieces demonstrated

1. A cherry bowl shown by Dan Greaser. It had been a collaboration with a Honduran wood carver
2. Bottle stoppers, [quantity 15] of different styles and unique woods
3. Cherry bowls [20 inches dia.] by Jim Duxbury. He emphasized the quality of Ohio woods as being very tight grained and of the highest quality.
4. Brian Ohler created his first turning effort and it was a very beautiful table with a turned spindle for a center post. The table had four feet off the spindle leg and the top was about 18 inches square.
5. A walnut bowl designed and created by Marty Chapman
6. Ralph Kubal created a cherry bowl from a tree in his yard.
7. Mark Rinehart made a paperweight out

of buckeye and walnut with an inserted 1972 Liberty Silver Dollar given to him by his grandfather.

8. A spalted wood bowl with varnish used to create a stabilized wood for turning

9. Ben Fix created a twice turned curly maple bowl of outstanding character.

Contributory jobs for Camp Y Noah were discussed. One of which was to paint the mess hall. Paint and rollers would be provided for the task. No time was discussed. We have asked for a list of items that we could use for work projects around the camp to help in our contribution to them. This list will be discussed in the coming meetings.

Raffle tickets were sold and winning numbers went home with many gems of the forest.

The demo was given by Larry McCardel and Dave Hout on Raised Panel Doors.

Larry indicated that he had to make an enclosed closet/cabinet for his daughter to contain all the kids outer clothes and shoes.

Because of the enclosure concept, Larry decided to make the raised panel doors. He indicated that George Vondriska had written an article in American Woodworker in April of 2001 giving instructions on raised panel door construction. The value of the doors was determined to be an outstanding look as well as a mark of a craftsman. The doors consist of three basic parts, such as the raised panel, the stiles and the rails. The panels in the center of the door are made of solid hardwood. The stiles are the vertical sides of the door and the rails are the top and bottom cross members. The rails and stiles should be made out of quarter sawn or straight grained wood because of stability. Raised panels are usually flat sawn with a

cathedral look to the grain pattern. Dimensions of the rails and stiles are 2 3/8 inches wide for the panel to slip into. There is a 3/8 inch depth to the groove and therefore the door panel is exactly 4 inches shorter than the opening of the door size needed. This is considered to be the standard of the industry. Therefore the rail and stile needs to be 2 inches wide. The reason for this type of construction is that there is a lot of expansion and contraction of wood during the seasons. This is magnified if the doors are used in the kitchen. There one will experience increased moisture in the air from cooking facilities on the exterior of the panels and dry surfaces on the interior part of the door inside the cabinet. For a kitchen the standard is 2 inches wide for the rail and stile and the panel width is a maximum of 16 inches, there by making the door with of 20 inches width. The panel or doors are never longer than 26 inches, to prevent increased pressure on the corner glue joints and possible cupping and warping to twist the door. The width the panel is determined by the season of the year. Generally there is 1/8th inch expansion and contraction per foot of panel width. There will be no expansion in the linear dimensions. In the old days, the woodworkers would use match sticks in the grooves to prevent the doors from rattling inside the rails and stiles.

To create the door, one must have a set of matched cutters which will range in price from \$100 to \$125. Several sets of cutters are available, but one will have the best results with a set of matched cutters made of two different router bits, one for the rail and another one for the stiles. All end grain cuts on the rails should be cut first to prevent chip out. Use a sled with a hold down on the router table for stability of the piece and good surface cuts. Then match the second cutter to the exposed

tongue on the end grain. Start by making a very small cut to see if there is alignment of the rail and stile. Make adjustments as necessary. The third cutter is used to make the flat panels for the center of the door. Router tables are a must to provide stability when cutting the panels. Routers of 1 1/2 hp capacity are fine for cutting the rails and stiles but a 2 hp or larger model is needed for the large cutters used to cut the panels. If the diameter of the router bit is 1 inch or less, then one can run the router at higher speeds. If the panel cutter is used, and it is of the 2 1/2 inch or larger capacity, then it needs to be run at 10,000 rpm for the 3 inch cutters and 15,000 for the 2 1/2 inch cutters. Some raised panel bits have a double cutter and these are dangerous because there is a cutter that is exposed to the fingers. It also traps the wood between the cutters and therefore provides for a dangerous cut with increased opportunity for the router to throw the board out of the router confines. Some cut panels that are 5/8 inch thick in order to get the panels to be level with the rail and stiles. Dave Hout uses a large cove bit in the router to cut the back of the panel. It provides for much greater safety. Larry McCardel indicated that one should mark an "X" on the back of all the boards so that one cannot make a mistake of putting the wrong edge through the router. Only the corners of the rails and stiles are glued so that the panel has the freedom to move with expansion and contraction periods. When gluing up, one should not over tighten the bar clamps or it will bend the pieces. One can also use a caul to keep the glue up straight.

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a long time. One should never sharpen these cutters by themselves because it is very easy to destroy the profiles and then get uneven cutting. If the cutters leave a burn mark, then it is probably because there is resin on the cutters. This can be removed by using lacquer thinner or oven cleaner. Never use WD 40 because that will wash out the bearing lubricant and the bearing will fail in a very short time. Always feed the stock into the cutter and use a fence for the cutting process. The fence does not have to be fancy and it does not have to be parallel to the side of the table. The width of the panel for the center of the door is determined by the season of the year. Expansion of wood panels is about 1/8th inch per foot. All panels should be finished prior to assembly of the doors. This is to prevent a line showing when the panels contract in the winter months. Generally doors are made as a 3/8 inch offset door or a full overlap door. Never try to make an inset door since they are very hard to fit into position and also will have too much movement during the seasons of the year.

Thanks to Larry and Dave for a very informative session on making raised panel doors.

Respectfully submitted,
Jerry Schaible, Sec.



I had some space left over so I thought you might enjoy seeing yourselves enjoying the meeting.

