

www.miwoodguild.webs.com



Michigan Woodworkers Guild (Est. 1981) February 2014 Vol. 35 No.

February Meeting Sunday, February 9

At the TechShop in Allen Park from 2 PM to 4:30 PM George Walker will discuss Furniture Design.

The February luncheon is the 27th,1:16 PM, at $\mathbf{Jimi's}$ in $\mathbf{Royal}\ \mathbf{Oak}$







Calendar Of Events			
The Saturday, March 8 meeting will be our annual Showcase Of Woodworking Skills at the TechShop in Allen	The April 13th meeting will be at the TechShop in Allen Park. Clay Bolduc and SteveVaerten will present Scroll Saw	The May 18th meeting at the TechShop in Allen Park will be on Jigs and Tools made by or purchased by guild	The June 8th meeting will be a field trip. The details of the trip are currently being planned.
Park. If you need floor space, contact Ed Stuckey. The March luncheon will be at Jimi's on the 27th at 1:16 Pm	Techniques and Pen Turning. The April luncheon will be at Jimi's on the 24th at 1:16 PM	members. The May luncheon will be at Jimi's on the 22nd at 1:16PM.	The June luncheon will be at Jimi's on the 26th at 1:16PM.

February2014

President's Corner by John Sanchez

Well, if you missed it, the Marc Adam's show on routers was eye opening. The number of jigs Marc has made over the years was incredible. Marc showed us how to make ovals, tapered legs with flutes and everything else in between. (See Dale Ausherman's column in this newsletter for a more descriptive account of events). Special thanks go to Sally and Bill Rigstad for providing us with box lunches and to Ken Wolf for picking up and delivering 10 brand new tables that were purchased by the guild. The tables will be stored at Tech Shop for future events. On a positive note the missing collet for Marc's router was found.

Last months newsletter was the first time in over 10 years that Bill Gayde was not the editor. This will give Bill additional time to work on new projects for the upcoming Showcase of Woodworking Skills on Saturday, March the 8th. Thanks Bill for your years of service.

If you plan on bringing a project to the Showcase of Woodworking Skills please let Ed Stuckey know. A sign up sheet will be provided at the February meeting.

Furniture Design by George Walker will be the next topic of discussion at the February meeting. Hope to see all of the new and current members at Tech Shop.

John Sanchez

Editors Note: For those who missed the presentation by Marc Adams, most of the material that he covered during the meeting is available in DVD form through his school. His DVD "Routing" is available for purchase through the school's web site and includes measured drawings for some of the fixtures that Marc presented.

Special Notice

The woodworking shows put on demonstrations all around the country. Due to a number of causes they have not been conducting a show in the greater Detroit area for several years. The Michigan Woodworker's Guild has just received notice that the shows are returning this year on Friday, February 14 and Saturday, February 15.

For information on the show, please visit the show's web site, <u>www.thewoodworkingshows.com</u>.

The Guild will have a booth at the show to promote membership. Some members will be conducting demonstrations in support of the Guild's involvement with the shows. In addition, we need support manning the booth, setting up the booth, and assisting during the show. Guild members wishing to support this Guild effort, please contact John Sanchez at <u>sanchezart@aol.com</u>.

We would like to support the woodworking shows as fully as possible, given the relatively short notice. The woodworking show has been missed over the past few years.

FYI by Bill Rigstad

Squaring Cabinets

Gluing up and squaring a large carcase is an awkward job, especially when you're working alone. Instead of using clamps diagonally, I cut a piece of MDF the exact size of the opening. I place this in the middle of the carcase, and then I know it has to be square.



February2014

Membership News by Bill Gayde

The Guild membership as of January 19 is 306. We have 15 new members since December 12, 2013. Please welcome:

- 1. Bill Battle Ypsilanti
- 2. Donald Bauman Canton
- 3. Daniel Clark Walled Lake
- 4. Vera De Souza-Dias Taylor
- 5. Richard Fosmoe Auburn Hills
- 6. Mike Gardocki Bloomfield Twp.
- 7. Dan Holowicki Southgate
- 8. Kyle Huntoon Detroit
- 9. Todd Johanson Shelby
- 10. James O'Brien Livonia
- 11. Tony Spica Grosse Ile
- 12. Chuck Stepanian Highland
- 13. Bob Wheelock White Lake
- 14. Eric Woodruff St. Johns.
- 15. Thomas Brown Lake Orion

One of our members, Craig Rifel is moving out of state and is offering Large Machines, Hand tools, and Hardwood for sale from his Huntington Woods home. If you are interested, click on the "Forums and Want A d s" p a g e o n o u r web site (www.miwoodguild.webs.com) and click on "want ads ...", the ad is "HOMEOWNERS WOOD SHOP FOR SALE"

Toy Project News by Ken Wolf

I would like to thank all of the guild members who contributed to our successful 2013 support of Children's Hospital. Your guild was able to deliver 370 toys and a record 73 wooden boxes to the hospital in December. The hospital was a bit overwhelmed when we delivered our toys and boxes in coordination with the Michigan Association of Woodturners with 2700 finger tops and games produced by the Motor City Scrollers (note that we have guild members who also are members of these organizations). Overall we had a covered 8'pickup box filled nearly to the roof with gifts for the hospital.

Members who would like to support this charitable program by our guild are encouraged to work on toys and/or boxes throughout 2014 as your schedules permit. The guild will supply wheels and axles for toys you build for donation to the hospital. You are free to use your own toy and box designs or may use some of the toy patterns from the guild. Contact me at wolfkenneth@att.net or (734) 981-3423 if you have questions or need hospital toy guidelines/guild patterns.

A Quick Note

During our January all-day Marc Adams router presentation, when Marc packed up to leave one of his precision router collets was missing from its box. Several members helped search for the collet believing it likely was knocked onto the floor, but were unable to find it. After returning home and unpacking, the collet was found in a different box by Marc so all are happy. Marc was amazed by the number of guild members that offered to buy him a replacement collet when we believed it was gone. In Marc's opinion MWG is a first class group (confirming what we already knew). Thanks to all the members who contributed to making Marc's presentation successful by helping with setup, presentation, teardown and cleanup.

February 2014

Mentoring News by Bob Mills

Mentoring Program Winter-Spring Workshops

During the months of February through May 2014, the MWG Mentoring Program is providing several opportunities to take in-depth workshops on various topics. Starting in February, the first of the workshops, "Box Building", will be presented by Clay Bolduc. It will be approximately four hours long and will accommodate Guild members of all skill levels. Space is limited to 3 individuals at each session, so each attendee must call Clay at **313-386-1073** to set up a time and date for the workshop and to reserve a spot. The workshop is not a hands-on workshop in that the participants will see Clay demonstrate and discuss the building process in his shop. The participants will then use their own shop to build their boxes.

Workshop name:	Box Building
Presenter:	Clay Bolduc
Location:	Allen Park
Date & Time: needed	tbd – Tuesdays & Thursdays available – approximately 4 hours Call Clay at 313-386-1073

Workshop Description:

Materials: Paper & pencil for note taking (printed plans are not available)

Process: Assumes starting with prepared stock 3/8" x 6" x 4'. Discussion of preparing rough stock via the j jointer, table saw and thickness planer will be provided if requested.

- 1) Re-sawing the 3/8" stock into two pieces approximately 3/16" thick at the band saw, followed by planning (to achieve consistent thickness and remove saw tooth marks) will be demonstrated and discussed.
- 2) Laying out and cutting the box pieces properly will be demonstrated and discussed
- 3) Two approximate 3/16" re-sawed cut offs being glued together to make a second 3/8" piece of stock for the second box will be demonstrated and discussed.
- 4) The remaining box parts, being cut using a router with 3/8" rabbet bit & a straight bit, will be demonstrated and discussed
- 5) Box glue up and clamping with band clamps will be demonstrated and discussed.
- 6) Cutting the box lid free at the router table using a special technique to hold the lid in place while the final two sides are cut free will be demonstrated and discussed

Attendees will return to their individual shops to build their own boxes. Telephone consulting with Clay will be available for any questions attendees may have.

February 2014

Meeting Review by Dale Auscherman

The Guild hosted its fifth Marc Adams full day seminar at the Allen Park TechShop on 11 January. Marc, proprietor of Marc Adams School of Woodworking (MASW), presented a six-hour tutorial and demonstration on "Getting the Most from Your Router." The morning session covered router history, types, selection criteria, safety, and maintenance, as well as accessories such as base plates, collets, and bits. The afternoon session provided a host of router methods applied to a variety of woodworking tasks. Many of these tasks benefitted from shop-made jigs and fixtures, for which Marc provided instruction in construction and use. Much of this seminar derived from Marc's published DVD "Routing". He also included jigs and methods which will be the subject of a forthcoming Popular Woodworking Magazine (PWM) article and online videos. A forthcoming second MASW Router DVD is apparently in the works. Marc provided a handout with a detailed outline of the workshop topics and other supporting information.

George L. Kelley of Buffalo was granted a patent for a "routing machine" in 1908. The device, produced by the Kelley Electric Machine Co., weighed sixty pounds, and was over 12" in diameter and 16" high. Marc cited Oscar Onsrud as another early developer of the router, but the "Onsruters," as they were called, were developed in 1915 and were over arm (inverted) routers powered by compressed air. Around the time of WWI the first truly hand held electric router was introduced by R.L. Carter, whose routers soon became known as the "Wonder Tool." Stanley Electric Tools bought out Carter in 1929. Marc gave a history of router developments over time, including its growth in popularity. Today the router is the number two most owned of electric tools, second only to the electric drill.

Marc characterized today's routers as being of four types; 1) Trim (or "palm"), 2) General purpose, 3) Plunge, and 4) D-handle. He was very enthusiastic about Trim routers, which were introduced years ago (misleadingly) as laminate trimmers. They are versatile, easy to control, and can do many of the tasks generally assigned to larger routers. They feature several base options, including an angle-tilt base, a "seaming" base useful for veneer or laminate joining, and an underscribe base ideally suited for joining overlapped veneer. Marc says if one does not own a trim router then it should definitely be your next router purchase.

Trim routers are limited to $\frac{1}{4}$ inch shaft bits, which will not support all desired routing tasks. Moving up to $\frac{1}{2}$ inch shafts requires use of a larger router. A moderately sized general purpose router can do just about any router task. Marc felt that the D-handle routers were not developed for woodworking, but rather for tasks requiring heavy duty cutting of very long edges. The D-handles lessen fatigue, but give up some control. Plunge routers are useful when one needs to insert/extract a bit at 90 deg to a flat surface, such as when cutting mortises. Their handles are high, making them harder to control for other normal routing which is best handled by a GP machine.

Marc indicated that most woodworkers own several router types. He advised not to skimp on the cost when choosing one and recommends those from top manufactures such as Porter Cable, Dewalt, or Bosch. Check ease of bit adjustment and the use of one-piece assembly collets, which are superior for removing stuck bits. The length of the electrical cord is one of the most important factors. Marc advised avoiding products designed for casual home/hobby use. His handout provided a table comparing characteristics of home vs. commercial routers, making a strong case for purchase of the commercial routers. Marc prefers models which use two wrenches for tightening the bits, rather than the push buttons which "freeze" the shaft for onewrench operation. He also recommended removing the bits for router storage and to use dry lube on bits and collects. His maintenance recommendations are simple: Clean out the collet regularly; Check for and remove any metal burrs in the collet; Keep the surface of the motor and adjoining surfaces clean and smooth; and Blow accumulated dust out of the motor occasionally.

High quality collets and router bits are important for good performance and safety. Collets can introduce bit run out errors, so check this regularly. High precision collets for major router models are available from Precisebits.com at about \$30 each. Bits should be of high quality as well. High Speed Steel (HSS) was used before 1981, but now carbide reigns. HSS bits can actually be made sharper than carbide, but don't wear as well. HSS bits can also be shaped by the user, whereas carbide cannot. Cutting speed and roughness relate directly to the number of cutters. More cutters provide a smoother cut but cut more slowly and generate more heat. Generally bits need to run fast (higher rpm) to avoid tear out. Straight edge bits (e.g. some pattern bits) take more power and do not cut as smoothly as bits designed with a shear angle to the wood. Even better are the newly available helical edge bits. Examples are spiral trim bits available as up-cut (chips toward the motor) or down-cut models. The choice depends on which workpiece edge one is trying to minimize chip out. There are also "compression cut" bits with spirals twisting in opposite directions to enable smooth cuts on two edges simultaneously. Marc recommends use of 1/2 inch shanks whenever possible as they have more collet grip, have reduced deflection under load (smoother cuts), and are less prone to collet burrs. Some "zero-heat" ceramic bits are becoming available but they are expensive and require special sharpening tools.

For reasons of bit visibility Marc prefers transparent ¹/₄ inch polycarbonate (e.g. Lexan) router bases rather than the typical black phenolic bases that accompany most routers. The bases are easily replicated by using the original base as a template. Be sure to use Lexan as opposed to acrylic plastic, as the latter is prone to shatter with sharp edges under load. However, Lexan should be avoided for router table inserts. These require the stiffness of phenolic or MDF, as Lexan is too flexible over the lengths of table inserts. Lexan is expensive in hardware and box stores, but can be obtained more reasonably from plastic fabrication shops in the form of cutoffs and scrap.

Marc briefly reviewed alternatives to holding a workpiece for routing. Sometimes the work can be secured by nailing a removable part of the workpiece to a fixed base. Hot glue is another effective alternative. Rubber mats, useful for sanding, are not effective enough for routing. Another holding approach is to use vacuum. This requires special jigs and some plumbing. The most convenient hold down is double sided carpet tape. Exterior rated carpet tape was recommended.

Marc demonstrated a circle jig, essentially an elongated base plate, with holes for mounting the router, and several lines of small (1/8 in, 10 penny nail) holes extending down the arm of the jig. The jig routs a circle when rotated about a nail affixed to the workpiece through one of these small holes. By making the holes periodic with varying spacing, the jig can cut any diameter supported by the holes. Marc also showed an ellipse cutting jig comprised of a base block with crossed dovetail grooves, with matching dovetail inserts sliding within each groove. This is used in conjunction with the circle jig, by attaching the jig through *two* holes one each pinned by nails to the two sliding dovetails. Marc showed how easy it is to construct with the use of a dovetail bit and a table saw. Using this jig to cut very thick pieces can be done by first bandsawing the ellipse close to final dimension.

Marc next demonstrated interior banding inlay work. Basically one routs to layout lines by use of a "bench hook" type of jig which is run around the outside edge of the panel to be inlayed. The jig (basically a large wooden base plate) has a large oval opening in order to see the bit. Alignment is accomplished by affixing only one router base screw, then rotating the router until the bit edge aligns with the desired layout line. The inlay (thicker than the groove depth) is then glued in and routed close to surface with the router running on attached "skids." Marc then reviewed a couple of jigs used for making dado groves in large work pieces where the "inlay" jig would not suffice. One was simply two rectangular pieces of wood or MDF connected along an edge by hinges. The width of one board is made to be the distance from bit outside edge to the edge of the router baseplate. That edge can then be

aligned to layout lines, and after securing the jig this piece is flipped out of the way with the router base plate held against the remaining edge for the cut. Another "groove" jig was shaped like a big Roman numeral II, with parallel rails to contain the router on a fixed path, while the two end pieces aligned and affixed the jig with the opposite edges of the board to be routed.

Marc next showed a jig which makes "faux" dovetails at box corners. The boxes are first assembled with miter joints at the corner, then the corners are guided over a dovetail bit via a sled made of a joined block of MDF, i.e. through cuts at 45 deg are made much like cutting a corner spline for reinforcement. (John Sanchez spoke to the "spline" version of this jig at our November "Jigs" meeting. That jig is reported in FWW Magazine, Dec 2013 - Issue no. 236.) Only in this case the "splines" are dovetail in shape and appear as would real dovetails. Drawer front half-blind dovetails are faked by simply adding a solid drawer front over the "through" dovetails. Similarly, straight router bits can be used to make faux box finger joints. Marc also illustrated the design and use of a "cope and stick" jig, used with a set pair of cope and stick bits. He also showed the well-known router mortising jig, enabled by two precisely attached "posts" on the router base.

Large boards can be flattened by router, a valuable method for those limited by the bed size of their jointer. The board to be flattened is captured by a large MDF sheet edged by long rails. A sled carrying the router jig moves longitudinally along the rails, while the router slides back and forth across the sled. The sled has a long, large slot to accommodate a router milling bit. A similar set up can be used to cut fluting or reeding in long work pieces, except in this case the cross-sled position of the router is indexed by screwing down an enlarged rectangular baseplate which can slide crosswise in the sled. And yet another dimension can be added to simulate carving of forms which have a radial pattern, such as radial "shells." In this case the router linear rails are affixed at one end and allowed to rotate at the other. In all of these cases of a router jig riding in or on rails, wedges can be added to lift the router at the ends of travel to "taper" the routed grooves.

As the grand finale, Marc showed that many of the functions of a lathe can be implemented via router. The piece to be "turned" is mounted longitudinally inside an open top box, with a router cradle sized and edged to slide along the top of the box. A router mill bit is adjusted to protrude just enough into the box to engage the "turned" piece. The router cradle is slid by one hand of the operator, while the other hand simultaneously turns the piece until the desired shape is obtained. Beads and coves can be cut in the circumference of the "turned spindle" by using bull nose or quarter round bits while the operator turns the piece by hand.

February 2014





Founder's Day Sale 1/25-2/28/2014 29918 Woodward Ave. • Royal Oak 248-543-5110 • Rockler.com **Store Hours:** M-F 9 am - 7 pm • Sat 9 am - 6 pm • Sun 11 am - 4 pm

For membership information, contact Bill Gayde at 25575 York, Royal Oak, Mi, 48067or by phone at 248-543-3487 or by email at: williamgayde@comcast.net.

For name tags, sign up with Ed Stuckey at a regular meeting









Michigan Woodworkers Guild 25575 York Road Royal Oak, Michigan 48067

The Picture Gallery



Marc Adams Demonstrating Radial Fluting



Audience Members Questioning Marc