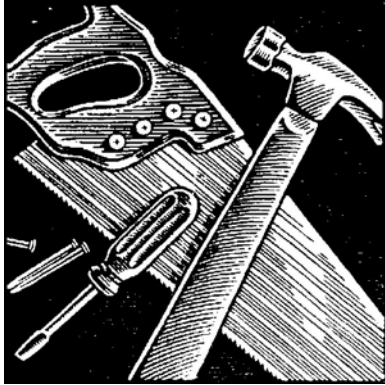


Maine Woodworkers Association
P.O. Box 425
Cumberland, Maine 04021



December, 2007

Membership form for Maine Woodworkers Association

Name _____

Date _____

Address _____

—

Town _____ State _____

Zip _____

Phone _____ E-

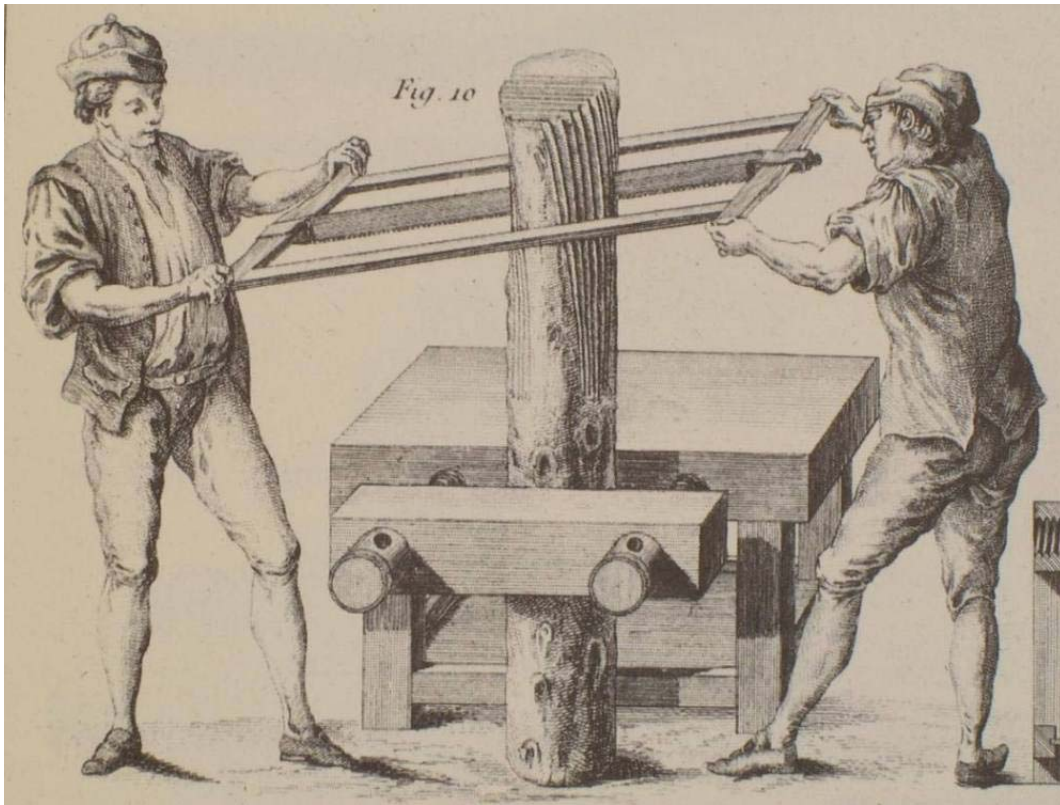
Mail _____

Member information (woodworking specialty, interests, web site, etc. Up to 125 characters, for inclusion in member roster:

There are 8 – 9 meetings per year in a wide variety of woodworking shops. Annual dues are \$20.00. Please send payment to Maine Woodworkers Association, P.O. Box 425, Cumberland, Maine 04021.

MAINE WOODWORKERS ASSOCIATION DECEMBER 2007

NEWSLETTER



Pre-CNC equipment. "L'Art du menuisier", Roubo, ca. 1770

Programs for 2007-2008

December 12, 7:30 p.m., Fat Andy's new shop, with insurance discussion, North Yarmouth

January 9, 7:30 p.m., Katahdin Music Company, furniture for musicians, John Stass, Lewiston

February 13, 7:30 p.m., Craig Warren, archery bow maker, New Gloucester, 926-4133

March 12, 7:30 p.m., Kevin Rodel, Arts & Crafts furniture, Brunswick, 725-7252

April 9, 7:30 p.m., Rich Schilling, The Gentleman Cabinet Maker, Portland, 772-9908

May 14, 7:30 p.m., Bill Diffenderfer, furniture maker, Raymond, 655-8546

June 11, 7:30 p.m., Pot Luck Dessert, speaker and location open for suggestions.

(Almost) all programs begin at 7:30 p.m. on the second Wednesday of the month

The goal of the Maine Woodworkers Association is to bring all aspects of woodworking closer to its members and to educate everyone seeking knowledge from woodworkers in the great State of Maine. Meetings are times of friendship and learning, where everyone is welcome to share ideas, camaraderie, and of course, coffee.

DECEMBER MEETING

Wednesday, December 12, 7:30 p.m.

The subject of our December meeting will be insurance, in particular insurance of the type appropriate (and sometimes required) for any woodworker. Marilyn Matthews (Averill Insurance, North Yarmouth) and Bob Small (Robert Small Agency, Durham) will describe the five “p’s” of their profession: people, perils, place, period and premium. Discussion will also likely turn to what it is like being on the receiving end of an insurance claim. This topic touches every MWA member, working at home or in a commercial space, hobbyist or professional. We will meet at Fat Andy’s newly expanded, insured mill in North Yarmouth, and tour it as well following the insurance discussion.

Directions: Fat Andy’s is at #373 Walnut Hill Road (Main St./Rt. 115), 3.6 miles west of Yarmouth village, just before the intersection of Rt. 115 and Rt. 9. From the north or south take exits #17 or #15, respectively, off I-295 to Rte. 1 and the turn onto Rte 115. The telephone number is 829-3386.

November Meeting

At first look upon entering Quarterpoint Woodworking in Windham you see a normal well-equipped cabinet shop with expected machinery and tools. But tucked away into the far corner of the shop is the heart of the operation, a fairly large KOMO VR 5010 CNC (computer numerically controlled) router. This is where the dozen or so MWA members gathered around and watch owner Bob Small demonstrate his machine.

Bob, a retired Merchant Marine, purchased his CNC set-up in March, 2005. He thought after experiencing 60’ waves, maybe woodworking would be a bit less intense. His KOMO is

only one of two CNC machine brands made in the USA, and after spending two weeks in Minnesota learning the software and machine, he was up and running.

The KOMO is packaged with AutoCad design software and other software to get the design to the machine. All CNC machines need three basic software modules, and are either all packaged together or the user assembles the right software for their specific machine:

- 1) Design – this is where the designer creates the layout of the project whether -- rectangular sheet parts with shelf holes, curved parts for moldings or templates, or even carved objects depending on machine capabilities.
- 2) CAM – short for “computer aided manufacture”, this is software that takes the behind-the-scenes program code from the above design software and translates it into code that the machine can understand. Virtually all CNC machines today run on what is called “G-Code” and can even be programmed directly at the machine if desired or needed. But using commercial CAM software is much easier. The CAM also determines the tooling required for the various cuts and the optimal tool path to maximize machine time.
- 3) CNC Control – a software module usually proprietary to the machine manufacturer. This is the software that accepts the G-code from the CAM and feeds the program instructions to the tool head. This is similar to an operating system for a personal computer.

Quarterpoint does about 80% of its business in sheet goods with the remainder in hardwoods for parts, moldings, etc. Sheet good production is based on the concept of “nested parts.” Bob will design the parts on Autocad, take the design from his office computer using a USB memory stick, insert into the KOMO

control unit and bring the design up on the screen. The internal software determines the optimal sheet usage unless overridden by Bob, for example, if you want grain matched plywood panels, or there is a defect to avoid.

If you thought mdf was solid, think again. Using a 4x8 mdf spoil board on the router table to support the plywood panel to be cut, Bob turned on his 40hp rotary screw vacuum pump and pulled the plywood panel tight to the mdf - the vacuum pulled right through the mdf! During the machine demonstration the router head went to the automatic tool changer and picked up the right bit and made a variety of 1st pass climb cuts to waste out the parts, then the drill head woke up and drilled all the shelf holes and pilot holes for screw assembly, then the auto tool changer selected a finish bit the made the last cut on all the parts. The parts that come off the machine are perfectly square, fuzz free, ready for edgebanding, face frames, or immediate assembly. Bob measures the thickness of the plywood before cutting, tells the machine the data, and compensates if you want tight or loose fit.

Bob does not do edgebanding now, but may in the future. Nor does this machine do dowels, which require different tooling. His main assembly joints are rabbets, dados, stopped dados, even "mortise and tenon" dados.

Quarterpoint can cut up to a 5'x10' sheet, charges about \$100/hr for machine time and \$50/hr for programming time (or you can provide a computer file). The example he showed was a 5 sheet job with programming cost about \$195, or about \$40/sheet for perfectly cut parts ready to be assembled and ready to be perfectly repeated for a duplicate order or replacements for damaged parts. His lead time is about 1.5 weeks from completed drawings and materials on hand, and he can also handle pre-finished plywood safely.

Most customers will drop-ship plywood to him, with several local hardwood suppliers making daily drops to his location. In addition, there were some examples of complex window moldings and other furniture components around the shop all done on this entertaining machine.

Many thanks to Bob for his CNC demo and an intro into the new world of automated machining now available to virtually anyone in the MWA readership area. Hopefully he can ride this wave and stay on the crest!

Richard Schilling

Miscellany

For Sale - Timesaver narrow belt sander - 5 hp 240 v 1ph. takes 12 x 48 belts - older machine in good condition \$950.00 includes about 30 or more new sanding belts. **Also:** shop bench space for rent in well equipped 5000 sq ft shop located in N. Yarmouth. \$700.00 month includes dedicated bench space and use of all equipment. Available Nov. 1st. Call Ted Ney at 829-3632 or 749-7057 (cell).

Lark Books is looking for submissions for a book entitled 500 Tables. There's no fee, only a nice ego trip if your work is included. Deadline for submissions is February 15, 2008. See www.larkbooks.com for details.

MWA EXECUTIVE COMMITTEE

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