

OREGON WOOD WORKS

YOU GET WHAT YOU PAY FOR

BOB OSWALD, PRESIDENT

We've all heard that said many times and in general it's a wise observation. But as I'm enjoying a morning coffee on the front porch, my mind, for some strange reason, it does that often, wanders deeper into the meaning.

My neighbor has a Powermatc table saw for sale. He said he'd make me a heck of a deal. It's bigger than the space available in my shop and I like my Jet.

A discussion about HVLP painting systems a while back suggested, from some points of view that anything less than an expansive, all out solution was going to be inadequate. I use a \$100 system with great results.

So is bigger, faster, more expensive ... better? I'll be quick to admit that the better the tools, the faster you can probably get better results in a shorter time. The big question in my mind is how much do you want to or have to pay to get 'really nice' results that might just take a little longer to produce.

Many of you will remember the stage-coach building adventure of a few years ago. I had the opportunity to work with some



(Continued on page 2)



Tool of the Month

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NEXT MEETING—SEPTEMBER 25, 2009 7:00 PM
Franklin High School, 5405 SE Woodward Portland, OR

David Marks is an extremely talented professional woodworker, and many of you may have seen him hosting "Woodworks", a TV show on cable. His talents are amazing at the least; from small projects to large, intricate pieces, he can do it all. He is coming to Oregon to teach and to host our next meeting

David will do a slideshow and lecture on furniture design. He will describe how he proceeds through his creative process beginning with his various sources of inspiration and ending with a finished product. His presentation will cover furniture, wall sculptures, wood turnings & vessels, including numerous pieces featuring his signature gilding and chemical patination process.

There will be a Saturday class at \$40 with no size limit and a Sunday Dovetail class at \$80, limited to first 15 students. Call Gig Lewis 503-646-7056 for details.

NOTE: THIS IS A FRIDAY EVENING, not the usual Wednesday. AND it's a week LATER than normal.

Directions:

Crossing the Ross Island Bridge eastbound, take SE Powell to 52nd, turn North to SE Woodward, then right on Woodward; the shop is on the corner on the left.

Board meeting at 5:30



A SIMPLE PLYWOOD RACK

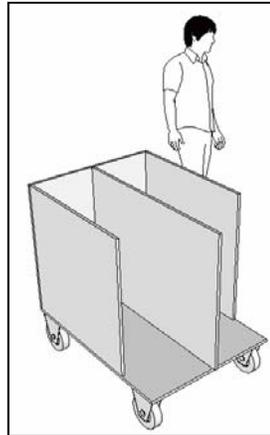
BOB OSWALD

When you knock down another bastion of shop clutter, it feels sooooo good. I've been shuffling plywood cut-offs around the shop for years. Stacked neatly out of the way, although always in the way of something, you invariably need the piece in the back. That involves pulling aside a number of pieces, and re-cluttering the shop. "I'll put that away later." And I can't stand to throw away a 1/4" sheet 10 inches square. In fact just today I needed two such pieces for the drawer bottoms of the latest project.

Having looked at a variety of solutions over a period of time, nothing has leaped out at me. One challenge was to **not** use up all my leftovers creating a mechanism to store them. In the grand cleanup related to the lumber rack, featured elsewhere in this newsletter, a nearly full sheet of particle board surfaced. Normally I wouldn't use it for this structure, not enough twisting strength. But a little reinforcement made it suffice. It got the job done, used up the piece that was on its way to the 'final' scrap pile and reduced some clutter.

Construction Details—The base is 42x36" wide. The sides are 24" tall. The center divider is full length, the sides are a little shorter—dictated by the material available.

Assembly is simply 1 1/2" square drive screws, no pilot holes, right into the edges of particle board. This is a pretty weak joint but with enough screws and the square structure,



there was ample strength in numbers. Early on the decision was made that this was not a piece of fine furniture. It was a "Get the darn job done project". The first few screws into the edge of particle are weak and tricky. Then it takes on strength and is easy to complete.

This rack has only one center divider. It was difficult to know if two dividers would too finely subdivide the storage space. I'm happy with the single divider. This rack holds half sheets.

The base is 3/4" plywood, to give better support for the casters. Two swivel casters and two straight make it a breeze to move around the shop.

I failed to get an "in construction" photo, eager as I was to get this finished and into use. Hopefully the sketch and in-use photo tell the tale.

Woo hoo... more floor space back in use.



PRESIDENT: CON'T

pretty impressive industrial equipment. During the same project, there were many hours spent in a different shop, using some very tired and by some standards totally worn out equipment. In both cases the job got done, and the results were the same. One took a bit longer to carefully use the tools.

I say that quality is more typically in the hands of the doer, not the price of the tools. So in my book that means investing in your education as much as in your tools. You get what you pay for. Now that can mean hiring folks at the fine woodworking schools in our area, or it can mean spending time in your shop, making sawdust, making mistakes. And then talking about those mistakes are the next guild meeting, or at one of our sponsors, learning from others as well as learning for the efforts..

Cheap tools. I'll have to admit that I have often turned up my nose, when certain low budget sellers are mentioned. And yet that stagecoach was built in great part with very cheap, sometimes barely adequate tools. If you learn how to work with them you can still do fine work. It just takes longer, but that's why many of us in the shop anyway, right?

I think I've mentioned this before, that my little brother only uses pine because he doesn't want to ruin *good* wood. Well, he's been making things for years now and his skill is clearly well above where it was years ago. He does nice work. He still uses pine. On the other hand, pine is pretty too... and a lot less expensive than my Cocobolo tastes;-)

So, you get what you pay for. Go make some sawdust.

Off to the shop.

VARNISH, TOPCOATS, ETC...

BOB OSWALD

More correctly known as topcoats, it's the final phase of finishing. With or without stain, there's usually a need for mechanical protection, abrasion resistance, wear.

There have been many articles printed about finishing. Each tries to clarify the mysteries of this phase of your project. As I think about the articles I've read, it is true that each one has something to offer, a different point of view. Some are touted as the ultimate. This article is just another perspective, attempting to explain the decision making process I use after three years of experiments, flubs, great results, either by plan or by accident. I hope there's something here for you.

Each finish has its primary attributes listed, followed by the reason I would use it.

When viewed by type of finish.

Wax

Quite a variety of products, antique waxes, Brie, Bison, take your pick. A soft finish that imparts a warmth to the wood and is simple to re-apply. I don't use waxes as a sole finish because they are not durable. I use it sparingly after a final hard topcoat. Sparingly means that I'm always afraid I'll have to apply another coat of 'varnish' and I don't want wax in the way

Oil

Linseed, Danish, Tung, quite a few products that are oil only. I know that's probably not the best generalization but for the purpose of this article I think of them all as pretty much the same. You can argue quality and different characteristics. That goes a step beyond. Like wax, no physical protection. However you'll get a lot more intense richness. I don't use them because of the kind of things I make. I find that they soak in and in fairly short order don't have that first applied beautiful richness.

Shellac

First you have to like the odor. I do, so it's fun to use it as a finish. Bug guts, affectionately termed by friend Rob Lewis, since it's made from the Lac Beetle. Perhaps there will be a story about shellac one of these days... it's intriguing.

It's great attributes include yellowing and quick dry. It's available in colors. I have always used natural. It's second great attribute is compatibility with other finishes, providing a barrier between, for example, oil stain and oil varnish.

Fast dry is a hazard to folks who are just getting started, so you don't want to try this one on your first project. I always spray it, like water based varnishes.

It's also available to 'mix your own' for the perfect viscosity fit to the right applications. Mixed thin it becomes a sanding sealer, to even out stain on blotchy woods. Thicker it be-

comes a protective coating.

I use it straight from the can, uncolored, for 1) a protective finish on a not too critical project like a replica strong box 2) a sanding sealer when staining blotchy or soft woods 3) to isolate so an oil varnish doesn't dissolve and lift an oil stain 4) to impart the richness of an oil varnish but where I'm going to finish with a water varnish for speedy projects. 5) because I like the smell



I use Zissner's SealCoat when I want it as a sealer. I've been deterred from the mixing process when I see articles that suggest the need to cheese cloth screen the mix to get rid of lumps. I use Zissner's Shellac for all other purposes.

Watch out, it's alcohol solvent, so it mars easily. Use it on products that won't be used near wine, etc.

Varnish

Oil based varnish contains a percentage of oil that imparts a great warmth to the wood, with or with a prior stain coat. Slow drying. I use it where the project is not being rushed. Solid abrasion resistance and a beautiful finish. On furniture I always apply with a rag, wait ten minutes and wipe off. I am blown away by the glass like first coat, absolutely dust free. Build up six coats, sanding with 400 grit wet after the 3rd one dries



A word about oil Varnishes come in urethane with no oil, a little or a lot depending on the variety. That's another science. I stick with the 10% oil level. Sam Maloof Oil/Varnish mix to take another extreme has, I believe, two thirds oil, Linseed and Tung. First time I used it the first coat was truly stunning. But I applied coats every 12 hours like normal varnish and after the third coat, it wouldn't dry any more and had a terrible buildup. My coaching here was to apply it very lightly and wait 24 hours between coats, more if you could stand it.



Water based varnish is totally transparent and fast drying. I use it on commercial jobs to get faster drying time and quicker project turnaround. An equivalent oil buildup, while I like it better, will take nearly a week. With water varnish I can be done in a day, or two at the most. I always spray it. It can be brushed but I tend to get it on too heavy and have too strong a propensity to go back and brush it one more time, leaving marks. An HFLP sprayer is wonderful. Two coats, maybe three and you've got a hard and beautiful finish.

Lacquer

No experience to offer. It dries very fast and should really only be sprayed. I know it's used in production kitchen con-

VARNISH (CONTINUED)

BOB OSWALD

struction for its hardness, luster and fast dry. I think I've heard it said that you can do all the coats for a kitchen in a day, easily.

When viewed by application

Warmth, Color

Oil varnish and Shellac give warmth to a piece. Water based varnish is totally transparent; what you see is what you will wind up with. That can be exactly what you want if you've gotten the perfect color in your work and don't want it modified by the oils in an oil varnish or shellac.

Durability

Varnish, shellac and lacquer provide scratch resistance. Wax and Oils do not. Use oils if you prefer on jewelry boxes or ornamental objects, but not a table top. Shellac is durable but alcohol soluble ever after dry, so in the presence of beer and wine, a no-no on a table top as the final coat.

Quick results

When you've got a project to get finished as quickly as possible, avoid oil based products. The water stains, varnish and shellac and lacquer are fast drying. Sprayed on, you can often recoat in an hour or two.

I have not stepped up to lacquer yet because shellac and water varnish fill the bill today.

Finish interactions

When an oil stain has been laid down, it's pretty easy to have a wipe on oil varnish lift some of the stain. Not good. A water varnish or shellac will not interact with the oil stain. It makes a good barrier as well as a final top coat.

Similarly a water based stain might welcome an oil based varnish. The mix of media works just fine and they don't interact with each other. In both cases that stain needs a good drying period after the last coat. Two to three days is preferred.

Spray, wipe or brush

I finally conquered the spray process a couple years ago, with a surprisingly cheap HVLP system, so I love the opportunity to spray.

I like to wipe oil varnishes and stains. Slower and lighter application with better control

Brush application typically gives faster buildup. Ok on flat surfaces but you have to be careful on vertical surfaces. You also need a dust free environment because the heavy buildup will capture dust particles. You get faster buildup with fewer coats.

In Closing

There are those who would take issue with some of what's said here. Finishing is an art form and there are many ways to the end result. What works for one person may not work for another. As I've been told many times by Coach Joe, "do a test piece".

WELCOME NEW MEMBERS

BOB OSWALD

James Lucht and Randy Bonella—
We're happy to have you with us. Please introduce yourself at the next meeting. I'd like to know who you are.

FOR SALE: AROMATIC CEDAR

For sale: 220+ board feet Tennessee aromatic cedar. Random widths from 3" to 6", random lengths from 80" to 100". Rough sawn, the thickness varies from a full 1" up to 1 1/4"+. (The board foot quantity was calculated using a thickness of 1"; I'm not charging for the extra thickness.) Air dried indoors for more than twenty years. I'm selling the entire unit only, will not divide. \$400.00. Photos of the wood can be seen at www.altmanbows.com/cedar.

Contact Ken Altman: 503 873-7420, ken@altmanbows.com

MEETINGS COMMITTEE

BOB OSWALD

Regis DeAndre wants two more members to help plan next years Guild meetings.

Working from a guideline of topics, it should be easier to fill the calendar with a great selection of presentations.

Please call Regis at 503-524-5949 or me at 503-985-7137

ROCKLER REWARDS

BOB OSWALD

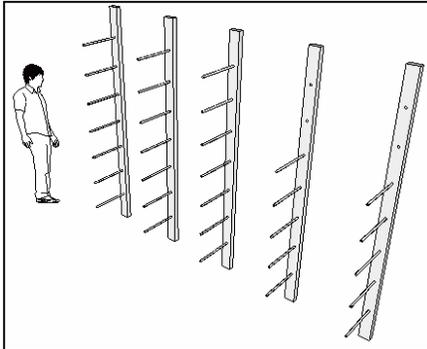
Guild members have frequented Rockler enough to generate a second \$20 gift card. These will be raffled at the September meeting at Franklin. Many thanks again to Rockler.

LUMBER STORAGE

BOB OSWALD

A friend told me about this system this summer. I've struggled for years, many, many years, to get that part of my shop cleaned up. Perhaps 2000 board feet of lumber stored on the floor, laid flat and stickered every so often, it was in a perfect storage configuration. Unfortunately that made it a useless usability configuration. With the stacks about 2 feet high, first the lumber on the bottom was simply inaccessible. Second, there was about 800 cubic feet of shop space, the air above, going to waste.

I failed to get a clean photo of this before stacking lumber being so excited with the prospects of this project, lumber started moving to the rack before it was even completely built. There were still pipes being cut for the upper levels. Truth be told, it was necessary to get some of the lumber moved onto the lower shelf to be able to walk around and even finish the project.



The system is pretty simple although it does depend on being able to drive large lag screws through the top rails and into some very firm structure. This unfinished basement provided easy access to the 8x12 timbers on which the house sits.

The uprights are simple 2x4's, laid flat against the wall. The supports are 1/2" water pipe. I used black pipe for no particular reason other than it looked better.

The outside diameter of the pipes is slightly less than 3/4" and the holes were drilled to 3/4", the closest drill I had.

I angled the holes upward so when the pipes were inserted, a tiny bit loose, they were level when loaded. Be very careful in your own application. It is possible for the pipes to come out unless you

put "set screw" bolts into the sides to secure them.

The most labor intensive step was cutting down the pipe. The purchase of 10-foot lengths and cutting to 12 to 18-inch lengths requires some intimate time with a hacksaw. But it's much cheaper than buying short lengths. This



rack will hold 10-foot lumber easily. The five 8-foot vertical supports have pipes spaced 12 inches apart, so that's 30 pipes to cut. If you have access to a metal cutting bandsaw you're in fat city.

Construction specifics:

5 eight foot 2x4

30 1/2" water pipe, 12 to 18 inches long— your choice.

I found wood I didn't know I had !!! What a delight.

NOTE: This is not an engineered design. It's strength and safety depend heavily on the quality of your materials, the anchoring bolts, how long you make the pipe supports and how heavily you load it. Use your own judgment to fit your own needs.



SUMMER CLASSES

DENNIS DOLPH

Shop Tips PART II

Full. We hope to have another class with Rob next summer.

Invisible repairs

with Lee Johnson

Saturday, October 10th, 2009

9:00 am to 4:00 pm

Lee's shop in NE Portland

Class Size: 12

\$ 40.00 for members, \$ 60.00 for nonmembers

A difference between an amateur and a professional woodworker is that a professional never ADMITS their mistakes but knows how to repair them. The amateur, on the other hand, has to throw away the piece and start over or live with the mistake.

Lee Johnson claims to have made nearly every kind of mistake, and even though he is a professional, he admits it, because he's learned to fix them almost invisibly. In this class you will learn to make long grain and edge grain patching wedges, fill gaps, repair dents, fill inclusions, and hide blemishes. The class will demonstrate important hand skills with planes, hand saws, and scrapers, and the use of a bench hook. Students will practice making a patch and a bench hook.

Wooden Plane Making

with Alexander Anderson

Saturday, November 7th & Sunday, November 8th, 2009

9:00 am to 4:00 pm

Franklin High School

Class Size: 12

\$ 140.00 for members, \$ 160.00 for nonmember

Includes plane blank, a Hock brand blade, and lunch

The soul of a woodworkers tool kit is the hand plane. Learn the process of making and tuning a Krenov style wooden smoothing plane: From choosing the wood for the body to the type of cutting iron; from cutting and assembling the body to shaping and tuning the throat. This class will guide you through the entire assembly and tuning process. We will also discuss planes for shaping and joining, as well as planing techniques and physics, which will apply to all of your planes. By the end of the class students will have made their own smoothing plane, and will know how to keep it in tune so that it will be able to take fluffy shavings for years to come.

To sign up, call Dennis Dolph at (503) 238-6319 or at damd@xprt.net. Hurry, class size is limited.

WOODWORKING SHOW

BOB OSWALD

Another year, another show. The Guild committed to being at the show this year, thanks in very large part to Clyde Hastings willingness to coordinate the show. Clyde will decide how much of the Guild "furniture" to haul into the show. He might be asking for a little help moving things.



The big place where we'd like your help is being at the show to talk about the Guild. It's easy duty and an easy job. You just tell people that stop by what you know about the Guild, why you joined, what you get out of it. No fancy memorized speeches. Hand them a brochure, invite them to join at their leisure.

For that you get 1) a sense of pride in the organization you joined and a chance to tell a few others about it and 2) free admission to the show. That's \$10 ticket this year.

The show schedule will be similar to the following table. Please call Clyde at 503-774-7416 or his cell 503-778-0364 to pick a shift period.

November 6, 7, 8 Friday 12-6 : Saturday 10-6 : Sunday 10-4

Woodworking Show Shift Times

	6-Nov	7-Nov	8-Nov
	Friday	Saturday	Sunday
10-11		3	6
11-12			
12-1	1	4	7
1-2			
2-3			
3-4	2	5	
4-5			
5-6			

FUN AND A FEW LESSONS LEARNED

BOB OSWALD

The September issue of *Wood* magazine featured this pretty straightforward project. Needing a new printer stand, attracted by the storage features and the classy look, and being a 'weekend' project, it was a welcome opportunity.

Material was chosen to be some left over Cherry. Lesson 1, about twelve board feet of material required. If you had to buy that material, over \$100. Of course you'd figure that out first before you headed for the lumber yard.

As in all projects, nothing ever goes quite as planned. Modifications was the first order of business. And a few



lessons followed as the project progressed.

One could have charged ahead and glued up the panels for the top, shelf and bottom. Notice that they

are over 13" wide, the width of most shop bench top planers. The authors worked you around this. I said no thanks. Cut the width down to 12 7/8" for the final width. Notice that extra 1/8" less than the specified dimension of the planer. My DeWalt provided too much resistance at 13".

The left slot, for my uses, need a little more subdividing, a place for a few different size mailing labels. No big deal other than keeping track of which dadoes go where. A small piece of blue tape marking fronts, sides, etc, from experience, solves the assembly order problem.

The front of the drawers was fun, and the biggest challenge because of lack of foresight. I made the drawers almost an inch shorter than the plan, to allow more room for labels above. That means that the 19 degree bevel, cut as deep as they picture, left almost no flat front. That's ok, because that drawer front became scrap anyway. Here's the long story about the fronts. It ultimate required making three sets.

Version 1) Rabbet the back side for the sides. Over cut the rabbet 1/32" without doing a test cut on the router. Scrap two drawer fronts.

Version 2) Recut and rabbet the back sides properly, then do the bevel on the table saw (at 19°). The narrow bevel was done with the board clamped to a large guide block. The long side was too short so I held it *very carefully* against the sliding guide block. But the remaining edge was so narrow that it caught in the throat plate slot. Scrap that set.



Version 3) Beveled first at 23° and not as deep. Then rabbet the back side all the way around. Perfect, except that the rabbet is only needed on the sides, not across the top and bottom. Salvage this set with some glued in filler strips across the top and bottom.

Good grief, how difficult can it be.

Assembly, as in all projects that have a fair number of parts, goes in two stages. Dry fit and clamp everything. Joints all tight, fits perfectly. There are eight parts to manipulate, top, two sides and the divider, right and left shelf, bottom and back. Apply glue and assemble in a logical sequence. It becomes a Medusa of clamps and of course two joints didn't get pulled tightly together. Ultimate fixed with some sliver patches, thanks to Lee Johnson's class last year..

The legs looked simple enough. The article didn't give a pattern, nor any suggestions about duplicating them. A look at the photo and a quick sketch produced a pleasing profile. But should I make a flush trim router pattern? It's easy to think too complicated. Just cut them on the scroll saw, five minutes total, first one for a pattern to mark the rest.

The *extremely difficult* next step was to miter then ends where they form a corner. Slam dunk with my miter jig, except I cut them all as right hand parts. Mill a little more stock and back to the scroll saw to cut the 'left' hand parts.

A wiped on coat of oil varnish really brought out even the immature color. This will look beautiful in a year, or after a few days in the remaining summer sun on the front porch.

All in all, it was definitely an achievable weekend project, fun and relatively easy. Total project time including repairs, about eight hours.



WOODWORKING SAFETY

BOB OSWALD

In an annual review of Guild insurance with our agent this month, naturally the discussion touches on the safety aspects of what we do.

This is a reminder to all Guild members that the Guild does have a Safety Guideline and Liability Release. You should refresh your knowledge by selecting the Safety menu item near the bottom of the left column on the Guild website.

We are looking into putting an annual liability notice in the join and renewal section of the website that might offload having to sign a release for each activity. Note that it is a requirement to sign a safety notice at all Guild events where participants will be using power tools. This most typically occurs in hands-on classes and community projects.



TAPER JIG UPGRADE

BOB OSWALD

In the May 2008, I published my 'newest' favorite home made taper jig. A recent upgrade has made it an even more attractive favorite. The former jig had toggle clamps screwed in place that were great for quick change of multiple pieces, but quite awkward when it came to re-adjusting for different size projects.

In hindsight that makes sense. The idea came from Bill Bolstad, clever inventor and intense user of jigs. But he makes them typically for one purpose, in his production shop. So they are not intended to be adjustable and they are designed to be very quick to use. This is production where time is expensive.

This jig appeared last month as a new product at Rockler Woodworking. Since most of the elements were already complete in my original jig, it was a pretty simple affair to modify it. You can save yourself some work and buy a good quality jig ready to go, from Rockler.

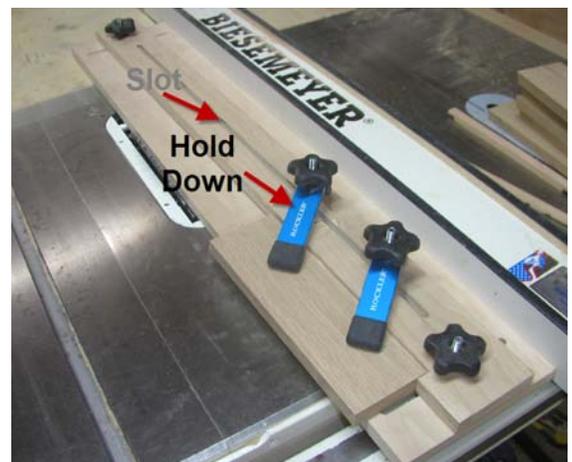
The really cool feature of this jig is the total adjustability in all dimensions. The sliding toggle clamps on a sliding carrier board allow you to quickly grip any kind of stock.

Rockler's jig rides in the miter slot so it's always locked in place. This version rides against the rip fence. The rip fence advantage is that you can have a new clean edge if you ever want one. The disadvantage, you have to be sure to hold it against the fence or you'll wind up with a non-reproducible compound taper.

The essence of the change is to cut a slot with the router down the length of the jig. The bottom of the slot is widened to accept a T-bolt. Add a couple of Hold Down Clamps and it's adjustable left/right, front/back and up/down.

If you tighten the knobs to apply a firm pressure, the center support tends to bend upward. It still provides

plenty of holding force but as you tighten the second knob, you need to be back and check the tension on the first knob as it typically gets looser. It's a balance of force and it works well. I love it. What's next? I have an idea for next month.



UPCOMING CLASSES

GIG LEWIS—DENNIS DOLPH

A peek into the future....some classes being planned:

- Invisible Repairs
- Make a Wooden Plane
- Table Saw Techniques
- Mortise Joinery
- Power Carving
- Steam Bending
- Chisel Making
- Finishing

If you have other ideas for classes, please know Dennis, Gig or Bob. Contact information on the Website

CHERRY: FAST AGING

FRANK LARQUE

I have had very good luck darkening cherry to match existing cherry by using UV heat lamps. I use the clear flood lamps. The action is noticeable almost immediately, even through existing clear finish.

Do not position them too close as they are very hot. I place them at least 10 feet away to flood the entire area that I want to darken. I can darken cherry at approximately one day per year if the wood is bare. It depends on how dark the cherry is to start. Check hourly by shutting off the lamps and holding the desired darkened part up to the new wood.

Use two lamps per 4 x 8 sheet of plywood, etc.

LAST MEETING: THE TECHSHOP

BOB OSWALD

Portland TechShop is the dream child of President Denny Cole.

The shop as 33,000 sq-ft of well lighted space, filled with tools to work in most any area of specialty. Here are some of the capabilities.

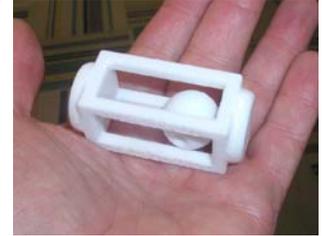


- ◆ Electronics Lab has Oscilloscopes, Logic analyzers, plenty of prototype space.
- ◆ In the Fabrication Shop you have access to several kinds of welders, cutting torches and plasma cutters.
- ◆ Finishing brings the capability to do powder coating and sand blasting.
- ◆ In the Foundry, with furnaces and ovens, you can melt and cast aluminum, bronze, and cast iron.
- ◆ Machine Shop has a good selection of lathes, milling machines, and a laser cutter to make parts out of almost anything.
- ◆ Sheet Metal Shop—tools to cut, bend, fold and weld sheet metal projects.
- ◆ Wood Shop, currently the most well equipped, has about all the tools you need for wood working projects, on a scale larger than most home woodshops, for those bigger projects..
- ◆ Industrial Sewing can upholster a chair or make a spare



time cover. Heavy duty equipment.

- ◆ A 3D printer and an Epilog laser add to some of the more high technology capabilities. The photo of a working ball in a cage, a simple example



The shop is open 10 to 8pm daily with a goal to ultimately be 24x7. Membership fee is by the month or the year.

As an example of capabilities, Gary Martin runs his pattern shop out of this location. He also teaches classes including pattern making.



10100 SW Allen Blvd, Beaverton. 503-643-7467

Drop in for a visit. See what they can do for you.

www.portlandtechshop.com



FROM SOME RECENT CLASSES

DENNIS DOLPH

Jim Hall & Frank LaRoque discuss sharpening curved gouges



How to Sharpen Everything

Instructor, Frank LaRoque, demonstrates how to use a grinder without burning the chisel.



The Guild of Oregon Woodworkers is a group of professional and amateur woodworkers like you, committed to developing our craftsmanship and woodworking business skills. The Guild offers many benefits for members, including:

- *monthly educational meetings*
- *monthly newsletter*
- *mentoring program to help members develop their skills in specific areas*
- *discounts*
- *woodworking shows*
- *network of business partners (the key to our development as members and as a Guild, providing additional learning opportunities)*
- *and a network of support.*

For information on how you can become a member, see the Guild website listed below.

GUILD OF OREGON WOODWORKERS

P.O. Box 13744, Portland, OR 97213-0744

CLASSES, SEMINARS, DEMOS, AND SUCH....

Northwest Woodworking Studio 503-284-1644, www.northwestwoodworking.com

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