Woodworking Tips

Miter Sled

Build this sled in one evening and enjoy making perfect mitered frames for years to come. You'll turn to this miter sled like a trusted friend when ever your frames and other projects require gap-free corners. The sled's T-track holds mitered-end stop blocks in position without slipping while the 25"-long miter fences provide room to camp on extended stop for extra long work pieces. A hardwood block behind the fences shrouds the blade for added safety while channeling sawdust downward into the saw.

Box-Joint Jig

Waiting until the price is right to acquire a box-joint jig? By using shop scraps, we got the cost down to zero, and came up with a method that makes the box sides interchangeable for foolproof assembly

Taper jig

Ripping table legs or other project pieces at an angle can be frustrating and even dangerous work. However, with our taper jig, you'll be able to quickly set the precise angle and safely cut leg after leg, with the first identical to the last.

Wood smith Tips;

Enlarging Tenons on Woodworking Projects

This is the time of year for garage sales here in Iowa. And I had a couple of wobbly old wooden chairs I wanted to unload. But I knew I'd have to repair them to get them to sell.

The loose joints had been repaired by an earlier owner with nails -- not only ugly, but nails don't work for long. So I thought I'd try gluing a wood shaving around the loose tenons on the rungs (stretchers) to increase their diameter and help "fill up" the mortises in the legs. Pretty simple, but it works.

First, I disassembled the legs and cleaned the old glue off the tenons and out of the mortises. The rungs were oak and the tenons were only about 3/4" deep in the legs. I had some oak in my scrap bin that was about that thick. A couple passes with a hand plane and I had some shavings -- maybe 1/32" thick.

Next I applied glue to each tenon and wrapped a shaving around them. Then, before the glue on the tenons was completely dry, I applied some glue in the mortises and inserted the tenons.

I wrapped each leg assembly in a band clamp (which seemed totally unnecessary, by the way), and let the joints dry for a couple hours. After I did all this, it occurred to me that I was really doing it at the wrong time of the year. I should be doing it in the winter time when the humidity is down and wood is at its driest. But it's too late now. If the chairs loosen up again, they're somebody else's problem.

Glue-Up Tips

All woodworkers have tips for gluing that work well for them.
Here are a few of mine:

WHITE GLUE: I use white glue instead of yellow glue to provide more assembly time when working with a complex project. I've heard people say that it's not as strong as yellow glue. That may be, but in my experience, it's strong enough.

TETHER THE CAP: To avoid miss-placing the little glue bottle cap, tether it with a piece of string tied to a wire brad stuck in the end of the cap. As I read this, it sounds like a silly tip. But I have wasted more time than I want to admit searching for caps.

"MUSTARD" GLUE BOTTLE: To avoid the lost cap problem all together, store your glue in a mustard bottle. It's free, airtight, and it has a handy twist cap.

FORCING GLUE: To force glue into a tight spot like a crack, put a little dab of glue where you want it and then blow it deep into the tight spot using a straw. Sounds crude, but it works.

SPREADING GLUE: An old toothbrush (or a new one) makes a terrific glue spreader in some applications like spreading glue on edge of a board. It spreads the glue evenly, and it's easy to clean up. If you've got to cover a large area in a short time, use a 2" or 3", short-napped paint roller.

INSIDE CORNER SQUEESE-OUT: Before assembly, apply a piece of masking tape along both sides of a joint line along an inside corner. The excess glue oozes out onto the tape (mostly) and saves you some time cleaning glue out of the corner. If you don't like tape, try scooping out the excess glue with the end of a plastic straw. The soft plastic takes the shape of the corner as you move it along the joint line.

FREE SCRAPER: When gluing up panels, try using a plastic clip from a bread bag to scrap away freshly beaded or skinned-

over beads of glue along a joint line.

Rubbing Out a Finish on Woodworking

I got a question about a technique called rubbing out a finish. I remember doing this to my car as a teenager, but I've never tried it on a piece of furniture. So I asked the guys at ***ShopNotes*** how it works.

The secret to getting a "perfect finish" isn't how you apply the finish, they said. It's what you do after the finish dries. That's where rubbing out the finish comes in. By removing flaws in the finish caused by dust particles or brush marks, it makes a finish feel smoother. And it improves the look of a finish by creating a nice even sheen (gloss or satin).

But before you get started, you need to build up the thickness of the finish. How thick? That depends on the finish and how much sanding you do between coats. They suggest five or six coats if you're going to use this technique.

Although it may be tempting to rub out the finish as soon as it dries, it's best to wait a while. By giving the finish time to harden (at least a week, but a month is better), you're more likely to get a uniform sheen.

When it's time to rub out a finish, the basic idea is simple. You use a series of progressively finer abrasives to create a pattern of tiny scratches -- just like sanding a board.

The size of these scratches determines how much light is reflected. So depending on where you stop in the process, you can get either a satin or gloss finish.

Regardless of the look they're after, they start by wet-sanding the finish with soapy water and 1000-grit silicon carbide sandpaper. A film of soapy water helps to keep the sandpaper from clogging. And a rubber sanding block ensures a flat surface.

The thing to watch is that you don't accidently cut through the finish. So check your progress frequently, and continue to sand until you get a dull uniform sheen.

Next, to bring out the satin sheen, switch to a powdered abrasive called pumice. Here again, use soapy water and sprinkle on the pumice (they say a salt shaker makes a handy applicator). Use a felt block to rub the pumice evenly across the surface, and then wipe it off.

After you've wiped off the remaining pumice and checked for a consistent sheen, you may want to use rottenstone to rub the finish to a high gloss. It's applied the same way. But it makes smaller scratches that create a shinier surface.

Finally, to get a mirror like surface, you can apply a polishing compound and buff it out. Pumice, rottenstone, felt blocks, and rubbing compound are available at woodworking stores and from mail order sources.

Table Saw Safety

I have been wanting to write something about shop safety for a while, but couldn't find a good way to get into it. Fortunately someone else did it for me.

D'Arcy McLean (who I believe is a subscriber to this mail list and also a contributor to our woodworking forums this week posted the question, "How many people use their table saws without the blade guard?

He says, "In the school shops and home shops that I've seen, the blade guard is never on. I'm wondering why? Is it possible that the blade makes the tool unsafe because you cannot see where the blade is?"

These questions attracted a lot of response. Here are some of my favorites:

Richard responded, "I tried the thing for a couple of weeks 5 years ago. I do too much cutting that requires the removal of the blade guard to keep putting the thing on and off. I have seen one that might work though. It's an overhead attachment so it doesn't get in the way of cutting slots and the like. The other thing I do a lot is lower the blade below the table when I am finished using the saw."

Tractor Man wrote, "Every school shop that I have been in has a guard in place, though they are not actually used at the local tech school. My old Walker-Turner saw didn't have a guard when I got it. I am careful to avoid the blade by using push sticks, etc., but every saw should have a guard. Slip-ups can happen no matter how careful you are! A guard should be used whenever possible. No, I don't practice what I preach but that's another story. By the way, I bet that Norm Abrams doesn't remove his guard "for clarity," I bet he took it off and threw it away!"

Pat Scida said, "I never use the blade guard. The blade guard that came with my Delta Contractors Saw was just not helping so I took it off. I ordered an anti-kick back accessory and that problem is taken care of when I'm ripping...."

Mark H. sees the other side of the blade guard question: "I have stitched many people back together after a close encounter with a table saw blade. I always ask if they were using the blade guard. For the most part they were not. It is unfortunate that popular woodworking shows like the New Yankee Workshop do not show blade guards in place. I'm guessing this is done for clarity of the picture, but a disclaimer should be shown.... I do note that Scott Phillips in the American Woodshop does use guards all the time and talks safety all the time. Bottom line: Use the guards. They are there for a reason."

Jim Toews echoes those views. "I work in an emergency room and have seen a fair number of table saw injuries over the years. In each case, the patient said he had not been using the guard. I always use the guard on my saw.... Although I type with only two fingers, I still have all ten."

And Paul Mayer has been there: "I used my saw without the guard, until I ripped my right index finger (that's right, ripped, not crosscut). The accident would not have occurred if I would have been using the guard. It's a little extra work, but just do it. As my woodworking mentor has coached me: 'Be smarter than the board.'"

And finally, Mark Zod relates that he reluctantly bought an aftermarket guard that cost around $350. "I bought it despite the cost, based on something I learned when taking flying lessons. It turns out that most small plane crashes don't happen to beginners. They are too nervous and their adrenaline is way up. The long timers also have good records from their extensive experience. It's those guys right in the middle, not the beginners and not experts, who think they know what they're doing that get in trouble. Getting only a few hours of woodworking in a week, I'm going to be right in that middle category for a very long time."

And I think most of us are in that category, too.