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JANUARY MEETING HIGHLIGHTS

Wes Guidry was our speaker in January and he described how you can make sandblasted wooden signs for yourself and friends.

Abrasive blasting uses high-pressure spraying (blasting) of an abrasive onto a partially masked substrate. As the sand is sprayed onto the substrate, it erodes away any unmasked areas of the substrate. Areas that remain masked are protected from the erosion process and remain dimensionally higher than the eroded, blasted areas. Because sand is often the abrasive of choice within the sign trade, the abrasive-blasting process is commonly referred to as "sandblasting," regardless of the actual abrasive used.



As with any sign, substrate selection is an important consideration. When you sandblast, the texture and/or flowing grain you're creating becomes an integral and dominant part of the sign's appearance.

The grain can enhance simple design elements or compete with a complex and intricate layout. Plan accordingly; choose a substrate that — when blasted — will yield the texture you seek.

When blasting wood, use boards that have less than a 12% moisture content. Wet wood blasts poorly, weakens glue joints and allows the wood's internal chemicals to leech through the sign's finish. Look for wood that's knot- and stress-free to limit dimensional distortion. Also, wood with a high density is difficult to blast, but is more durable than wood with a low density.

Some commonly used wood substrates for sign work are: Redwood (17-lb. density): Environmental concerns have made commercial redwood panels increasingly scarce and expensive. Two types of redwood exist: coastal redwood and inland redwood. Inland redwood, harvested from naturally fallen trees, is less likely than coastal wood to exhibit harsh ridges (fins); thus, it allows deeper blasting and facilitates background painting.

Western red cedar (19-lb. density): Like redwood, this wood is dimensionally stable and weather resistant. Its texture falls between coastal and inland redwood.

Balsa (10-lb. density): Although it's a very porous wood, this material takes longer to blast than redwood.

Mahogany (35-lb. density): This material takes longer to blast than even balsa and yields a very flat effect. For outdoor use, it must be fully sealed and painted.



Once you've selected narrow, quality planks from the substrate of your choice, butcher-block laminate (glue) them together. Gluing planks together (as opposed to a single, wide panel of wood) yields a stronger sign that's less

apt to warp in the long run. When laminating, make sure that each board fits well with its neighbor. Use plenty of type 2 or 3 glue in the joints and clamp the boards together until dry. Once they are dry, chip the dry glue that's seeped out of the joints. Stone materials are blasted in much the same way as wood. Metal abrasives work best for such applications though; use them at 100 psi. When blasting tile, remember that you need only etch off the glazing; you don't need to deep blast.

Glass is perhaps the "trickiest" substrate to blast because — unlike all others — it is actually blasted in reverse. That is, you blast the back side of the glass — not the front. Even though you're blasting the back surface though, it's still a good idea to completely mask the front. Doing so protects the glass from scratches. Locally Dunham-Price does custom sandblasting for \$25 and up.

ABOUT OUR SPEAKER

Robert Inman of Classic Doors, Inc. will be our speaker this month. Classic Doors is a member of the National Association of Home Builders and services home centers, cabinet shops and builders throughout Louisiana and Southeast Texas. They also build custom fine cabinets for new and existing homes. Mr. Inman is a Master Cabinetmaker and will discuss and show examples of cabinet construction, framing and the many tips and techniques he has learned over the years. Classic Doors has a website at www.classicdoors.com.

NOT! FOR SALE

Member Burl Vincent has lots of wood he wants to dispose of: Zebra, walnut, mahogany, oak, pine and more. Call him or go by his shop. It's free.

February 12th, Saturday, 9:00 a.m. Robert Inman of Classic Doors, Inc. See Map

March 11th, Saturday, 9:00 a.m. Precision Wood working and jig making with Gene Young.

April 8th, Saturday, 9:00 a.m., Steve & Terry LaGrue from The Cutting Edge

May 13th, Saturday, Dr. Joe Cash, La. Preservation Association. Restoring Old Homes

DOWEL JOINTS

Dowel joints are one of the easiest — and cheapest — methods of fastening two pieces of wood together. The technique is ideal for joining two flat pieces together to form a larger flat surface.

The construction is easy. Take two pieces of equal length wood. Decide now which side will be the top and which the bottom for each piece and mark the top side of each so that you do not forget.

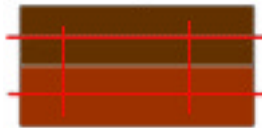
Clamp both pieces together, one on top of the other,

with the bottoms face to face in the middle. When clamping, ensure that the two surfaces along which you plan to join these pieces of wood are level with each other (see diagram left).



Draw a line down the middle of each surface to be joined. This must be exactly the same on both pieces of wood, otherwise when they are joined there will be a step at the joint. Once this line has been drawn, using a set square mark lines across the grain of the wood (see second below). The intersection of the length and width lines show where the dowel holes will be drawn. There is no hard and fast rule for how many dowels should be used. However, the heavier the weight of whatever will be on the surface, the more dowels should be used. Typically, one dowel per foot is a good rule (with a minimum of two).

Mark the middle of both pieces



Once these lines have been drawn you can then proceed to drill the holes at the marked intersections. The drill bit used should match the diameter of the dowel being used, thus ensuring a tight fit. As for the dowel itself, you can either make your own small dowels from a longer length, or you can buy dowel made specifically for this reason. The latter option is a far better solution, as the small dowels are beveled at the ends to make it easier to put them in the holes, and are ribbed to allow the glue to bond more efficiently. Each hole should be just over half as deep as the length of the dowel being used.

Once the holes have been drilled, glue one end of each dowel into the holes in the first piece of wood. Then place glue along the full length of the second piece, ensuring that some glue falls into each of the holes.

Unclamp the two pieces and push them together, ensuring that the two top markings are facing up. Once done, clamp tightly overnight. Be careful when you clamp them to make sure that both pieces remain flat and do not try and warp upwards. To avoid this, it may be necessary to clamp the entire piece down to a flat surface. From *Amateur Woodworker*.

Visit the Woodworkers new website at <http://org.laol.net/woodworker>

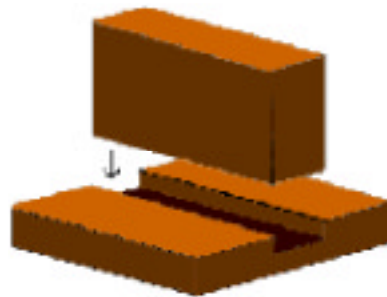
SLOTTED TENON JOINTS

Slotted Tenon joints are typically used as a method of fixing shelving into a unit's shelf walls. However, it can also be used for a number of other purposes.

The idea of a Slotted Tenon joint is that only one of the two pieces of wood needs to be modified in order to attain a good, tight fit. To do this, one piece has a slot made into it that is the same width as the thickness of the second piece of wood. This latter piece of wood can then be pushed into the groove, making a strong, right-angled joint.

The most effective way of creating the groove (or slot) is to use a router. It is also common to use a radial arm or tablesaw to create the slot. Although a chisel can be used, the quality of finish will not be the same (and it takes far longer to make).

Be careful when making the slot to ensure that it is not too wide, otherwise the joint will not be tight enough to work. It is far better to start with too tight a groove and widen it. A router is not always the best tool to use however. If the groove is to hold a piece of 1/4 inch (or smaller) plywood, you should use a circular saw instead, changing the depth of cut to as little as 1/4 inch. This smaller cut is ideal when making the joint for a back panel of a cabinet. From *Amateur Woodworker*

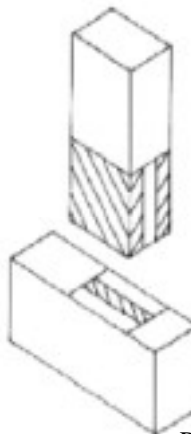


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TENON AND MORTISE JOINT

A tenon and mortise joint is one of the classic joints that every woodworker should know. It is the fundamental joint that has provided the basis of more recent joints such as the finger joint. When reading the below explanation, keep in mind that the Tenon is the piece of wood that slots inside of the mortise (which has a hole cut into it that matches the size of the tenon).

1. Calculate the size of the tenon joint. The size of the tenon is the same as the width (not depth) of the mortise wood. So, if the mortise is 2" wide, the tenon will be 2" long. Mark all around the tenon.

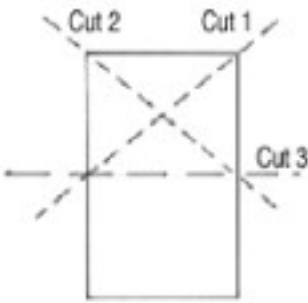


2. Calculate the width of the mortise. As above, this hole is relational to the size of the tenon wood. If the tenon wood is 2" wide, then the mortise will be 2" long.

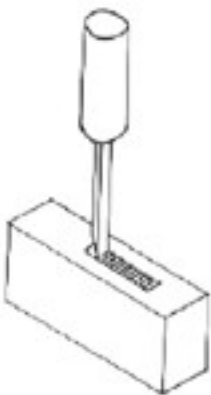
3. Mark out the width of the mortise. The width of the mortise is calculated as being 1/3 of the wood's thickness. Use a mortise gauge to mark both sides of this hole. Then, use this same measure-

ment to mark the thickness of the tenon piece, thus reducing the risk of introducing an error.

4. Once both pieces are marked, it is time to begin the cutting process. Use a tenon saw to cut the waste away from both sides of the tenon. Be very careful that you do not cut into the tenon itself. Although it is tempting to cut straight down into the tenon, a safer way is to cut at a 45 degree angle, as shown in the diagram, before finally cutting in a horizontal manner. Doing this reduces the risk of cutting into the tenon on the side furthest away from you (see diagram above).



5. Cutting the mortise requires a little more delicacy. Start in the middle of the mortise and cut down with the chisel about 1/4". Then, move the chisel backwards about 1/8" and repeat the process; and so on. Do not move back all the way to the end of the mortise, but instead leave about 1/8" untouched at either end. Once you have done the entire length of the mortise, scrape out the loosened waste wood. Then begin again, cutting down another 1/4" and so on. Once you are down to just over half-way down into the joint, turn the wood over and start in from the other side. Once the hole is made, clean up both ends, cutting back that extra 1/8".



6. Finally, glue the tenon into the mortise. If the fit is less than perfect, use small wedges to make it more solid. From *Amateur Woodworker*.

CHUCK CUFFS

If you own a lathe and you use a three-jaw or four-jaw chuck, you have probably developed a healthy respect for the damage that can be done by jaws projecting from the chuck body. With the chuck spinning, any projections from the main body are virtually invisible.

One way to make the projecting parts visible and minimize the damage that they do if they are inadvertently touched, is to put a band of some sort of stretchy material over the chuck to pad it and to make it visible in rotation. A brightly colored rubber band is good if you can find one wide enough to cover all of the offending parts.

Alternatively, elasticized fabric for making suspenders works well and that is what we use to make our chuck cuff. We have also butt-jointed the fabric so that it can be used without unbalancing the chuck at all. An overlap seam or welt would provide a weight bias.



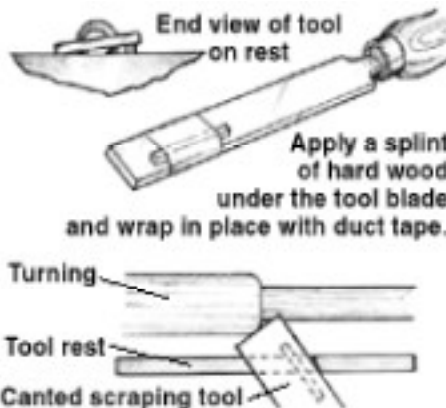
Whether or not you buy a chuck cuff from us to make one, do yourself a favor when you are turning and at least put a strip of duct tape around your chuck to protect yourself. Another alternative you might like to consider is building a very simple ply-

wood guard that you can adjust to shroud the chuck. After you have had your knuckles rapped once or twice with chuck jaws, any of these solutions will begin to look attractive. From *Leevalley Tools Winter/93* - This is a VERY good idea as your editor got his knuckles busted recently!

WOOD TURNING VS. WOOD SCRAPING

Some experienced woodworkers doing artistic shapes will tilt their turning tools and maneuver them axially along the workpiece. This produces a slicing action on the wood fibers and a smoother finish. On the other hand, this kind of turning requires more skill and there is greater risk of "digging in" and damaging the work.

The beginner will usually want to hold the tool flat and firmly on the rest and advance it cautiously into the workpiece. This changes the slicing action into a scraping or tearing action with a rougher finish. The beginner will then compensate by using a greater variety of tools and using more sandpaper to finish up. Unfortunately, the beginner may be driving wood particles back into the grain, thus spoiling the appearance, especially if a transparent finish is to be applied.



Not all so-called "scrapers" are beginners. Patternmakers invariably scrape to the finished shape because this method offers more control and a mechanical shape that is exactly "to the drawing".

The diagram shows how you can quickly modify a flat tool to produce a slicing action while still avoiding the risks of canting a tool on the tool rest. The fact that the tool rests on the tape and on the wood underneath instead of resting steel on steel can be an advantage. There is less vibration, less noise, and a better feel to the work. From *Leevalley Tools 6/96*