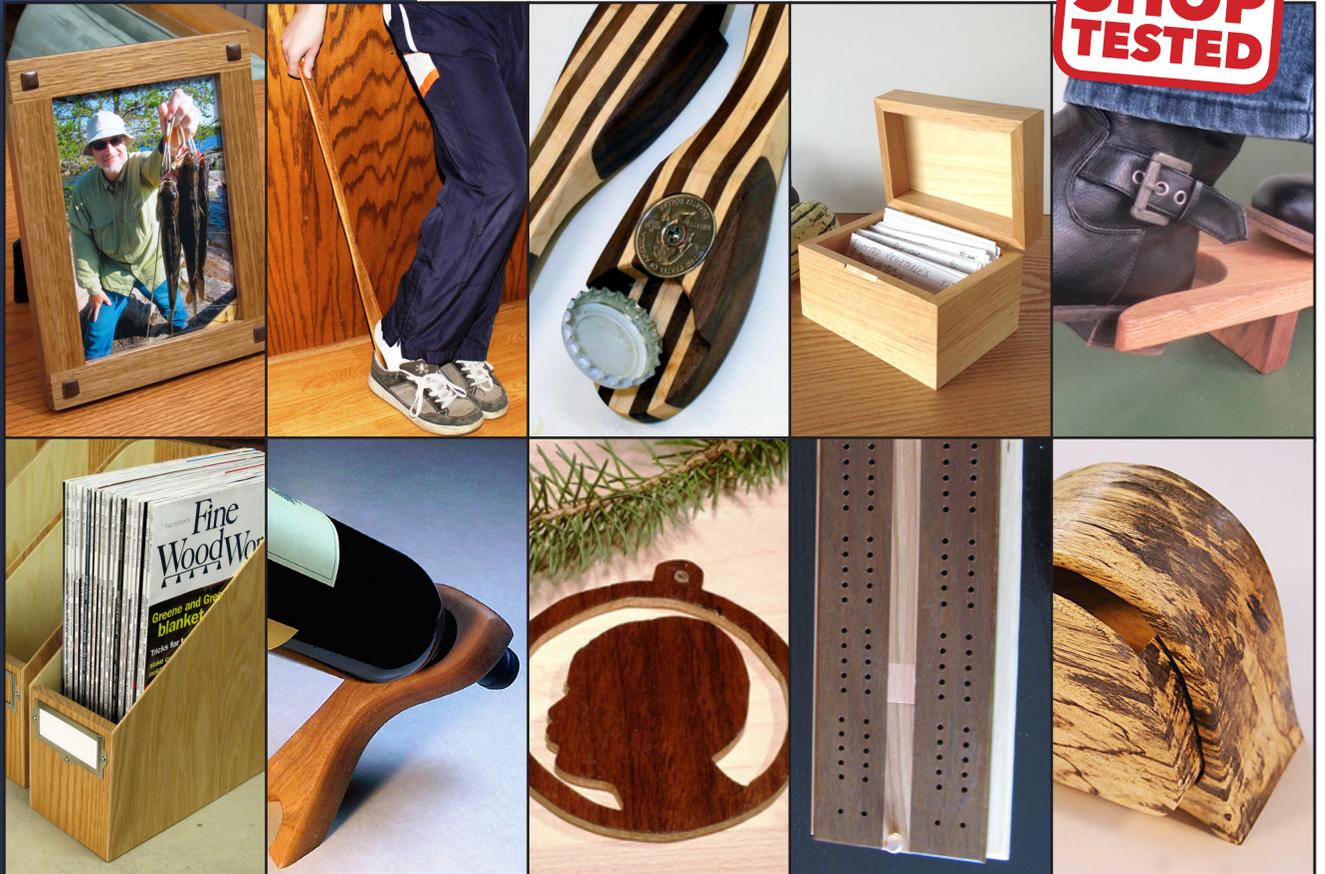


**SHOP
TESTED**



10 QUICK AND EASY WOODWORKING GIFT IDEAS

BY: SETH KELLER, BRUCE KIEFFER, PAUL MAYER, VERNON MAYER,
AJ MOSES, DAVID RADTKE, GEORGE VONDRISKA

If you're in a bind for holiday gift ideas, look no further. In this project guide, we've compiled ten of our favorite fast and easy project ideas that you can whip up in no time. Armed with some basic woodworking techniques, a handful of supplies, and a couple hours of time, you can create thoughtful and creative gifts that your friends and family will love.



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CRAFTSMAN PICTURE FRAME

BY BRUCE KIEFFER



So you got yourself in a bind and you still need to make a few last minute gifts for the holidays? This attractive, straight-grain rift-sawn white oak and walnut picture frame, with its decorative protruding plugs, is probably just what you're looking for.

Learning how to build a picture frame and finishing it will take you about four hours over four nights. To super simplify the construction, you start by buying a cheap picture frame from a department store. I went to Target and bought a "Room Essentials" brand frame, in my desired size. For \$8, I got the glass already sized, the back with its horizontal or vertical stand and wall hangers, and the turn buttons and bracket to hold all the "guts" in the frame. Go to your local big box store and look for a frame that will work for your needs. Just make sure you buy one that uses overlay turn buttons, and has a 1/8" thick back. This simplifies the process when you're learning how to build a picture frame.

CUTTING LIST

Overall Dimensions: 8-3/4-in. tall x 6-3/4-in. wide and 3/4-in. deep.

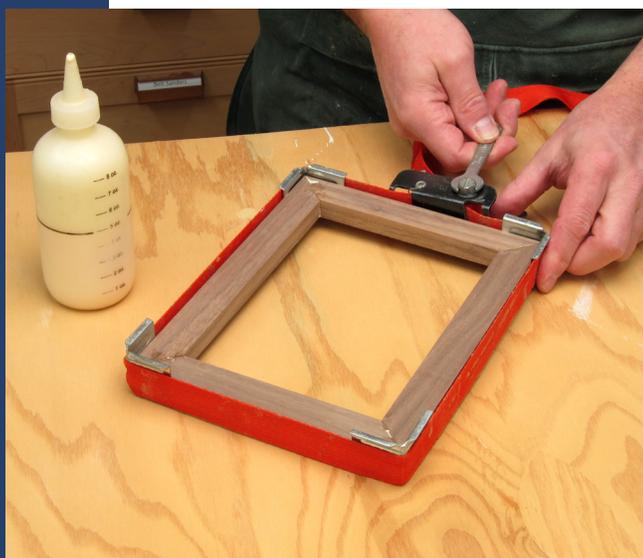
Part	Name	Qty	Material	Dimension
A	Side	2	Walnut	1/2-in. x 7/8-in. x 8-3/4-in.
B	Top & Bottom	2	Walnut	1/2-in. x 7/8-in. x 6-3/4-in.
C	Frame Front	4	White Oak	1/4-in. x 1-in. x 6-3/4-in.
D	Plug	4	Walnut	5/16-in. x 3/8-in. x 3/8-in.
E	Glass*	1		5-in. x 7-in.
F	Backer	1	Poster Board	5-in. x 7-in.
G	Filler	1	Plywood	1/4-in. x 5-in. x 7-in.
H	Back with Support*	1		5-in. x 7-in.

* These items are scavenged from a picture frame you purchase at a department store. I used a Target "Room Essentials" brand "Style" 5 x 7 frame model #074152037. Go to your local Target store and ask for that frame.

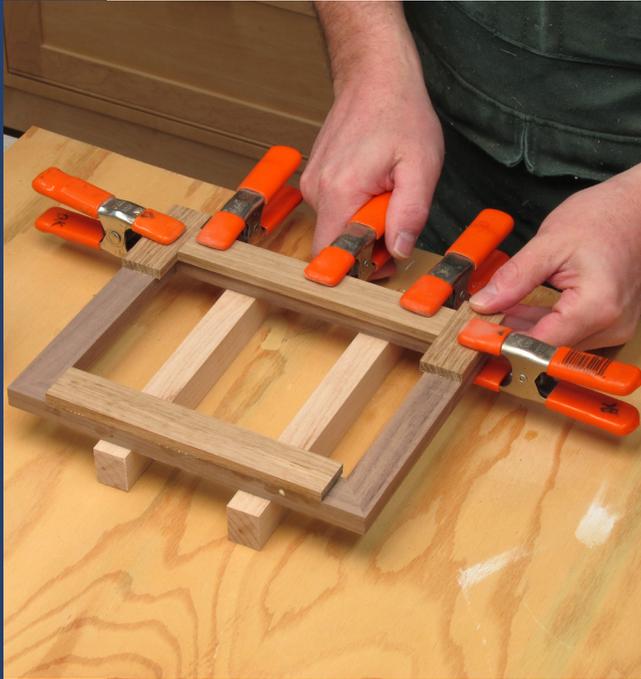
Turn to page 7 for an exploded view of the picture frame. My frame, on top of a mitered frame design, serves three purposes: It allows for the use of contrasting woods, the construction is much stronger than just a mitered frame, and there's no routing or sawing needed to make a rabbet for the

glass, picture and back. Making the plugs and chopping (cut with a wood chisel) their square holes is the most challenging aspect of the construction. Don't fret, I've got tricks for you that will make that easy during this process of learning how to build a picture frame. OK, times a'wasting... Let's get started.

BUILD THE FRAME



Cut the walnut frame pieces (A & B) to size (see cutting list) and miter their corners. Make the width of these pieces just a smidgeon (1/64" to 1/32") narrower than 7/8". This will ensure the frame inside dimension is at least 5" x 7" so the glass and back will fit in your assembled frame. Double-check these dimensions. Glue the frame together. Use a band clamp or masking tape to hold the pieces together as the glue dries. Make sure the corners are tight and the frame is flat. Sand the top and bottom of the walnut frame.



Make the white oak frame front pieces (C), and glue them on top of the walnut frame. Use two oak frame front scraps to align the frame front sides pieces. Make the outside edges flush. Sand the edges smooth and clean up any oozed glue in the rabbet.



Drill the plug holes. Drill 3/8" dia. x 1/4" deep holes centered in each frame corner. This removed most of the waste prior to chopping the plug holes square with a chisel. Finish sand the frame and ease the sharp edges.

MAKE THE PLUG STOCK AND SQUARE HOLD CHOPPING JIG



Cut a 3/8" x 3/8" x 20" piece of walnut to use for your plug stock and chopping jig. Accuracy is important; use a micrometer to confirm that the width and thickness are equal and visually inspect the ends to confirm the piece is square. Slightly larger than .375 square is good to ensure the plugs completely cover the holes drilled in the frame face.

Make the square hole chopping jig next. I devised this jig after my last attempt to chop square holes was less than 100% successful! The jig makes this task much easier and near foolproof. Cut two 3" long pieces and three 1-5/16" long pieces from the plug stock stick. Make sure the ends of these pieces are absolutely square. Glue the pieces together using another piece to define the square hole in the jig's center. Pull that piece out after the glue has set for a few minutes. Assemble the chopping jig and sand the faces of the chopping jig to remove any glue.



Clamp the chopping jig over each drilled hole on the frame face and chisel the holes square. Tap the chisel lightly at first and go around and define all four edges. Hold the chisel 90 degrees to the frame and tight against the sides of the jig. Make sure the holes are completely clear of obstructions so the plugs will go in unimpeded.

MAKE THE PLUGS AND FINISH



Sand the ends of the plug stock stick, making them "pillow" shaped and smooth. I sanded a pyramid, then smoothed that using a foam sanding pad. Cut the plugs (D) to length. Glue and tap the plugs in the frame. Be sure to orient the grain so they are mirrored images of each other. Apply two coats of clear spray lacquer.

Make the backer (F) and filler (G). Make extra backers to fill the full depth of the frame rabbet if necessary. Remove the turn buttons and bracket from the store bought frame and attached them to your frame. Let the finish dry, wrap the frame, and put it under the tree!

**Craftsman Style
5x7 Picture Frame
Exploded View**

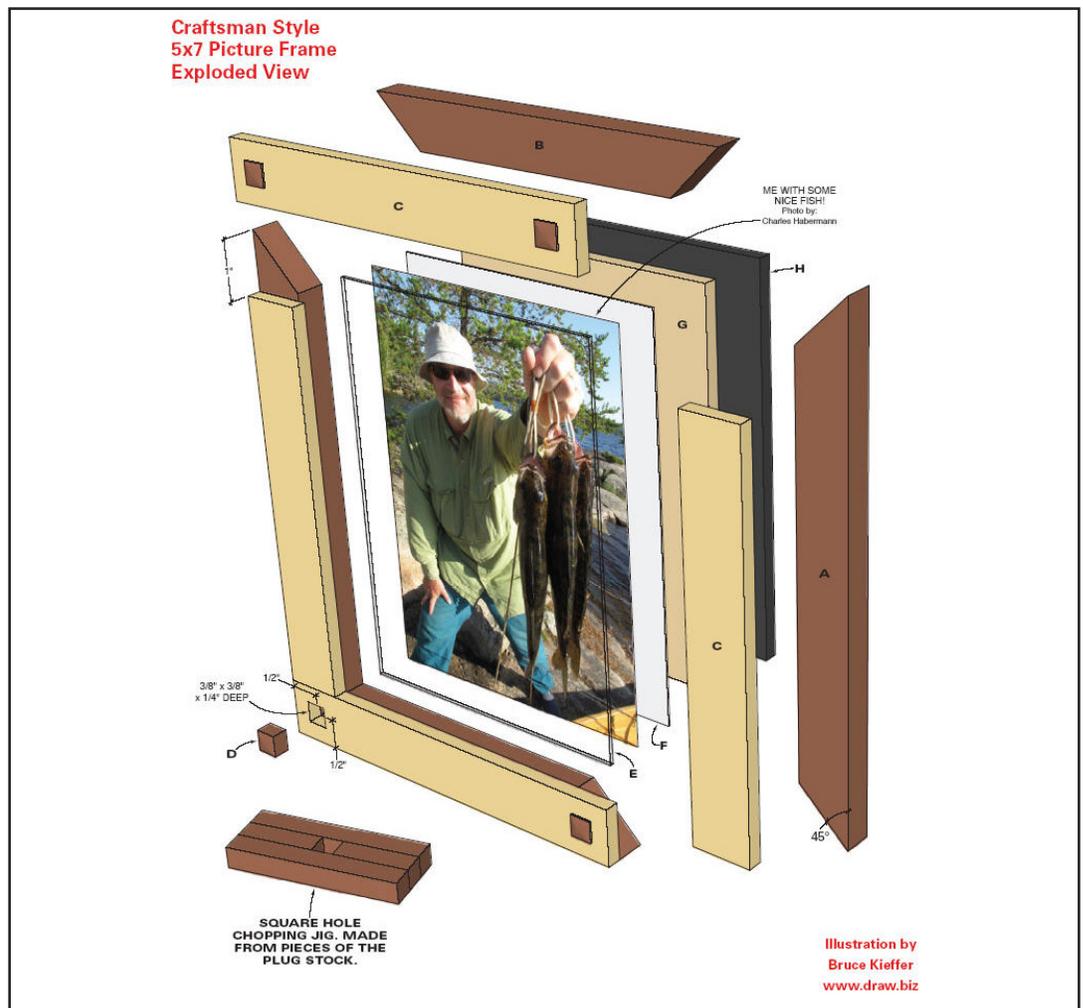


Illustration by
Bruce Kieffer
www.draw.biz

LONG HANDLED SHOE HORN

BY PAUL MAYER



With a family history of back problems, I am always on the lookout for items that can help to minimize wear and tear on my lumbar. A couple years back a friend told me about the long handled shoe horns that commonly hang next to the doors of hotel rooms in India, and I was intrigued so my father and I experimented on different ways to build them. We ultimately settled on the simple approach described here using a belt sander and a band saw. My father now sells these in his woodworking business and he gets rave reviews from customers as they enjoy this simple luxury. The process of making these is somewhat of a sculpting affair, rather than a matter of mathematic precision, which makes it a fun project. And believe me I am no sculptor so if I can make them, you can as well!

PICK A BLOCK OF HARDWOOD

This is a great project for scrap wood because you only need one small board. I generally make them about 20" long, but the one I have crafted here is about 30" long simply because that was the size scrap that I had handy and it was a nice piece of quarter sawn white oak that I had been saving for a special project. Choose a relatively hard species because the tip will get pretty thin and a softer species

will be prone to cracking. I have made these out of maple, walnut, cherry and oak and these all work great. When I make them I just eyeball everything, but to get you in the ballpark you will want to start with a block of wood that is a minimum of 15" long by 3" wide by $\frac{3}{4}$ " thick.

SKETCH A SHAPE



The flute that will be inserted into the shoe should be at least 6-8" long to allow it to gently taper to a thin tip that can be easily inserted into the shoe. I typically make this at least 10" or so. Other than that, the shape itself is not critical as long as you make the sides as symmetric as possible.

SAND OUT A FLUTE



Using a coarse grit (36-60 grit or so works well) on a belt sander rough out the flute. With 36 grit paper I can perform this task in only a couple minutes. Work slowly using the nose of the belt sander, moving it gradually across the length and gently rocking it back and forth to make a smooth flute. Taper it to a thickness of approximately 1/8" at the tip of the shoe horn. You will refine it further later, so don't try to go too thin in this step. Once the desired thickness is reached, sand with progressively finer grits until most of the deep sanding grooves are gone. Take it to about 120-150 grit in this step.

DRAW A ROUNDED TIP



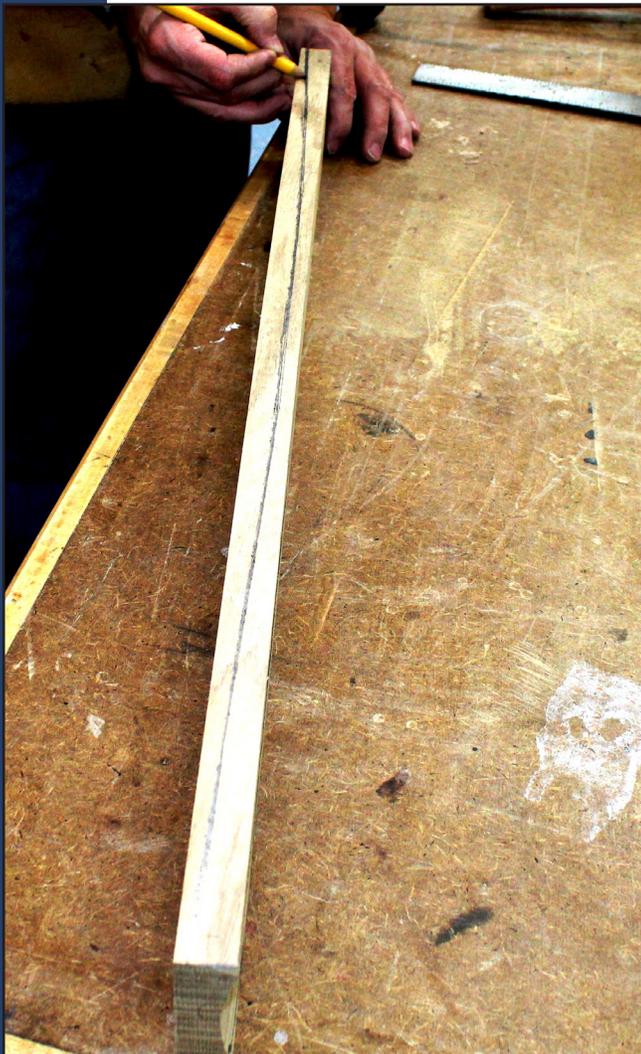
Use a round object to trace a half circle on the tip of the shoe horn, which makes it easier to slip into the shoe.

DRAW THE SIDE PROFILE



Draw lines that taper toward the tip of the shoe horn, and then taper the handle toward the back, making it easier to control when using it because it keeps the handle tipped slightly away from the body.

SMOOTH TRANSITIONS ON LINE



If you used a straight edge to draw a curved profile like I did, smooth the transitions by hand.

CUT THE SIDE PROFILE FIRST



Leave about 1/16" of material outside the line so that you can sand to the line later.

PUT IT BACK TOGETHER TEMPORARILY



Tape the off-cut piece back onto the shoe horn to provide a stable surface for cutting the top profile.

CUT THE TOP PROFILE ON A BAND SAW



Cut around the perimeter, again leaving a small amount of materials outside the line.

DRILL A HOLE FOR HANGING THE SHOE HORN NEAR A DOOR



SAND THE REST OF THE PROJECT



Use sand paper to taper the tip to a gentle point and smooth the rounded surface that was cut on the band saw. I sand everything with a random orbital sander through 150 grit, and then hand sand through 400 which is probably overkill but it only takes an extra minute or so and I like the results.

APPLY FINISH



I like to use a good abrasive resistant surface finish like polyurethane on these, as they will take a lot of abuse over the years.

USE IT!



This 30" shoe horn requires virtually no bending to put on shoes.

MAGNETIC BOTTLE OPENER

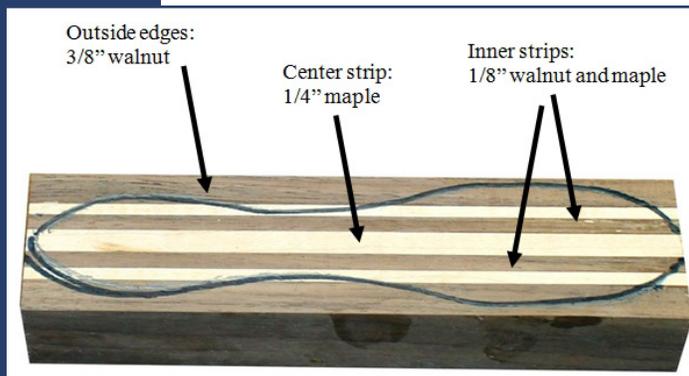
BY PAUL MAYER



This bottle opener is sure to be a hit with your any recipient, as it is unique, useful, and artful. The opener uses a US quarter as the mechanism to open the bottle and, as an added convenience, a concealed rare earth magnet catches the bottle cap. I chose to use

strips of maple and walnut because I love the contrast of these two species, but you can use any hardwood(s) that you'd like. Avoid softwoods as these would likely get dented during use.

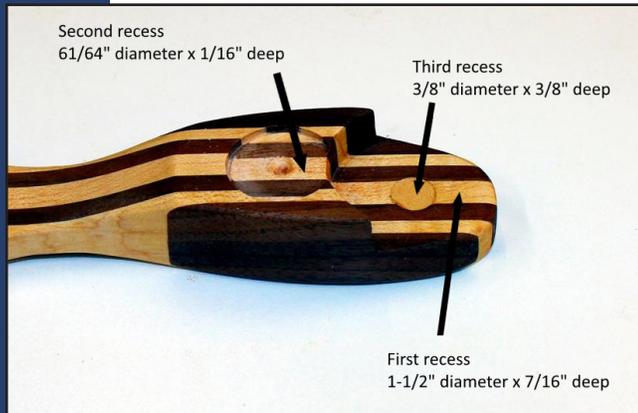
START BY CONSTRUCTING A BLANK



Whether you use a single species or glue up strips as I did, you want to start with a blank that is 1-1/2" wide x 6-1/2" long x 1" thick. Make yourself a tracing template from the pattern provided (page xx) and trace the outline onto both sides of the blank, ensuring that it is centered each time.

The pattern that I created on the blank consists of the following (see photo at left).

THE DRILL PRESS PHASE



Set up your drill press with a fence set 3/4" from the center of the drill bit. This will be directly in the center of your blank's width. The drill press will be used to make three recesses in the blank, as well as to cut plugs that will conceal the magnet.

FIRST RECESS



Position the center of a 1-1/2" forstner bit 3/4" from the end of your blank. Plunge a recess 7/16" deep into the blank.

SECOND RECESS



Position the center of a 61/64" forstner bit so that it overlaps approximately 1/8" with the recess milled in the previous step. The size of this overlap is important as it establishes the lip that is used to pry off the bottle cap. If the lip is too small it will not effectively open the bottle, and if it is too large, there is a risk of cracking the bottle or prying the quarter loose. The depth of the recess is 1/16", which is the thickness of a US Quarter plus a small amount for sanding. Check the fit and "sneak up" on the correct depth so that you achieve a perfect flush mount of the quarter.

THIRD RECESS



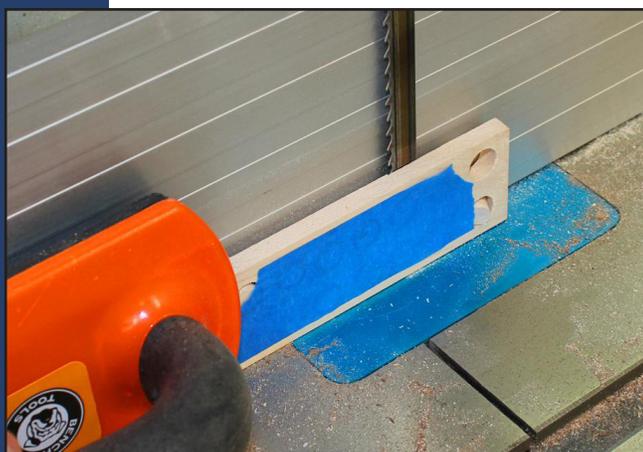
Position the center of a 3/8" forstner bit directly over the same spot that the 1-1/2" forstner was positioned in the first recess operation. Drill a 3/8" deep recess into the blank, which will allow room for a 1/8" thick rare earth magnet as well as a wooden plug to conceal it.

CUT PLUGS



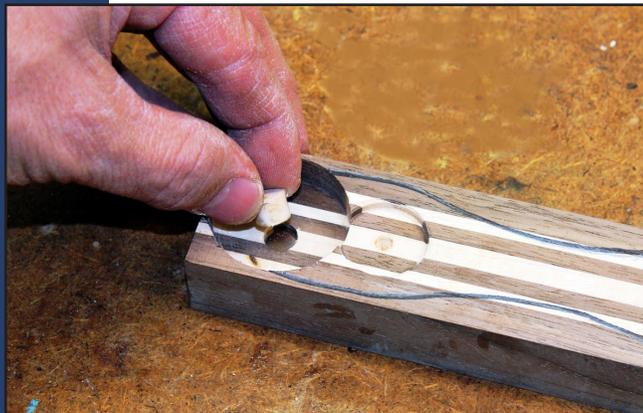
Using a 3/8" plug cutter, make some 3/8" long plugs. I used maple for the plugs, but you can choose to match or contrast with the species in which you will be inserting the plugs.

REMOVE PLUGS.



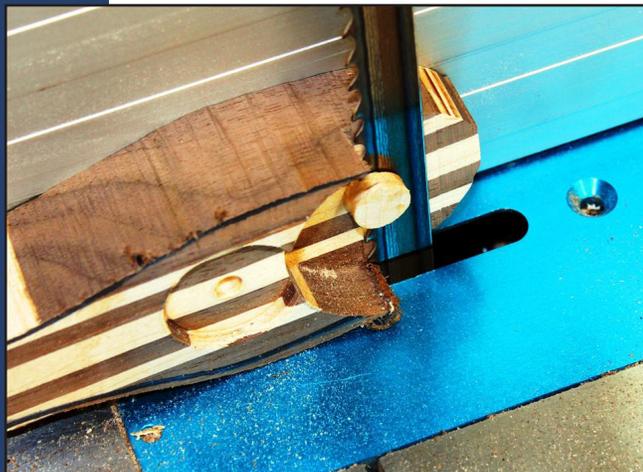
Set the fence on your bandsaw so that your cut will remove the 3/8" long plugs. Place a piece of masking tape over the plugs so that you don't lose them as the bandsaw releases them.

INSTALL THE RARE EARTH MAGNET



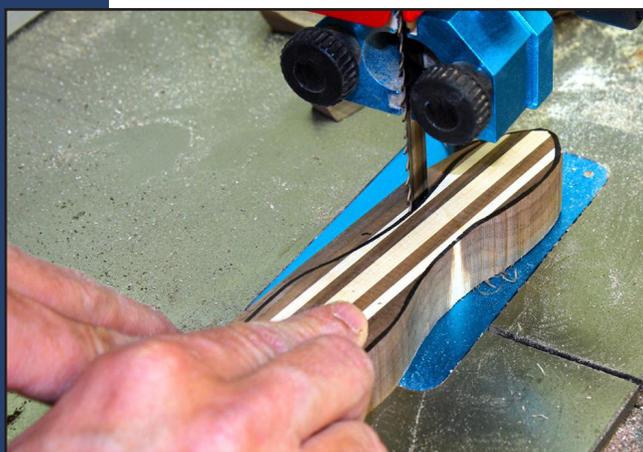
Insert a 3/8" diameter x 1/8" thick magnet in the recess, pushing it all the way to the bottom with a pencil or similar object. Spread glue around the perimeter of the plug, and carefully tap it into the recess directly above the magnet until it bottoms out.

REMOVE THE EXTRA MATERIAL FROM THE 1-1/2" FORSTNER BIT RECESS



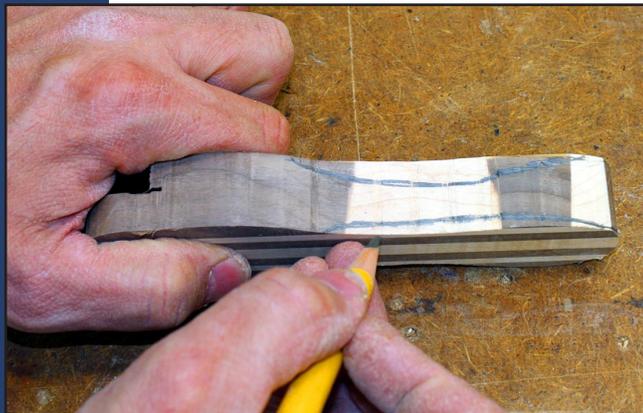
Position the blank on its side edge, aligning the blade so that it is even with the surface where the magnet is installed. Carefully remove the excess wood that was left behind by the 1-1/2" forstner bit in the "first recess" operation. This will also cut the plug flush with the surface. Stop the cut as soon as the plug is cut flush.

CUT THE OUTLINE OF THE BOTTLE OPENER



Place the bottle opener with the recesses down, and cut to the outline, being careful to leave the line.

CUT THE TOP AND BOTTOM HANDLE PROFILE



On both the top and bottom of the handle, sketch and cut an arch of approximately 1/4" at its deepest to create a gentle curve on the handle. This makes the bottle opener more comfortable to hold. Be careful to not cut into the recess that will be used for the quarter.

SANDING



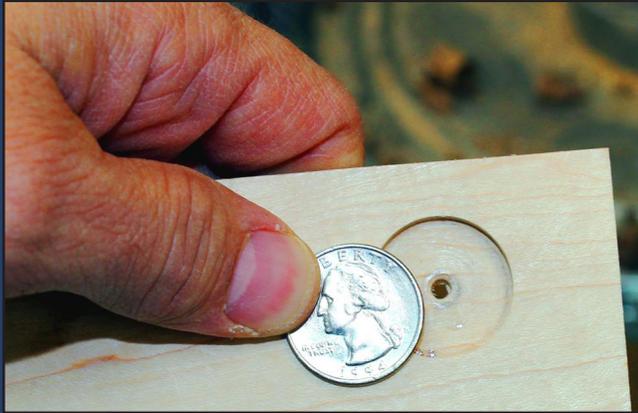
Using a bench mounted belt sander or oscillating spindle sander, remove the band saw marks. Next use a palm sander to gently round over all corners and sand all areas of the project.

PROTECTION



Finish with the product of your choice. I used wipe-on oil based poly for good appearance as well as durability.

MAKE A JIG TO CENTER THE HOLE IN THE QUARTER



Make a jig by using a 61/64" forstner bit to drill a 1/16" deep recess in a piece of scrap. Then, place a 1/8" drill bit in the center of the recess and drill it all the way through the scrap.

DRILL A HOLE IN THE QUARTER



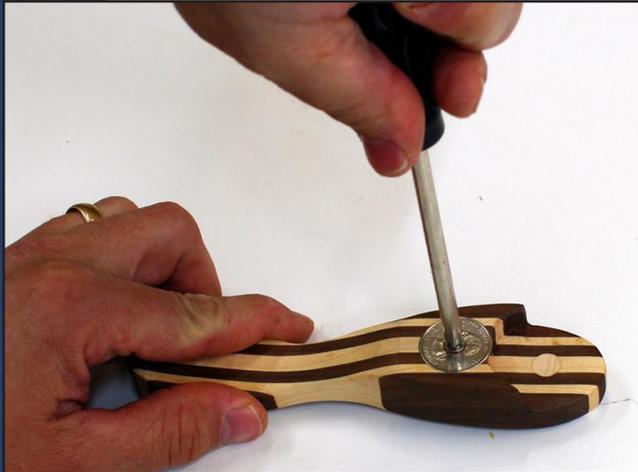
Place the quarter into the jig, flip the jig over so that the quarter is down, and drill through the center of the quarter with a 1/8" drill bit by drilling through the hole in the back of the jig.

DRILL A COUNTERSINK INTO THE QUARTER



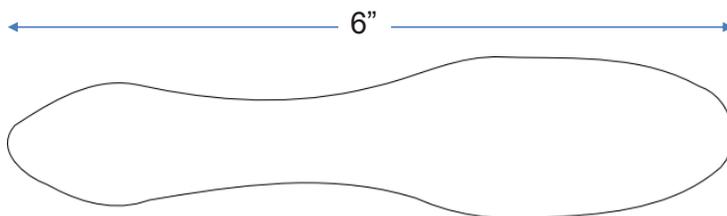
Secure the quarter using a hand screw or clamp. Using a standard 1/2" drill bit, carefully drill a countersink into the "heads" side that will allow the #6 x 1/2" wood screw to be mounted flush. Take your time on this step, checking the fit regularly as you progress through the countersinking operation. You might be tempted to use an actual countersink bit for this operation, but I found that it was too aggressive and chewed up the quarter leaving a jagged hole. The standard 1/2" bit works much better.

INSTALL THE QUARTER



Position the quarter into position and drill a 1/16" pilot hole. Then, place a dab of epoxy into the recess, insert the quarter, and install the #6 x 1/2" screw. Quickly clean up an excess epoxy that oozes out.

Bottle Opener Template



TEST VIGOROUSLY

There's only one way to reliably test the operation of the bottle opener, and that is to open a bottle of your favorite beverage. Cheers!

SOURCE:

MLCS Woodworking
61/64" forstner bit MLCS #9260H
(800) 533-9298
www.mlcswoodworking.com

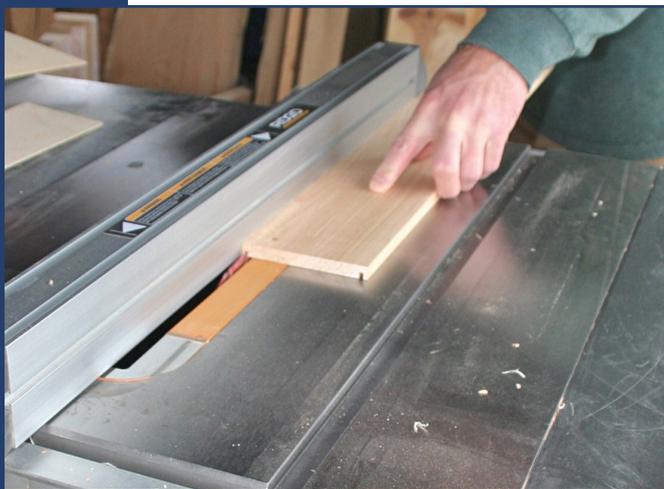
SIMPLE RECIPE BOX

BY SETH KELLER



At our house, we use an iPad search for much of our cooking, but we also have a slew of recipes passed down from grandparents or culled from the Food & Wine section of the local newspaper. I'll never throw away these pre-internet culinary gems, and I've designed a simple, beautiful recipe box in which to store them. This project not only uses up all those beautiful little wood scrapes lying around the shop, but it also features a hand carved thumb tab, making it an economical and unique holiday gift. I made this recipe box for 3" x 5" index cards, but feel free to scale up for larger recipe cards. I use 1/8" thick birch plywood for the top and bottom, and a beautiful piece of 3/8" thick, 4" wide blond hardwood that I salvaged from a shipping pallet. I'm guessing it's pearwood, but any stable wood will do!

RIP A GROOVE IN THE BLANK



The sides, front and back of the box are cut from one piece of wood 3/8" thick, 20" long and 4" wide. Rip a groove into both long sides of the blank that is the same width as the thickness of the top and bottom plywood. Don't bother with a dado set, as one pass may be enough, or just tap the fence a hair for a second pass to make the groove wider.

MITER THE BOX



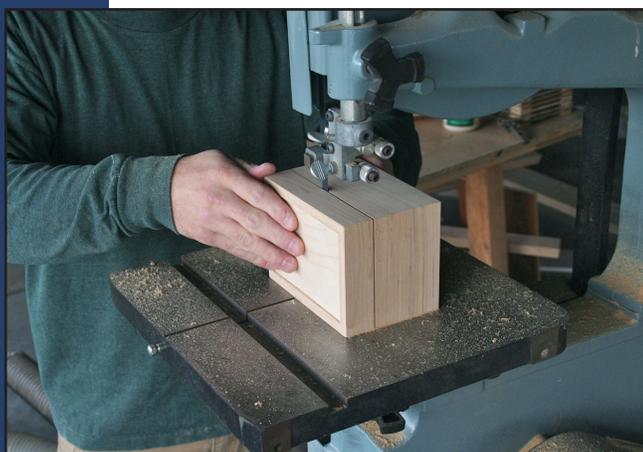
As long as the box is big enough for the selected index cards, the exact dimensions for the sides, front and back don't really matter. What really matters is that the front and back measure exactly the same, and the two sides are exactly the same. I use a sled on my table saw, and employ a stop block to make the parts identical. With the blade set at 45-degrees I cut both sides first, and then the front and back. Of course, this process can be done using a miter saw just as easily, but I like the safety and accuracy of a dedicated miter sled.

CLAMP WITH TAPE



I love assembling mitered boxes with tape instead of clamps. The parts don't slide, and there is no glue squeeze out on the outside of the box. The 1/8" thick plywood top and bottom are the same size. I find the dimension by measuring the entire length of the groove once the miter has been cut. Apply glue to the miters and spread it to lightly coat the surface. I put a small drop of glue in the center of each groove to secure the plywood and avoid rattling. While this is a definite no-no with a solid top, it is safe with plywood. Set the top and bottom in place and fold the assembly until the box closes. Fasten with tape and let sit for at least an hour.

BANDSAW THE TOP OFF THE BOX



There are many ways to remove the top from the box, but I feel the safest is using the bandsaw. I use a 1/2" wide re-saw blade for good tracking and am sure to check that the table is perfectly square to the blade. The cut is a touch rough, so I sand it with 120-grit sandpaper wrapped around a hard sanding block.

FACE MOUNT THE HINGES



Face mounting the hinges, instead of mortising, allows for a quick project and the possibility of multiple gifts. Mortising would double the project length. First, I tape the box closed. Keep the tape flush with the outside of the box and the tape doubles as a spacer for the hinge. I use a sliding square to space the hinge from the top and predrill using a vix-bit. My brass hinges come with brass screws. Be aware of two things: First, brass screws are soft! Use a hand screwdriver instead of battery driver to avoid stripping the screws. Second, these screws were the right length, but the screws that come packaged with hinges are often the wrong length, and the correct length must be purchased separately.

CARVE THE THUMB TAB



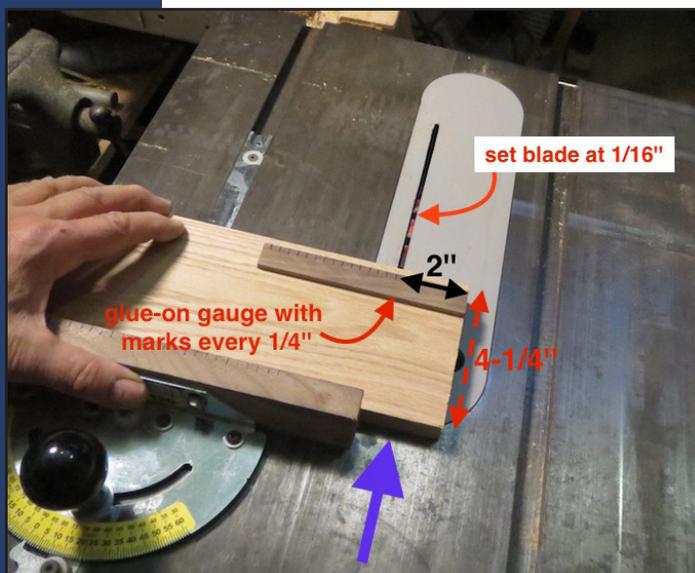
The lightly faceted thumb tab is proof that this box is handmade. Determine the width of the tab; slightly less than 1/3 the length works well. Using a sliding square, deeply mark the edges with a utility knife or X-Acto knife. Then gently carve away a 45-degree facet between the marks to make the finger tab. Sand the box up to 220-grit and gently ease all of the edges. Complete the project by finishing with your preferred clear coat. If you plan to give this as a present, please wait 24 hours before wrapping!

BOOT AND SHOE JACK

BY DAVID RADTKE

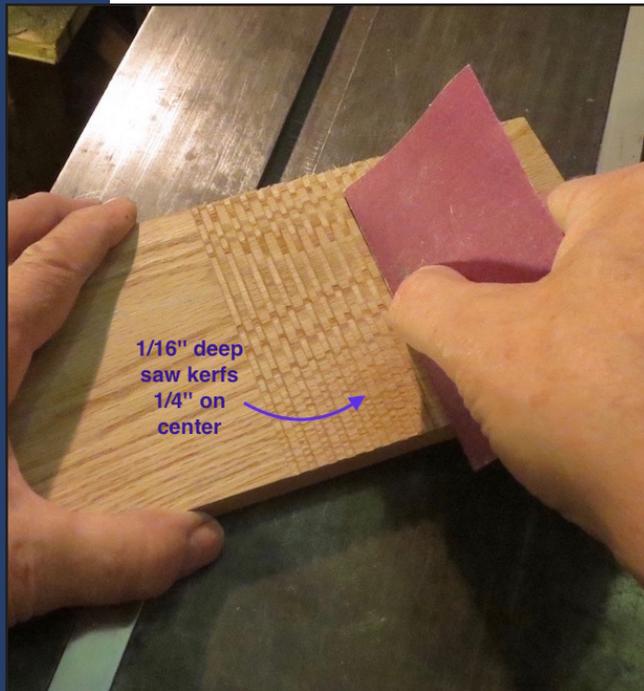


Here's a home-made gift that anyone on your gift list would delight in. It's designed to remove the most stubborn tight-fitting boots without bending over! You can make yours out of any hardwood scrap pieces. I used $\frac{3}{4}$ " thick red oak for the top and a $\frac{3}{4}$ " thick piece of walnut for the support foot.

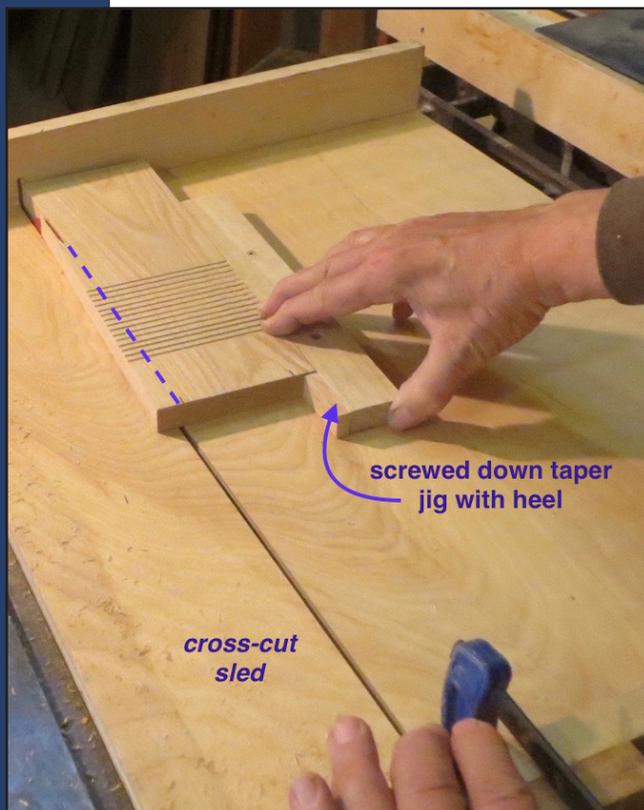


Cut a piece of $\frac{3}{4}$ " x $4\text{-}1/4$ " x $12\text{-}1/2$ " hardwood, then cut the traction kerfs.

Hot glue a thin wood gauge to help you visually line up your saw blade with 15 marks starting two inches from the bottom and spaced every $\frac{1}{4}$ ". Set your saw to cut $\frac{1}{16}$ " deep kerfs into the surface. I glued some sandpaper to the backside of the miter gauge to keep the wood from slipping as I pushed the workpiece through the blade.



Sand the edges of the kerfs with 150-grit sandpaper to keep them from chipping. Just ease the edges. You'll want to retain a bit of an edge to act as a gripping surface for your shoe or sock.

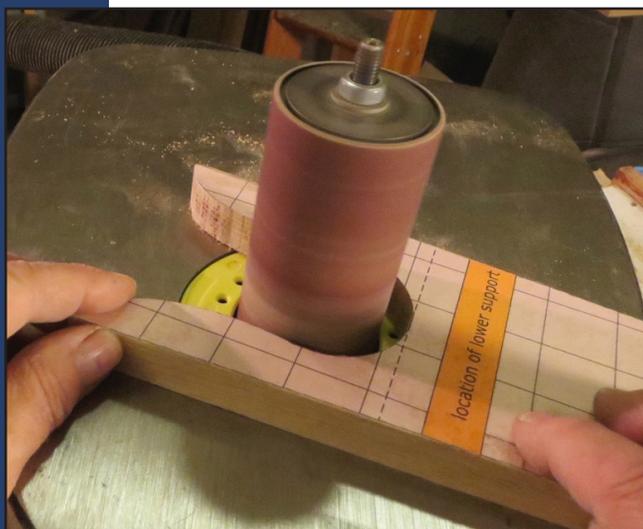


Cut the tapers on the sides of the blank with a sled, tapering jig or a bandsaw. Each side tapers about 5/8".

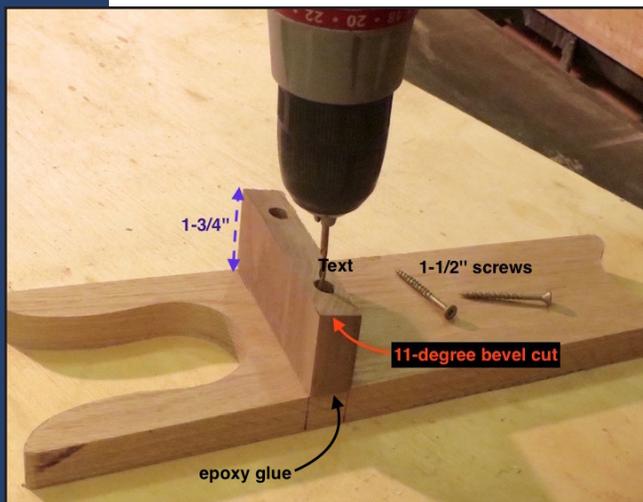
Print out the 2-page template (page xx) and tape the halves together to get a full-size template. Trim and match the pages to fit your blank. I used 3-M spray adhesive to glue it to the wood blank to act as a guide while cutting the shapes. If you don't have a printer, draw a grid on some thin plywood or MDF and then sketch the pattern using this drawing as a guide. The shape doesn't have to be perfect to work.



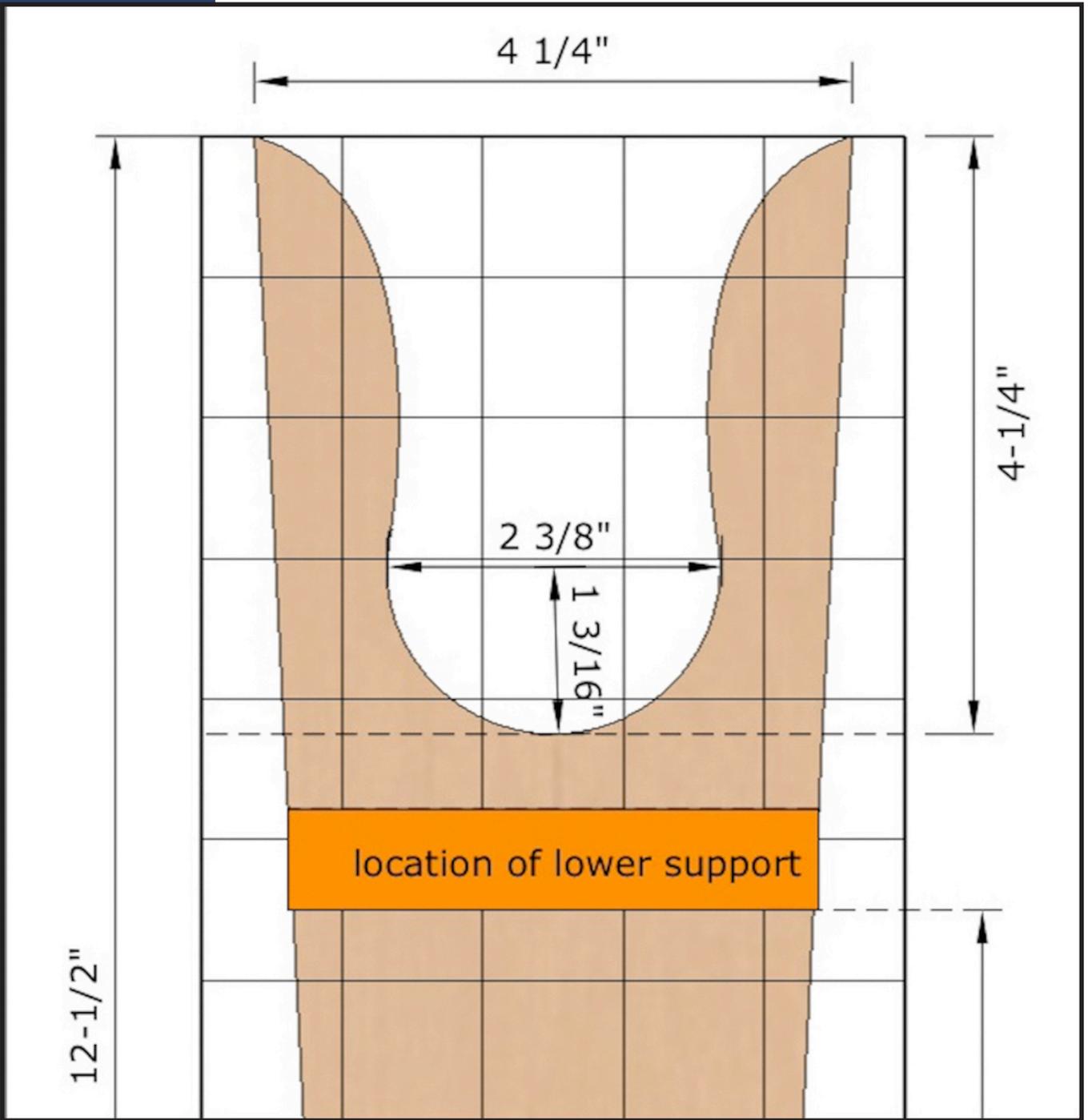
Use a band saw or a scroll saw to cut out the shapes at the top and bottom of the blank.

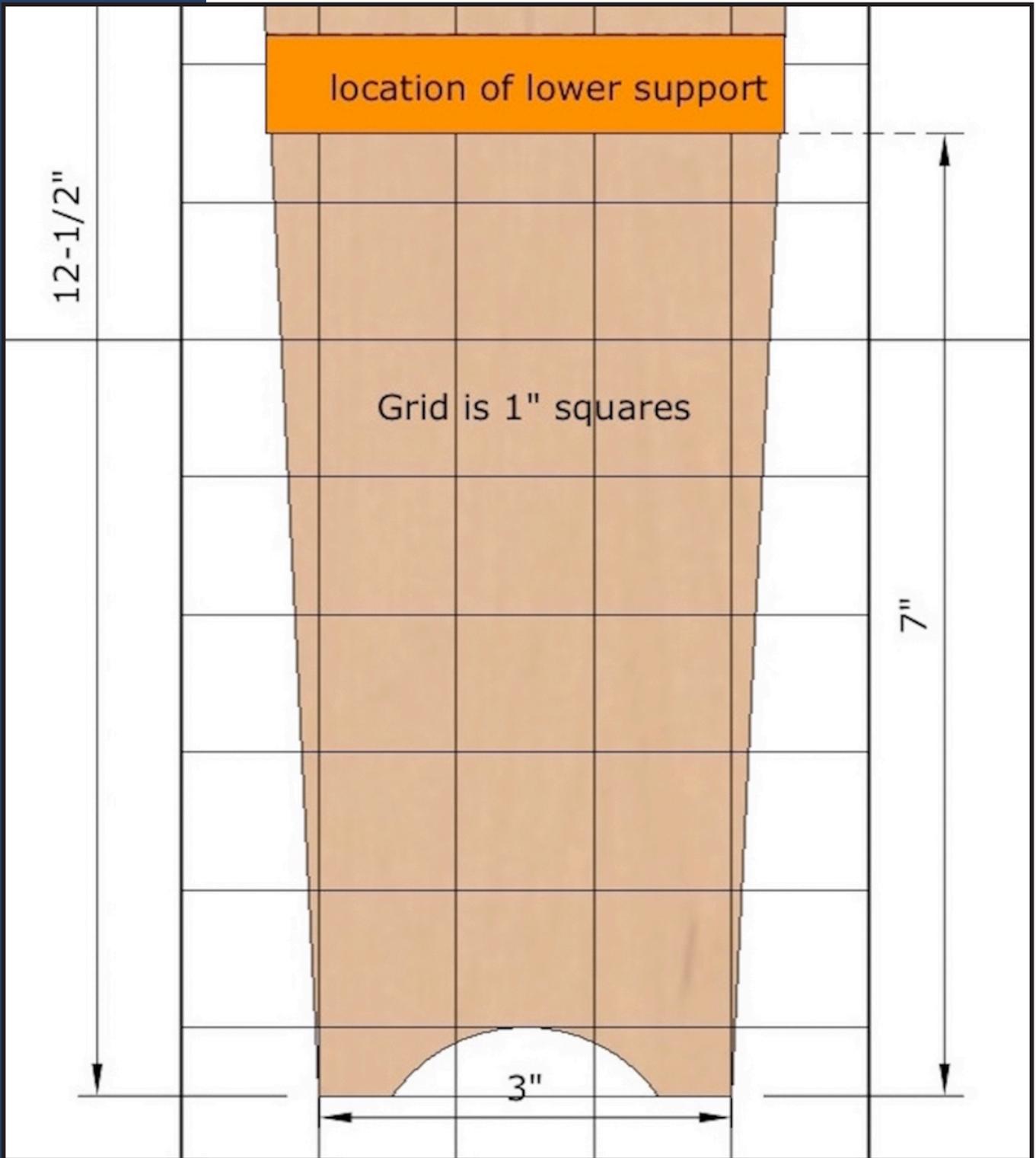


Smooth the curves with a drum sander. Ease the transition from the circle shape to the two wings at the top. Gently round over the sharp points at the top. After this final shaping, use lacquer thinner to remove the adhesive and the paper pattern.



Cut the support foot from 3/4" stock. The long side (toward the large cut-out) should be 1-3/4" and then beveled back at an 11-degree angle. I cut the bevel from longer stock on my table saw with the blade tilted and supported with the miter gauge. Drill two 3/8" holes 3/4" deep then drill a pilot hole in each for the screws. Be careful not to drill all the way through! Assemble with screws and glue. Once the piece is assembled, give it a final sanding with 220-grit and apply a wipe-on oil finish.





MAGAZINE STORAGE BOX

BY BRUCE KIEFFER

TOOLS REQUIRED:

- Table saw.
- Planer.
- Jointer (optional).
- Band saw or jigsaw.
- Orbital sander.
- Stationary belt or disc sander.
- Drill.
- Brad nailer.



Here's a super fast last minute gift project. Sure a person could buy cheap cardboard alternatives to these, but these wooden storage boxes are SO much nicer, and more durable too. I made and finished twelve of these in a day. You could easily make one

in less than an hour if you skip the wood putty, the finish, and the label holder. If you do apply finish, then let that dry for at least a week before inserting magazines to avoid possibly staining the magazines.

CUTTING LIST

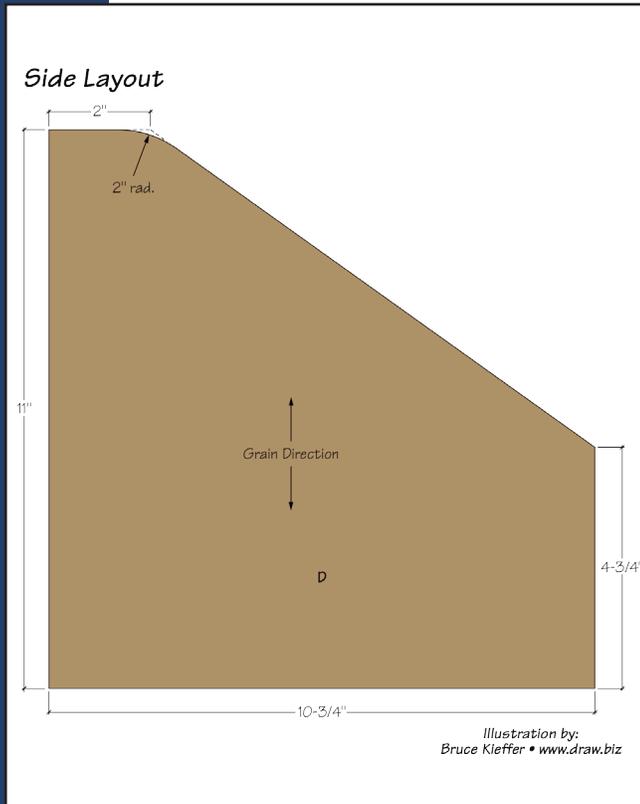
Overall Dimensions: 4" wide x 10-3/4" deep x 11" tall

Part	Name	Qty.	Material	Th x W x L
A	Back	1	Red Oak	1/2" x 3-3/4" x 11"
B	Bottom	1	Red Oak	1/2" x 3-3/4" x 9-3/4"
C	Front	1	Red Oak	1/2" x 3-3/4" x 4-3/4"
D	Sides	2	Red Oak Plywood	1/8" x 10-3/4" x 11"

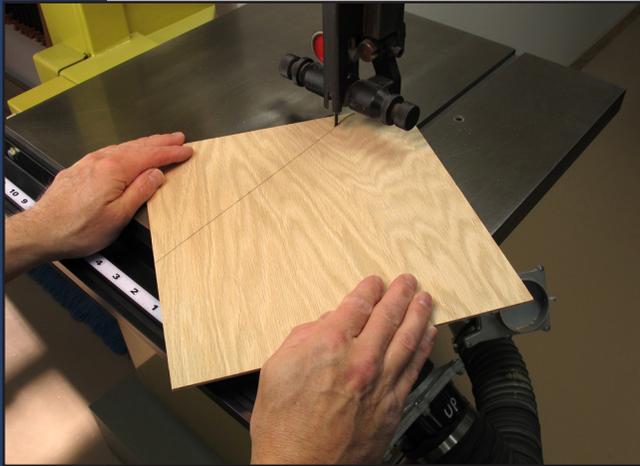
Cut the back (A), bottom (B), and front (C) to size. Make sure the cumulative width of the assembled front, back, and bottom will be 10-3/4". Finish sand the pieces.



Glue and nail the back and front to the bottom, this is the frame. The heavy board I have clamped to my worktable is there to absorb the recoil from the brad nailer.



Cut the sides (D) to size, then lay out this shape on one side piece.



Cut the side's shape.



Sand the cut smooth.



Trace the shaped side to the other side. Place the sides face-to-face since the sides are mirrored images of each other. Cut and sand the other side's shape.



Glue and nail the sides to the frame, fill the
brad holes with putty, and then finish sand.



Apply one coat of Danish oil, let that dry, and
then attach the label holder.

SOURCE:

Rockler
Flat card holder, nickel, #47608
(800) 279-4441
www.rockler.com

BALANCING WINE BOTTLE HOLDER

BY PAUL AND VERNON MAYER



Add a whimsical air to your next celebration by placing wine bottles in a seemingly impossible balancing act using these intriguing holders. These special holders support a standard 750-ml bottle of wine in perfect repose, while your guests will stand around it staring in a state of wonder. The trick to maintaining balance is in the angle of the base cut, and the distance from the top hole to the base. This plan will demystify the process and take the guesswork out by providing the measurements that make it work for you.



Start by creating your template. Print the supplied pattern (page 36), and apply to 1/4-in plywood or tempered hardboard using adhesive spray. Let the spray dry for about a minute before placing it on the template material, which will allow the paper pattern to be removed more easily.



Cut out the template. First drill the 1-1/4-in holes as indicated on the template. Then, use either a band saw or scroll saw to cut to the pattern lines, and sand the edges smooth.



Prepare your stock. Any hardwood will work just fine. This is a perfect project to turn end cuts into holiday gifts, as the blank that you will need is only 3/4-in x 3-in x 9-in. Optionally, for greater stability you can use thicker stock such as 5/4 or 6/4. Trace the cut lines using the template. For better visibility, using a white pencil when using dark wood such as walnut.



Drill holes. Use a 1-1/4-in. bit to drill holes as positioned in the template. The bottom contour could also be cut on the band saw, but given the tight radius we generally do this at the drill press, which provides a quick hole that is consistent in size with the top hole, and leaves a smooth surface that saves on sanding time later.



Cut the base angle. Prior to cutting the curved shape on the band saw, cut the base at a 35-degree angle.



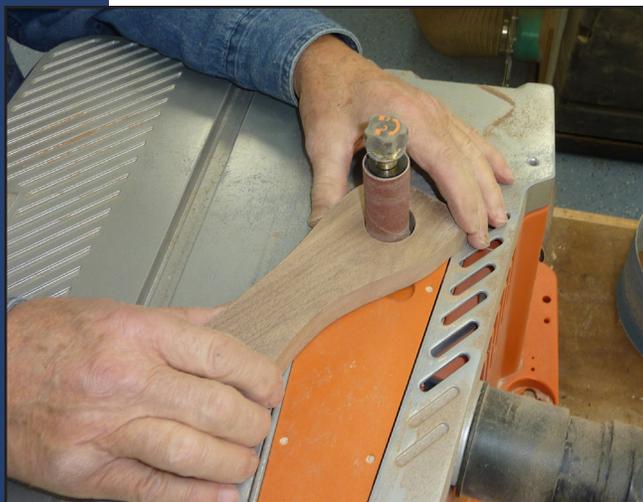
Cut rough shape on band saw. Using a band saw, cut the curved shapes, leaving the line for final shaping later.



At this point it is a good idea to test the holder for balance. Before sanding, place a full 750-ml bottle of wine in the holder to see if it stays firmly balanced. You might find that it balances perfectly without further modification. If you are slightly off, it might feel “a bit tippy”. If you are grossly off, it won’t stand on its own at all. If it doesn’t balance properly, carefully feel which way the holder is leaning under the weight of the bottle, and adjust the angle of the base with “tuning cuts” on band saw as needed, or by lightly sanding with a disc sander. If the bottle leans to the right as shown by the arrow in this photo, decrease the angle of the base cut (try 34-degrees) so that the bottle holder stands more vertically. Sharpen the angle (try 36-degrees) if it leans the other way.



Sand to the line. Using a belt sander, carefully sand to the line for final shaping.



Use an oscillating spindle sander or other means to sand inside the holes. After all surfaces have been sanded using power equipment, hand sand to 400-grit to achieve a smooth feel.

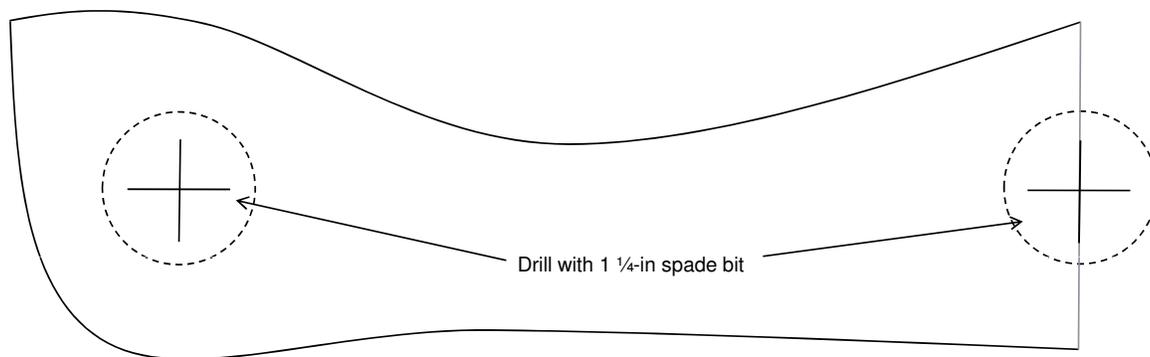


Finish using polyurethane or other durable finish. One way to support small pieces like this as the finish cures between coats is to tap some small finish nails about half way into a piece of scrap wood, leaving a bunch of nails sticking out a small amount at approximately the same height. This will support the piece without much contact surface area, allowing you to finish all sides in a single pass.

Once you get the balancing part down, you can experiment with other fun shapes and designs. If you modify the distance of the hole from the base, you will also have to adjust the angle of the base to establish balance. For example, if the hole is farther from the base, you will need to cut the base at a lesser angle. By experimenting you will find the angle that works for most any design.

Instructions for wine bottle holder template

- ✓ Use spray adhesive to place this pattern onto tempered hardboard or 1/4-in plywood to create permanent template that can be used to make multiple wine bottle holders
- ✓ Drill holes before cutting out template



KEEPSAKE SILHOUETTE ORNAMENTS

BY PAUL MAYER



Homemade Christmas ornaments are special, especially those that contain the images of family members.

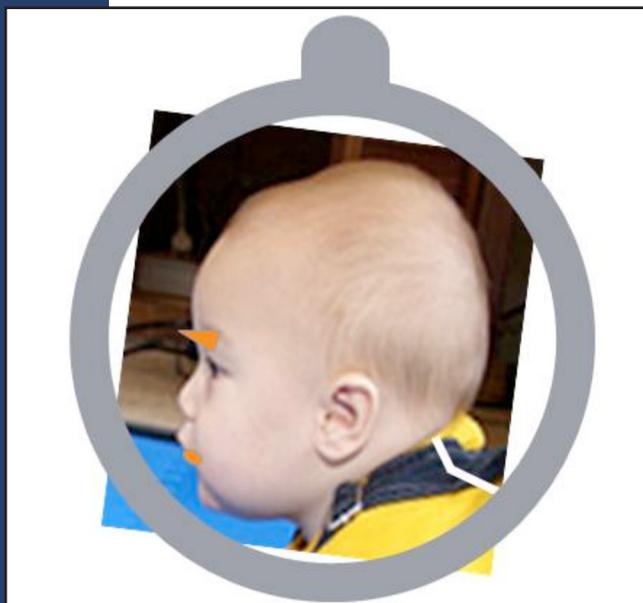
I was amazed and inspired by the work of silhouette artist Clay Rice. Rice cuts interpretive silhouettes from paper freehand while looking at the subject. This form of art is far beyond my reach but, using a digital camera, computer, and scroll saw, I was able to come up with something that was well within my artistic grasp, and easy to produce.

PICK A PHOTO



To begin, take a bunch of profile pictures of your subject. It is important to get a good, clean profile shot, so take a bunch of shots so that you have one that captures the details you want for the silhouette.

CIRCLE IT AND TOUCH IT UP



Then, pick one that you like, and position it within a circle that will be used to shape the ornament, as well as a bubble to hold an ornament hook. Touch up the image with any lines that make the silhouette more credible. Clay Rice likes to add an exaggerated eyelash to the profile, and therefore, so do I. Also, in this baby photo, I made adjustments to the lower lip and neck line because the slight angle that the photo was taken from caused an unrealistic two dimensional silhouette (this looks silly until you cut it out on a single colored piece of wood) With a little experimentation you will get it just how you want it. You can do all of these modifications on your computer if you are so inclined, or it would work just as well with a pen and a razor blade.

CUT IT OUT



Print and cut, leaving a generous border (1/8" or so) around the outside cut line.

COAT TEMPLATE WITH SPRAY ADHESIVE



Using spray adhesive, stick the image onto your material. I like to use 1/4" plywood with good quality veneer, but solid wood would be fine here as well. Let the glue dry for a minute or so before pressing the paper onto the wood blank, or you will have a hard time getting the template removed from the project at the end.

ATTACH THE TEMPLATE



Press template firmly in place, being sure that all surfaces are solidly mating so that the template does not lift during the sawing operation.

CREATE AN ENTRANCE FOR THE SCROLL SAW BLADE



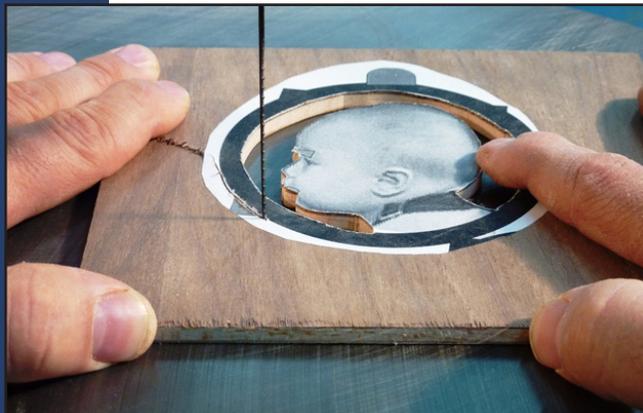
Drill a hole into the center area to allow the scroll saw blade to thread through.

CUT IT OUT ON YOUR SCROLL SAW



It is easiest to cut the inside area first so that you can handle the project better during the inside cutting operation. Take your time when cutting the facial features, because these are the details that really make the project.

THEN CUT TO THE OUTSIDE OF THE CIRCLE



Take your time, and hold to the line as much as possible.

CAREFULLY REMOVE YOUR TEMPLATE



Also, sand any rough edges carefully.

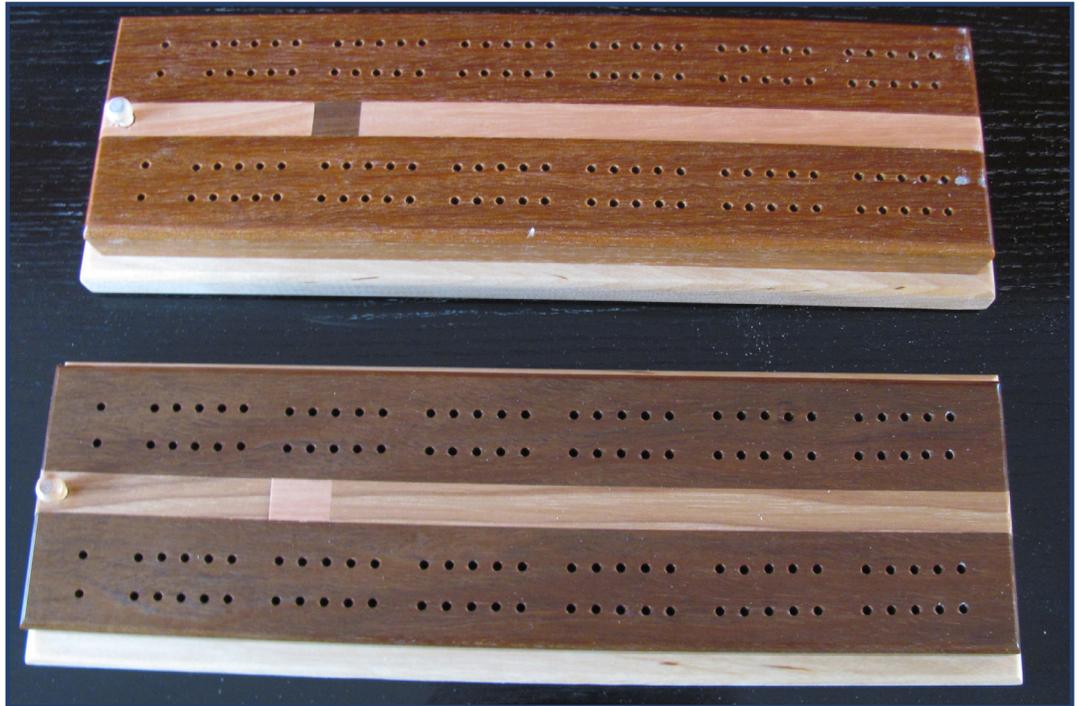
FINISH USING YOUR FAVORITE APPROACH



I like to spray lacquer on these because it is quick and durable enough for this project. But when the time constraints are really tight, I have also finished a couple of these using mineral oil, mainly to pop the grain. Mineral oil provides no protection whatsoever, so don't use it unless you are a terrible procrastinator, like me, and you don't want your half-cured finish to stick to the gift wrap, or the aroma to give away your poor planning.

CRIBBAGE BOARD WITH PEG STORAGE

BY AJ MOSES



A very good friend and mentor once told me it's a mistake to play cribbage with your significant other – unless you really relish conflict in your relationship. Hey, I just make cribbage boards. Well, I do play a little cribbage.

MATERIAL CHOICES

Any shop accumulates scrap materials. My wife accuses me of actually buying scraps – they can get out of hand. This project is a great way to use up scraps. Here are the approximate sizes you'll need:

- 2 sides 3/4" x 14" x 2", one side beveled at 15-degrees along its length
- 1 – center section 3/4" x 14 x 1-1/2"
- 1 slide stop in a contrasting wood – this piece has the same profile as the center section.
- 1 bottom board – 3/4" x 14" x 4"
- 6 pegs – available online
- Drilling Template - available at woodworking stores or online
- 1/8" drill bit
- 4 C-clamps
- Glue
- Finish such as lacquer or polyurethane

CUTTING THE SIDES AND CENTER SECTION



You can cut one 28" piece for the sides. Joint one edge of your side and center pieces before you cut the beveled edges. Set your table saw blade at 15-degrees and rip the side piece so the large, (top), edge is around 1-1/2" wide.

CUT THE CONTRASTING CENTER PIECE



You can cut these pieces to length in a moment. While the same angle is set on your saw, rip both sides of the center piece.



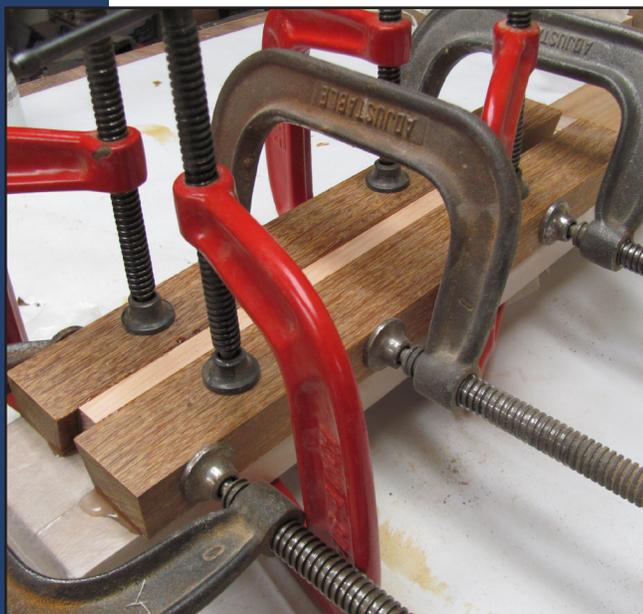
Be sure to cut a contrasting piece for the slide stop the same way you cut the center – it has to match the profile exactly. Keep in mind that you shouldn't cut a piece shorter than 12" on the table saw. I make 2 or more boards at a time – actually, my last batch was 16 boards. I just cut my center pieces a little long, and from a variety of materials. That way it's easy to cut a stop or two off each center piece.

CUTTING PARTS TO APPROXIMATE SIZE



Cut about 4" off the end of your center slot – this will become the slide over the peg storage compartment. Here's a blowup and dry-assembled version side-by-side. Missing is the base. It's a simple rectangular solid with a slot cut using a plunge router.

FACE MOUNT THE HINGES



Glue-up is dicey – but here’s a trick to overcome that little bit of difficulty. It comes because the tapers tend to slide out of alignment when you clamp the joint. I use a simple flat hardwood block wrapped in waxed paper as a clamp base, then 4 C-clamps to hold the two sides firmly in place. Place the 4 hold-down C-clamps in position on the dry assembly of 3 parts – the red clamps in our photo. This holds the 2 sides stationary. Use the stationary center section – the longer of the 2 pieces – as an alignment guide. Once things are fitted, slide the stationary accent piece out and apply glue to the 2 surfaces that will contact the sides. We don’t want any squeeze-out at the point where the stop-block attaches – it will cause an unsightly gap when you try to position the stop block.

Carefully slide the center piece in and use 2 additional C-clamps to pressurize the glued joints. Let the assembly cure completely.



Next, glue in the stop block – use glue on 3 surfaces – then clamp it as illustrated in this photo.

TRUING THE BOARD AND FINAL CUT TO SIZE

Once this is cured, re-insert the sliding door and flatten everything. You can use your jointer, taking very thin cuts, a drum sander, or just sandpaper adhered to a dead-flat surface such as your bench top or table-saw top.

Now is the time I cut the board to length. Match it to your drilling template and true up both ends in the process. Be sure your sliding door is well seated when you true that end!

DRILLING THE HOLES

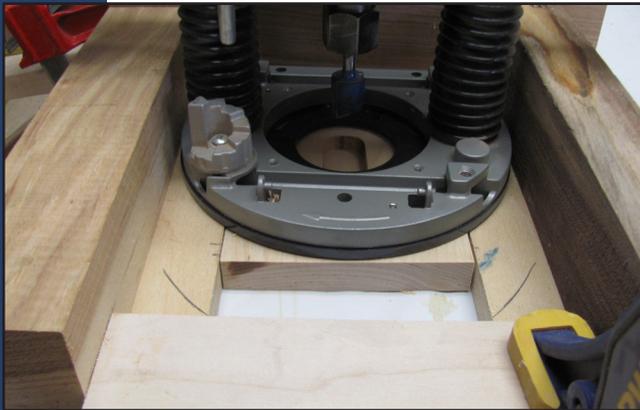
Drill, baby, Drill. Using 2 clamps, hold the template to the board. Don't try this with one clamp – the template and board will invariably swivel out of alignment. I drill 2 holes a few inches apart and seat cribbage pegs through the template into the holes to help keep the template and board in alignment.

PREPARE THE BASE

Cut it to 1/2" to 3/4" wider and 1/2" to 3/4" longer than the board. That gives me a 1/4" to 3/8" overlap on each side and end.

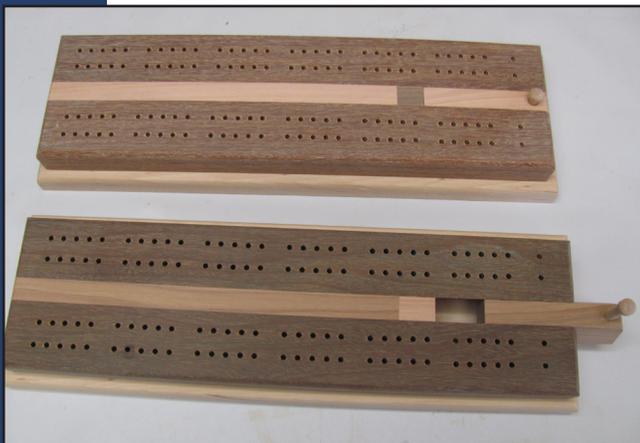
Next, round over the top edges of the base and finish sand.

LAST STEP FOR THE BASE



You can make a simple jig for your plunge router as a guide to cut the storage slot for pegs. Set the plunge router to leave about 3/16" material beneath the storage slot. Note – don't come too close to the end – you'll need enough material to ensure your door stop peg seats adequately in the base. Another option for this recess- though less attractive – is to use a large Forsner bit to drill out a recess.

LAST STEP FOR THE CRIBBAGE BOARD BASE



Glue the board to the base making sure the side and end over-lap is equal all around. Let cure completely.

With the slider door in place, round-over the edges of the top on your router. Finally, drill a dowel hole in the slider for the stop peg – this keeps the door from opening when you don't wish it. I drill the hole undersize by 1/64th and sand the peg a little until it fits snugly.

Finish with a durable product such as lacquer, polyurethane or other varnish.

SOURCE:

Meisel Wood Hobby
Cribbage Pegs & Board Template
(800) 441-9870
www.meiselwoodhobby.com

SMALL BANDSAW BOX

BY GEORGE VONDRISKA



Bandsaw boxes are easy to make, but you need to follow a few rules of the road. It's very important that you use the right blade, and that you make the cuts in the correct sequence. Set this box on top of a dresser or vanity to store jewelry or other small treasures.

BLANK AND BLADE



Use a good size chunk of wood for the box. In this article I'm using a 3" x 4" x 6" piece of spalted tamarind. I wouldn't use anything less than 2" thick, 3" is better. Hardwoods and softwoods are both fair game. If you can't find big blocks to work with (although a Google search for bowl blanks will help you there) there's nothing wrong with gluing pieces up to make a block.

I do the bandsaw work with a 3/16" 10 tpi (teeth per inch) blade. With its fine tooth count you'll need to take it easy on feeding the material. But you'll be left with surfaces that require very little sanding. This is important for the fit of the drawer.

SHAPE THE BOX



Define the outside shape of your box. This is completely subjective, and beauty is in the eye of the beholder. I prefer to use a flexible curve (see Sources) to create the shape.



Cut the outside of the box to shape. Take it easy on the bandsaw blade, using a slow but consistent feed rate. Listen to your saw, and slow down if it sounds like you're over feeding. Try to make the cut in one fluid motion, without starting and stopping the feed. This will minimize bandsaw marks.



Notice that I cut feet on the bottom of the box. This isn't a must, the bottom could remain flat, but I think it looks better with feet.



Set up a resaw fence and cut the back off the box, making it 1/4" thick.



Use the flexible curve to draw the drawer opening. I make the outside of the flexible curve even with the outside of the box, and then trace the inside edge.



Radius the inside corners using a washer. For a 3/16" blade a washer with a diameter of 1-1/4" creates an arc the blade can follow. Don't leave any sharp corners in the drawer opening.



Cut the drawer opening. Notice that my entry cut, near my right hand, was made parallel to the grain of the blank. This makes for a better glue joint when you glue the box back together, long grain to long grain, and will also help make the glue seam more invisible. The chunk that comes out of the interior becomes your drawer.

MAKE THE DRAWER

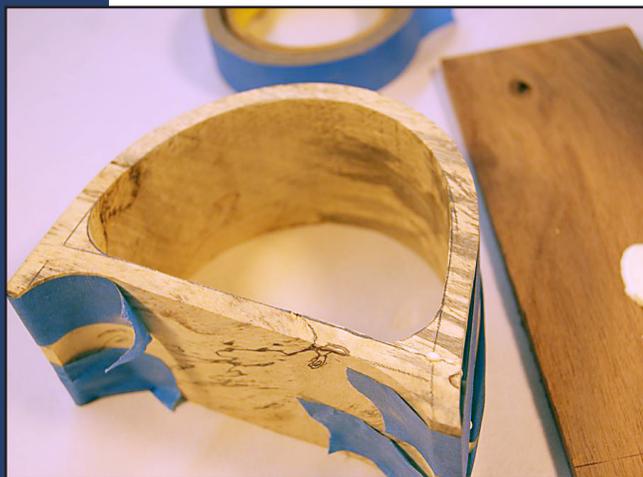


Set up your resaw fence for a 1/4" cut and cut the front and back off the drawer piece. Notice the two lines I have on the top of the piece. This is to remind me to cut one slab from each of the two faces, not two slabs from one face.



Cut out the inside of the drawer. Use the flexible curve to define the shape, just like you did on the box. Except that in this case you need to create a U shape, open at the top of the drawer.

SANDING AND ASSEMBLY



Glue the box together by working glue into the entry cut using a tooth pick. With the irregular shape of the box masking tape makes a great clamp.



Glue the back slab onto the drawer after sanding the bandsaw marks off the drawer interior (using a spindle sander) and from the inside faces of the back and front slabs (by hand). Once the glue on the back is dry, glue on the front.



Drill a 5/8" hole in the back. The hole provides finger access so you can push the drawer open.

Sand the interior of the box using a spindle sander, and then glue on the back. I don't sand the saw marks off the inside face of the back, since you really can't see this surface. When the back is dry sand the box exterior.

When the drawer is dry sand the exterior surface to remove the bandsaw marks. Do as little sanding as possible. Part of the key to the completed box looking cool is having little more than the kerf of the bandsaw blade removed between the drawer and the box.



Apply a coat of finish, and your bandsaw box is complete.

SOURCES:

Woodcraft

Flexible curve, #16M41
(800) 225-1153
www.woodcraft.com

PS Wood Machines

3/16" tpi bandsaw blade
(800) 939-4414
www.pswood.com

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