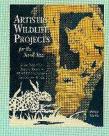
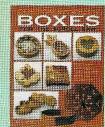




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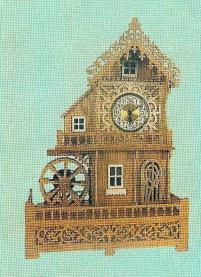
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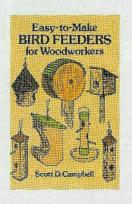
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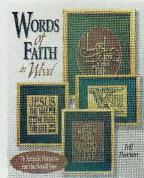












Projects in Full Size Pattern Section No. 1 shown on this page.



Angel's Forget-Me-Not Frame

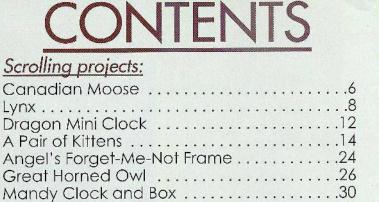


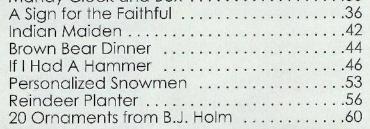
Brown Bear Dinner





Pintail Duck Intarsia







Lynx



Reindeer Planter



20 Ornaments from B.J. Holm





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Great Horned Owl

A Sign for the Faithful



A Pair of Kittens



Canadian Moose



Mandy Clock and Box



Hippo Intarsia



Personalized Snowmen



Polaris Pen (no pattern for this project)



ON THE COVER: This issue's cover features another new designer, Kathy "Puddles" Meyer. Her Pintail Duck Intarsia (originally sent in as a Reader's Gallery piece) is a magnificent feat! Also shown is "A Pair of Kittens" from Sheila Bergner-Landry.



Indian Maiden





Canadian Moose

pattern by Jacob Fowler, cut and finished by Wayne Fowler



photo), or an oval cut from a free.

The finished moose was cut from willow with the outside of the tree left natural. This gives the piece a great sunshine through the trees" look, An earlier version of the piece was my first sale at a Christmas show this year (planned gift for a cottage decoration) and the design was intriguing to many friends since the moose is there but not as obviously as in most of Jacob's designs.

INSTRUCTIONS

Make a photocopy of the pattern and glue it to the wood. I recommend using clear packing tape on top of the pattern to reduce the burn from the tight turns you will have to make when cutting the pattern. For cutting, I

recommend using a No. 5 or No. 2 reverse tooth blade in order to reduce chipping on the bottom of the piece.

After you have drilled the guide holes and cut out the fret pieces. Either peel the pattern off or use a solvent such as paint thinner to remove the paper pattern. Let the piece dry before you sand the front and back on a disc or belt sander. This is your chance to ensure that the bottom of the frame is square and straight by sanding out any bumps on the outside frame, I find that then using a 1/4 sheet of 220-grit sandpaper is a good way of removing any remaining burs and lightly rounding the edges to give it a more finished look, Clean the moose using your favorite tool of choice (I use a clean paintbrush). Finish with a thin oil to seal the inner edges (I use either walnut or tung oil).

If you are planning to display it on a shelf, this piece could be mounted on a rectangular base measuring about 11" x.2" using two dowels or screws through either end. I use a roundover router bit to give my bases a more finished look. Another option would be to round the ends of the base before routing, again to give it a more professional look. If you are using thinner wood, it could be hung in a window using fishing wire attached through two small holes at either

end of the top of the piece.

Send questions concerning this project to: Wayne Fowler, 33 Longmeadow Cres, Markham, Ontario, Canada L3R 356. Email: fantasiesisaw@rogers.com

SUPPLIES

Wood: hardwood (mid-brown color, e.g., brown oak, willow, butternut or similar wood)—one piece 1/2" to 3/4" x 10-1/2" x 8-1/2"

Tools: scroll saw with a No. 2R and/or 5R blade; fixed also or belt sander with fine or extra fine (120/220) also or belt; access to photoappier

Temporary-bond spray adhesive (such as 3M 777 adhesive)

1/4 sheet of 220-grit sandpaper

Finishing oil of your choice (e.g. tung, walnut, etc.)

Introduction

I live in the very cosmopolitan greater-Toronto area, which has a population approaching five million people and all the facilities of a world-class city. However, this is Canada (ehl), so a lot of people I know have a moose, deer or bear story. Many people have access to summer and winter cottages north and east of the city where the big critters run free. As for our woodworking, we have sold a few bears and get asked for wolves a lot at craft shows, so we thought, "Why not try a moose?!"

This piece is designed to fit inside of a finished rectangle, a rough finished piece of wood (as shown in the



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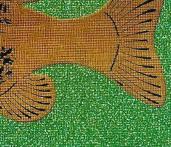
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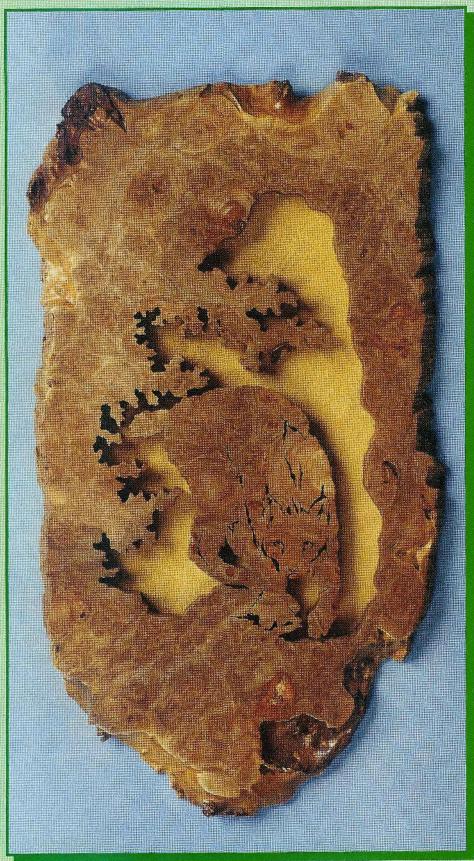
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by Marilyn Carmin



SUPPLIES

Wood: wood of choice*—one piece approximately 1/2" x 9" x 13"

Tools: scroll saw with No. 5 (12.5 TPI) blades; drill with No. 58 bit Temporary-bond spray adhesive Clear packaging tape Sandpaper, assorted grits Backer material of choice *The pattern for this project lends itself well to enlargement and reduction, and accommodates many different formats. Please feel free to use it in any size or manner you see fit. Natural edged slab wood is suggested, as it is a good complement to this pattern.

Introduction

The lynx is often mistaken for the bobcat, but they are two different cats. The lynx is larger and weighs, on average, about thirty pounds (as opposed to the, generally, twenty-pound bobcat). The ear tufts are larger and the feet are much broader.

This pattern is an excellent one with which to do some playing. It cuts beautifully at its original size and all the way down to 50%. Instead of cutting the design from the center of your wood, try it along the top edge. Also, different backgrounds can really change the look of a project. Although burl and slab wood is always a big complement to wildlife patterns, feel free to try this one on dimensional wood, too.

But most of all, make sure you have fun!

INSTRUCTIONS

Step 1. Using spray adhesive, put the main pattern on your wood of choice.

Step 2. With the No. 58 bit, drill for all inside cuts. Use the No. 5 blade to cut.

Step 3. Sand all as needed.

Step 4. Use finish of choice over the entire project.

Step 5. Install backer of choice.

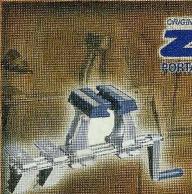
For questions concerning this project, send an SASE to: Marilyn Carmin, 4569 NE 78th Pl., Portland, OR 97218.

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From the editor's desk

Welcome to this issue of *Creative Woodworks & Crafts!* With Christmas around the corner, we've included twenty nifty ornament designs by Billie Holm as well as three cute Personalized Snowmen from Diana Thompson, all ideal for those last-minute holiday projects.

Looking for a project that will get some laughs? If so, check out John Polhemus' hammer. John first showed us this project at this year's "SAW Expo" show in Pennsylvania. From the moment he laid that hammer on our display table, one person after another picked it up to examine it, and all were surprised by its lightness; after all, it looks exactly like a "real" (steel-headed) hammer. Couple this with cutting a humorous slogan in the handle, and you've really got a heck of a conversation piece. For example, a friend of mine, Nick, had been haggling with his boss about his vacation time, and when he saw John's hammer he immediately ordered one saying "Nick's Vacation Adjuster." Another person who plays piano requested one saying "Bcb's Piano Tuner." As you can see, the possibilities are endless.

This issue's cover features Kathy "Puddles" Meyer's Pintail Duck Intarsia. What's so interesting about this is that we "discovered" Kathy when she sent us photos of her work for our Reader's Gallery feature. Kathy is already busy working on another project for us, a handsome Wood Duck intarsia project.

In every issue we try to provide you, our readers, with a wide variety of high-quality projects. If you are not seeing certain kinds of designs that you'd really like to have featured in this publication, please let us know. We really appreciate your feedback. You can e-mail us at editors@woodworksandcrafts.com or write to us at our new address (we finally outgrew our building in Newton, NJ): Creative Woodworks & Crafts, 7 Waterloo Road, Stanhope, NJ 07874.

Have fun with this issue, and until the next one, all the best to you.

Sincerely,

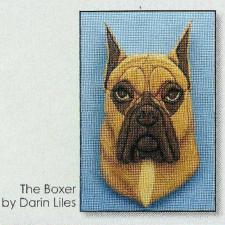
Robert A. Becker

Robert A. Becker

A Few Highlights From Our Next Issue



Haf Rack by John Nelson and John Polhemus





Bass Pros by Shelli Robinson



Pegasus in Flight by Jacob and Wayne Fowler

Don't miss these upcoming issues of Creative Woodworks & Crafts!

Issue No. 106 - on sale January 6, 2005 Issue No. 107 - on sale February 24, 2005 Issue No. 108 - on sale April 6, 2005 Issue No. 109 - on sale June 8, 2005

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Dragon Mini Clock

designed by Dirk Boelman, sawn by Karen Baelman



Introduction

Perched atop a rocky ledge, this flerce looking little dragon unfurls his wings to scare away all that might attempt to steal his time! This makes for a fun project that will grab lots of attention when it's displayed on a desk, shelf or table.

INSTRUCTIONS Making the parts

Use a copy of the full-size pattern to make the upright piece. Use spray adhesive to temporarily attach the copy to the surface of the wood. Cover the top of the pattern with clear packaging tape. This tape will lubricate the blade while sawing, thus preventing it from heating up and burning the wood. Use a drill and bits with a small diameter to bore blade entry holes within all of the areas to be out out.

The upright section is designed to hold a 1-7/16"-Dia. clock insert, which requires a 1-3/8"-Dia. mounting hole. The hole can be sawn carefully on a scroll saw or bored with a Forstner style drill bit.

SUPPLIES

Wood: red oak or wood of choice—one piece 1/2" x 6-1/4" x 8-3/4" (for upright), one piece 1/2" x 2-1/4" x 5" (for base top section), and one piece 1/2" x 3" x 7" (for base bottom section)

Tools: scroll saw with blades; drill with bits, including a No. 61 mini drill bit; needle files; awl; clamps;

hammer; screwdriver

Ruler Needle files, sandpaper, knife, etc. Artist's knife Temporary-bond spray adhesive Wood glue Sandpaper, assorted grits Two No. 6 x 1" wood screws

1-7/16"-Dia, clock insert (requiring 1-3/8"-Dia, mounting hole)

Finish of choice

Both sections of the base can be made from 1/2" material, We opted to make the bottom section from a scrap piece of 3/4"-thick material we had on hand, just to see how it looked!

Bevel the edges by filting your scroll saw table 15°. (Remember that you need a little extra wood around the sides and front of the base section patterns. Precut your wood pieces slightly larger than needed, then center your patterns on the wood.)

Before removing the pattern from the top section of the base, use an awt to locate the center points for mounting screws, Bore two 5/32"-Dia, holes, Countersink for screw heads

on the bottom side.

After making all of the parts, touch up any imperfections with needle files, sandpaper knife, etc.

Assembly

Test fit the clock insert in the mounting hole. Adjust the open-

ing as needed

Temporarily place the upright on the top section of the base. Locate and mark the paints where mounting screws will insert into the bottom edge of the upright. Use a drill with a 5/32"-Dia, bit to bore pilot holes for the screw tips. Test fit the upright to the base by installing the wood screws. Check that the upright stands straight, and that the joint fits good between both parts, Make adjustments as needed. When satisfied with the fit take the upright off the base and apply a minimal amount of glue to the areas to be joined. Reinstall the screws to securely fasten the parts together, and let ciry.

Next, attach the bottom section of the base with glue. Clamp together until dry.

Finishing

There are many fine products available for finishing. Just keep in mind that you should always experiment with new, untried finishes on sarap materials rather than risk ruining your project!

Also, always follow the manufacturer's directions for

usage, cleanup and disposal.

First, we chose to apply a coat of Minwax Pre-stain to our project. This product is of a thin, water-like consistency, which makes it wonderful for getting into small cutout areas. It really brings out the natural beauty of the wood grain and color. Next, we topped it off with a couple spray coats of Minwax semi gloss finish.

After finishing, install the clock insert, and your little dragon is ready to display!

For questions concerning this project, send an SASE to: Dirk Boelman, PO Box 701, Platteville WI 53818. Email: dirkdraws@CenturyTel:net

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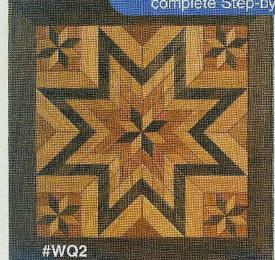
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A Pair of Kittens

by Sheila Bergner-Landry



SUPPLIES

Wood: oak or hardwood of choice—one piece 1/2" thick x 8" wide x 8" long (for frame); Baltic birch plywood—one piece 1/8" x 7" x 7" (for kittens insert) and one piece 1/8" thick x 8" wide x 8" long (for backer board)

Tools: scroll saw with blade sizes 2/0 and 7 (reverse tooth); drill with 1/16" bit; router or hand-held laminate trimmer with small roundover bit (for edging of frame) and 1/8" rabbet bit

Temporary-bond spray adhesive

Clear packaging tape

Sandpaper, assorted grits

Clear-drying carpenter's grade wood glue

Soft brush/vacuum cleaner

Delta Ceramcoat acrylic paints—Hippo Grey, Black, Mocha Brown and Walnut

Delta matte spray interior varnish (or the finish of your choice)

Delta brush-on interior/exterior varnish in finish of your choice

Sawtooth hanger of your choice

Introduction

Several issues ago, in Creative Woodworks & Crafts magazine, I did a project called "Kuttin' Kitten," as well as a series of six kitten plaques. Due to the popularity of these projects, I was asked to submit another "Kuttin' Kitten" project for you to design. I love cats and kittens, as I have been around them all of my life. I love their independence and the way you have to earn their love and respect. I thoroughly enjoyed creating and developing this project of two Kuttin' Kittens for you. I recently lost my loving Siamese companion of over fifteen years, Jasmine, and dedicate this project to her. I hope you enjoy it!

INSTRUCTIONS

Prepare the pattern pieces

Make photocopies of the original patterns and keep them for future reference. Make several copies of the pattern and cut apart the different aspects of the design.

When applying the pattern pieces, apply a light mist of temporary spray glue adhesive to the pattern piece and wait a few seconds for it to "tack up" (it should have the same feel as masking tape). Apply the pattern pieces to the hardwood and birch pieces, respectively.

When cutting hardwoods, I recommend the use of clear packaging tape to minimize burning of the wood. By applying a layer of clear tape over the entire design area, the adhesive in the masking tape lubricates your scroll saw blade, allowing it to run cooler and virtually eliminating burn marks on hardwood surfaces.

Cut the kittens insert

Apply the pattern piece to the Baltic birch for the insert, as above (see Fig. 1). I found it helpful with the detail of this design to stack cut the Baltic birch and make two or more inserts at a time, as your skill permits. This gives more control to your cutting, as the additional layers add more resistance and allow you to make these iner cuts. Also, you maximize your production and can make one to give and one or two to sell at the same time!

Using the 1/16" drill bit, drill the blade entry holes in the waste areas of the kitten insert (see Fig. 2). Cut out the



Fig. 1. Apply the pattern to the birch for the insert.

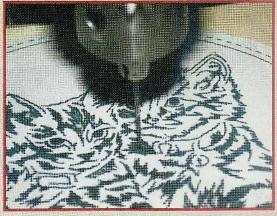


Fig. 2. Drill the blade entry holes in the waste areas of the kitten insert.



Fig. 3. Cut the details using the 2/O reverse tooth blade.



Fig. 4. Cut around the perimeter of the insert on the dotted line.

details of the insert using the 2/0 reverse tooth blade. Work on the inside cuts first and the outer details last (see **Fig. 3**). Next, cut around the perimeter of the insert on the dotted

line (see Fig. 4).

Sand the piece on a smooth and flat surface. Use a slightly worn sheet of 320-grit paper and a gentle touch with the orbital sander (raising and lowering rather then dragging the sander from side to side). Be extremely careful not to catch the delicate edges of the design, which may break off the pieces. More aggressive sandpapers may do this.

Make the frame

Apply the pattern to the hardwood frame as explained above using the clear packaging tape (see Fig. 5). Drill an entry hole in the waste area (center) of the frame. Thread the No. 7 reverse tooth blade through the entry hole and scroll out the inner edge of the frame, following the solid line (see Fig. 6).

Apply a mist of spray adhesive to a piece of paper. When it tacks up, press it firmly to the backer board (Baltic birch). Spray the front of the paper with another light coat of spray adhesive and also allow it to tack up. Place the frame (with the center cut out) face up on top of the

backer board and press firmly.

Scroll the outer edge of the frame and the backer board at the same time, using the same blade as above (see Fig. 7). Place the roundover bit into the router and round over the inner edge of the frame. Then proceed to round over the outer edge of the frame (see Fig. 8).

Use a scrap of the insert material to set the depth of the rabbet bit in the router. The bit should be just slightly deeper then the depth of the 1/8" kitten insert. Rabbet the inner edge of the back side of the frame so it will accept the kit-

ten insert (see Fig. 9).

To make the silhouette cutouts in the corners of the frame, re-apply the cut-out patterns to the frame using the spray adhesive as explained above (see Fig. 10). Place another small piece of packaging tape over each insert. Drill an entry hole in the waste area of each cutout (see Fig. 11). Proceed to cut out the detail of the frame using the 2/0 reverse tooth scroll saw blade (see Fig. 12). Sand the frame on a perfectly flat surface, beginning with 220-grit sandpaper and working up to the smoothness of your choice and hand sanding the rounded edges as necessary.

Painting and varnishing

Sand the backer board as you did the insert piece, using 320-grit sandpaper and an orbital sander. Clean all pieces of dust and debris after sanding by using a soft brush and a vacuum cleaner, gently brushing the pieces as you vacuum them (we used a soft toothbrush).

If you wish to use two colors for the background, as I did, make an extra copy of the kitten insert pattern and carefully cut apart the two kittens. Place the pattern piece over the backer board, tape into place and very lightly mark the division line between the two kittens with a pencil

(see Fig. 13).

Paint the left side of the backer board with Hippo Grey and the right side with Mocha Brown. Do not go to the edges of the backer board, as this will inhibit the glue from sticking correctly; however, be sure to cover the areas in the top corners where the kitten silhouette cutouts are located (see Fig. 14). Paint little streaks of Black on the grey side and Walnut on the brown side to resemble the direction of the fur, if desired.

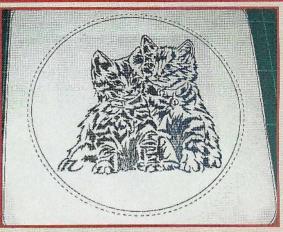


Fig. 5. Apply the pattern to the hardwood frame.

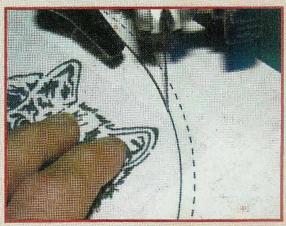


Fig. 6. Scroll out the inner edge of the frame, following the solid line.

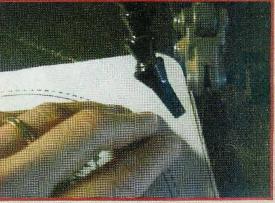
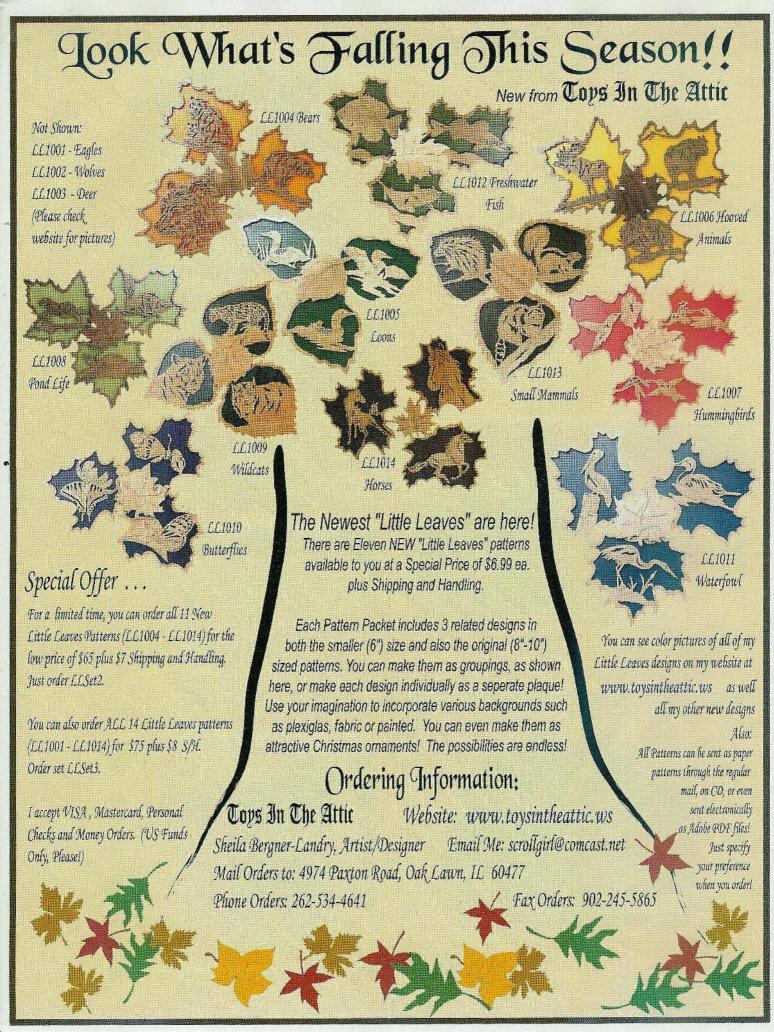


Fig. 7. Scroll the outer edge of the frame and backer board at the same time.



Fig. 8. Round over the outer edge of the frame.



Brush the backer board with the matte varnish in the direction of the grain, only over the painted areas. Spray several coats of varnish on the front side of the kitten insert, allowing ample time in between coats for it to dry.

For the frame, brush on three coats of varnish in the direction of the grain, allowing ample drying time on each coat. Use fine sandpaper to very lightly hand sand the frame, then

apply one or two more coats of varnish.

Assemble the scene

Dry fit the kitten insert into the frame, sanding the edges of the insert if necessary to make sure it fits into the rabbeted edge. Carefully apply a fine bead of clear-drying wood glue to the inner back edge of the frame. Place the kitten insert into the frame. Apply glue to the back of the kitten insert and frame and apply the backer board. Carefully clamp the backer board into place using several clamps. Allow to dry completely.

Attach the sawtooth hanger to the back of the frame.

Your "Kuttin' Kittens" are now ready to display!

For questions concerning this project contact Sheila Bergner-Landry, (902)245-5865. Émail: Scrollgirl@comcast.net. To see NEW designs from Toys In The Attic, including 11 new Little Leaves designs, please visit Sheila's website at www.toysintheattic.ws



Fig. 9. Rabbet the inner edge of the back side of the frame.

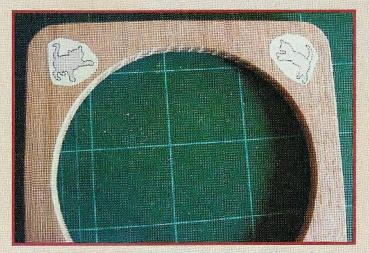


Fig. 10. Re-apply the cut-out silhouette patterns to the frame.



Fig. 11. Drill an entry hole in the waste area of each cutout.

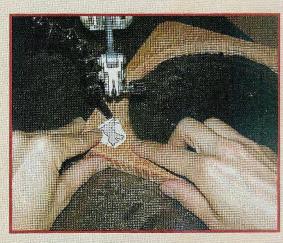


Fig. 12. Cut out the detail of the frame.

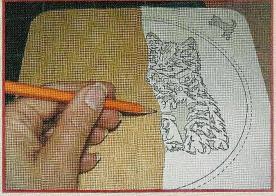


Fig. 13. Lightly mark the division line between the two kittens.

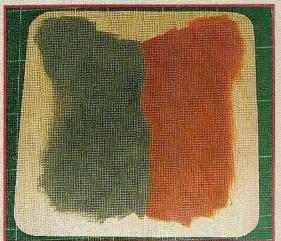
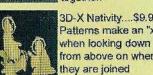


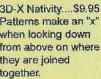
Fig. 14. Brush the backer board with Hippo Gray and Mocha Brown.





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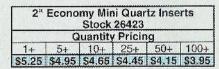
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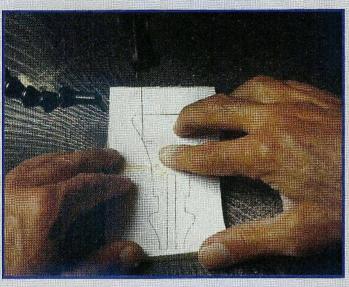
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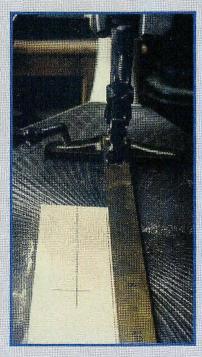


Circles, Curves and Corners by Rick Hutcheson



Practice Makes Perfect

Suppose you have found when cutting that following the line is getting easier, but you are still having a few problems making an even cut. Let's take a look at a few tips that may help you and try to learn some of the techniques that I use in production cutting. Always remember to practice, too. There is just no way around that.



Straight lines seem to be hard for some people. To make things a little easier, place some scrap wood on the table, feed it straight into the blade for about an inch, and then stop but do not move the wood. Now lay a ruler along the cut and see if it lines up with the top arm of the saw. Notice how the blade probably cut off to the right. This is normal because of a burr on the right side of the blade caused by the manufacturing process, and is sometimes referred to as "lead." Move your body around the front of the saw until the blade is in line with the cut you just made. This should place you a little to the right of the center of the saw. When you feed

your wood into the blade from this angle, the cut is tracking (leading) right in line with your sight line to the blade. I think you will find it easier to feed a line into the blade from this position, rather than trying to feed at an angle from the front of the saw.



Now for that straight cut... just line up the line with the blade and hold onto the wood with both hands. Then feed the wood with both hands straight at the blade. If you feed straight, you will make a straight cut.

Most scrollers think they should be standing directly in front of the saw, which makes them feed in at an angle to the blade. But feeding straight at the blade makes cutting easier.



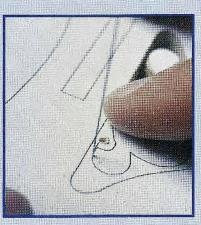
It wouldn't be fretwork without holes, and I find the easiest way to drill them is right on the table. I use a scrap of 1/2" or 3/4" wood as a backer board on the saw table and, with a handheld flexible shaft, drill away. Some saws, such as the Excalibur, have a shaft built into them for attaching a flexible drive, or you can use one attached to a Dremel Moto Tool, Foredom, or the like. I find it faster and easier to drill with this tool, instead of taking the wood to the drill press. Different size collets are available for these tools to hold even the smallest drill bits. Where to drill the hole has always been a question for many. Sometimes I think about it as I drill, but normally I just drill in the area close to the line.



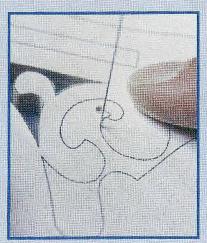
Sometimes I will start the cut on a straighter section of the waste area. After cutting around the fret there is normally a small nib left.



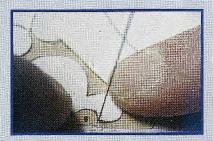
You can use the burr on the right side of the blade as a file by turning the wood slightly at an angle to the right and then lightly sanding the nib off with perfect precision.

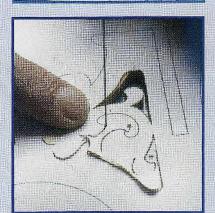


Others prefer to start on a point such as the one shown here. If you drilled your hole in the right spot in the waste area, you would have a straight cut to this point.



If the drill hole wasn't quite in the right place, you could loop the cut around in the waste area of the fret and still come in to a point for the beginning of the cut.









Let's move on to a curved line. When cutting small curves it is easier to use one finger as a pivot and feed the wood with the other hand.

On the small curves it is very hard to use both hands to move the wood; the direction of the curve will dictate which hand should be used as the pivot and which one should do the feeding.

You may want to switch pivot hands while cutting an "S" curve. When making curve cuts, I place an imaginary point about 1/16" in front of the blade. This is the point where the line that I am trying to follow should be. That means you need to rotate the wood, and not push it to the side, in order that the line always stays under that imaginary point.

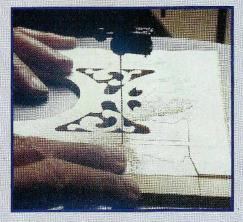
With the line there, you will automatically follow it as you feed the wood straight at the blade. This takes some practice but becomes natural after a little while. Remember that one finger is used for a pivot and the other hand is used to rotate the wood around that pivot.

Don't be afraid to stretch your fingers out and hook them over the edges of the wood. Even placing your fingertips into some of the previously cut frets can be a big help. If you don't have a good grip with the turning hand, the wood will be hard to control. Some scrollers use rubber fingertips (used also for paper handling or

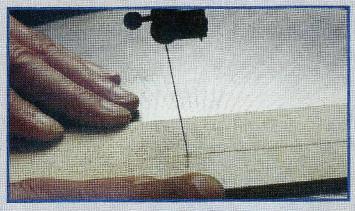
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counting money) to give them a better grip on the wood.

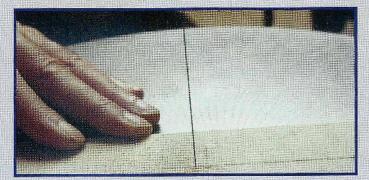
Cutting larger circles and arcs is just a matter of cutting a big curve. Sometimes I use both hands to guide the work on these longer arcs, which is similar to cutting straight lines with both hands feeding. Try to keep the wood moving and turning all of the time. Remember when you are cutting curves that the blade cuts straight, so you cannot make a cut without turning the wood. If you are feeding the wood straight at the blade, you are cutting straight lines and not arcs.



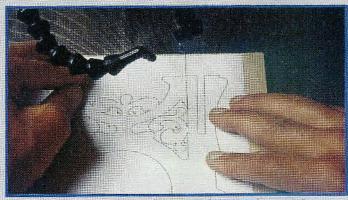
Look at the blade from the side and notice that it has a slight bow. The amount of bow depends on how hard we are feeding the wood into the blade.



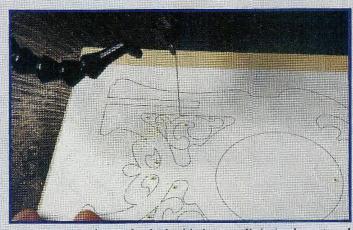
This bow is one of the reasons that some people have trouble cutting. They keep feeding until the blade hits the stop line then they stop.



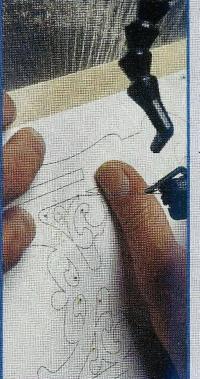
Look where the blade goes when it catches up with the cut: way past the stopping point. Remember that, when you get to a stopping point, you need to let the blade catch up with the cut before you get there. It only takes a slight pause for the blade to catch up. Play with this theory on some scrap wood and you may figure out why some of your cuts always seem to be so overextended.



A nice sharp corner represents one of the harder cuts for some scrollers. To do this, we follow the line right into the corner, stop to allow the blade to eatch up, and then turn the wood around.



Now we are going to back the blade up a little in the cut and turn the wood around.



To help hold the blade in place while making the turn, you can apply a little pressure to the side and back of the blade as you turn the wood. That pressure will help keep the blade indexed in the cut; it is kind of pivoting on the corner of the blade. Use just enough pressure to keep the blade indexed, and make the turn fast (or you will burn the wood with the back and sides of the blade). Be sure that the teeth turn in the waste side of the cut so you do not leave a mark in the design.

All of these tips may seem awkward at first, but don't give up. Once you practice and learn them, you will find scrolling projects that once looked quite difficult to be a whole lot faster and easier.

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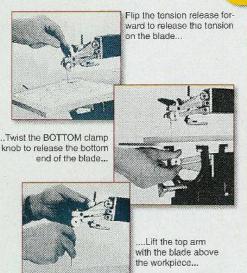
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Tonis, scroil saw with blades, drill with bits, including a No. 61 mini drill bit; needle files; awl; clamps, anist's knife, ruler; hammer

femporary-bond spray adhesive

Clear packaging lape Wood glue

Sandpaper, assorted grift; Cardboard, 1/8" x 3-3/4" x 5-3/4" (for backer)

Small brads or allos

Finish of choice

Introduction

For me, one of the greatest events of the past year was the birth of my first grandchild, Angel. Just like most proud grandfathers, I have already accumulated a few photos of her. I have decided, therefore, that us grandpas (and grandmas) throughout the country better get some frames made to hold some of our precious photos, so we can show them off to family and friends.

With that in mind, I came up with an idea for a floral "forget-me-not" frame. It really isn't very difficult to make. There are several openings to cut out, but they really don't take too long to complete. Once it is all done and you install the photo of one of your loved ones, there will be lots of people who will be very happy that you made it... and you're going to be pretty proud, tool

INSTRUCTIONS

Making the parts

Note: to save space, the pattern for the overlay is shown on top of the pattern for the frame. Before you begin sawing, make sure you understand which lines belong to which part.

Start by working on the frame. Use spray adhesive to temporarily attach a copy of the pattern to the wood. The dotted line produces the inside cutout area for the photo. It helps to use a straightedge and a fine-line ink pen to draw solid lines over the dotted lines. These newly drawn lines are much easier to follow while sawing. Cover the top of the pattern with clear packaging tape. The tape will lubricate the blade while sawing, thus helping to reduce the burning, especially in hardwoods like cherry or oak. Use a drill with assorted small bits to bore blade entry holes through the areas to be cut out, You can use a 1/8"-Dia, bit to bore the round holes in the flowers, or you can make smaller holes and saw them out if you wish.

To make the overlay, use spray adhesive to attach a copy of the pattern to the wood. (Remember which lines represent the cutting lines for the overlay.) Again, cover the top of the pattern with clear packaging tape to help prevent burning. When working with 1/8'thick material, we suggest that you stack saw two or three layers simultaneously. This provides extra support to fragile areas, and produces duplicates in about the same amount of sawing time that it takes to make just one. After making the stack, use a drill with assorted bits to make blade entry holes, and proceed to make all of the cutouts with a scroll saw.

After sawing, touch up any imperfections with needle files, sandpaper, knife, etc.

Assemble and finish

Place the frame on a clean, flat work surface. Test fit the overlay on the frame. Make light pencil marks on the frame, if needed, in order to help align the overlay. Apply a minimal amount of glue to the front of the frame (about 1/8" wide) around the central opening. Place the overlay in position. Wait a few seconds, then place a board and weighted object on top to hold it in position until dry.

When dry, finish sanding and remove all sawdust with an air hose, tack cloth or clean rag. Then, apply finish as desired. There are many fine products available for this. Just keep in mind that you should always experiment with new, untried finishes on scrap materials, rather than risk ruining your project! Also, always follow the manufacturer's directions for usage, cleanup and disposal.

First we chose to apply a goat of Minwax Pre-stain to our project. This product is of a thin water-like consistency, which makes it wonderful for getting into small cutout areas. It really brings out the natural beauty of the wood grain and color. Next, we topped it off with a couple spray coats of Minwax semi gloss finish.

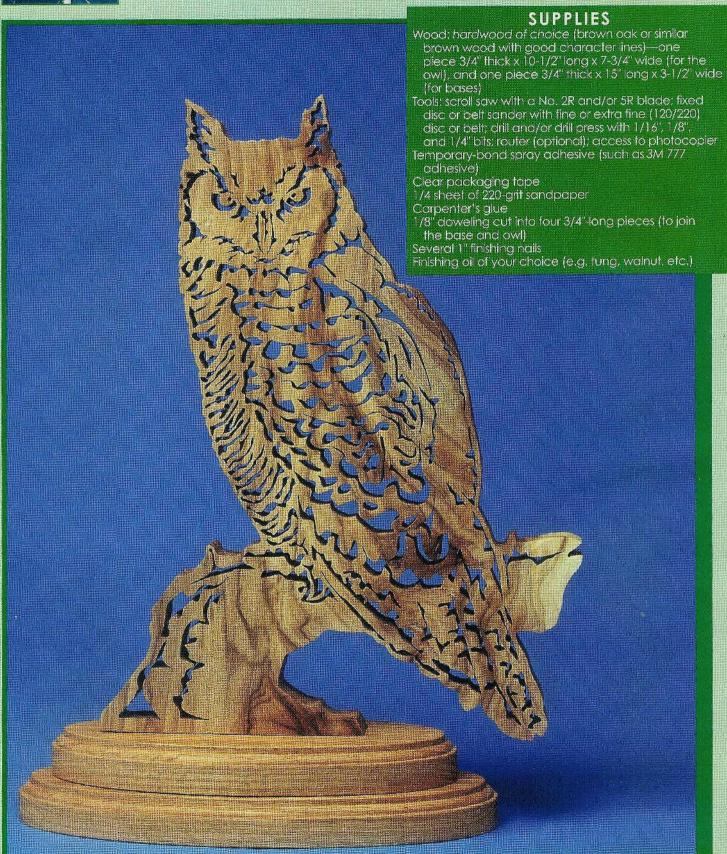
Install your favorite photo in the frame with a piece of cardboard or other material behind it for support. Then install small brads or clips to hold all in place... and your special frame is ready to hang and enjoy!!!!

For questions concerning this project, send an SASE to: Dirk Boelman, PO Box 701, Platteville WI 53818. Email: dirkdraws@CenturyTel.net 📖



Great Horned Owl

pattern by Jacob Fowler, cut and finished by Wayne Fowler



Introduction

Jacob has done five other birds of prey, including two other owls, but this great horned owl has attracted the most attention from my usual review crowd (friends, relatives and the folks at work). It has a great look about it and I am looking forward to doing it in a larger format soon. However, this size looks great!

The finished owl was cut from an interesting piece of grey elm with some great lines in it. Any brown wood, such as oak, would also make a great bird. The base was cut

from a piece of brown oak.

INSTRUCTIONS

The Owl

Make a photocopy of the pattern and glue it to the wood. I recommend using clear packaging tape on top of the pattern to reduce the burn from the tight turns you will have to make when cutting the pattern. For cutting, I recommend using a No. 5 or No. 2 reverse tooth blade to reduce chipping on the bottom of the piece. I mainly used a No. 2R blade with a No. 5R blade for the outside cutting and base.

After you have drilled the guide holes and cut out the fret pieces, use a solvent such as paint thinner to remove the paper pattern. Let the piece dry before you sand the two faces on a disc or belt sander. Alternatively, you could peel off the pattern and plastic and use the sander to remove the pattern and glue if you are not into solvents (I'm not). I find that then using a 1/4 sheet of 220-grit

sandpaper is a good way of removing any remaining burs and lightly rounding the edges to give it a more finished look. Clean the dust off the project (I use a clean paintbrush),

The Base

Glue the base patterns to the second piece of wood and cut them out with a No. 5 blade. As an option, rout the top edges of the base pieces with a router. Then sand the two pieces before the next phase.

There are several ways to attach the owl to the base, but the following way seems to work with no visible joins or

screws.

Take two 1" finishing nails and cut off the head and about half of the nail. Drill two small holes on either side of the bottom of the top base piece. Put the finishing nails (with the sharp ends facing out) in the holes (see Fig. 1). Then center the top base piece on the bottom base piece and press down to mark where the dowel holes are to go (see Fig. 2).

Now drill two small holes in the base of the owl, put the finishing nails in the holes and center the owl over the top base (see Fig. 3). Press down to mark the dowel hole placement (see Fig. 4). Use your own judgement as to where the owl should go; however, it seems to look best

when almost centered on the base piece.

Now carefully drill 1/8" holes 1/2" deep in the base of the owl, in the top and bottom of the top base piece, and in the top of the bottom base piece (as marked).

To assemble, use a limited amount of wood glue

continued on page 28



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continued from page 27

between the two base pieces with the dowels in place (see Fig. 5). Do the same on the bottom of the owl, again with the dowels in place (see Fig. 6). Then stand the three pieces up and hold them together by elastic bands, making sure that the owl is perpendicular to the base. Stand the project in a quiet corner overnight to let the glue set.

Thoroughly clean the completed owl and base and finish in the oil of your choice (our finished owl has two coats of walnut oil on it). Let it dry and it is ready for a sale or a gift.

Send questions concerning this project to: Wayne Fowler, 33 Longmeadow Cres, Markham, Ontario, Canada L3R 356. Email: fantasiesisaw@rogers.com 😭

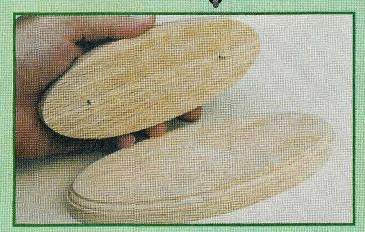


Fig. 1. Drill two small holes on either side of the bottom of the top base piece and put the finishing nails in the holes.

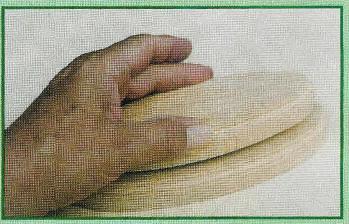


Fig. 2. Center the top base piece on the bottom base piece and press down to mark where the dowel holes are to go.



Fig. 3. Drill two small holes in the base of the owl, put the finishing nails in the holes and center the owl over the top base.



Fig. 4. Press down to mark the dowel hole placement.

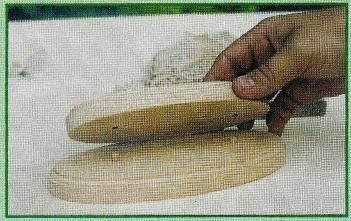


Fig. 5. Use a small amount of wood glue between the two base pieces with the dowels in place.



Fig. 6. Do the same on the bottom of the owl, again with the dowels in place.

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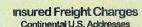
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Mandy Clock and Box

by Dan and Ray Wilckens



SUPPLIES

Wood: wood of choice*—sized to fit bill of materials Tools: scroll saw; drill press with very small drill press (for starter holes) and 1-3/8" bit (for clock movement); table saw or similar; planer (for proper wood thickness); belt and hand-held sander; various clamps

Temporary-bond spray adhesive Sandpaper, assorted grits Small file Xacto® knife and/or needle pick

Wood glue

Oil tinish
1-7/16"-Dia. clock insert**
Cloth (as required)***

Thin cardboard (as required)***

*We used contrasting wood for the floor and the pediment of the clock, and for the front/back, sides, foot fronts and sides, and support boards on the box.

**For the mandy clock.
***For the mandy box.

BILL OF MATERIALS					
Par	t Description	Size in inches	Quantity		
cloc	ck				
Α	Front	1/8 x 4-1/4 x 5-1/4	1 1		
В	Back	1/8 x 4-1/4 x 5-1/4	1		
C	Sides	1/8 x 1-3/4 x 4-1/2	2		
D	Foot fronts	1/8 x 3/4 x 4-1/4	2		
E	Foot sides	1/8 x 3/4 x 1-3/4	, 2		
F	Support boards	1/8 x 1-3/4 x 2-3/4	2		
G	Floor	1/8 x 3-1/4 x 4-3/4	1		
Н	Roof panels	1/8 x 3 x 3	2		
1	Pediment	1/8×4×6	西巴美语 [新疆]		
J	Crown	1/8 x 2 x 3-1/4	1		
box					
K	Front/back	1/8 x 2-3/8 x 4-1/4	2		
L	Sides	1/8 x 1-3/4 x 2-3/8	2		
M	Foot fronts	1/8 x 3/4 x 4-1/4	2		
N	Foot sides	1/8 × 3/4 × 1-3/4	2		
0	Support boards	1/8 x 1-3/4 x 2-3/4	3		
Р	Lid	1/8 x 3-1/4 x 4-3/4	1		
Q	Floor	1/8 x 3-1/4 x 4-3/4			



INSTRUCTIONS

For Mandy Box and Clock

Step 1. Copy the patterns, saving the originals for later use.

Step 2. Select wood to use.

Step 3. Plane wood to proper thickness.

Step 4. Cut wood to size of patterns. All straightedged pieces should be cut to size on a table saw or equivalent for accurate dimensions and straight edges. Cut scroll saw edges oversize.

Step 5. Attach the pattern to the wood with a spray adhesive. It takes practice to know the right amount: too much and the pattern is hard to remove; not enough and the pattern may come loose during sawing.

Step 6. With a small drill bit, drill a hole in the waste area of each cutout.

Step 7. Feed scroll saw blade through the small holes and cut along the lines. Feed the blade through the next hole and so on, making all of the interior cuts first. For exterior cuts, you can cut in from the edge or drill a small hole just outside the exterior line.

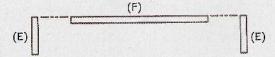
For Mandy Clock

Step 8. Drill 1-3/8"-Dia. hole in front (A) for insert.

Step 9. Remove patterns from wood by peeling it off. If a pattern is attached too firmly, you can use a hair blow-dryer. Be very careful because some cuts are very fragile.

Step 10. Sand workpieces with belt or hand-held sander

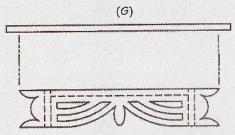
Step 11. Remove any burrs and clean up any cuts with an *Xacto®* knife or a needle pick. **Note:** on all seams, fill with a small bead of glue and sand while still wet; this helps to fill the seam.



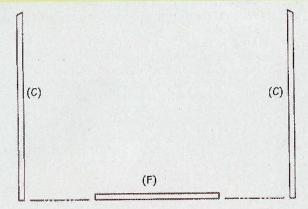
Step 12. Glue the foot sides (E) to one support board (F). These items need to be flush on the top and centered.



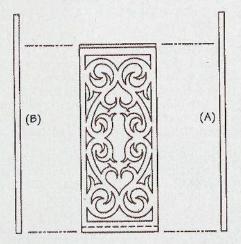
Step 13. Glue the foot fronts (D) to the foot assembly. These items need to be flush on the top and centered.



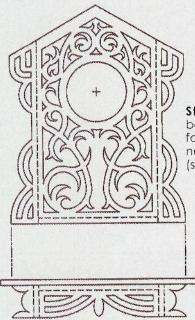
Step 14. Glue the floor (G) to the foot assembly. Again, this needs to be centered.



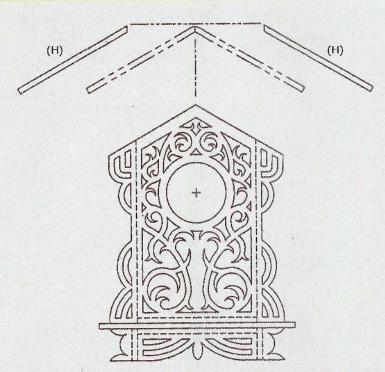
Step 15. Glue the sides (C) to the other support board (F). These items need to be flush on the bottom and at the front and back.



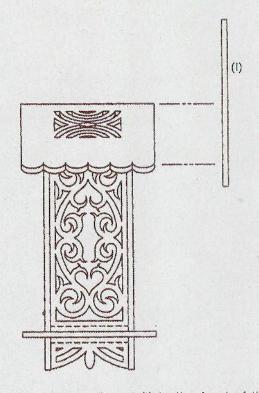
Step 16. Glue the front (A) and the back (B) to the body assembly. These items need to be flush on the bottom and the sides (see **Fig. 1**).



Step 17. Glue the body assembly to the foot assembly. These need to be centered (see Fig. 2).



Step 18. Glue the roof panels (H) to each other (see Fig. 3) and then to the clock assembly (see Fig. 4). The panels need to butt together and be centered. After assembly, sand the peak of the roof until perpendicularly flat to the clock (for the crown).



Step 19. Glue the pediment (I) to the front of the roof assembly. This needs to be centered.

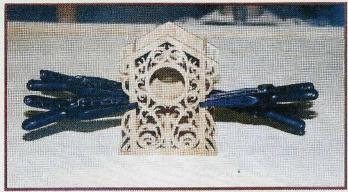


Fig. 1. Glue the front (A) and the back (B) to the body assembly.



Fig. 2. Glue the body assembly to the foot assembly.



Fig. 3. Glue the roof panels (H) to each other.

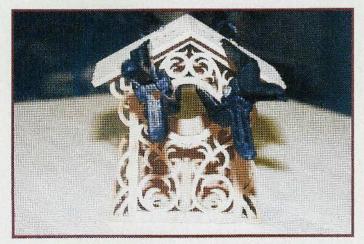
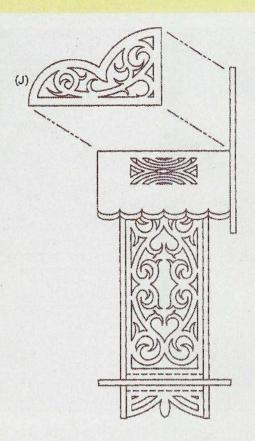


Fig. 4. Glue the assembled roof panels to the clock assembly.



Step 20. Glue the crown (J) to the roof, butted up against the back of the pediment(see **Fig. 5**). This needs to be centered.

Step 21. Apply oil finish per manufacturer's instructions.

Step 22. Install the clock insert.

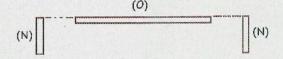
Step 23. Sit back and enjoy your new clock!

For Mandy Box

Step 24. Remove patterns from wood by peeling it off. If a pattern is attached too firmly, you can use a hair blowdryer. Be very careful because some cuts are very fragile.

Step 25. Sand work pieces with belt or hand-held sander.

Step 26. Remove any burrs and clean up any cuts with an Xacto® knife or a needle pick. **Note:** on all seams, fill with a small bead of glue and sand while still wet; this helps to fill the seam.



Step 27. Glue the foot sides (N) to one support board (O). These items need to be flush on the top and the front and back.

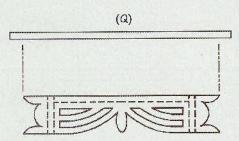


Step 28. Glue the foot fronts (M) to the foot assembly. These items need to be flush on the top and centered.

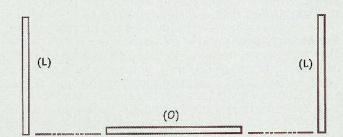
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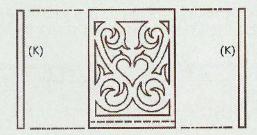
Fig. 5. Glue the crown (J) to the roof, butted up against the back of the pediment (I).



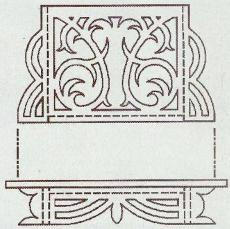
Step 29. Glue the floor (Q) to the foot assembly. These items need to be centered.



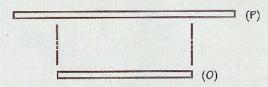
Step 30. Glue the sides (L) to the second support board (O). These items need to be flush on the bottom and at the front and back.



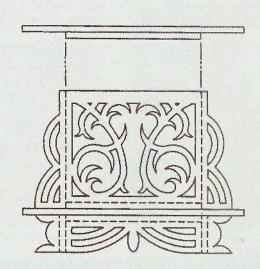
Step 31. Glue the front/back (K) to the body assembly. These items need to be flush on the bottom and the sides.



Step 32. Glue the body assembly to the foot assembly. These need to be centered.



Step 33. Glue the third support board (O) to the lid (P). This needs to be centered and needs to fit comfortably in the box assembly.



Step 34. Sit the lid assembly on the box assembly.

Step 35. Apply oil finish per manufacturer's instructions. **Step 36.** Installing the lining is optional and per your tastes. If you decide to install a lining, cut the thin cardboard to loosely fit into the box, measuring and cutting the front and the back, then the sides, and finally the bottom. Make sure the lining is short enough to fit below the lid once installed. Spray both sides of the cardboard with spray adhesive. Cut your cloth large enough to wrap over the top and cover both sides of the cardboard and allow enough on the edges so you might trim them once it has dried. Then trim as required to fit snugly in the box.

Step 37. Apply oil finish per manufacturer's instructions.

Step 38. Sit back and enjoy your new box!

For questions concerning this project, send an SASE to: Wilckens Woodworking, P.O. Box 520496, Independence, MO 64052, Email: wilkswood@aol.com

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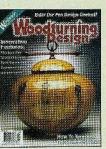
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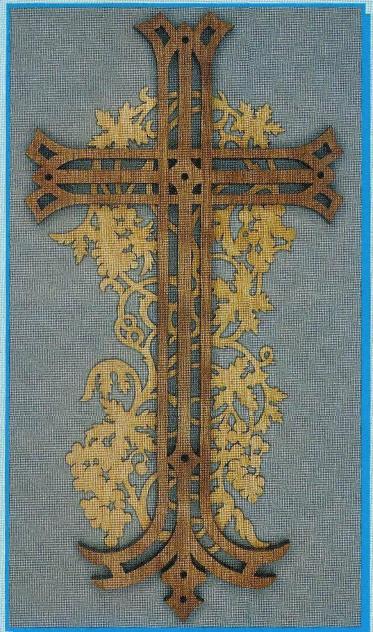
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A Sign for the Faithful

designed by Dirk Boelman, sawn by Karen Boelman



Introduction

I have drawn thousands of scroll saw patterns over the years, and crosses have always been amongst the most popular! This design features a fairly simple cross, backed with rather complex grape ivy. Both parts present different challenges: the long straight lines on the cross can be a little difficult to keep straight, and all of those little twists, turns and sharp corners on the leaves of the back piece may test your patience. However, when the sawing is all done and the parts are put together, this is truly a gorgeous project that will catch everybody's eye!

INSTRUCTIONS

To make the cross

Use spray adhesive to temporarily adhere a copy of the pattern to the wood of your choice. We used cherry for our cross, but there are many other gargeous species of hardwoods that will

SUPPLIES

Tools: scroll saw with blades; drill with bits, including a No. 61 mini drill bit; needle files; awl; clamps; hammer

Temporary-bond spray adhesive

Clear packaging tape

Wood glue

Sandpaper, assorted grits

Finish of choice

also look terrific. Cover the top of the pattern with clear packaging tape. The tape will lubricate the blade while sawing, thus helping to reduce the burning, especially in hardwoods like cherry or oak. Use a drill with assorted small bits to bore blade entry holes in all of the areas to be cut out. You can use a 1/8"-Dia, bit to drill the round holes/openings, or you can saw them out if desired.

To make the back piece

Use spray adhesive to attach a copy of the pattern to the wood, and then cover the top of the pattern with clear packaging tape. Note: when working with 1/8"-thick material, consider stack sawing two or three layers simultaneously. The extra layers will provide additional support to fragile areas, plus you will have one or two extra back pieces sawn out in about the same amount of time that it takes to cut one. Once you have prepared your stack of wood, use assorted small bits to bore blade entry holes through the areas to be cut out.

Proceed to saw out all of the openings. The eraser end of a pencil works great as a "hold down" to support finy fragile areas right next to the blade while sawing. This is much safer than risking burning or cutfing your fingers!

After sawing out the parts, use needle files, sandpaper, knife, etc., to clean up any imperfections.

Assemble and finish

To assemble, place the cross face down on a clean, flat work surface. Test fit the backer to see how the parts need to line up. Then apply a thin bead of glue on the straight horizontal and vertical area in the middle of the back piece. Place the back piece on the cross, centering the straight areas. On top of this, place a piece of scrap wood large enough to cover the back piece, and then set a weighted object on top to press all together until the glue dries.

When dry, finish sanding and remove all sawdust with an air hase, tack cloth or clean rag. Then apply finish as desired. There are many fine products available for this. Just keep in mind that you should always experiment with new, untried finishes on scrap materials, rather than risk ruining your project! Also, always follow the manufacturer's directions for usage, cleanup and disposal.

First we chose to apply a coat of *Minwax* Pre-stain to our project. This product is of a thin water-like consistency, which makes it wonderful for getting into small cutout areas. It really brings out the natural beauty of the wood grain and color. Next, we topped it off with a couple spray coats of *Minwax* semi gloss finish.

We hope you enjoy making the cross, and don't forget... we love to see photos of your finished projects!

For questions concerning this project, send an SASE to: Dirk Boelman, PO Box 701, Ptatteville WI 53818. Email: dirkdraws@CenturyTel.net

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Reader's Gallery



Frank R. Baize of Salem, OR, spent five weeks (over 130 hours!) making this phenomenal intarsia Aztec Calender. The 1,500+ pieces were cut, shaped, and hand sanded before being stained and meticulously glued to a 1/4" masonite board. The project was then completed with two generous coats of wood scaler followed by one coat of lacquer. Frank has since created another Aztec Calender! We certainly admire your dedication to such artistic endeavors. Keep up the good work!



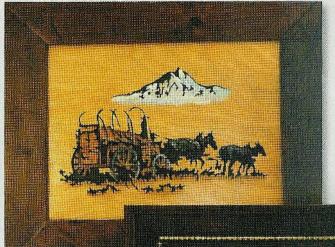
Harry Savage of Port Jefferson Station, NY, submitted his White Tiger, a variation on a design by Charles Dearing. It is made from 1/8" birch, measures approximately 11" x 14", and is framed behind glass. To see some more of Harry's work, visit his website at: http://harry.o.tripod.com.



Brandon Blauvelt of Andover, NJ, designed and crafted this coffee table. The table is made of black walnut and has white maple inlay. This was Brandon's first project in college as he worked to earn his bachelor's degree in Furniture Design. Its clean lines and cantilever edges are a direct influence from Asian architecture. Please feel free to send comments or requests to bblauvelt@earthlink.nct.

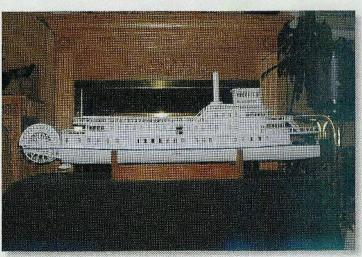
Reader's Gallery





Don Heppner of Osler, Saskatchewan, is pictured here next to his shop, which he, amazingly enough, designed and built on his own with scrap lumber from an old milk house. His daughter Kristen says, "This is where all his masterpieces come to life," You said it, Kristen! Also pictured are two of Don's creations, a covered wagon based on a pattern by Gary Browning, and a bear that was designed by Patty Beach and featured in our September, 2003 issue. Don has been featured in a newspaper article in the Saskatoon Sun, and now we're proud to show him off as one of our many accomplished readers.





Ray Baumbach of Enberly, B.C., designed this buffet (from Wildwood Designs) and intricate boat that he calls the S.S. Sicamous. The ship is made from 1/8" birch, except for the hull which is made from pine, and measures 42" long. Ray says that the plans were drawn from his own head, with a little bit of assistance from photos and from a trip to a museum where he was able to see a master plan. The ship, which is the original and not the updated version (docked in Penticton, B.C.), took Ray two months to design, with lots of "midnight ideas." We were also quite impressed with Ray's clocks and towers, which can be viewed on his website: www.scrollworkclocks.com. Be sure to check him out!

Reader's Gallery



Frank King of Peterborough, Ontario, designed this carousel project from Wildwood Designs. Aside from the professional quality of Franks woodworking and photo, we enjoyed his curt description: he says of his project, quite simply, "Oak... cherry... butternut... many, many hours." We can tell, Frank! Good work.



Leonard Detloff of Queen Creek, AZ, sent us this photo of his interpretation of a Judy Gale Roberts pattern entitled "Beginning of the Trail." Leonard says that he airbrushed the Superstition Mountains (as he sees them out his own window) into the background, and added foam clouds and a cactus to lend the project some depth.





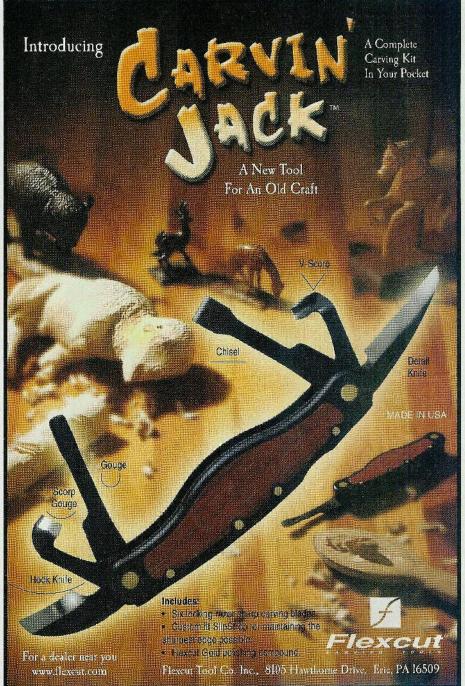


Chantal Audet of Chicoutimi, Quebec, has been a loyal reader and has been crafting our projects for some time. Shown here are a heron designed by Darin Liles and a Red Tail Hawk designed by Bob Hlavacck (and featured on the cover of our millennium issue). The moose is Chantal's own undertaking, and an excellent one it is! It took him 30 hours to fashion the moose from dark walnut, zebrano, African walnut, and ebony.





Earl Edmonds of Independence, OR, crafted the three projects shown here. One is a version of Nancy Jones' Cardinal and Dogwoods Welcome Sign from the June 2004 issue of *Creative Woodworks*; also shown is Sheila Bergner's Kuttin' Kittens project from the April 2004 issue; and finally, Earl has shared with us a nice collapsible basket (right). Great job, Earl!







SUPPLIES

Wood: wood of choice*—one piece approximately 3/8" x 10" x 20' Tools: scroll saw with Flying Dutchman SR No. 3 reverse tooth or FDSP Nos. 1 or 3 spiral blades; drill with appropriate sized bit for blade clearance; palm sander or sanding block Temporary-bond spray adhesive Sandpaper, assorted grits Masking tape (read precautions in Aleene's Tacky Glue (brown bottle) Felt, acid-free artist paper, or colored material of your choice (for the Clear coat finish spray *Natural edged slab wood is suggested, as it is a good complement to this paitem. The dimensions listed apply to the piece of live edge redwood we used.

Introduction

A while back I was fortunate enough to purchase a couple of pieces of beautiful flame-grained redwood slabs. The price was right and the colors magnificent. However, like most scrollers, I decided to wait until the right pattern came along to do anything with them.

One of my custom pattern customers sent me a picture that he wanted turned into a pattern. When I saw it, I decided that this was going to be the image for the wood I had on hand, I hope that you all agree and will have a good time cutting this pattern.

INSTRUCTIONS Preparing the wood

These slabs were thicker than I really wanted to work with, so the first thing I did was resaw the piece in half. This gave me two pieces of 3/8"-thick slab that had the same grain patterns, which effectively doubled my inventory of this gorgeous wood. I don't know if any of you have ever worked with redwood before, but it is a very brittle and porous wood, and the older it is the more it soaks up finish.

There was a small crack at the top corner of the slab that I felt might be in danger of coming off during the cutting. I had to repair this section, but also wanted to make sure the repair was as close to invisible as possible. First, I held the crack open slightly with a flat blade screwdriver, making sure that I did not extend the crack any more. I used a dental pick to clean out any loose

pieces of wood and then bew out the crack with my air compressor to make sure there was no sawdust or dirt to contaminate the repair. The actual repair was done using 15-minute epoxy. Since this usually does not dry clear and I wanted to hide the repair, I mixed some dark redwood sanding dust with it. I then used a couple of pieces of thin veneer to get the epoxy into the crack from both sides, making sure I had complete coverage and a little overflow. The joint was then held closed with the help of a couple of spring clamps to assure that it remained fight. I let the epoxy cure overnight and used my ROS (starting with 100-grit paper) to smooth the joint, I finished the complete piece of slab with 320 grit in preparation of my primary finish. In retrospect, I should have used a black epoxy for the fill, as the fill still turned out a bit lighter than I would have liked.

Pre-finishing the slab

If you have never worked with old-growth redwood, you are in for a finishing "treat." THINK SPONGE!!! Those who have read my Smallmouth Bass article (March '04 Creative Woodworks & Crafts, Issue No. 98) know that I am somewhat obsessive about the finishes on my projects. I wanted to really blow up the grain in this gorgeous piece of wood and decided to use my standard system of BLO/mineral spirit mix followed by lacquer sanding sealer and gloss lacquer. This finish has worked very well for me on previous projects (see my Smallmouth Bass article in the aforementioned magazine). I usually just wipe on the BLO mix, let it sit for about thirty minutes, and wipe off the excess before letting it totally dry for a couple of days. Imagine my surprise when the BLO just kept disappearing into this wood; this slab soaked up the BLO like a dry sponge!

I ended up soaking the slab in an aluminum tray filled with BLO for thirty minutes and then taking it out and wiping off the excess. I then continued to wipe off any BLO that wept from the pores for about the next two hours. After letting the slab dry for about a week, I was ready to proceed with my preliminary finish. If you have read my Smallmouth Bass article, you know that I like to pre-finish a piece of wood before cutting it. I find that in the long run it saves me a lot of time and I eliminate the possibility of maybe breaking off small pieces of the cutting. I will give you the basics of my pre-finish technique since it is

detailed in my previous article. After the BLO is dry, I apply two light coats of lacquer sanding sealer and then lightly sand with 320-grit paper. This is usually followed by two to three coats of gloss lacquer. However, in this case I was in for yet another redwood "surprise." Even after soaking in the BLO and applying two coats of sanding sealer, the slab wanted to just soak up the lacquer. Because the slab has such amazing grain, parts of the wood are harder and denser than others: the less dense areas soaked up the lacquer, leaving the harder areas with a nice coating. I ended up applying seven coats of lacquer (lightly sanding smooth every other coat) before the less dense areas no longer soaked up the finish. Even with the sanding, if you look closely you can see a slight ripple effect between the hard areas and soft areas of the slab. Considering the pattern and the grain, though, this slight ripple is a pleasing effect. (I just hope the judges at a contest also like it.) One little word of

wisdom: make sure that you also finish the back of the slab. This will eliminate any wood movement that could cup or twist the wood. A couple of coats of lacquer is sufficient, All you are looking for is to seal the wood.

After the front is pre-finished, I allow the lacquer to cure for at least a week. With this particular slab, the curing was very important because of the amount of lacquer I needed to pre-finish the front. If you do not allow the lacquer to cure, if will most likely fuzz and curl as you cut it because it has not sufficiently hardened all the way through. This makes the final finish that more difficult to execute. Now I realize that all this might sound a bit excessive, but when you find that really outstanding piece of wood, you owe It to yourself to really do it justice.

Applying the pattern and cutting the project

At this point, I am ready to put on masking tape, glue the pattern to the tape, and drill the holes. Instead of my normal "el cheapo" masking tape. I decided to try the blue masking tape used by painters as I heard that it leaves absolutely no residue. This turned out to be one of the biggest mistakes I have ever made. After cutting the pattern, I found out that the tape was stuck fast to the wood. I needed a magnifying glass to read the fine print on the tape to see that this kind of tape is not to be used on lacquer finishes. After a long session with a heat lamp, I finally got the tape off the wood. I then spent an additional six hours using a glue remover and mineral spirits to get all the residue off the wood. I was not a happy camper. It just goes to show that even us old dogs need lessons now and again. Read all directions and precautions when using a new material. It will save you a load of heartache.

With the wood finally cleaned of glue residue, I wet sanded with 600 grit to smooth the surface, let the piece dry for a day, and applied two more coats of lacquer. After the lacquer had cured for a couple of days, I then wet sanded with MicroMesh on a hard foam block, starting at 1800 grit and ending with 4000 grit. This gave the piece a real nice smooth and glassy finish. The backing is a piece of acid-free artist's paper glued in place. Be careful when applying the glue so that none squeezes into the cuts.

This pattern is not as hard as it looks, It only has about 150 blade changes and none of the cuts are particularly difficult. Remember that the pattern is just a starting point for your finished work. You can make little changes here and there to accommodate the particular piece of slab that you are using.

On this piece I used a new blade that Flying Dutchman is selling—a round spiral No. 3 blade. Unlike most spirals, it is not a twisted blade, but rather made from a solid round piece of stock. I found that it cut smoother and lasted longer than any other spiral blade I had ever used. There were virtually no fuzzies on the back of the piece to sand. In fact, finish sanding was accomplished with 220-grit paper. I was highly impressed with this new blade.

I hope you enjoy cutting this piece and let us see your finished project. And remember the primary rule of scralling: RELAX AND HAVE FUN!!

For questions concerning this project, send an SASE to: Thomas J. Mullane Jr., 20781 Millers Church Road, Hagerstown, MD 21742.



Brown Bear Dinner

drawn by Shelli Robinson, sawn by Kerry Robinson of SK Woodworks



Introduction

A kind of "fret" pattern, this hungry brown bear is swimming against the current (and what can sometimes be all odds) to get a meal. Lucky for him and not so lucky for the salmon, lunch is a few minutes away! It is a challenge for a scroll-pattern artist like me to draw water. Rushing, flowing or still, water is hard to transfer from mind to pen and then to saw. Keeping a pattern two-dimensional in reality with the illusion of depth (three dimensions) is hard enough without adding water to the mix! I see a lot of patterns in my head, and realism is my favorite way to convey those visions to paper and to interpret them. I do have some abstract designs floating around in here too (pointing to my noggin), but they are not as easily seen by others... or sold as a pattern someone else wants to saw.

I drew this enormously hungry bear after leafing through the books of a wildlife library book. SO many animals and SO little time before the book is due back to the library! It took my husband a couple nights after work to cut. As you have probably seen before, my patterns are drawn in the same style. Any completely enclosed space will drop out and will usually have a dot in it, signifying a place to drill the hole for scrolling. Note: I don't place dots where they are most efficient to drill. My husband drills somewhere more convenient and scroll-saw-smart in the negative space. I try to draw with as much detail as I think the wood can hold, and we gut our patterns from Baltic birch to best show off the pattern. Use the pattern here as a guideline: use your own wood to get the life out of the bear in rushing water that YOU want. When I draw for wood with character, I leave more space for that wood to draw the aftention.

INSTRUCTIONS

Using the method of choice, apply your pattern to the clean surface of your show piece. We use Removable Adhesive Paper for ALL of our scrolling projects. We usually stack out six

SUPPLIES

Wood: birch plywood—one piece 1/8" x 12-11/16" x 9-7/8" (or size to fit your custom- or ready-made frame)

Tools: scroll saw with No. 2/0 spiral blades: drill with assorted (small) bits Removable Adhesive Paper* (or spray adhesive) Clear packaging tape Wood glue Sandpaper, assorted grits

sanapaper, assorted gris Small square (for scroll saw blade) 10" x 13" or 11" x 14" ready-made frame

Black spray paint (or other background color choice)
*To order, contact: SKWoodWorks, P.O. Box 583, Pleasant View, TN 37146; (615)430-3839; www.skwoodworks.com. Allow 7-14 days for delivery.

pieces of 1/8" Baltic birch plywood. We have cut as many as ten pieces at one time, and Kerry asked me to tell you that six is best. We apply double-sided sticky tape to the four corners of the wood, staying

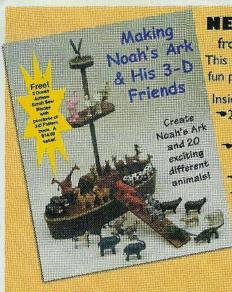
clear of the pattern. These boards are approximately 12-11/16" by 9-7/8", cut to fit the inside of some ready-made frames. I have listed only one piece of 1/8" wood in the supplies list. You can use a birch board spray painted black, the cardboard that comes with your frame spray painted black, or pick a beautiful piece of naturally dark wainut or other fine wood cut and edged for a plaque backer, gluing the finished piece on with wood alue.

No matter which pattern application method you use, it is a good idea to apply 2"- or 3"-wide clear packaging tape over the entire top of your pattern. This simple and inexpensive step will lengthen the life of your blades as it helps to keep them cooler by lubricating them while you cut. Do not wrap tape around to the bottom of your wood as this could make your board(s) uneven or take your blade out of square. Make sure your blade is square and check this frequently while scrolling.

Pre-drill all your holes, and put a starter hole at the end of all the single lines. Cut your smaller areas first (usually at the center of the pattern). Take out the biggest areas last. Of course, let your own experience guide your blades.

When you are finished, gently pry the boards apart. For those of you that sprayed your pattern, we will leave you here to scrape, sand and apply mineral spirits. For those of you using the Removable Adhesive Paper, peel off and go to the sander. Sand the backs of each board. Carefully blow the sawdust off of each piece with your compressed air. Match to backers and frame. Kerry cuts our patterns with spiral blades. It takes about 2-1/2 to 3 full hours for Kerry to cut a pattern of this caliber with this many holes, Most of my patterns he can complete in 1-1/2 to 2 hours.

For more information about us, pattern ideas, supplies and information on Removable Adhesive Paper, please visit out website (www.SKWOODWORKS.com). Or send us a note via snall mail to: SKWoodWorks, P.O. Box 583, Pleasant View, IN 37146.



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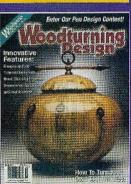
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If I Had A Hammer...

by John Polhemus



SUPPLIES

Wood: wood of choice—one piece 2" x 2" x10" (for hammerhead), one piece 1-1/2" x 1-1/2" x 16" (for handle)

Tools: scroll saw and blades (No. 7 or No. 9 recommended); drill press and 1/16" drill bit; router table; router;

1/4" and 3/8" roundover bits

Temporary-bond spray adhesive

Sandpaper, assorted grits

CA (cyanoacrylate) glue

Black gloss enamel paint

Finish of choice

Introduction

At the time, it may have only been a rock or a club, but the hammer was one of the first tools invented. It's such a fundamental part of our history that it's an icon in its own right. That's probably why the humor of this oversized piece of humanity is so universally understood and appealing.

The list of phrases you can choose to cut in the handle is endless. Surely you can think of one that will hit the nail on the head (sorry!). It's so easy to think them up. Here are a few I hammered out (sorry again!): "FINNISH HAMMER" (hit something with it and it's finished); "LAST WORD" (guarantees the last word in an argument); "ATTITUDE ADJUSTER"; "SCHOOL OF HARD KNOCKS"; "TRAINING TOOL"; "ENFORCER"; "INTIMIDATOR"; "EQUALIZER"; "LOVE TAPPER"; "WAKE UP CALL!"; "FINGERNAIL PAINTER"; "ONE LUMP, OR TWO?"; "NOW THAT I HAVE YOUR ATTENTION"; "FINE ADJUSTER"; "FINAL TOUCH."

I think you get the idea.

INSTRUCTIONS

Making lettering patterns

You can make lettering patterns a number of ways: trace or cut and paste copies of the alphabet provided in the pattern section; use lettering guides and expand-o-guide from Seyco Sales (800-462-3353); use a program like WoodTrax (800-229-5505), a paint program, or a word processor (if you have a computer and printer). Graphics programs such as Adobe Illustrator or Corel Draw also open vast possibilities.

Preparing the wood

I doubt you'll find a place that has 2" x 2" wood on the shelf, so you'll have to order it or prepare lhe wood for the hammerhead yourself. You could cut it down from a 4" x 4", or glue up two pieces of 3/4"-thick and one piece of 1/2"-thick wood. I have a planer, so I planed a 2" x 4" to 1" thick, then glued two pieces together. When it was dry, I cut the width to 2". The wood for the handle is 1-1/2" x 1-1/2", which is readily available.

Tip: look in your area for a place that makes roof trusses. I have one less than two miles from me. They throw away dumpster loads of cutoffs every day. The yellow pine they use is hard and makes a very durable hammer. You can also salvage shipping pallets and discarded furniture. There's plenty of free wood out there. If at all possible, invest in a jointer and planer. The money you save being able to mill your own dimensioned wood from rough cut lumber and salvage wood will make them pay for themselves in no time!

Making the handle

A mortise and tenon joint is used to attach the handle to the hammerhead. To layout the lines for cutting the tenon in the handle, start by making a pencil mark 2-1/16" down from

one end. Be sure the scroll saw table is square to the blade, then make a very shallow cut on the mark (see Fig. 1). Rotate the wood so the shallow cut faces up, and then make another shallow cut using the first shallow cut as your mark (see Fig. 2). Repeat this process for the other two sides. These lines will then be square to the wood and aligned to each for cutting the shoulder cuts of the tenon (so the hammerhead will fit flush to the handle).

Draw lines 1/8" in from both edges of one side, from the shallow cut line to the end of the handle. On an adjacent side, draw two more lines the same way. These lines will be used to make the cheek cuts of the tenon (see Fig. 3). Start at the end of the handle and cut all four of the cheek cut lines, stopping at the shallow cut lines (see Fig. 4). Finish the tenon by cutting the four shallow cut lines, stopping at the cheek cut lines, forming the shoulders of the tenon (see Fig. 5).

Round over the bottom end and edges of the handle with a 3/8" roundover bit and router. Be careful not to hit the finished tenon with the router bit (see Fig. 6)!

This is the time to cut the phrase that you want in the handle (before the hammerhead is attached). Apply the pattern, drill 1/16" blade access holes, and cut the letters.

Tip: the small amount of wood holding in the centers of the letters "A," "B," "D," "O," "P," "Q," "R," the symbol "&" and the numbers "4," "6," "8," "9," and "0" can be broken by the stresses of cutting. Where you stop and start when cutting these can reduce a lot of the stress. I'll use the center of the letter "A" as an example of what I mean. Note the small amount of wood holding the center in place (see Fig. 7). To avoid breaking that, I prefer to cut the left side of the "A" first, because the center bridge line is connected to the left leg of the "A" (see Fig. 8). Then I cut the right leg of the "A," starting on the outside of the leg. That way, when I come back to the starting point of the cut, the pressure of shaving the surface smooth where they meet isn't on the center of the "A" (see Fig. 9). If I started and ended on the inside of the right leg, all the pressure would be on the center of the "A" and the wood holding the center might not take the stress (see Fig. 10).

Making the hammerhead

Cut the pattern on the outer solid line, fold it on the dashed center line, and apply it to the wood (see Fig. 11).

Cut the claw end, "V" notch, and striking face lines, as labeled on the top profile of the pattern (see Fig. 12). Turn the wood over to the side profile and cut the claw end curved lines, as labeled on the side profile of the pattern (see Fig. 13).

The neck between the striking face and body of the hammerhead is made much the same way as the tenon on the handle. Start by making the shallow cut line where marked on the top profile (see Fig. 14). Rotate and make shallow cut lines all the way around, as you did with the tenon. Cut the four curved neck lines, stopping at the shallow cut lines (see Fig. 15). Finish the neck by cutting the shallow cut lines, stopping at the curved neck lines (see Fig. 16).

To give the hammerhead a more realistic look and to make it comfortable to the touch, LEAVE THE PATTERN ON and round over all the sharp edges (except the insides of the "V" notch) using a router table, router and 1/4" roundover bit. Hand sand the sharp edges on the neck that can't be sanded with the router.

The reason for leaving the pattern on is you'll need the big "X" on the top profile for making the mortise in the following instructions. If you wait until after you cut the mortise

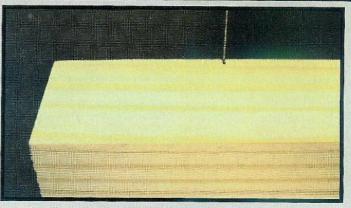


Fig. 1. Shallow cut, 2-1/16" from end.

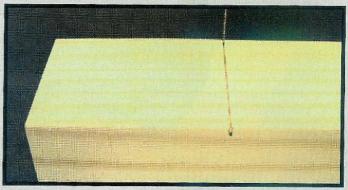


Fig. 2. Second shallow cut.

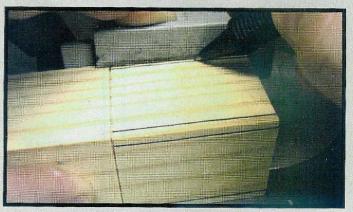


Fig. 3. Drawing check cut lines.

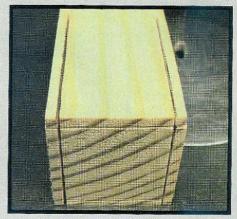


Fig. 4. Four cheek cut lines.

continued on page 48

to round over the edges, the guide bearing on the router bit will not have anything to ride against when it gets to the mortise and it will mess up the hammerhead.

Cutting the mortise

Place the tenon on the end of the handle over the large "X" on the top profile so the corners of the tenon line up with the "X" (see Fig. 17). Be sure the lettering is facing in the direction you want it to be in when the handle is glued in place. Accurately trace the tenon with a sharp pencil (see Fig. 18). Drill a blade access hole and carefully cut to the lines to make the mortise.

Now that the mortise has been marked and cut, round over the end of the tenon with the 1/4" roundover bit (see Fig. 19). This will highlight the finished mortise and tenon joint (see Fig. 20). Remove the handle and paint the hammerhead black (except inside the mortise) with black gloss enamel paint. When it's dry, glue the handle in place.

Conclusion

I can see these going over well at a craft show, You could make the hammerheads and blank handles ahead of time. Paint the hammerhead, mark the surface of the tenon and mating inside surface of the mortise so you can align them properly after you cut the lettering in the handle at a show. Cut the phrase people choose or come up with, glue on the hammerhead with CA glue (cyanoacrylate) and send them on their way. You'll need your own hammer with "CROWD CONTROL" cut in it to beat the customers off!

For questions concerning this project, send an SASE to: John Polhemus, 3000 Charleton Ct., Waldorf, MD 20602. Email: fretsawyer@worldnet.att.net 🖂

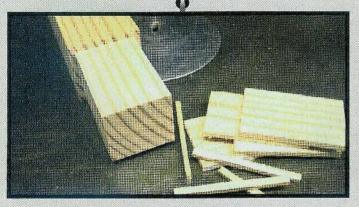


Fig. 5. Finished tenon and waste pieces.

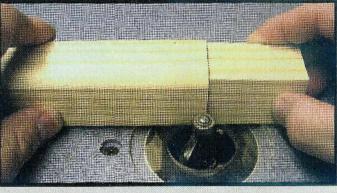


Fig. 6. Don't hit the tenon!

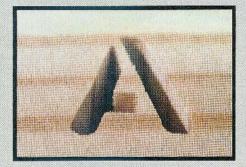


Fig. 7. Small amount of wood holding the center of the "A" in place.



Fig. 8. Cut the left side first.

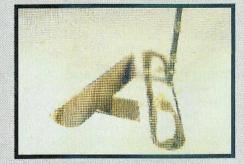


Fig. 9. Starting from the outside of the right leg.



Fig. 10. Starting from the inside of the right leg.

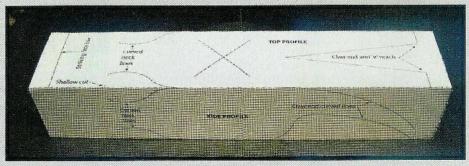


Fig. 11. Pattern applied, ready to cut.

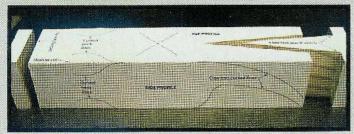


Fig. 12. Claw end, "V" notch and striking face lines cut.

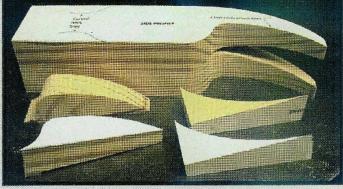


Fig. 13. Claw end curved lines cut.

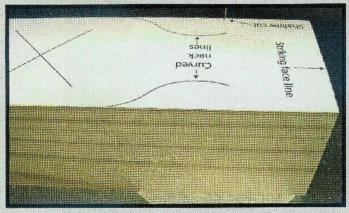


Fig. 14. Shallow cut for neck, where marked on pattern.

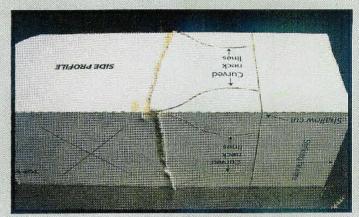


Fig. 15. Curved neck lines cut.

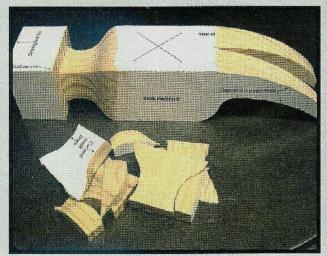


Fig. 16. Finished neck and waste pieces.



Fig. 17. Tenon on handle placed on "X."

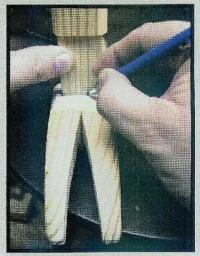


Fig. 18. Accurately trace the tenon!

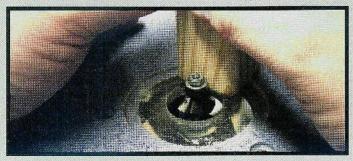


Fig. 19. Rounding over top of tenon.

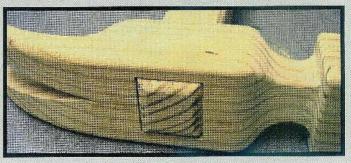


Fig. 20. Finished mortise and tenon joint.

WES! WOOD PILE

by Wes Demarest

Mulberry

I would like to remind you that I am not a forester or any type of tree expert, but just an old guy that has spent a lot of time in the woods and at the bench. That being said, the photos of the red/black mulberry shown in this profile are from a tree on our property that came from my grandmother. I refer to it as red/black because it is most likely a hybrid; it does not have the definitive characteristics of either. Additionally, my grandmother had several reds, whites, and blacks on the farm. This was one of her seedlings, meaning its genetics are well mixed.



Red mulberry is native to the US and its range extends from Massachusetts to Florida, westward to central Texas and north to Iowa. White mulberry, an imported variety, has been planted extensively throughout the US in an effort to develop a viable silk production industry, which so far has failed. However, the two species cross-pollinate and the hybrids have now become naturalized in many parts of the Eastern United States. Black mulberry was also imported for the superior flavor of its berries and also has been widely planted.

As you can determine from its range, red mulberry has a wide tolerance for growing conditions, but needs about 150 frost-free

days/year in an area of moist, well-drained soil below 2000 feet in elevation, and does best in flood plains.

Mature trees will range in size from 15' to nearly 80' tall with diameters at breast height (DBH) well in excess of 48" in exceptionally large specimens. It usually has a short divided trunk and a large spreading crown, and grows best in open conditions. However, it is shade tolerant and when found in wood lots will be found in the understory growing near streams and wet spots.





The above photos show the differences in the bark of red mulberry (left) and white mulberry (right).

The bark of red mulberry is reddish dark brown, scaly, with the tips of the scales curling and peeling off. Paper mulberry (*Broussonetia papyrifera*) is native to Asia, where, in the past, the inner bark was soaked and pounded into a fabric that was used as paper as well as cloth. This variety has also been planted in the US as windbreaks and ornamentals and has become naturalized in many locations.



Red and white mulberry male and female flowers can be on separate trees (dioccious) or on different branches of the same tree (monoccious), which is mostly true for the other species.





These photos show red mulberry leaves from a top view (left) and a bottom view (right).

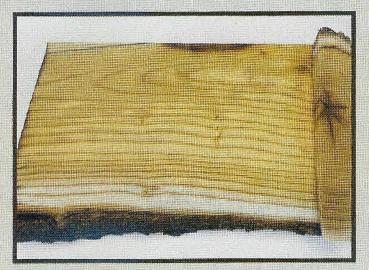
Like sassafras, mulberry leaves may have several different shapes, but unlike sassafras, mulberry leaves are rough on the top surface and hairy or velvety underneath (except for white mulberry, which is hairless). They are broadly oval and sharp pointed, 3" to 5" long with toothed margins, and may have two or three lobes. Regardless of the variety, they all feel very coarse.



Mulberry fruit serves as food for birds and many other species of wildlife, but it is mostly the fruit of the black, red and white that are used by humans. The black is the sweetest, the red is nearly as sweet but a bit tart, and the white is more tart than sweet. However, individual trees can vary considerably. In fact, the color of ripe fruit on the white mulberry can range from white to nearly black. Almost all varieties have been used in desserts and, as is typical with any fruit or vegetable that contains natural sugar, have been fermented into an alcoholic beverage.

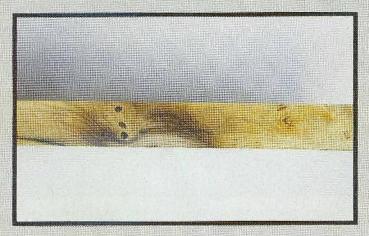
WES! WOOD PILE

continued from page 51



I have to admit that I have very little personal experience working with mulberry. I have inquired of others for their experience and have had few responses. What I do know is that the tree has never been a primary source of lumber for several reasons: it is not a dominant timber species, and is usually marked as salvage or firewood in logging plots; also, most logs harvested tend to be short and crooked, which reduces their market potential.

The wood is classified as light and weak; therefore, it is not recommended for furniture or load-bearing construction. It is, however, durable and rot resistant. As such, it can be put to work as fence posts, firewood, boxes, slack cooperage and craft wood.



The wood is naturally yellow, aging to a golden russet color. It is not difficult to mill and dries quite easily, but should be milled over size and stacked and stickered with weight on top to reduce twisting, cupping and bowing. Once dry, it stays fairly flat and, like cherry and cedar, should be kept covered. Otherwise, you should leave all boards evenly exposed to the light to keep an even color. It accepts glue well, but you should be sure to drill pilot holes for nails and screws, and be careful so as not to over torque screws and strip the threads. Also, be careful of any ingrown defects as they are not sound and add to the board's weakness if not cut out.

The wood finishes easily and accepts shellac and polyurethane without problems. I have not tried lacquer, but do not expect that it would pose any problem. The green wood turns like any green wood. Just watch out for ingrown seams. If you are turning a large piece and run into a black line, be aware that it can develop rather quickly into a large seam or void—and that goes for carvers as well. Fortunately for carvers, the wood will not explode in their face. These seams and voids do make for interesting accents in finished pieces, but can be problematic otherwise.

The detriments inherent to the woodworker belie the economic value that the species has and provides to the fabric industry, for without white mulberry and to a lesser extent the other varieties, there would be no silk trade in the world.

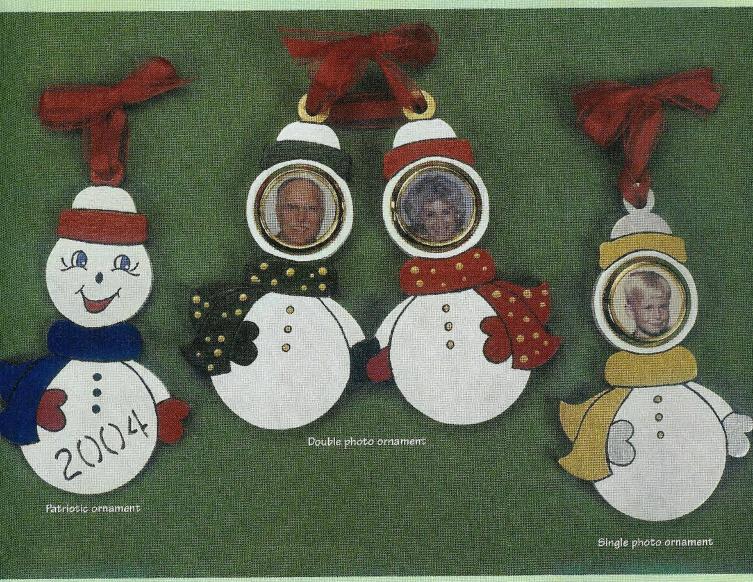
Several thousand years ago, the Chinese developed a way to process the cocoon of the silkworm moth and kept it a well-guarded secret. People were threatened with death to prevent the secret from ever being revealed to an outsider. Unfortunately for those guarding the secret, industrial espionage existed even then, and the secret got out. Once it was learned that the moth required large amounts of white mulberry leaves, the race was on to get the moth and seeds of the tree. The English introduced the tree to the New World in 1631, and up until the 1800's great expense and effort went toward establishing large plantations of white mulberry in the southeastern United States (to little avail). It was not that the trees didn't grow. They did, but the compounded costs of establishing the trees and a few killing freezes left them no profit margin, and the industry failed.

Then came the civil war and southern cotton was no longer available to the north, and they needed fabric. Thus surfaced Professor L. Trouvelot, the American naturalist that brought the gypsy moth from France to Massachusetts in 1869. His plan was to crossbreed it with the silkworm moth in an effort to control wilt disease, which was causing serious problems for the silk industry. No one knows for sure how many escaped from his lab, but the rest is history. Granted, this has little to do with woodworking, but the next time you get a piece of mulberry, think of all the expense, heartbreak, and intrigue that has revolved around it for over a thousand years.



Personalized Snowmen

by Diana Thompson



SUPPLIES

Wood: wood of choice—two piece 1/4" x 6" x 6-1/2" (fordouble photo ornament), two pieces 1/4" x 3-3/4" x 6" (for single photo ornament), one piece 1/4" x 3-3/4" x 6" (for patriotic ornament)

Tools: scroll saw with No. 5R and No. 3R blades; drill press with 3/32" and 1/4" bits; assorted small clamps

Temporary-bond spray adhesive

Wood glue

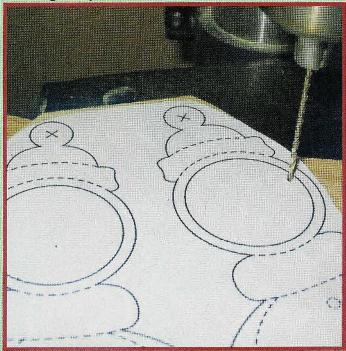
Sandpaper, assorted grits

Cellophane tape

Acetone (optional)

Pencil and fine felt-tip pen
Photos of choice
Photo frame insert*
Wood sealer
Acrylic craft paints
Small brush
Clear finish of choice
*Available from Wildwood Designs: 1-800-470-9090,
www.wildwooddesigns.com. Product No. 27051 is a
1-7/16" photo frame insert, which mounts into a
1-3/8" hole and has a mounting depth of 7/32".

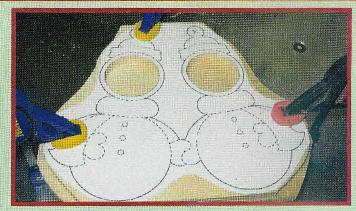
INSTRUCTIONS Making the photo ornaments



Step 1. Apply the pattern to one piece of the 1/4" stock and drill a blade entry hole in each photo frame opening.



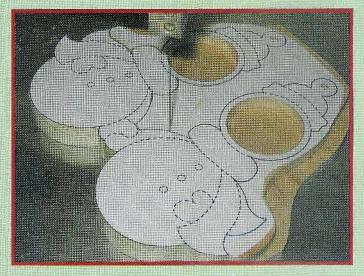
Step 2. With a No. 5R blade, cut out the openings in each snowman.



Step 3. Apply glue to the back of this piece and glue it to the second piece of 1/4" stock. Clamp the pieces together. **Note:** more than three clamps are needed; the photo only shows three for purposes of clarity. Allow to dry for at least one hour. If desired, 1/8" stock can be used for the backer, but 1/4" stock must be used for the front pieces in order to allow for the depth of the frame.

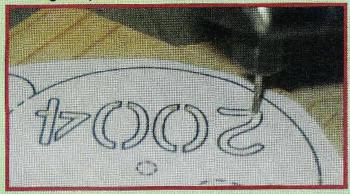


Step 4. Drill the hanger opening in the top of each snowman with a 1/4" drill bit.



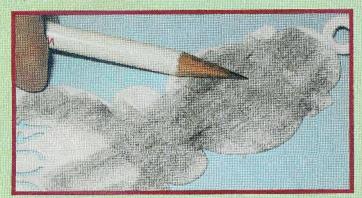
Step 5. Cut around the outside solid lines. Once the ornament is cut, apply a sealer, allow to dry, and sand smooth. Now they are ready for detailing.

Making the patriotic ornament

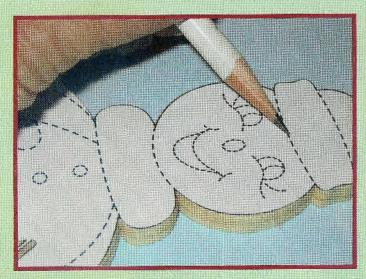


Step 6. Apply the pattern to the 1/4" stock and drill blade entry holes in the numbers with a 3/32" bit. Use a No. 3R blade to cut them out, then cut around the outside solid lines. Prepare the ornament as in step 5.

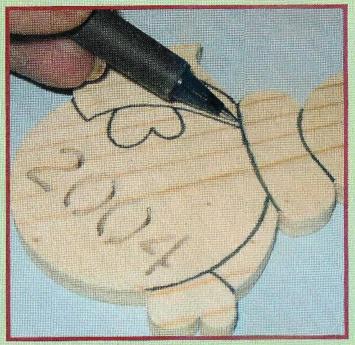
For all three ornaments



Step 7. Remove the patterns from the wood. Brushing on an application of acetone will ensure the pattern is removed from the stock in one piece. If your pattern does not come off easily, simply run off an extra copy of it. Turn the pattern to the reverse side and rub over it with the side of a soft lead pencil.



Step 8. Tape the pattern to the ornament, pattern side up, and draw over the detail lines with the soft lead pencil.



Step 9. Remove the pattern and draw over the pencil lines on the wood with a black fine-tip felt pen. At this point, you can paint as desired. I used acrylic paints and then clear coated with Krylon spray. If, during the painting process, some of the black lines get covered over, simply go back over them with the pen again when the paint is dry.



Step 10. The photo (1-1/8"-Dia.) is placed in the gold frame part, face down. The white retaining ring is placed on the top of the photo to hold it flush to the glass, and then the back cap is snapped in place. Finally, place the photo and frame into the finished ornament.

For questions concerning this project, send an SASE to: Diana Thompson, 6215 Old Pascagoula Rd., Theodore, AL 36582. Email: scrollergirl@aol.com



Reindeer Planter

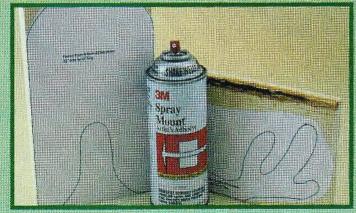
by Barry Gross (Mr. Solid Surface) of BG Artforms



Introduction

It's that magical time of the year and perhaps you are wondering what to make for your family and friends—but if they see one more piece of fretwork coming from your direction they will scream! Have no fear: this cute reindeer planter is a hit every time, and is easy and fun to make. You can place any flowers you choose into the flower box, but since it is the holiday season, a poinsettia is my choice.

INSTRUCTIONS

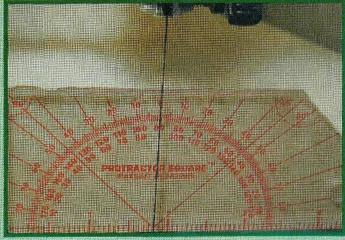


Step 1. Use 3M Spray Mount artist's adhesive to adhere the patterns to the wood.

SUPPLIES

Wood: pine or wood of your choice—one piece 3/4" thick x 5-5/8" wide x 12" long (for the head), one piece 3/4" thick x 5-5/8" wide x 8" long (for the tail), one piece 3/4" x 5-5/8" wide x 10" long (for the antiers), two bieces 3/4" thick x 5-5/8" wide x 10" long (for the front and back), one piece 3/4" thick x 5-5/8" wide x 6-1/8" long (for the planter bottom), and four pieces 1/4" thick x 2" wide x 7-1/2" long (for planter sides) Tools: scroll saw with a No. 5 Artisan blade*; drill with 1/4" bit; router with a 1/2" roundover bit or pneumatic sander and flex shaft*; a hone to round over the back of the scroll saw blade*; and a protractor square* Deco Arl walnut gel stain and matte sealer finish 3M Spray Mount artist's adhesive Sandpaper, assorted grits 18mm animal eyes (available in local craft stores) Elmer's Wood Glue Small brad and finishing nails

*Available from BG Artforms, 2189 Philip Drive, Bensalem, PA 19020, (888) 717-4202 or visit their website at www.bgartforms.com.



Step 2. Set your scroll saw blade to exactly 0°.



Step 3. Round over the back of the Artisan No. 5 scroll saw blade using a hone. This will help to eliminate any frictional heat that will build up when making tight turns in thick wood.



Step 4. Start by cutting the antler section and take care when cutting around the outside of the antlers.



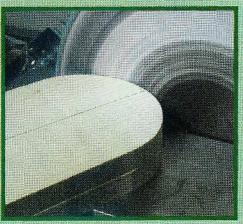
Step 8. Using a router with a 1/2" bit, round over the edges of all the pieces. **Note:** pay attention to the Corian® pointer in the photo showing not to round over this section of the head. This section is left flat so it will fit flush against the front of the planter.



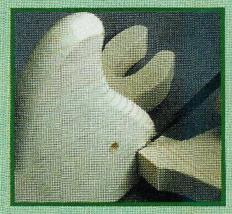
Step 5. Stack the front and back pieces and cut them as one piece (as illustrated). Cut the remainder of the pieces as per the pattern instructions.



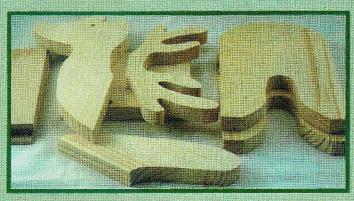
Step 9. Use a 1/4" bit to drill the eye hole all the way through to the other side. You will glue the eyes later in step 23, but it is better to drill the hole now.



Step 6. Use a disc sander fo smooth out any bumps you have after cutting out the front and back pieces.



Step 10. Place the antiers into the cutout in the head area and mark where they intersect with the head. DO NOT round over this section or the antiers will not fit properly into the cutout area.



Step 7. Here are all the pieces cut out and ready to be routed and sanded.



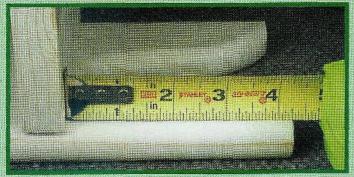
Step 11. Round over the edges of the antler and all the other pieces using the small pneumatic sander.



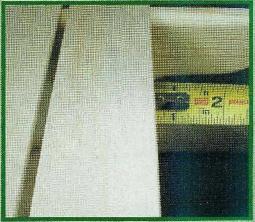
Step 12. Deflate the larger sanding drum and use it inside the antiers to give final shape and smoothness to the piece. Sand and shape the antier, taking care not to break it.



Step 16. Using wood glue and small brad nails, connect the tail in the center of the back section.



Step 13. After you are finished sanding and shaping all the pleces, start the assembly process by measuring up 4-1/4" from the bottom of the front piece. This is where the bottom piece will set. Use a small amount of wood glue and a few small brad nails to secure the piece in place.



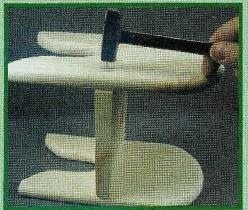
Step 17. To accurately line up the sides, measure 1/2" from the bottom of the base; this is where the lower side piece will rest.



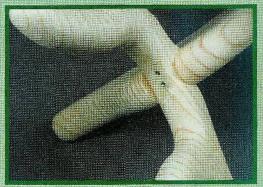
Step 14. Use the side pieces to accurately guide yourself when placing the bottom piece in place.



Step 18. Use a 1/16" drill bit to pre-drill a hole in the center section of the antlers. This is done to avoid splitting the antler when you place a small finishing nail into the head section.



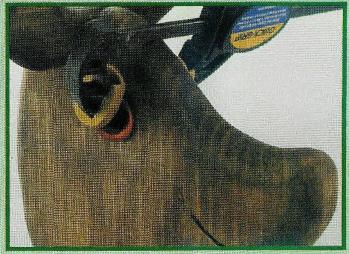
Step 15. Use small brad nails and wood glue to secure the back piece to the boffom as you did with the front piece, measuring 4-1/4" from the bottom of the back piece.



Step 19. Glue and nail the antler into the head piece.



Step 20. Apply a small amount of glue to the flat section of the head piece and clamp it in the center of the front piece. While the glue is drying, place a few nails into the piece for more stability.



Step 23. Glue the 18mm eyes into the holes you predrilled earlier. Animal eyes may be purchased from any craft supply store.



Step 21. Oops!
See: we all
make mistakes.
I dropped the
reindeer and
cracked his
antler. Never
fear—glue It
back together!



Step 24. To protect your reindeer, lightly apply at least two coats of a spray finish such as Deco Art matte sealer finish.



Step 22. Use a tack cloth or compressed air to remove any sanding debris still left on your planter. Apply Deco Art walnut gel stain to the planter (wear gloves whenever you stain anything).



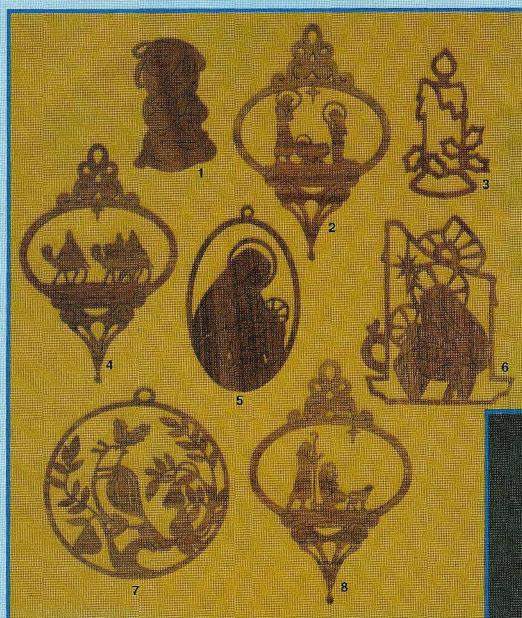
Step 25. Here is your finished Reindeer planter!

For questions concerning this project, send an SASE to:
Barry Gross.
2189 Philip Drive.
Bensalem, PA 19020;
or visit us on the
Web at: www.bgartforms.com. Email:
2bgross@prodigy.net

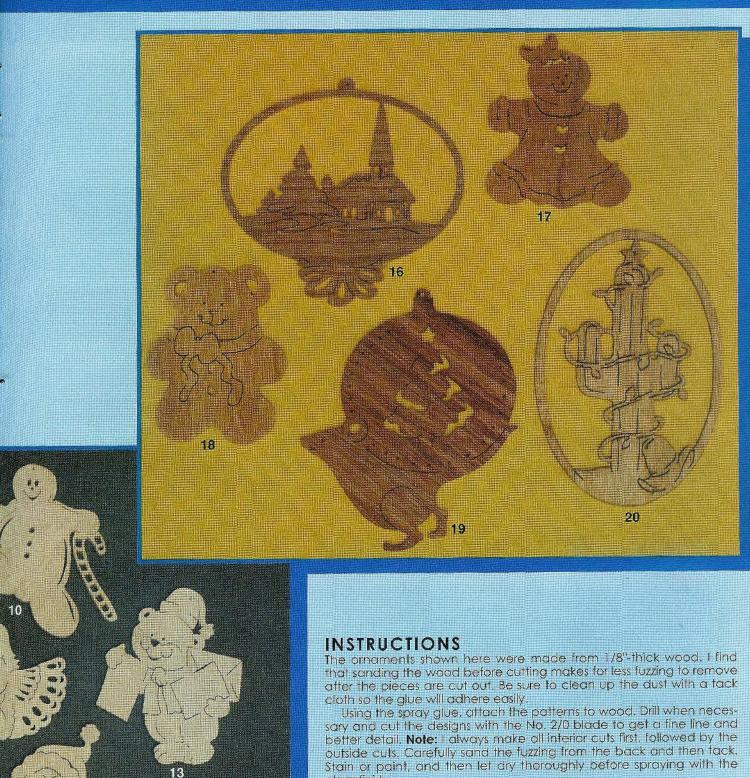
11



by Billie (BJ) Holm



SUPPLIES
Tools: scroll saw with No. 2/0 blades; drill with assorted bits
Temporary-bond spray adhesive
Sandpaper, assorted fine grits
Tack cloth
Paints and stains of choice (if desired)
Clear spray finish
Fish line or nylon thread



clear finish.

Tie a piece of fish line as the hanger.

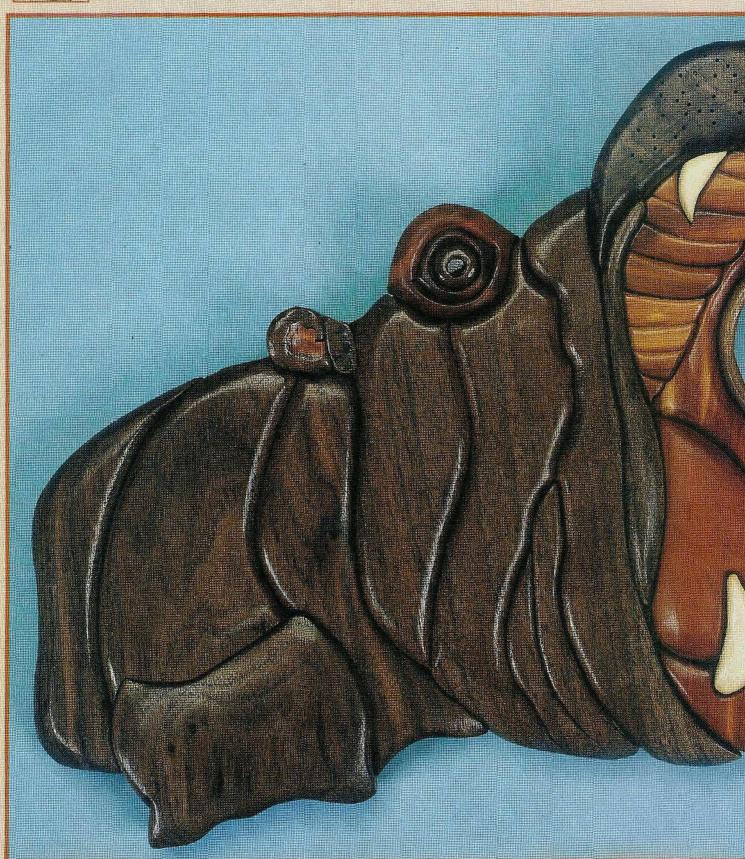
15

For questions concerning these ornaments, send an email to Billie Holm at bjholm51@yahoo.com.



Hippo Intarsia

by Larry Goodwin





SUPPLIES

Wood*: walnut—one piece 5/8" x 11" x 14" (for body/leg, head/neck, eyeball, part of mouth) and one piece 7/8" x 4" x 8" (for outer section of mouth); aromatic cedar—one piece 5/8" x 8" x 14" (for inside of mouth, tongue, palate, and inside of ear) and one piece 3/4" x 4" x 14" (for eye sackets); wenge—one piece 3/4" x 2" x 2" (for pupil of eye); aspen—one piece 3/4" x 4" x 4" x 6" (for teeth); but walnut—one piece 3/4" x 4" x 6" (for nase); Battic birch plywood—one piece 1/8" x 14" x 14" (for backer board). Tools, scroll saw with assorted blades; drill press with assorted bifs and sanding mop;

belt sander; oscillating spindle sander; pneumatic drum sander; rotary tool with assorted bits; bow sander; spring clamps with rubber tips; plug cutters (1/4" and 5/8")

Temporary-bond spray adhesive

Fast setting glue of choice

Carpenter's glue

Tracing paper

Waxed paper

Sandpaper, assorted grits

No. 0000 steel wool

Old nylon hosiery

High gloss finish coating

Wipe-on polyurethane finish

Hanger of choice

*This project looks great when you enlarge it! Feel free to experiment with different formats and sizes.

Introduction

The hippopotamus is the second largest land animal on Earth after the elephant. It can weigh up to 2-1/2 tons. A most surprising fact is that the predominantly vegetarian hippo accounts for more human deaths than any other mammal on the African continent. Here is our intarsia version of "The River Horse."

INSTRUCTIONS

Mark, cut, deburr and fit

This project was made in three sections: the body/leg section, the head/neck section, and the nose/mouth section (see **Fig. 1**). The three sections are of varying thicknesses, which is achieved through the use of large shims. This gives the project a dimensional effect. The entire yellow portion (as shown in **Fig. 2**) is raised by 1/8"; the entire pink section is raised by 1/4".

Begin by studying the pattern. Decide on what woods to use, placing an emphasis on grain pattern movement and color combinations (see Fig. 3). The walnut for the body/leg, the head/neck, and the inner portion of the mouth was planed down to a 5/8" thickness (see Fig. 4).

Trace the portion of the pattern to be cut onto the tracing paper. This allows you to see the grain of the wood. Once onto the tracing paper, cut away the excess paper and apply it to the wood using temporary spray adhesive (see Fig. 5). Slowly and carefully cut the first piece. Make sure your blade is sharp and that it is "squared up" to the table (see Fig. 6).

Upon completion of the cut, two things will become very important. The first is that you debur (or sand the back edges of) the cut piece (see Fig. 7); this will enable the piece to lie flat. The second is that you make sure there is a 90° angle on the cut; this is accomplished with an oscillating spindle sander or a drill press with a sanding drum on an auxiliary table (see Fig. 8).

Select the wood for the next piece to be cut. Using the first piece as a template, trace the line that will form the area where the two pieces come together. Then trace the remainder of the piece from the pattern. Attach the tracing paper to the second piece of wood and cut it out (see **Fig. 9**). Debut and fit the second piece to the first piece and make any necessary adjustments.

Mark, cut, debur, and fit all of the remaining pieces until every piece has been cut and fit together.

Before proceeding, it is necessary to mention that, in addition to the two large sectional shims previously mentioned, the following individual 1/8" shims will be required: the inner eye socket, the eyeball, the tongue, the leg, and the large bottom right tooth.

The eve

The eye consists of four parts: the inner eye socket, the outer eye socket, the iris, and the pupil (the latter two form the eyeball). The iris and pupil are composed of a 1/4" wenge dowel inserted into a 5/8" walnut dowel. The dowels are made with plua cutters (see Fig. 10).

Position the tracing paper over the 3/4" aromatic cedar. Drill a 5/8" hole in the wood. This will house the eyeball. Now cut the inner and outer eye sockets. You will end up with four distinctive parts of the eye (see Fig. 11).

distinctive parts of the eye (see Fig. 11).

The ear

Cut out the ear using the inner portion of the walnut as a template on the cedar. Recut the inner ear and install it into the walnut outer ear.

The nose

The nose is made from a 3/4" burl walnut. Use a very small drill bit to produce the hair follicles on the nose (see Fig. 12).

The mouth

The palate of the mouth is made from 5/8" aromatic cedar. The pieces are cut individually, the edges are rounded, and then they are all glued back together. Once dried, the bottom of the unit will be sanded on a belt sander with a slight taper (about 1/8") from the top to the bottom (see Fig. 13).

The tongue

The tongue is made from 5/8" aromatic cedar and is contoured in a sloping manner on both ends (see Fig. 14).

The teeth

The teeth are made from 3/4" aspen. The large bottom right incisor is shimmed so that it stands out from the rest.

Contouring/Sanding

Contouring can be achieved by referring to the photo of the finished project. Generally, however, contouring begins with the lowest parts first. Hold the pieces in position and draw a pencil line on the piece it will adjoin. Using the pencil line as a quide, contour down to the lower piece.

Now, to the sanding. I use a variety of sanding applications to get my projects as smooth as possible. DO NOT skimp on this step as it has great impact on how well your project will look. I use a lot of "elbow grease" and finish up with a 400-grit paper, Make sure all the dust is removed at this point.

Gluina and finishina

Apply the finish of choice. My choice here was a wipe-on polyurethane. I apply the finish only to the exposed areas, not to the portion that will be glued. I used a high-gloss finish coating on the eyeball (see **Fig. 15**). When dry, glue the pieces together, being careful that they remain in place and do not stray from their position.

Cut out a backer board if desired. Taper and stain the edges. Glue the project onto the backer board. Hold in place with spring clamps with rubber tips (see **Fig. 16**), wiping away any excess glue that may have squeezed out. Allow to

dry.

Use No. 0000 steel wool to remove any unwanted particles and smooth out the finish. Apply another coat of finish. When dry, buff it out with a piece of old nylon hoslery (see Fig. 17).

Finally, install a hanger and show your stuff!

For questions concerning this project, send an SASE to: Larry Goodwin, 212 Celeste Avenue, River Ridge, LA 70123. Email: Iwgood@yahoo.com



Fig. 1. The three sections: the body/leg, the head/neck, and the nose/mouth.



Fig. 2. The entire yellow portion is raised by 1/8"; the entire pink section is raised by 1/4".



Fig. 3. Decide on what woods to use, placing an emphasis on grain pattern movement and color combinations.



Fig. 4. Some of the walnut was planed down to a 5/8" thickness.



Fig. 5. Cut away the excess paper and apply it to the wood using temporary spray adhesive.

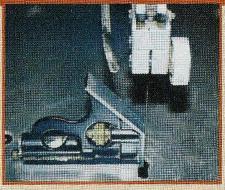


Fig. 6. Make sure your blade is sharp and that it is "squared up" to the table.



Fig. 7. Deburr, or sand the back edges of, the cut piece.

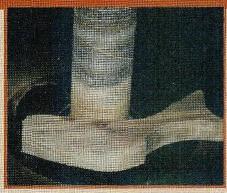


Fig. 8. Use an oscillating spindle sander or a drill press with a sanding drum on an auxiliary table to ensure a 90° angle on the cut.



Fig. 9. Attach the tracing paper to the second piece of wood and cut it out.



Fig. 10. The dowels are made with plug cutters.

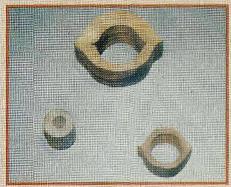


Fig. 11. You will end up with four distinctive parts of the eye.



Fig. 12. Use a very small drill bit to produce the hair follicles on the nose.



Fig. 13. The palate of the mouth is made from 5/8" aromatic cedar.

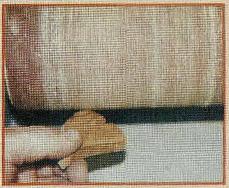


Fig. 14. The tongue is contoured in a sloping manner on both ends.



Fig. 15. I used a high-gloss finish coating on the eyeball.



Fig. 16. Glue the project onto the backer board and hold it in place with spring clamps.



Fig. 17. Use No. 0000 steel wool to remove any unwanted particles and smooth out the finish. When the finish is dry, buff it out with a piece of old nylon hosiery.



IN CALL DITTER (CITY OF TASK) FOR "Puddles" Meyer



SUPPLIES

Wood: pine—3/4"-thick stock ffor all parts except the fail feathers) and 1/2"-thick stock (for the tail feathers)". lauan—one piece approximately 1/4" x 21-1/2" x

13-1/2" (for backer board)

Tools: scroll saw with No. 2 [for outside lines] and No. 0 or 02 (for inside lines) blades; drill with 13/64"-Dia. bit; bett sander (for reducing pieces); band saw with 1/2"-wide sanding belt in 60 or 80 grit (for contouring); palm sander in 100-grit wet and dry; 2" clamps

Carpenter's glue Black graphite paper Transfer paper 1/2" blue painter's tape Wax paper

.05 or .07 mechanical penci

Stylus

No. 6 and No. 10 round brush

13/64"-Dia, axle pea Sawtooth hanger

Oil and water-based Minwax stains: Ebony, Winter Sky Mahogany, China Red, Golden Oak, Safin White, Dark Walnut, Provincial, Special Walnut, Green Bayou, and

Pre-stain wood conditioner

1 at, finish (I used a high gloss polyurethane)

1 pt. Rustoleum satin white

*No specific sizes are provided as the grain of the wood. denotes the quantity required. The pattern in the pull-out section measures approximately 21-1/2" tall x 13-1/2" wide.

**See chart in pattern section and photo of finished project to determine which parts are stained which colors.

INSTRUCTIONS

Trace pattern onto tracing paper, making note of the letter or number indicators located on each individual piece of the duck. Transfer pattern onto 3/4" pine stock; beginning with the beak (parts A, B, and C). Note: throughout process of transferring, always allow the direction of the wood grain to determine configuration. Cut the outside lines first, then use a very fine blade to make all inside cuts and in doing so cut apart A, B, and C. Reduce part C to 5/8" thick. Tape all three pieces together.

Transfer the pattern for the head (part D) to pine stock. again noting arain direction. Before cutting, alue a small piece of 1/4" wood underneath the head and let dry. Drill the 13/64"-Dia, hole with the drill. Now cut out the head fit will be 1" thick and thus slightly raised on the finished pro-

iect)

The eye is made from a 13/64" axle with a head. Sand the head of the axle to 3/16" thick and then contour the edge to 1/16". Cut the stem to 5/8" long, Insert into the hole in the head. Tape it in place, but do not glue it at this time.

Transfer the patterns for the neck, body, and tail (parts F. G. and H). As with the beak parts, cut the outside of all three pieces and then cut them apart. Reduce part H to 5/8" thick. Make sure all of the parts you have cut thus far are all taped together.

Proceed to the front wing (part I). After transferring the pattern to the stock, glue a 1/4" piece of wood below the wing piece (as was done for the head). Allow the glue to dry and then cut it out, It too will be raised slightly on the finished project.

Next we will tackle the front wing feathers (part Nos. 1-55). These pieces are cut in seven different sections. Transfer part Nos. 1-14 onto the pine stock, Glue an 1/8" spacer underneath, let the glue dry, and then cut out and apart. Transfer and cut part Nos. 15-24, followed by Nos. 25-32, 33-36, 37-43, 44-50, and 51-55.

Now transfer the pattern for the back wing (part J). Glue an 1/8" spacer underneath, allow glue to dry, and then cut out. As was done for the front wing feathers. transfer and cut the back wing feathers (part Nos. 56-69) in sections, beginning with part Nos. 56-60 and proceeding to Nos. 61-65 and 66-69.

For the leas (parts K, L and M), cut as before—first the outside and then the inside to separate. Reduce part K to

1/2" thick and part L to 3/8" thick.

Transfer the patterns for the tail feathers (part Nos. 70-87) to 1/2" stock. Do so in two groups: one group for part Nos. 70-79 and another for part Nos. 80-87. Cut outside section and then cut apart individual pieces.

Contouring is done on a band saw using a 1/2"-wide bett at 60 or 80 arit. Refer to the small lines on the pattern for all edges that are to be contoured. Be sure to contour the feathers individually. After the first feather is contoured. use a .05 or .07 mechanical pencil to draw a line onto the next feather. This will make all the contours on the feathers the same depth.

After all contouring is complete, use a palm sander with 100-grit sanding paper and lightly re-sand all parts, remov-

ing any bad edges.

Use a No. 6 or No. 10 round brush to stain all the project parts. Start with the beak and work your way through all of the pieces, saving those which are stained with White until last. Refer to the stain color chart in the pull-out section to determine which pieces are to be stained which color. Let dry theroughly.

To alue, begin with the beak and work your way from the head to the tail. Keep the glue on the lower part of each piece. A small brush works well when applying the alue. Place all of the pieces onto wax paper and glue

securely. Let dry thoroughly.

Lay the assembled duck onto the 1/4" lauan, mark a line around the autside of the duck, and then remove it. Re-mark lines approximately 3/8" in so that the backer board is smaller than the actual project once it is cut. This will make the backer invisible from the front of the project.

To glue the backer to the duck, coat the backer completely with glue and then place the duck on top. Clamp with 2" C-clamps and use craft sticks or other wood to protect the surface of your duck. Secure tightly and let dry.

Once the glue has dried, remove the clamps and stain the back side of the duck. Attach a sawtooth hanger if

you so desire.

Apply a coat of high gloss polyurethane across the duck, but do not coat over any of the parts stained with White. It is up to you to determine the necessary number of coats. After the finishes are dry, go back and re-paint the White parts with a slight dilution of Rustoleum satin white. Refer to the photo of the finished project for location of white tips on the feathers and apply with satin

For questions concerning this project, send an SASE to: Kathy "Puddles" Meyer, 15722 Puddles Rd., Carlyle, IL 62231.

Mini Lathe Series



Polaris Pen and Pencil

by Scott and Kathy Griffith



Introduction

Scott and Kathy Griffith have been married for twenty-six years. They live in Southern Lancaster County, PA, amidst beautiful farmlands, Amish neighbors, and a feeling of community reminiscent of their childhoods.

They have worked with wood in some manner for most of their lives. However, since 1984 the focus of their work has been wood carving and turning. Their love for this hobby has deepened their appreciation for the surrounding world and has led them to try to spread the joy. One aspect of this is the benefits gained by children and adults who share the hobby. What a

great way to spend time together and to learn through work-manship and shared creativity.

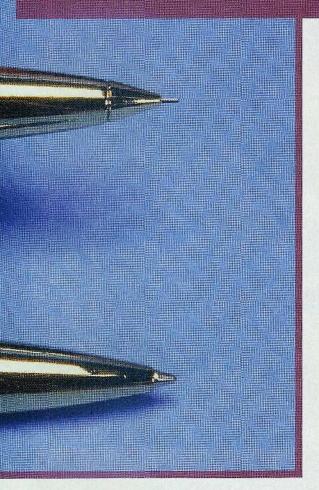
Scott and Kathy's work can be seen at many fine arts and craft and wood carving shows, and through the fair season at the Pennsylvania Renaissance Faire among the artisans in Swashbucklers Grove!

This article is the third in an ongoing series focussing on the many uses and applications of the mini lathe. Scott and Kathy have been kind enough to share with us their many "tricks of the trade" when it comes to getting involved in and making a profit through this fascinating, up-and-coming school of turn-

SUPPLIES

Carba-tec Lathe CT-Lathe-I Duplicator CT-Dup (optional) Lathe Mandrel Set, PK1001 Barrel Trimmer Kit, PK1390 Pen Press, PK1008 Koa Pen Blank Shellawax Cream, PK1009 Abrasive Rolls, PK1276 Polaris Pen, PK1048 Polaris Pencil, PK1049

*All of the supplies listed above are available from Steebar at: www.steebar.com: or Penn State Industries at: pennstateind.com, 1-800-377-729



ing. As you will see, not only are the Griffiths prolific designers, they are also incredibly organized!

Why Polaris pens are so popular

This is the most popular style of writing instrument that we make for selling. The large surface of the pen body allows a broader, uninterrupted view of the beauty in the wood. One important selling tactic for this pen is to put it in the hand of potential customers and have them write with it. The Polaris is balanced to the pen point and the larger diameter lends itself to a more relaxed writing style

continued on page 70

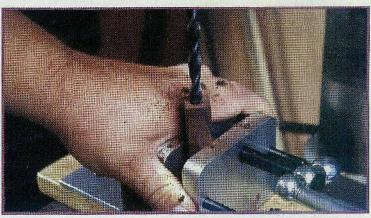


Fig. 1. This kit requires a few more plunges with the drill in order to clear the flutes and minimize the heat build up.



Fig. 2. Allow the cutter head to clear the wood surface through a series of gentle taps on the blanks.



Fig. 3. Install the mandrel on the lathe.



Fig. 4. With a roughout gouge, begin to round the pen at low speed using a slow straight cut down the length of the pen

Mini Lathe Series =

continued from page 69

with less choking of the pen and less hand fatigue. When shoppers look at a tray of Polaris pens they usually comment on the large size, but once they write with it you can see the amazement in their eyes. The design has a comfortable ergonomic fit in the hand, which, when combined with the "Parker" style refill, needs just a light touch in order to glide across the writing surface. The owner of these pens can pick any ink color or point size "Parker" refill (available at most office supply stores) to customize their pen.

The Polaris kit is simple to turn and assemble and is available with epoxy-coated, 24-karat gold or brushed satin (pewter color) parts. Both pen and pencil operate with a smooth twist mechanism. The pencil uses .7mm lead, which means there will be less lead breakage, and the finished items are about 4-7/8" long.

Creating the Polaris pen

Using the brass tube, mark your 5/8" to 3/4" wide square blank 1/4" longer than the brass tube. Secure your wood in the centering vise (the centering drill vise holds your wood securely and minimizes the risk of drilling through the side of your wood). Before using a quick grip to clamp the vise to the drill press table, install a sharp 3/8" drill bit, lower the drill in the off position to be sure the bit touches the center mark, and then tighten the clamp to hold the center vise in position. Be sure to keep your hands as far away as possible from the drilling area.

This kit requires a few more plunges with the drill in order to clear the flutes and minimize the heat build up (see Fig. 1). Remember: heat and stress will tend to make blanks crack from the mandrel, so taking your time now should reduce the number of problematic blanks. If your blank is a little shy of 5/8" square, be sure to find and mark the center. If the drill leaves an egg-shaped opening or if the end chips out, the extra 1/4" in length should help out.

Using a two-part liquid epoxy glue, insert the brass tube in the wood while twisting, pushing and moving the tube around in order to coat the inside of the wood thoroughly. If dry areas are evident, add more epoxy to the brass tube. Once coated, position the brass tube so it is not in a chipped or egg-shaped area. There are tube insertion tools available; otherwise, you can use the brass tube for the next blank to position the glued tube. Lay the wood on its side on a sheet of newspaper to cure and continue to epoxy the remaining kits. If the epoxy begins to set up, mix a new batch.

Allow the glue to cure before trimming and truing the blank. Install the 3/8" barrel trimmer in your drill press and set it on low speed, using channel lock pliers, vise grips, or centering vise to hold the blank. Turn on the drill press and lower the shaft into the brass tube. Allow the cutter head to clear the wood surface through a series of gentle taps on the blanks (see Fig. 2). Regardless of how much wood is removed, only the thinnest thread of brass should be ground off. This ensures that the bushings have a proper fit on the end of the blank, which in turn ensures that your pen assembles with smooth transitions from metal parts to wood parts.

When loading the mandrel, be sure to use the



Fig. 5. A close-up of the turning before being sanded.

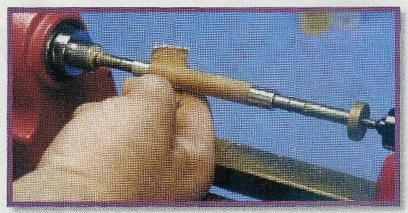


Fig. 6. Starting with 80-grit sandpaper, begin to sand your blank.

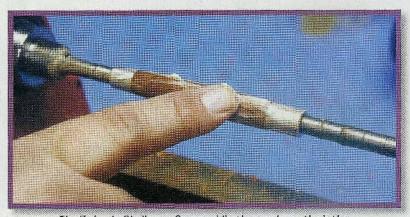


Fig. 7. Apply Shellawax Cream while the pen is on the lathe.

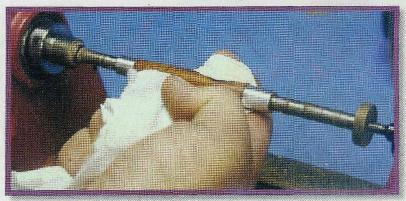


Fig. 8. Use a cloth to buff the coating of the finish on the pen.

Polaris bushings and fill in the remaining space with extra 7mm bushings (see Fig. 3). Do not over tighten the locking nut on the mandrel, as this can cause blanks to split or the mandrel to bow.

Install the mandrel on the lathe and set the lathe speed to low. Be sure to use your safety goggles or face mask, ear plugs, dust mask and dust collector before turning on the lathe. With a roughout gouge, begin to round the pen at low speed using a slow straight cut down the length of the pen (see Fig. 4). As the pen becomes round, the speed of the lathe can be increased. Stop the lathe frequently to check the shape of the pen and determine which areas might require more attention. When nearing the finished shape, switch to a sharp skew gouge to cut the final profile. Keep the wood a bit larger than the bushings; this allows you to sand away the tool marks without going below the bushings (see Fig. 5).

Starting with 80-grit cloth-backed sandpaper in 1"-wide strips (4-6" in length), begin to sand your blank (see Fig. 6). Gradually progress through the grits to about 400- or 600-grit cloth-backed sandpaper. Frequently stop the lathe and check the surface of the wood (it should begin to feel like satin). There should not be any swirl marks or scratches; if any are visible, try backing up a few grades of grit and working to the final again. While you are increasing the speed of the lathe during this process, be sure to use less pressure on the pen as you use finer grits of sandpaper. Also keep moving to unused areas of the sandpaper as the grit does clog and often wears off. This is also the time to clean up any blemishes because the finish will probably highlight them. For all the new turners, remember that you can always turn a new set of tubes for a kit. There are extra brass tubes available as well as some disassembly kits. This sanding process may seem tedious at first, but as it is repeated the quality and speed will improve greatly.

The finish we use for our turnings is Shellawax Cream, which is applied while the pen is on the lathe (see Fig. 7). Shellawax Cream is a creamy paste made of white shellac and a mix of highly refined waxes, including carnuba and bees wax. Using a piece of T-shirt fabric or your finger, spread a thin coating of the finish on the pen, turning the lathe by hand and making sure to thoroughly cover the wood (see Fig. 8). With the lathe on low, slide the wax-covered swatch over the wood and then switch to a clean area, turn the lathe speed to high, and buff to a nice shine. If the wood seems to absorb the wax, you can add another coat and buff again.

Remove the finished wood from the mandrel. If you are turning a number of pens, drop the completed tubes into one of the kit bags and they will be ready to assemble. With the kit instructions in front of you, lay out the parts for one pen in the order of assembly. This should familiarize you with the parts and hopefully prevent you from putting a part on backwards. When you first attempt assembly, do a dry run without pressing anything together to make sure you have all the parts in the correct order.

Most of the parts are precision press fitted, so a pen press can be a good tool to help in getting a proper fit (see Fig. 9). When finished, the wood should transition to the pen parts smoothly and the pen point should completely retract into the pen body (see Figs. 10 and 11). The turned section of the pen should have a smooth satiny feel to it.

For questions concerning this article, send an SASE to: Kathy and Scott Griffith, 672 Conowingo Rd., Quarryville, PA 17566. Email: griffduchess@yahoo.com

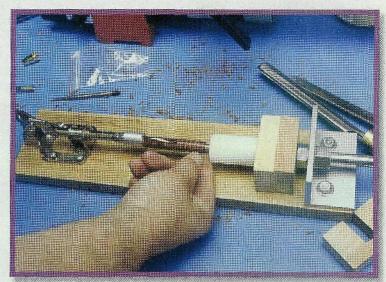


Fig. 9. A pen press can be a good tool to help in getting a proper fit.



Fig. 10. The finished pen.



Fig. 11. An assortment of Polaris pens.

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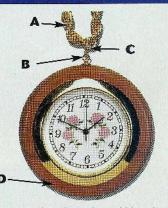
(C) Gold Ring

This gold ring is used to attach the chain to the stud.

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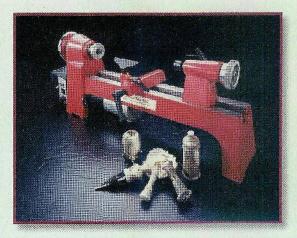
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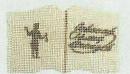
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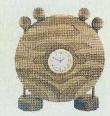
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Introduction

When I was in Cub Scouts, I remember a woodworking project that I made for my mom for Mother's Day. It was a kitchen gadget that was used to move the baking rack in and out of the hot oven without burning your fingers. I vaguely remember that it was in the shape of some kind of small rodent—I think it was either a squirrel or a chipmunk. We used a coping saw to cut out the shape, but I might as well have used a hatchet considering how even and smooth it was. In other words, it was extremely C-R-U-D-E, but my mother loved it, of course!

Recently, my wife and I were baking cookies and she burned her finger on the oven rack. I told her about the "puller" that I had made for my mom and we shared a good laugh over my early woodworking skills.

Just for the fun of it, I did a quick Internet search the other day and found out that they were still available, so I decided to make one for our kitchen. However, since the squirrel had already been done, I had to find a new animal for a model.

A while back, in the article for my candle wall sconce, I mentioned that it is often the case that ideas for new projects come to mind when you are designing something else. I was in the process of trying to come up with a project design for a future article when one of my sketches reminded me of a duck. "There's the idea I needed for the oven puller," I thought. I temporarily abandoned the design I was working on and concentrated on this idea. And this is what I came up with.

INSTRUCTIONS

Wood selection

This project will allow you to use up some of those small pieces of wood that we all horde, just waiting for the right place to use them. And it would also be the ideal project for getting your son or daughter interested in woodworking—something that I think is extremely important!

I had some cherry stashed away and I decided to use it for my pull. Another good choice for the wood for this

SUPPLIES

Wood*: cherry—one piece 9/16" x 2" x 10-1/4"
Tools: band saw or scroll saw; drill press with 1/4" brad point and countersink bits; thickness planer; oscillating spindle sander with 1/2"- and 2"-Dia. sleeves; laminate trimmer with small chamfer bit; palm sander with assorted grits of abrasive sheets

Utility knife blade Linseed oil mixture

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project would be ColorwoodTM. ColorwoodTM is a laminated product that is similar to plywood, except that there are no cross bands. Individual slices of maple veneers are dyed and are then glued together in a specific pattern. There are six different colors that are arranged in twelve standard patterns.

I like cherry that contains those little black streaks and lines. These little "pitch pockets" are actually considered to be defects by some, but I think that they add a lot of visual interest to what can sometimes be a rather bland piece of wood. I collect it whenever I can. I searched through my stash and found a piece that seemed to complement the head of the duck.

Making the project

I ran the piece of wood down to 9/16" thick on my thickness planer and then sanded both surfaces with my palm sander. I like to sand small projects before I cut them out. It's easier to sand a flat, wider piece of wood than it is to do so after the curves have been cut out and the stock is a little more narrow.

I made a pattern out of PlexiglasTM because it is transparent. This allowed me to position the pattern on the stock and take advantage of the grain in the wood (see **Fig. 1**). Once I was happy with the placement, I traced the pattern on with a dark pencil.

This is an ideal project for a scroll saw; unfortunately, I don't have one! So, I used my band saw fitted with a sharp 1/4" blade (see **Fig. 2**). It was a little harder to cut out the 9/16"-Dia. curves at the back end of the project, but I managed.

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I set up a 1/2" sleeve on my oscillating spindle sander and sanded the saw marks from the small curves on the back of the project (see **Fig. 3**). When I had completed the sanding to my satisfaction, I switched to a 2"-Dia. sleeve and sanded the rest of the outside curves (see **Fig. 4**). I also hit the top and bottom surfaces with the palm sander again, just to remove any marks or small defects that might have developed.

The duck needed an eye, so I drilled a hole through the project with a 1/4" brad point drill bit that I chucked in my drill press (see **Fig. 5**). This hole could also serve as a way of hanging the pull up on the wall, out of the way, until it is needed. I don't like to stick things in drawers because they get all nicked up. I then chucked a countersink in the drill press and used it to chamfer the area around the eye in order to give it a little more depth and texture so it looked better (see **Fig. 6**).

I wanted to contour the outside edges of both surfaces so the pull felt a little more comfortable in my hands. I decided that a small chamfer would do the job. I locked a small chamfering bit in my laminate trimmer and adjusted it so it would make a 1/8" chamfer. A full-size router could be used here, too; it would just be a little more cumbersome to use.

I've learned that small projects are much easier to route if you provide some additional support for the base of the trimmer or router. If you try to balance the base of the trimmer on the narrow surface of the stock, it will usually try to tip over. This can gouge the project and ruin it. Therefore, I laid a piece of scrap from my original blank next to the pull for additional support (see Fig. 7).

One of the things that I don't like about cherry is that it burns easily. If the router bit is the least bit dull or you go a little too slow, a burn mark will almost always form. I was blessed with several burn marks around the small curves at the rear of the project (see Fig. 8). These marks are very difficult to sand out while still preserving the sharp edges of the chamfer. That's why I don't use abrasive paper to remove them. Instead, I use the sharp blade from a utility knife as a scraper to remove these burns. And, if you apply a little paint thinner or linseed oil to the area, it makes the removal a lot easier (see Fig. 9). I don't know why that is true, I just know it works!! I removed the burns shown in Fig. 8 in less than a minute. I couldn't have done that with abrasive paper.

I didn't put any other finish on this project except the linseed oil mixture that I use as the first step in finishing all my projects. I applied a liberal coat of boiled linseed (that I thinned 2:1 with paint thinner) to the project. I allowed it to dry for about fifteen minutes and then wiped off all the excess oil that still remained on the surface of the project (see Fig. 10). Because I wasn't going to use any other finish, I applied a second coat the next day, following the same procedures outlined above.

When I had finished the project, I showed it to my wife. We both decided to add this project to my website and to make some for the family for Christmas.

For questions concerning this project, send an SASE to: Joseph M. Herrmann, 160 West Cedar Street, Jefferson, OH 44047. E-mail: latheturner@earthlink.net



Fig. 1, I made a Plexiglas[™] pattern that I can position on the stock in order to maximize the use of the grain pattern in the wood.



Fig. 2. I had to cut my duck out on my band saw because I don't have a scroll saw. The 1/4" blade worked fairly well when cutting the small curves to the back of the project.

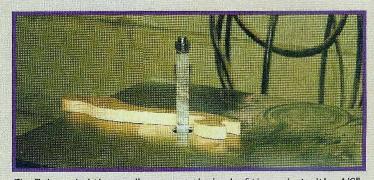


Fig. 3. I sanded the small curves at the back of the project with a 1/2"-Dia. sleeve on my oscillating spindle sander.

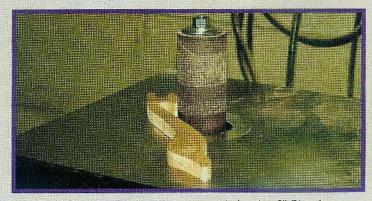


Fig. 4. The rest of the project was sanded with a 2"-Dia. sleeve.



Fig. 5. I drilled a hole for the eye of the duck with a 1/4" brad point drill bit in my drill press.



Fig. 6. I chamfered the area around the eye with a countersink bit.



Fig. 7. I eased the edges of the pull with a chamfering bit that I set up in a small laminate trimmer. Note the small block of wood that I used to provide additional support for the base of the trimmer.



Fig. 8. Small burn marks such as these are almost unavoidable when using cherry; they are very difficult to remove with abrasive paper alone!

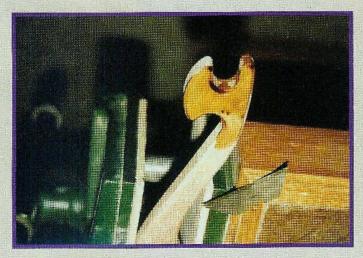


Fig. 9. I flood the surface with either linseed oil or paint thinner and then use the blade from a utility knife as a scraper to remove the burns.

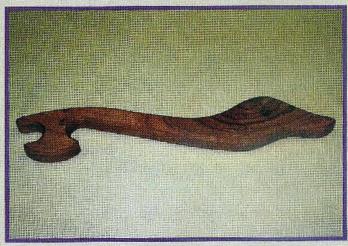


Fig. 10. The oil finish has been applied and the project is done.

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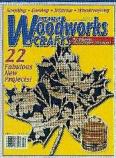
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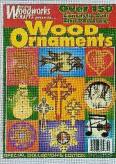


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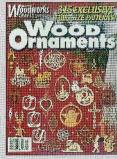
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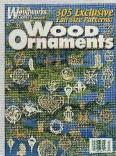
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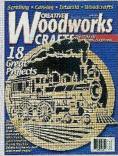
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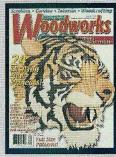
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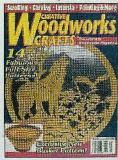
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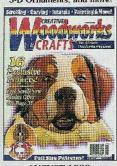
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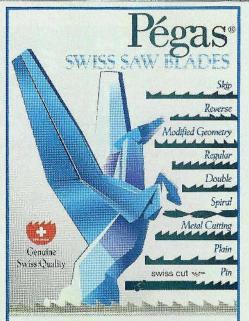
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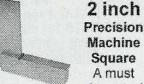
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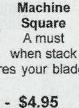
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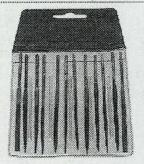


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Walnut	#WAL186	\$4.45	#WAL146	\$4.95	#WAL386	\$5.95	#WAL126	\$5.95
Cherry	#CHY186	\$4.75	#CHY146	\$5.25	#CHY386	\$6.25	#CHY126	\$6.25
Purpleheart	#PHT186	\$4.25	#PHT146	\$4.95	#PHT386	\$5.95	#PHT126	\$6.95
Mahogany	#MAH186	\$5.00	#MAH146	\$5.60	#MAH386	\$6.50	#MAH126	\$6.75
1 Padauk	#PAD186	\$5.15	#PAD146	\$5.75	#PAD386	\$6.75	#PAD126	\$7.25
Canarywood	#CAN186	\$4.95	#CAN146	\$5.45	#CAN386	\$6.25	#CAN126	\$6.75
Yellowheart	#YEL186	\$4.60	#YEL146	\$5.10	#YEL386	\$5.75	#YEL126	\$6.25

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"OLSON®" TOP QUALITY SCROLL SAW BLADES

Regular Skip Tooth Blades #3/0, 2/0, 0, 2, 4, 5, 7, 9, 11 \$ 1.70 a Doz - \$17.00 a Gross

Double Skip Tooth Blades # 3/0, 2/0, 1, 3, 5, 7, 9, 12 \$1.70 a Doz - \$17.00 a Gross

Reverse Skip Tooth Blades # 2/0, 2, 5, 7, 9, 12, 420R \$1.95 a Doz - \$19.50 a Gross

Spiral Tooth Blades # 2/0, 0, 2, 4, 6 \$1.95 a Doz - \$19.50 a Gross

Crown Tooth Blades # 2/0, 2, 3, 5, 7, 9, 12 \$2.30 a Doz - \$23.00 a Gross

Precision Ground Tooth # 5, 7, 9,

\$3.50 a Doz - \$35.00 a Gross

"NEW" PGT Double Tooth # 5, 7, 9,

\$3.50 a Doz - \$ 35.00 a Gross

"NEW" Mach Series Reverse #3, 5, 7, 9 \$2.75 a Doz-\$27.50 a Gross

"NEW Thick Wood Blades # 408-TW

\$ 2.95 a Doz-\$29.50 a Gross

Metal Cutting Blades # 1, 5, 7, 9, 12

\$3.00 a Doz-\$30.00 a Gross

"NEW" Flat End Spiral #2.4

\$2.75 a Doz-\$27.50 a Gross

You may mix or match the same style blades for gross pricing All the blades above are 5" Plain End "OLSON" Blades

We also stock:

3" pin end blades -2 sizes 5" pin end blades - 8 sizes 6" plain end blades - 4 sizes 5" Plain End Jewelers Blades

ACRYLIC SHEETS

Solid Colors

\$ 7.95 ea 1/8"x12"x24"

Red, Blue, Light Blue, Green, Yellow, Orange, Black, White, Pink, Ivory, Brown, Purple, Frost White, Turquoise, Gray

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\$7.95 ea

1/8"x12"x24"

Red, Blue, Light Blue, Green, Yellow, Orange, Smoke, Bronze, Purple, Clear (clear only \$ 5.50 each)

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White Marble **Acrylic Sheets**

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We have more acrylic available. See our web site for a complete listing of sizes & types.



Precision Pin Chuck

Use mini bits in a drill press with this quality Pin Chuck. With 3 collets, it holds bits #80-#40. # PC-1 \$ 9.95



20 Piece Mini Drill Bit Set #61 - #80 metal case #20pcDS \$ 9.95

Mini Drill Bits

1/16", 3/32", 1/8" Bits \$4.50 Doz

Numbered Drill Bits

#54, #56, #58, #61, #64, #67, #70, #72

\$ 7.50 per Dozen (sorry no mixing sizes of drill bits)

Top Quality Silcon Brand Inserts



#CK100 - White Arabic #CK103 - Ivory Arabic #CK102 - Gold Arabic



#CK101 - White Roman #CK104 - Ivory Roman #CK105 - Gold Roman

1+ \$4.75 ~ 10 + \$4.35 ~ 30+ \$3.95 ~ 100+ \$3.65 1 7/16" Inserts, Glass Lens, Stainless Steel Back, With Battery NO RUBBER GASKETS - MIX OR MATCH PRICING !!!



#CK106

1 7/16" Fancy Gold & Black Dial, Arabic Numbers

1+\$5.50 - 10+\$5.20 30+\$4.75 - 100+\$4.40



#PHOTO-1

1 7/16" Photo insert 1+\$1.75 - 10+\$1.55

30+ \$1.35 - 100+ \$1.25

All Clock & photo inserts have a gold tone bezel. Clocks include battery. All require a 1 3/8" mounting hole 5/16" deep.

13/8" Forstner Bit - #FOR138 - \$ 9.00 each We also stock 2", 2 3/4" & 3 1/2" clock & photo inserts



Blade Storage Tubes

Clear plastic tubes 3/4" dia. 6" long, tops have hangtabs

\$3.95 dozen

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\$80.01 and over add 10% Blade only orders \$5.00 shipping TN residents add 9.25% Sales Tax



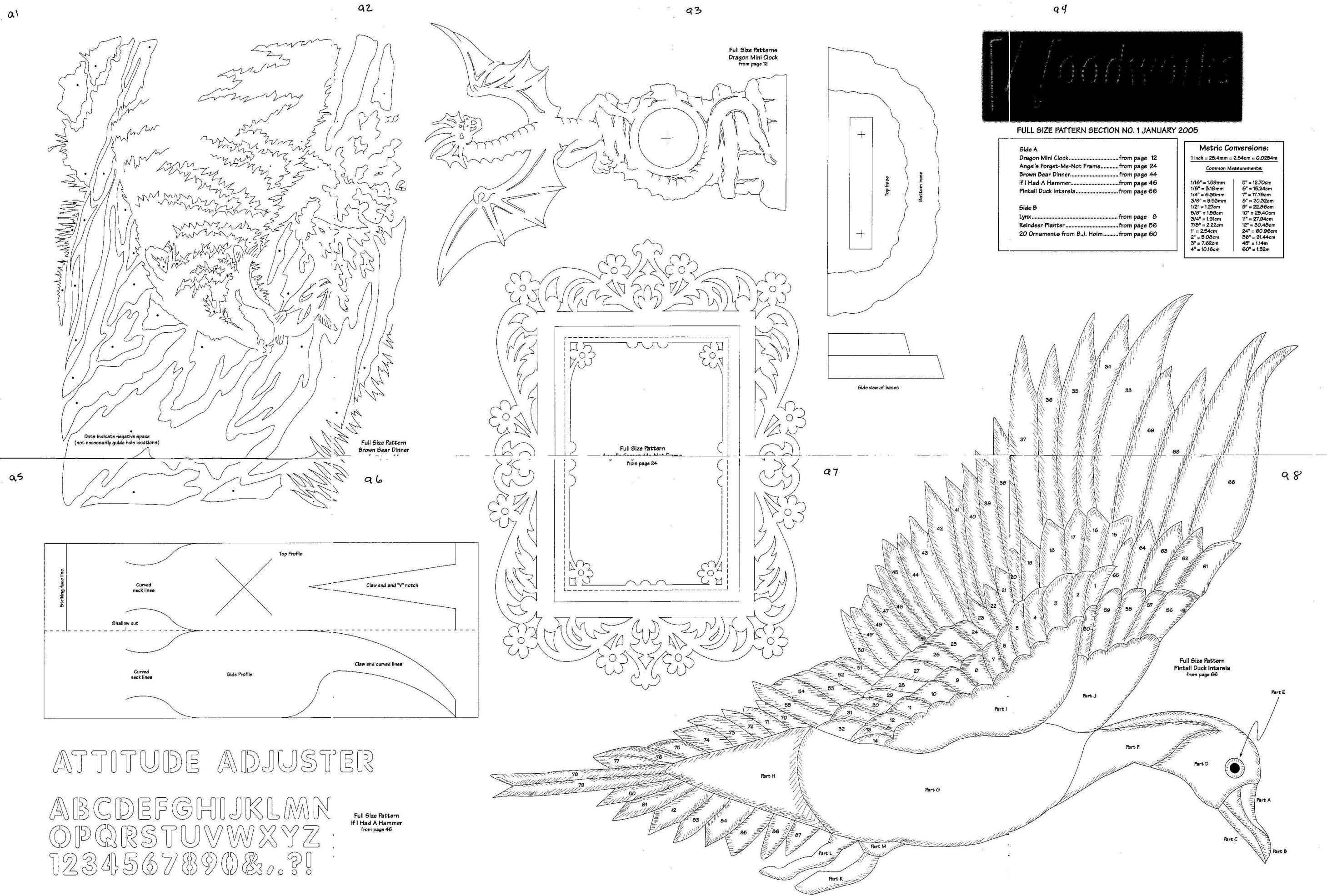
Cut out and mail to: Hawk Woodworking Tools 1801 Vine Street P.O. Box 369 Harrisonville MO 64701-0369

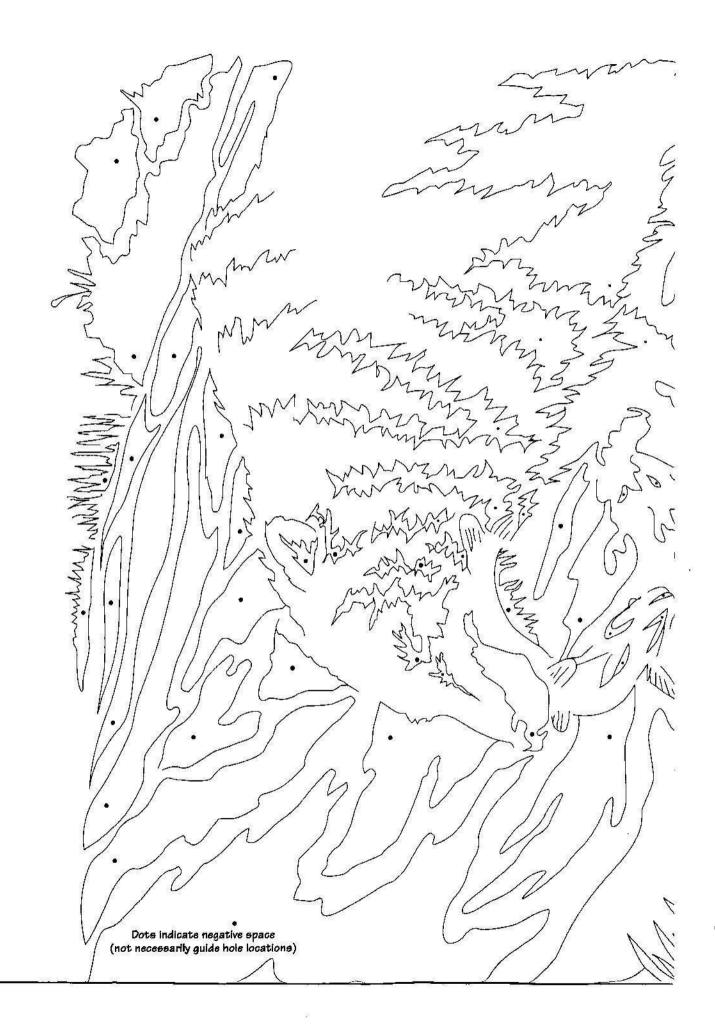
CODE: S04028

www.hawkwoodworkingtools.com

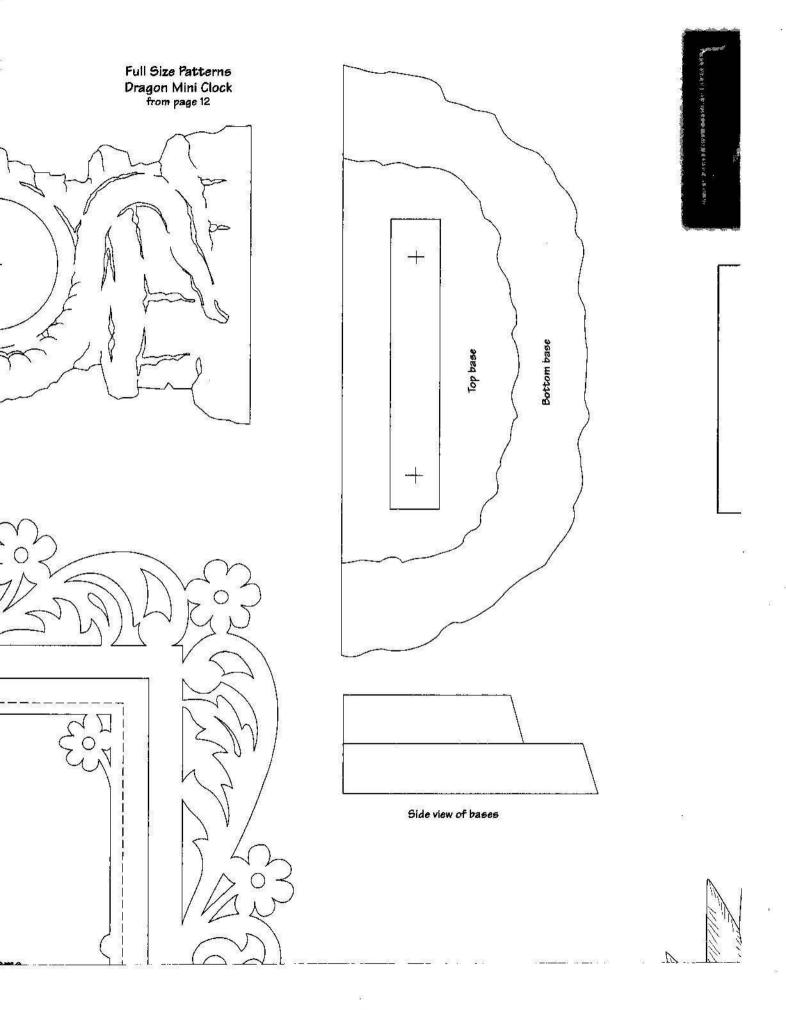
Call Toll-Free 1 800 487 2623

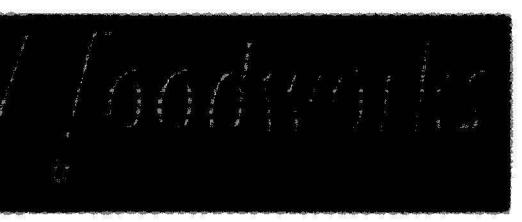
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FULL SIZE PATTERN SECTION NO. 1 JANUARY 2005

Side A	
Dragon Minl Clockfrom page	12
Angel's Forget-Me-Not Framefrom page	24
Brown Bear Dinnerfrom page	44
f I Had A Hammerfrom page	46
Pintail Duck Intarelafrom page	
Side B	
Lynxfrom page	8
Reindeer Planterfrom page	56
20 Ornamente from B.J. Holmfrom page	60

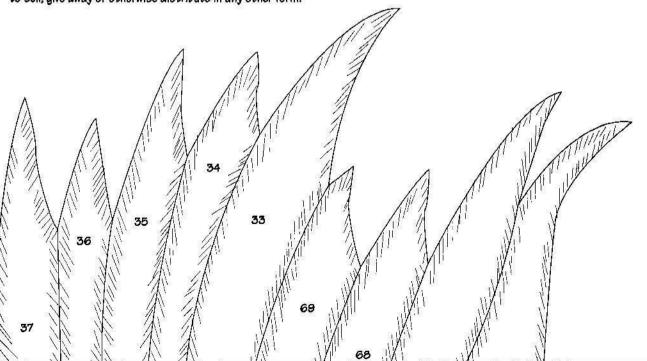
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Metric Conversions:

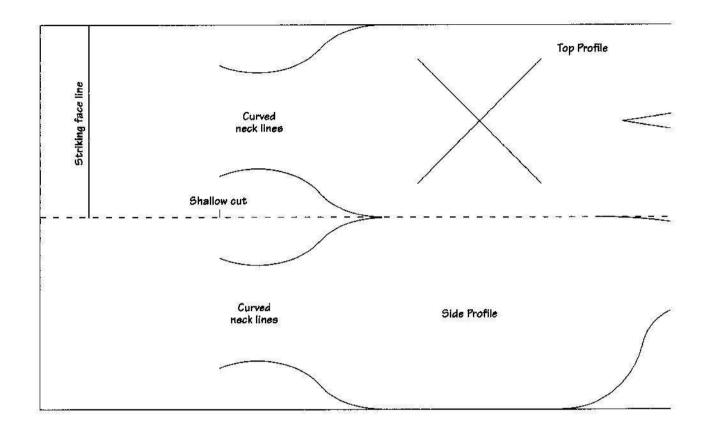
1 Inch = 25.4mm = 2.54cm = 0.0254m

Common Measurements:

1/16" = 1.59mm 1/8" = 3.18mm 1/4" = 6.35mm 3/8" = 9.53mm 1/2" = 1.27cm 5/8" = 1.59cm 3/4" = 1.91cm 7/8" = 2.22cm 1" = 2.54cm 2" = 5.08cm 3" = 7.62cm 4" = 10.16cm 5" = 12.70cm 6" = 15.24cm 7" = 17.78cm 8" = 20.32cm 9" = 22.86cm 10" = 25.40cm 11" = 27.94cm 12" = 30.48cm 24" = 60.96cm 36" = 91.44cm 45" = 1.14m 60" = 1.52m

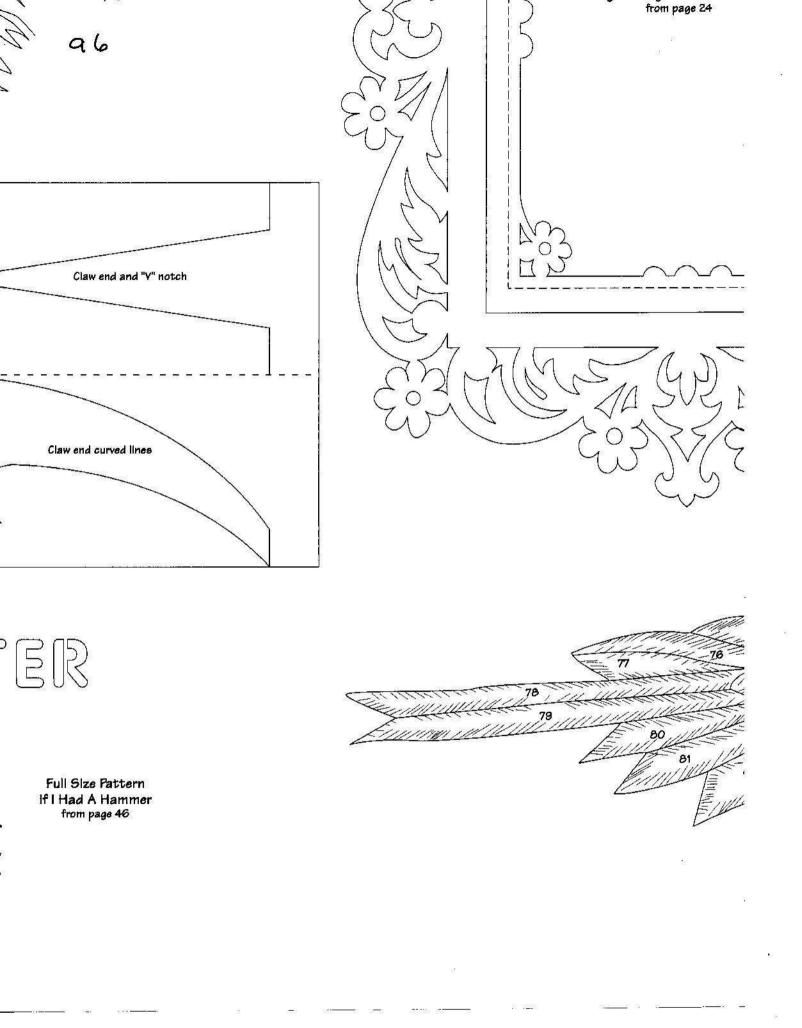


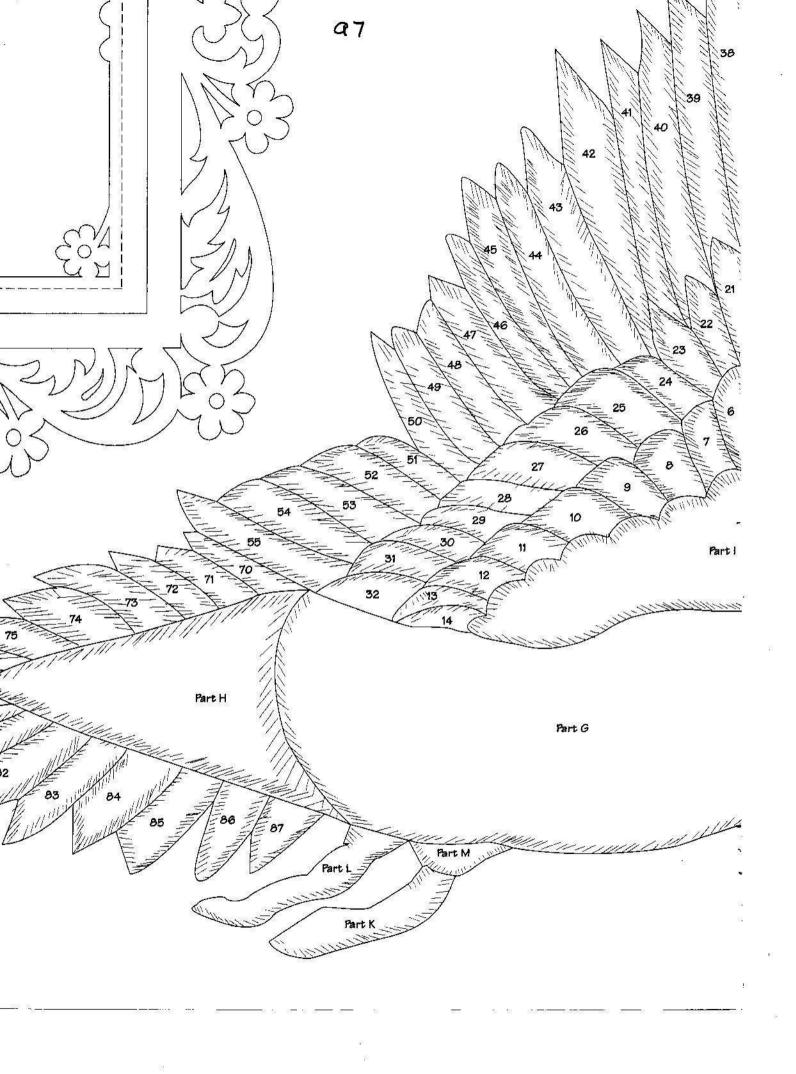


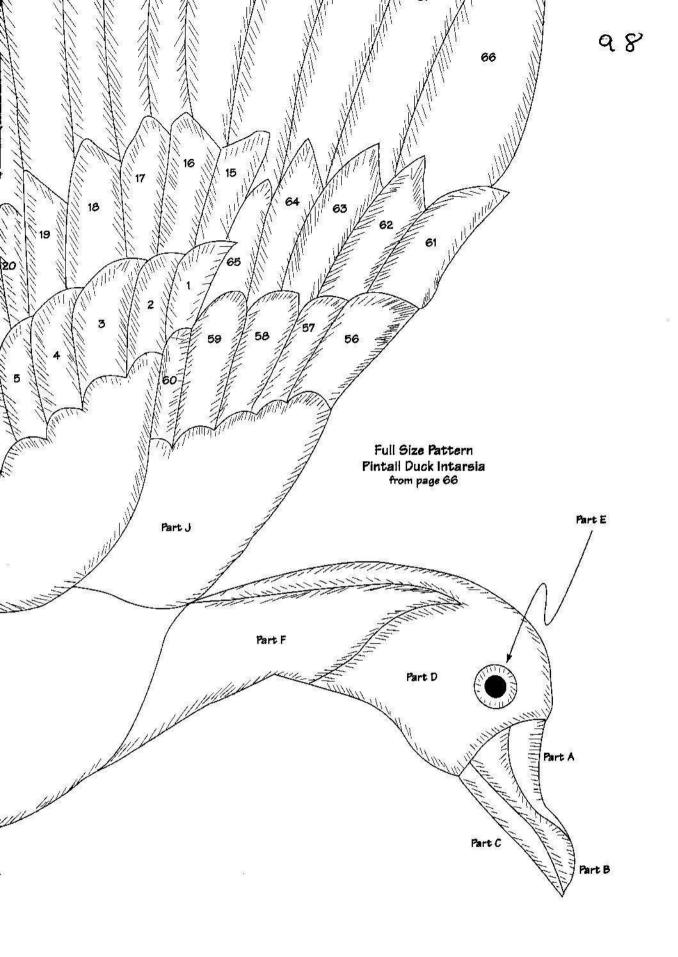


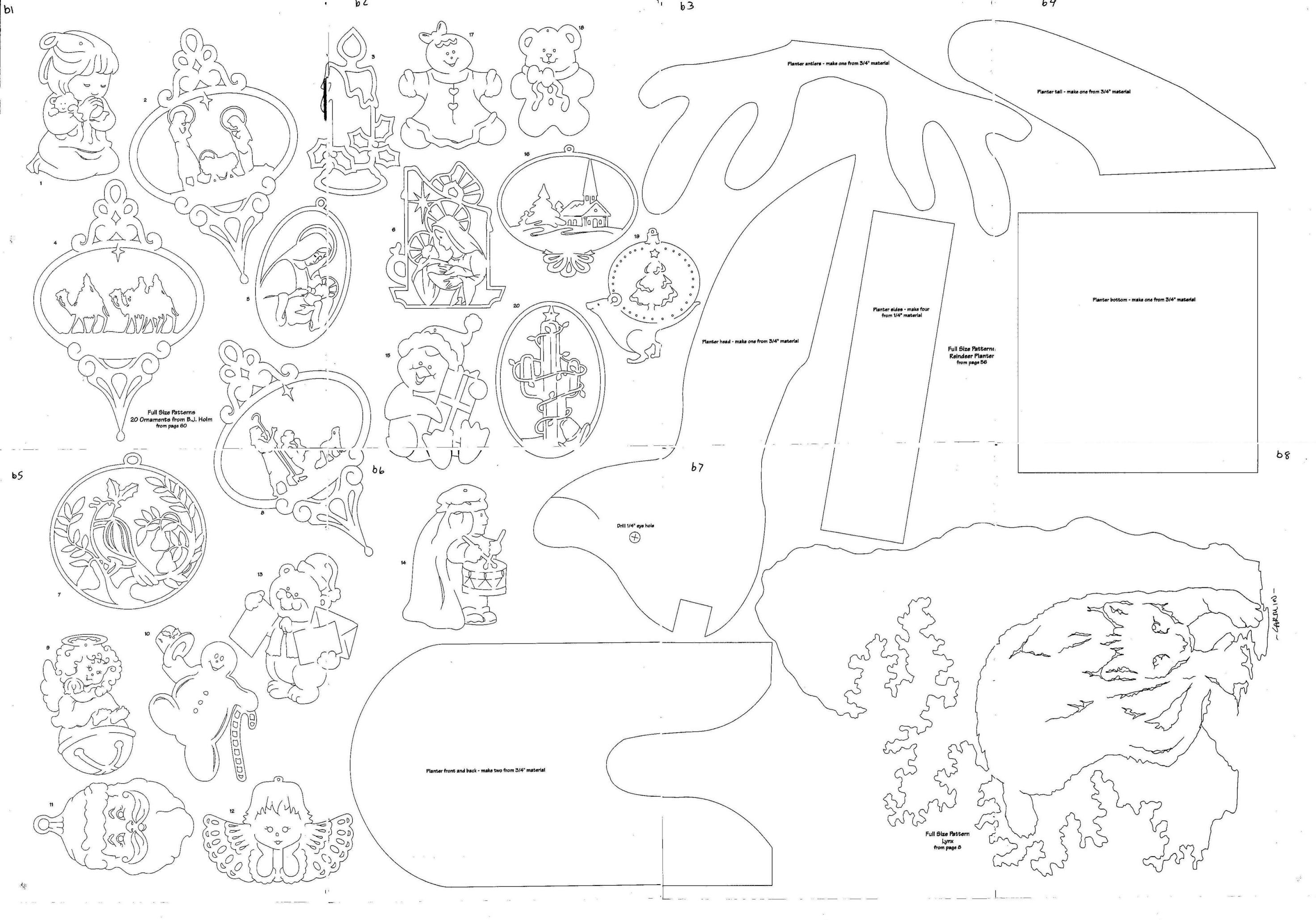
ATTITUDE ADJUST

ABCDEFGHIKLMN OPQRSTUVWXYZ 1234567890&..?!





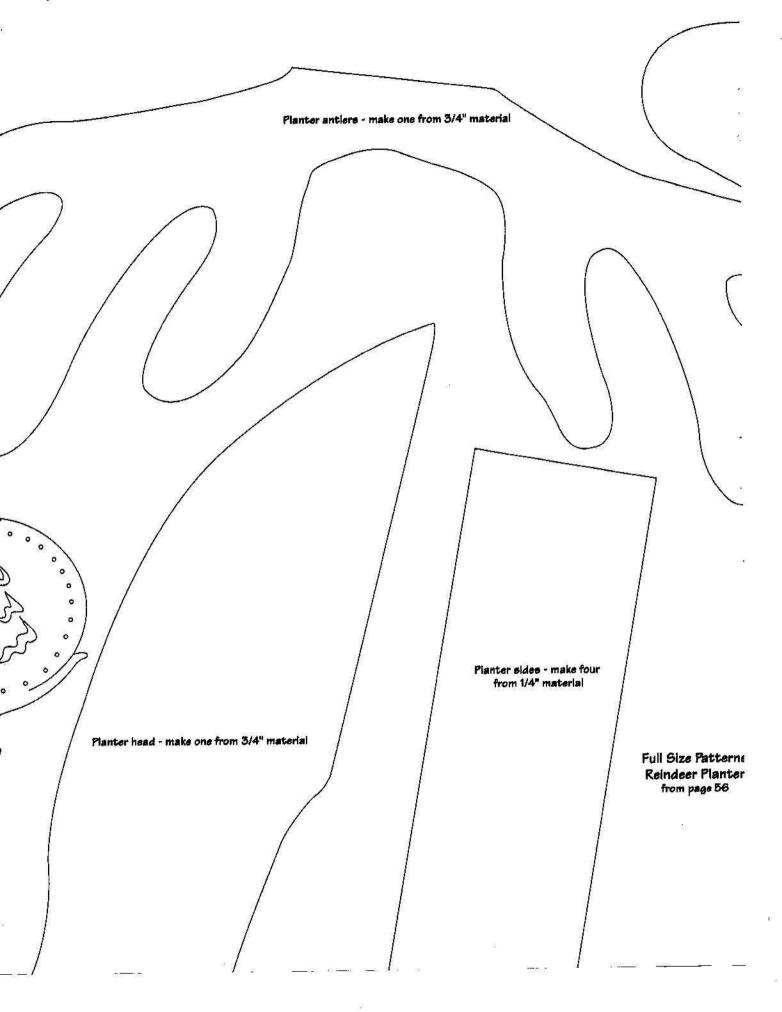








- 1

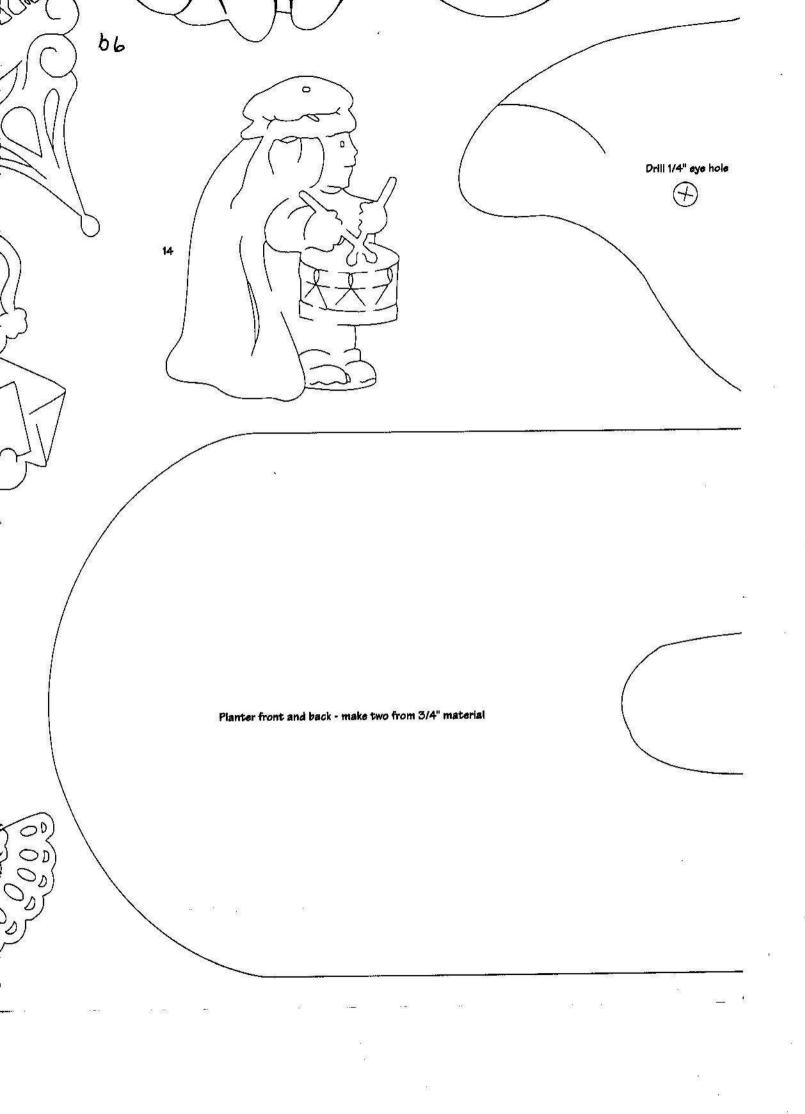


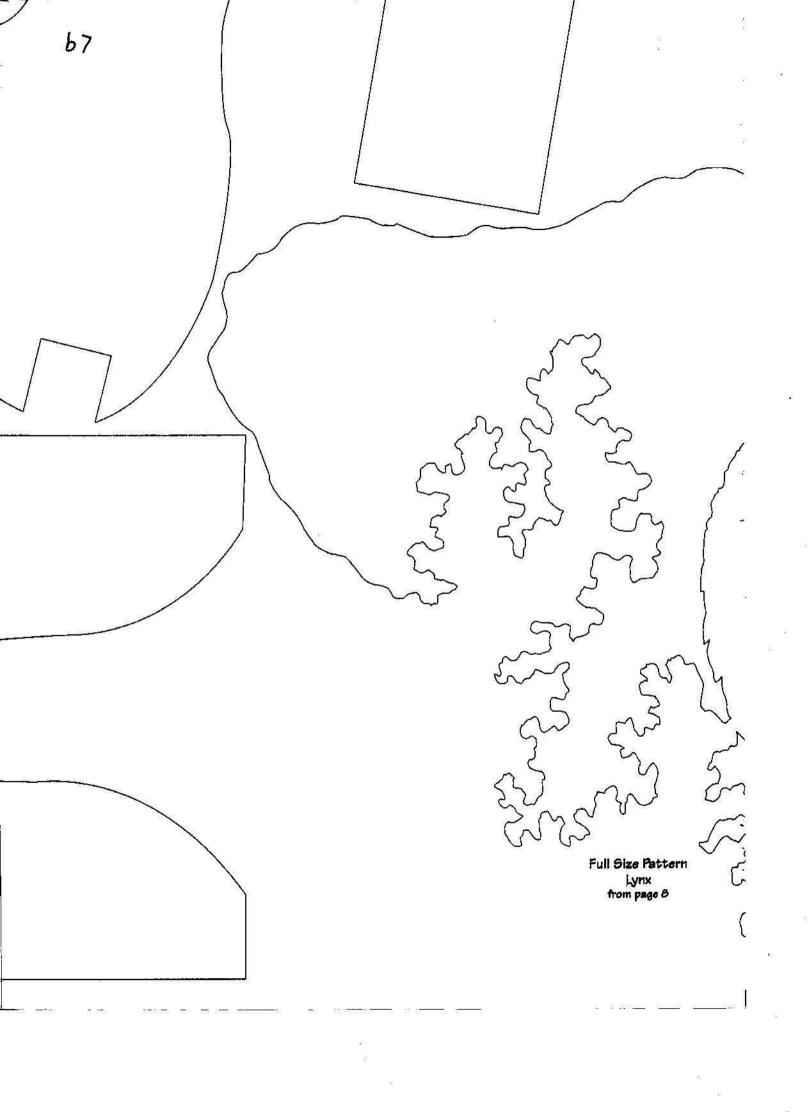
Planter tall - make one from 3/4" material

Planter bottom - make one from 3/4" material

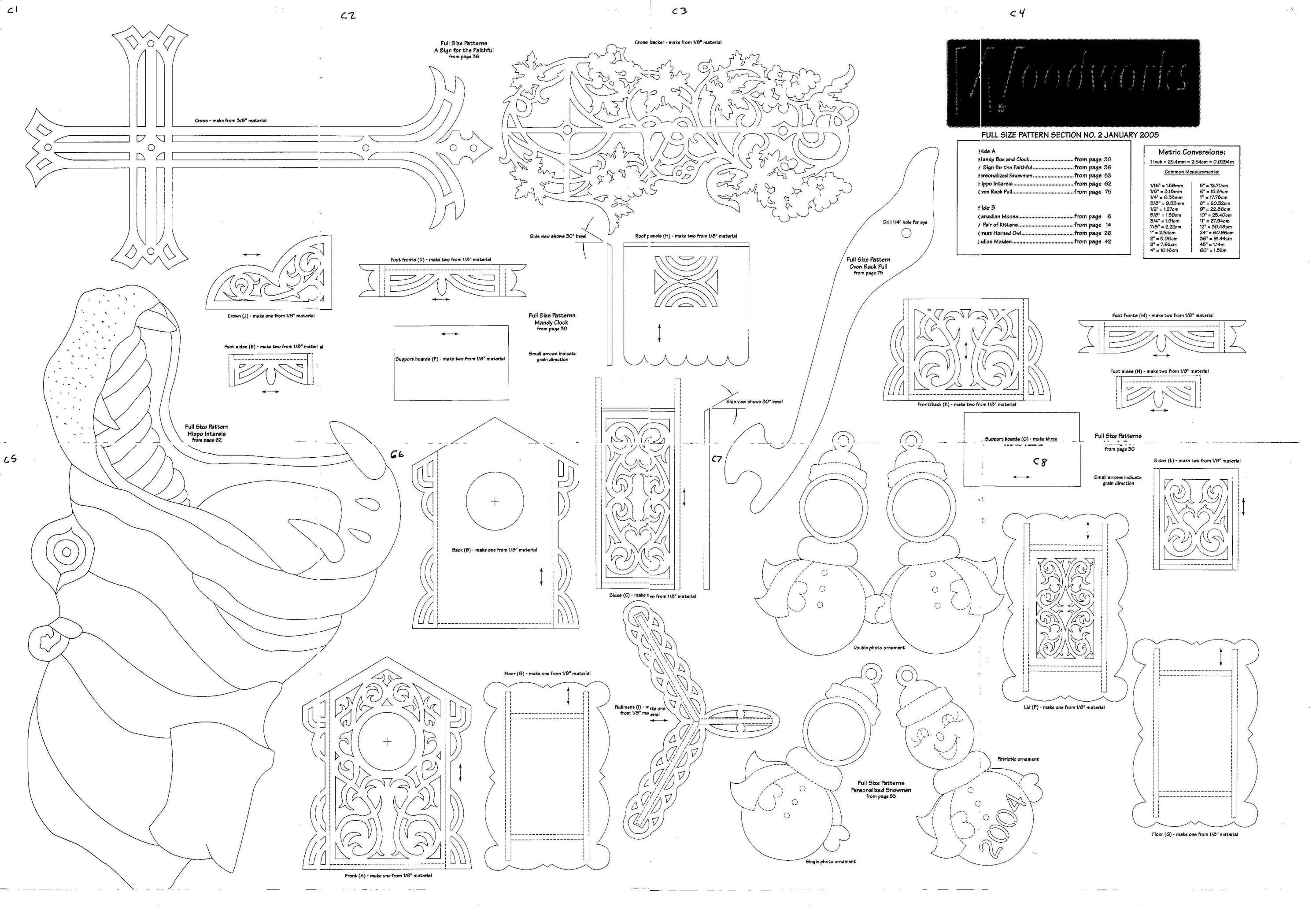


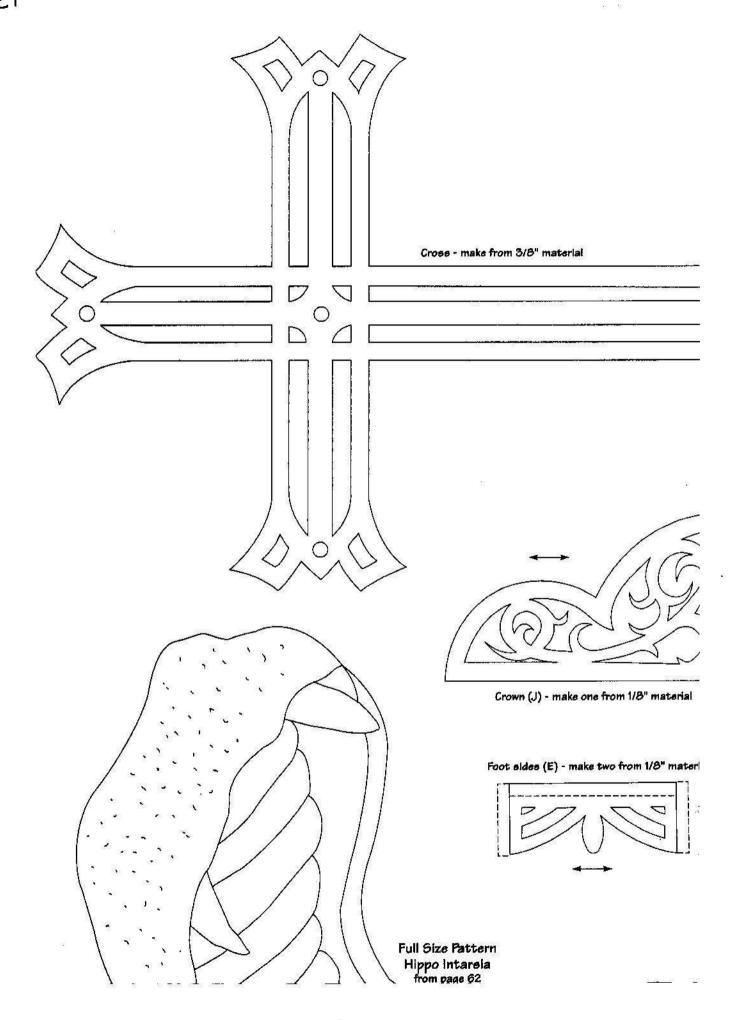
*0

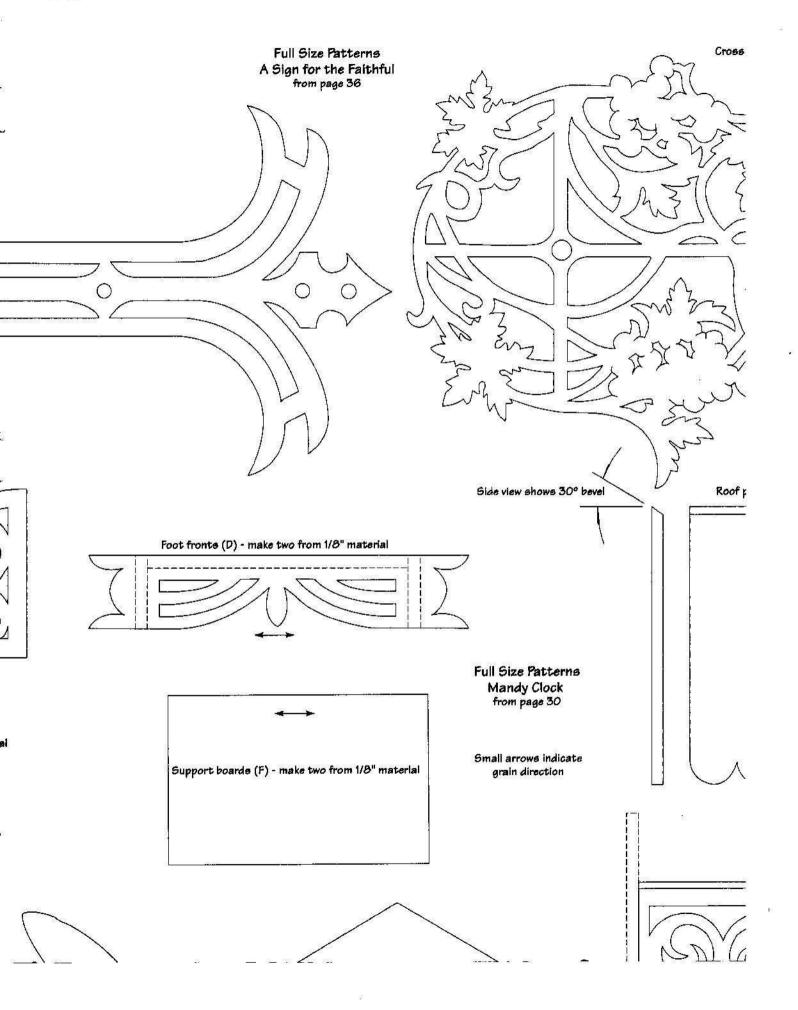


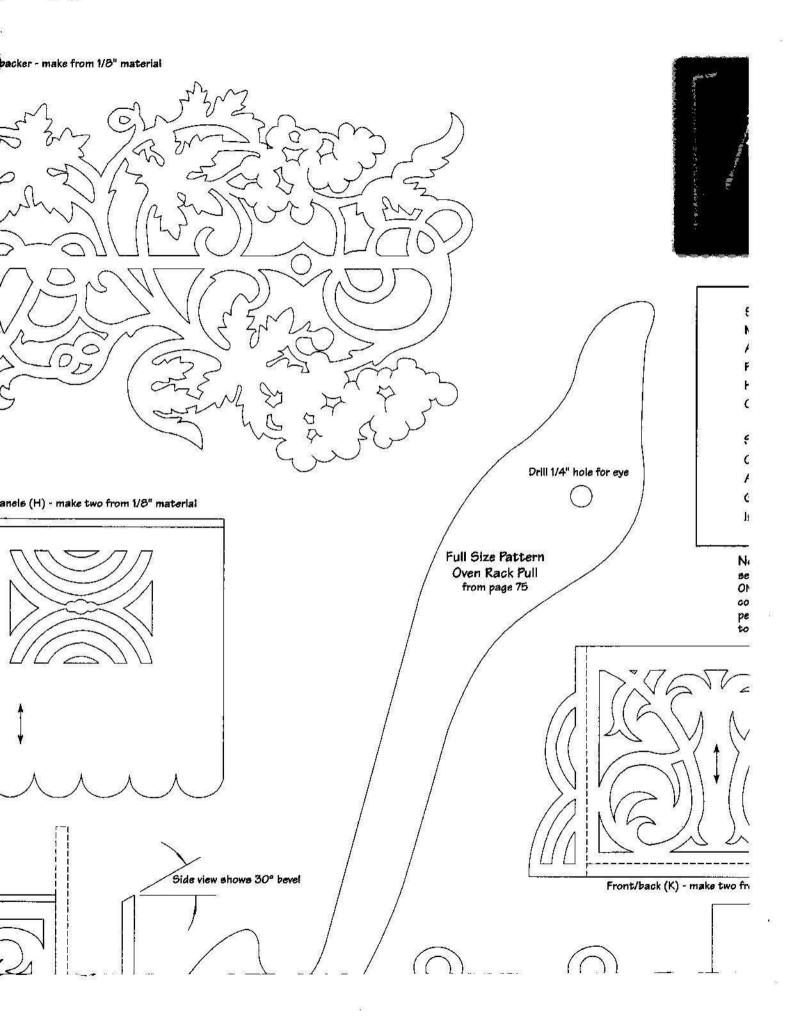


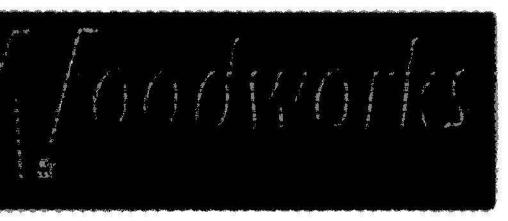












FULL SIZE PATTERN SECTION NO. 2 JANUARY 2005

30
36
53
62
7 5
6
14
26
42

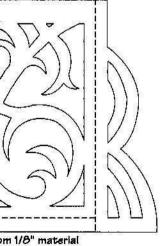
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Metric Conversions:

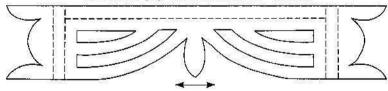
1 inch = 25.4 mm = 2.54 cm = 0.0254 m

Common Measurements:

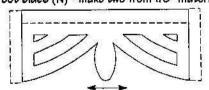
1/16" = 1.59mm	5" = 12.70cm
1/8" = 3.18mm	6" = 15.24cm
1/4" = 6.35mm	7" = 17.78cm
3/8" = 9,53mm	8" = 20.32cm
1/2" = 1.27cm	9" = 22.86cm
5/8" = 1.59cm	10" = 25.40cm
3/4" = 1.91cm	11" = 27.94cm
7/8" = 2.22cm	12" = 30.48cm
1" = 2.54cm	24" = 60.96cm
2" = 5.08cm	36" = 91.44cm
3'' = 7.62cm	45" = 1.14m
4" = 10.16cm	60" = 1.52m



Foot fronts (M) - make two from 1/8" material



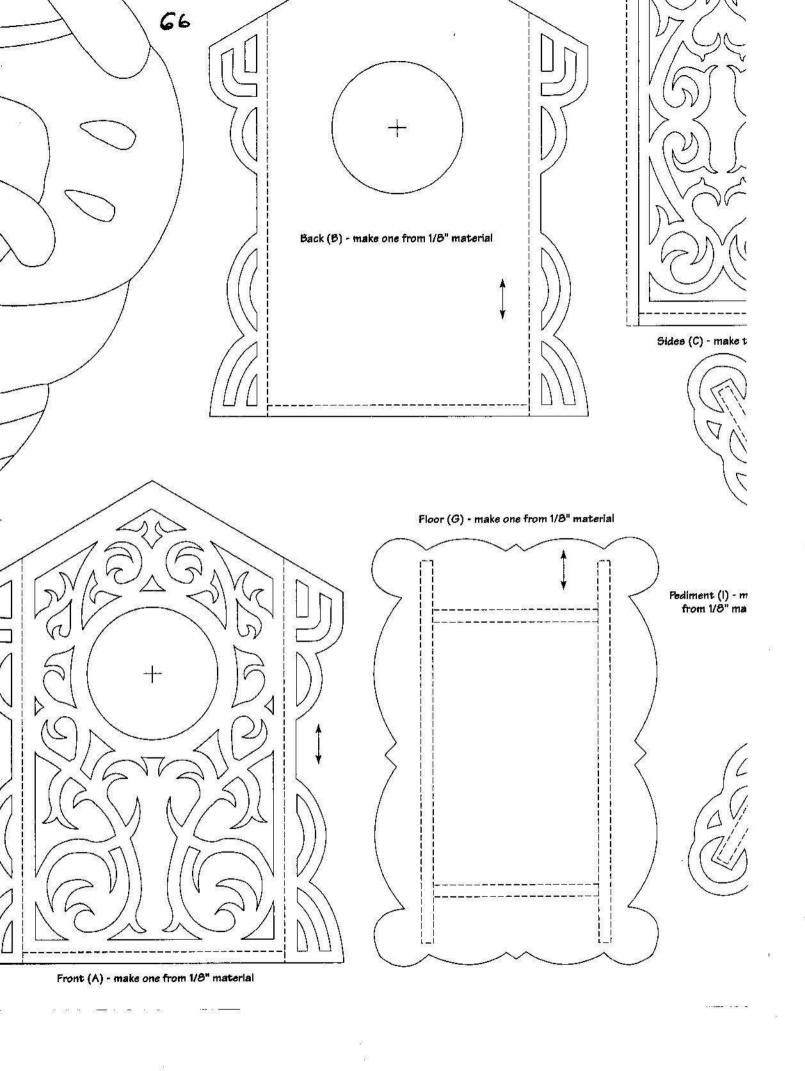
Foot sides (N) - make two from 1/8" material

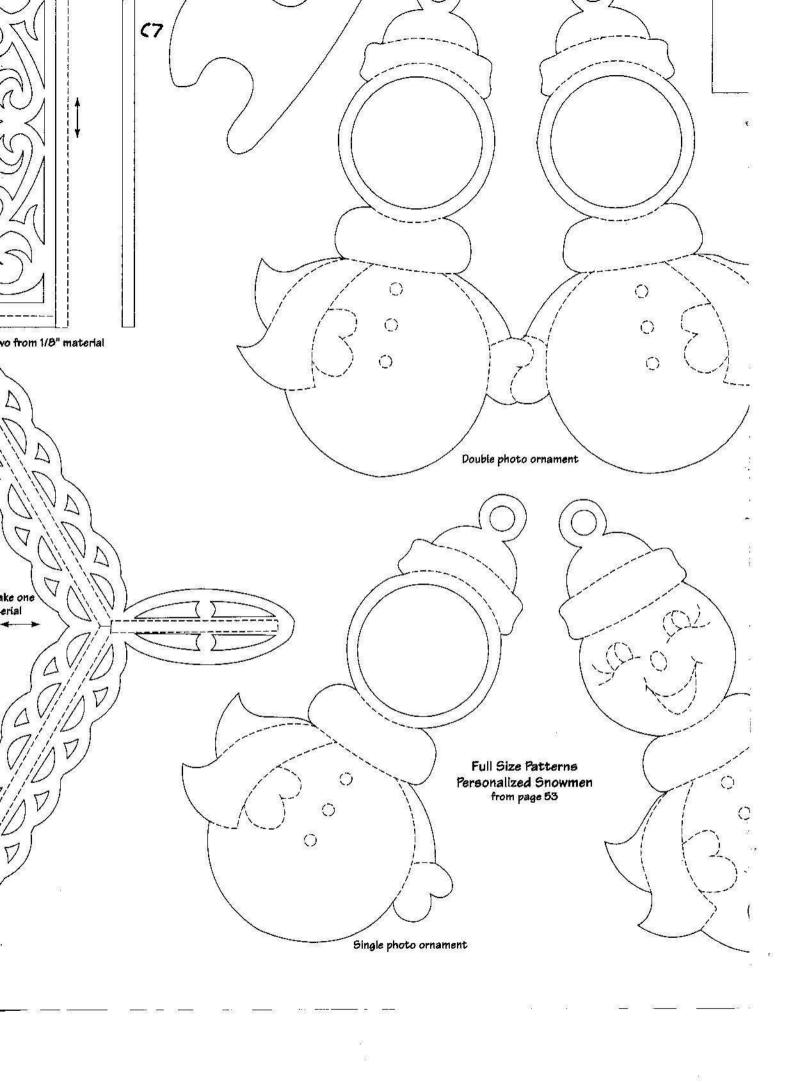


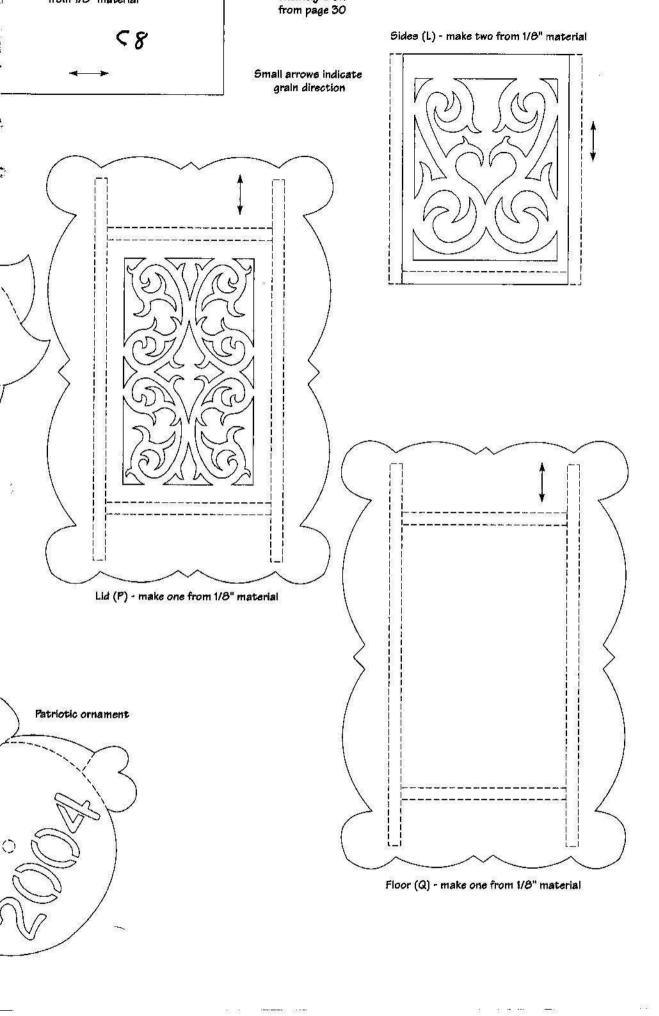
Full Size Patterns

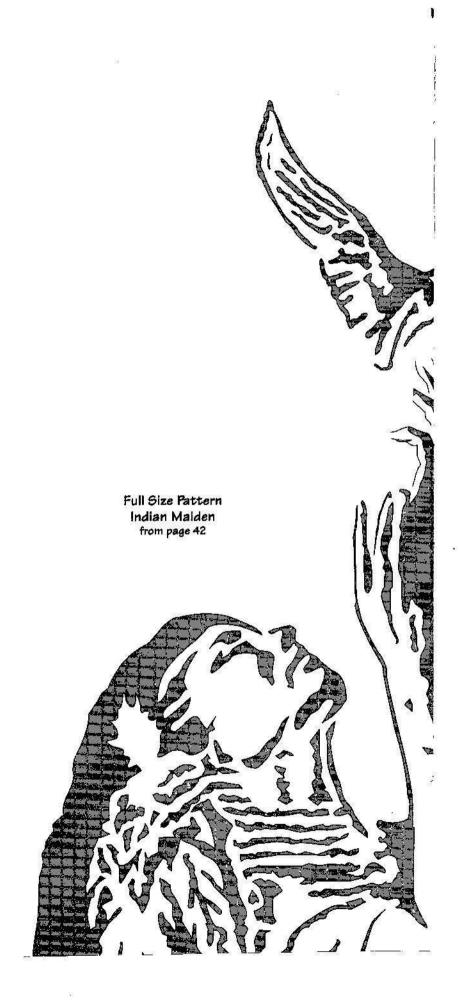
Support boards (0) - make three

- 10

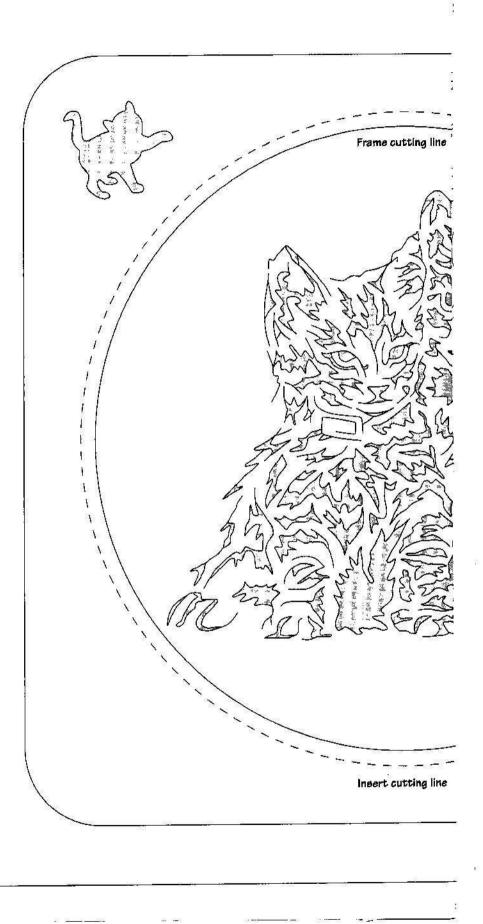


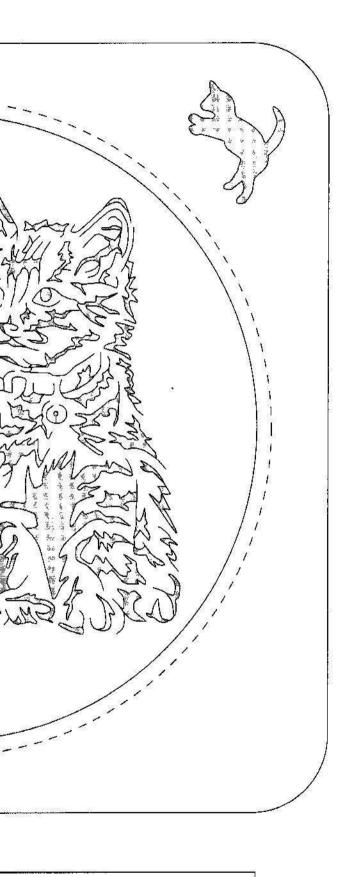






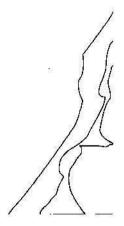


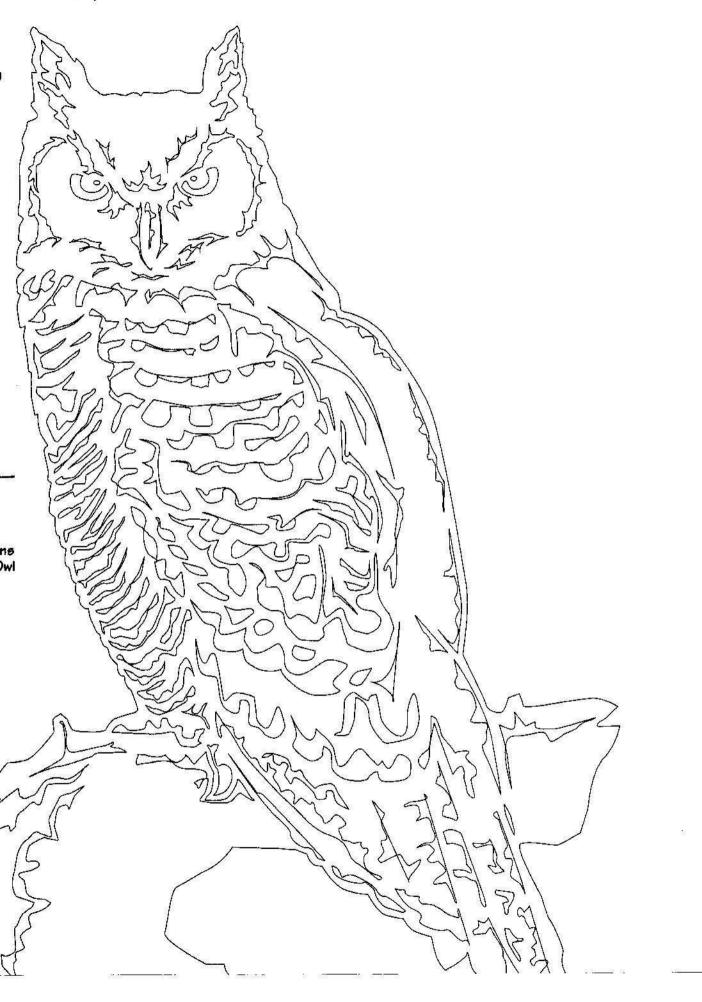




Full Size Pattern A Pair of Kittens from page 14

> Full Size Patter Great Horned (from page 26





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