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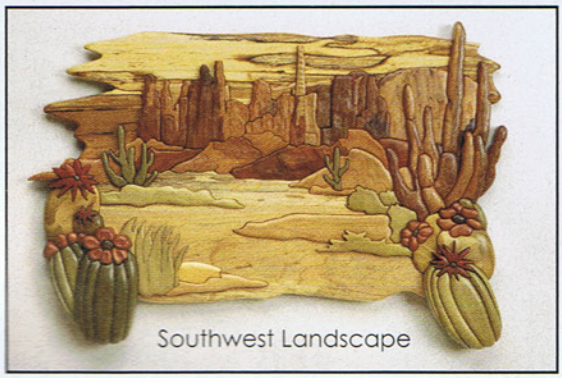
Macho Dragonfly


Southwest Landscape

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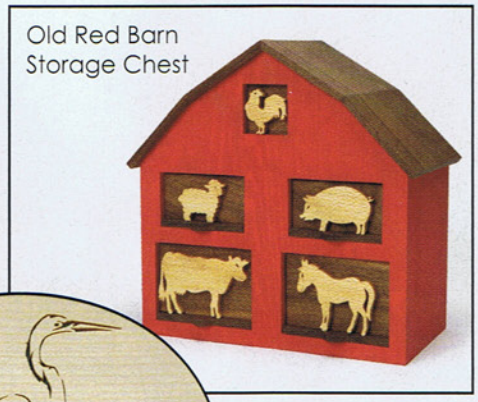
Miniature Trinket Boxes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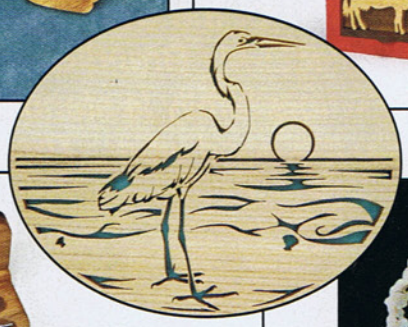
Crowley Shelf Bracket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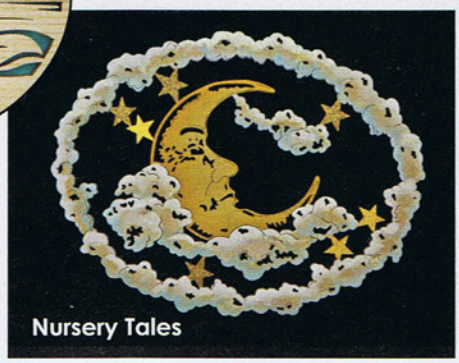
Pen and Pencil Gift Boxes


Nursery Tales

CREATIVE WOODWORKS & CRAFTS® June 2010, No. 148
All American Crafts, Inc. 2010

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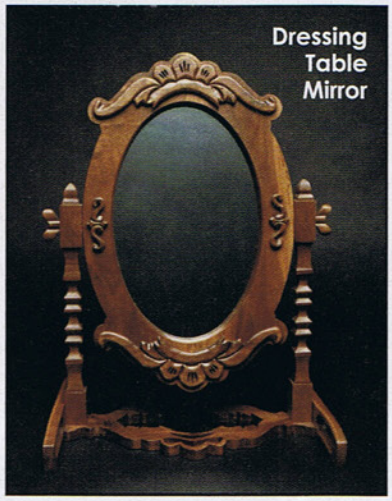
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Koi Bowl

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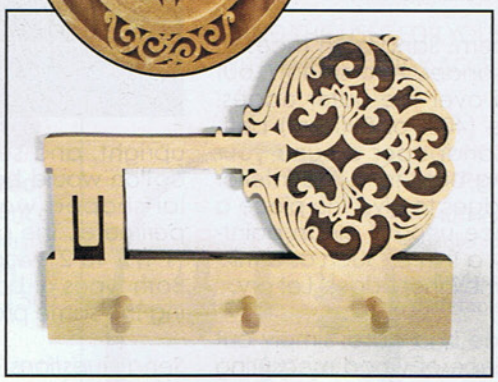
In For a Landing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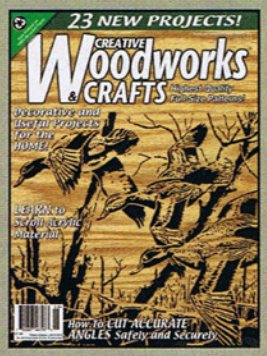

On the cover: This issue's cover features *In For a Landing* by Mike Williams.

THE FULL SIZE PATTERNS FOR THE PROJECTS SHOWN ON THIS PAGE ARE LOCATED IN PULL OUT PATTERN SECTION NO. 2 FOUND IN THIS ISSUE.

Pattern Located in Full Size Pattern Section No. 2

Bison and Calf

pattern by Jacob Fowler, cut and finished by Wayne Fowler

Introduction

We have the great fortune to live near Toronto, home to a world-class zoo and many smaller private zoos and aviaries. One of these establishments allows you to drive your car through compounds with animals running free while you are caged in your car. It provides an opportunity to take some great pictures and, with the added talent Jacob brings to the forefront, to develop some great patterns over the years. This one, from a series of shots in the North America compound, is of a female bison with her new calf.

The finished model was cut from a piece of 5/8"-thick red elm with some strong lines that represent the muddy, dusty area in which the bison herd congregated. I would recommend using any light- to mid-brown wood with some fine grain detail for this piece, because most of the wood will remain after it is cut. The piece was cut on an Excalibur EX21 saw.

INSTRUCTIONS

Step 1. Photocopy the pattern, saving the original for future use. Apply clear packing tape to the wood prior to attaching the pattern using temporary-bond spray adhesive. Drill for all blade entry holes. For the majority of the cutting, I recommend using a No. 2R blade to reduce chipping on the bottom of the piece. I suggest using a No. 1 or No. 2/0 blade to cut the finer facial details.

Step 2. Peel off the tape and pattern. Sand both faces of the piece using the belt or disc sander. Also smooth out the outer oval shape and round over the outer edges. Polish the faces using a very fine (400- or 800-grit) belt. Fold a piece of 220- or 400-grit sandpaper around your thumb, and remove any remaining burrs from the interior cut edges. Also lightly round the edges to give the piece a more finished look. Clean the piece using a clean paintbrush or other tool of choice. Apply a thin oil, such as a mixture of tung and walnut oil, to seal the inner edges. Let dry.

Step 3. To display the finished piece in a base, simply cut an oval shape from a 3/4"-thick piece of wood measuring approximately 2" x 5", cut a slot in the center of the oval that matches the thickness of the wood used for the upright, and set the finished piece in the slot. Another option would be to cut the bison design into a rectangular-shaped work piece, rather than cutting the oval perimeter. The piece could then be mounted on a narrow (1-1/2" to 2" wide) base measuring approximately 11" long. Both types of bases should be sanded and finished following the same process as for the upright.

SUPPLIES

Wood: *hardwood of choice in light- to medium-brown shade, such as cherry, oak, or red elm*—one piece 1/2" to 3/4" x 10" x 6-1/2"; *hardwood in complementary color*—one piece 3/4" x 5" x 2" (approximate measurement, for optional base)
Tools: drill with assorted small bits; scroll saw with No. 2R blade and No. 1 or No. 2/0 blade; fixed disc or belt sander with fine or extra-fine disc or belt (400- or 800-grit)
Temporary-bond spray adhesive
220- or 400-grit sandpaper
Clear packing tape
Finishing oil of choice, such as Danish, tung, or walnut

Please refer to all manufacturer's labels for proper product usage.

Send questions concerning this project to: Wayne Fowler, 33 Longmeadow Cres., Markham, Ontario, Canada L3R 3J6; or email him at: fantasiesisaw@rogers.com.

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from the editor's desk

Welcome to this issue of *Creative Woodworks & Crafts*! One of my favorite projects in this edition is the Wilckens' Crowley Shelf Bracket. In addition to looking good, this project is versatile; in fact, it's really four projects in one: each bracket, as its name implies, can be used as a small display shelf for your favorite piece of pottery, glass, etc.; they also make fantastic bookends; in addition, two of them may be used to support a horizontal board to create an attractive larger shelf; finally, reduce the patterns by fifty percent, and you can build a nifty miniature shelf, as shown on page 54.

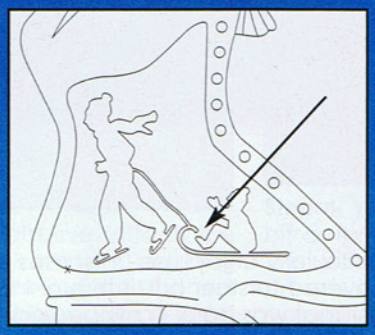
Speaking of miniatures, Diana Thompson's Miniature Trinket Boxes are innovative, cute, and easy to make. Diana has always shown a good eye for design and, armed with her Forstner bits and scroll saw, she's come up with another clever idea with these Trinket Boxes, which will make excellent little gifts for family and friends.

For those of you who enjoy "portrait-style" scrolling, Mike Williams' *In For A Landing*, featured on the cover, should provide hours of enjoyable cutting, and we hope you agree that it is a beautiful design. Special thanks to Mike's cousin, Gilbert Scott, for drawing the original image upon which Mike based his pattern.

Please keep those Readers' Gallery photos coming; it's always fun to share them in the magazine and, until the next issue, wishing all of you health, prosperity, and happy woodworking!

Sincerely,

Robert A. Becker



Editor's note: Please be aware that there was an error with the pattern for the Victorian Skater Silhouettes featured in the March 2010 issue. On the skate featuring the silhouette of the boy pulling the young child on the sled, there should be a break between the top of the sled and the child's foot, otherwise the whole center piece will drop out. The revised pattern of the silhouette piece is provided here. The photograph of the project correctly shows how the cut should be made. We apologize for any inconvenience that this caused and thank our readers for bringing it to our attention.

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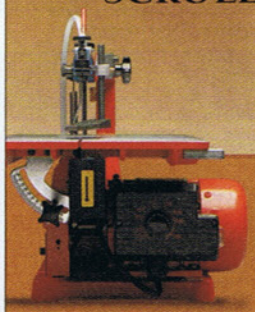

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Patterns Located in Full Size Pattern Section No. 1

Miniature Trinket Boxes

by Diana Thompson

Introduction

With this project, I am able to do two things I particularly enjoy: use up scraps of expensive woods left over from other projects, and use a forstner bit. When I first discovered forstner bits, I thought they were just the greatest things—I put holes in everything just for the fun of using the bits! That was back in my beginning days of woodworking, and it's still fun to work with them.

I've given these tiny boxes as gifts and stocking stuffers, and they might even be a good seller at craft shows. The heart is made from padauk, the kitten from red cedar, the puppy from cypress, the shell from canary, and the round box is made from my most favorite wood—black walnut. Enjoy!

SUPPLIES

Wood: *wood of choice (black walnut, canary, cypress, padauk, and red cedar were used for models)*—3/4"-thick piece ranging in size from 1-3/4" x 1-3/4" (for round box base/sides) to 2-1/2" x 3" (for puppy box base/sides), 1/4"-thick piece in corresponding size (for box lid), one piece 1/8" x 1-1/4" x 1-1/4" (for lid liner, one per box)
Tools: scroll saw with No. 5 blades; drill press with 1-1/8" forstner bit and 5/64" drill bit; drill press vise; disc sander
Temporary-bond spray adhesive
Double-sided masking tape
Clear packing tape
220-grit sandpaper
Aleene's Fast Grab tacky glue
No. 16 flat-head nail (one)
Danish oil (optional)
Miniature brass knobs*

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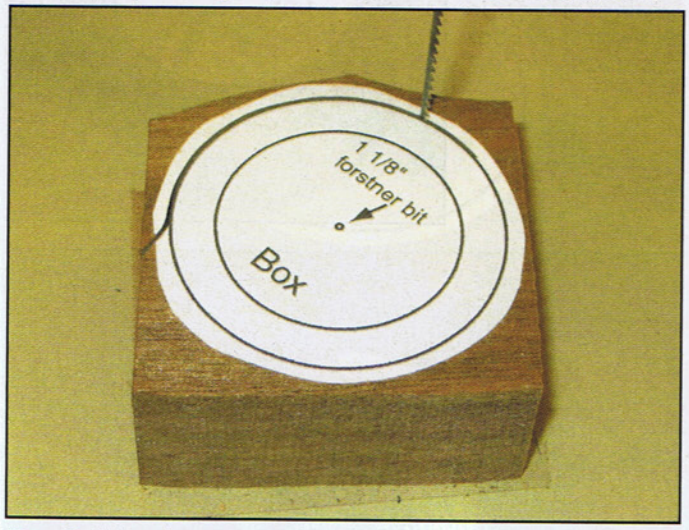
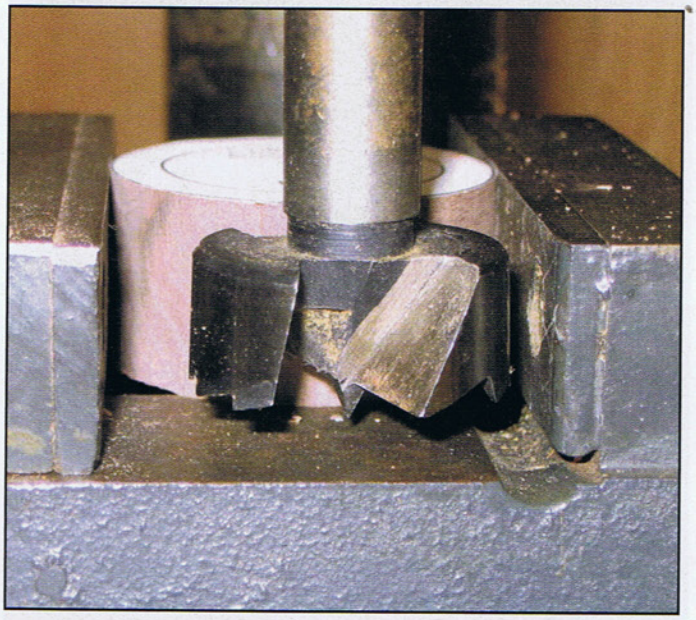
Please refer to all manufacturer's labels for proper product usage.

INSTRUCTIONS

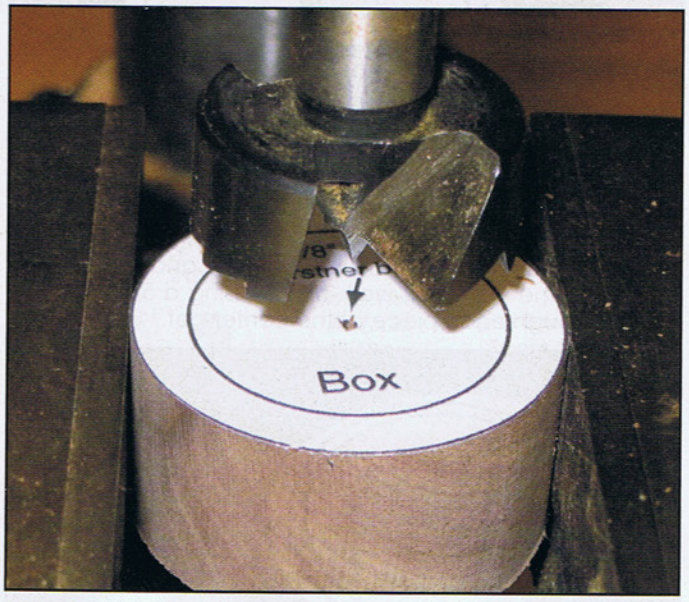
Step 1. Photocopy the patterns, saving the originals for future use. (Each box requires one box base/sides pattern, one corresponding lid pattern, and one lid liner pattern.)



Step 2. Using temporary-bond spray adhesive, attach the box base/sides pattern to the 3/4"-thick wood. Cut along the outer pattern line only. (When working with harder woods such as black walnut, I recommend applying clear packing tape to the bottom of the work piece. The tape helps lubricate the blade, allowing it to move more easily through dense wood. It also helps prevent the wood from burning during cutting.)



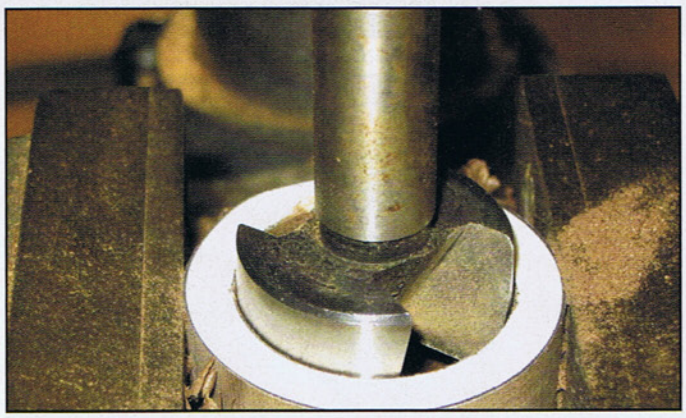
Step 3. Place the box piece into the drill press vise. Install a 1-1/8" forstner bit into the drill press. Set the depth of your drill press so that the tip of the forstner bit is approximately 1/8" above the base of the vise. (This ensures that the bit will not come through the bottom of the box, and it also prevents damage to the bit by not allowing it to come down far enough to hit the base of the vise while drilling.)



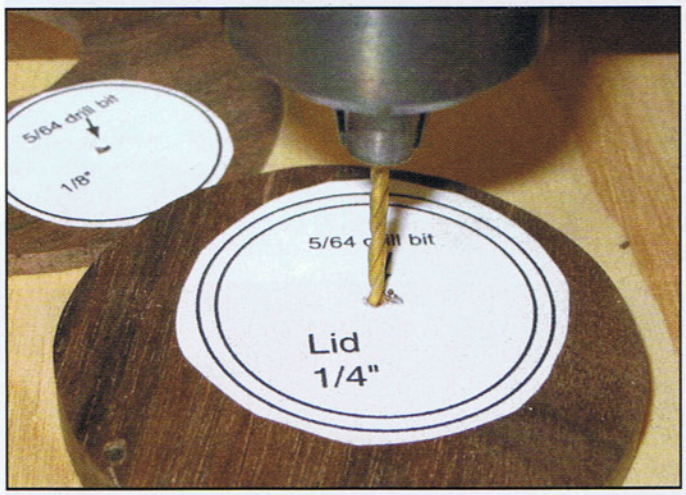
Step 4. With the drill press set to "Off," press the tip of the bit as far as it will go into dot in the center of the pattern. This will keep the bit centered over the hole when the press is turned on because the tip of the moving bit will naturally gravitate to the hole you just made. Why all the shenanigans? The vise will begin to vibrate once the press is turned on, and it would otherwise be difficult to accurately line it up with the center dot.

continued on page 12

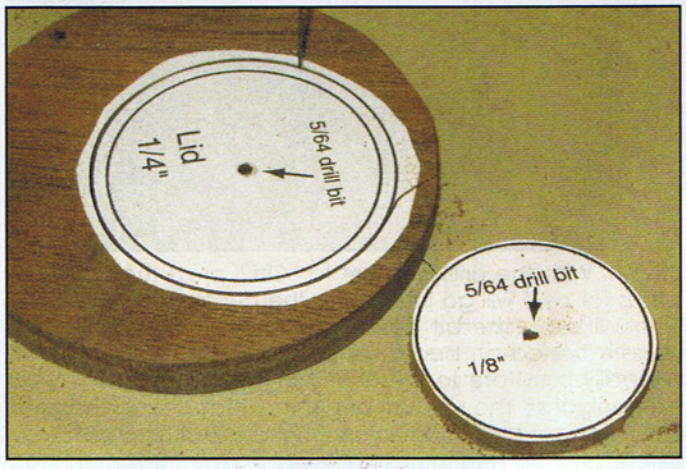
continued from page 11



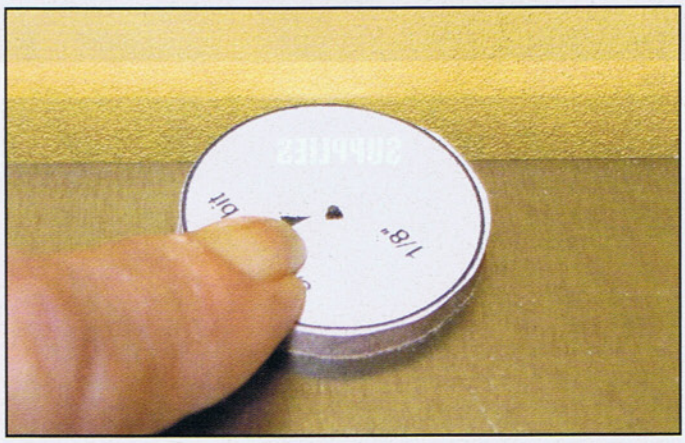
Step 5. Turn on the press, and drill the hole. Be prepared—it will make a mess, especially when drilling the darker woods. After drilling the hole, remove the pattern. (Be sure the outer perimeter of the box base/sides pattern has been cut prior to drilling the hole, as instructed in Step 2. The forstner bit can be very aggressive and will sometimes tear the pattern from the wood.)



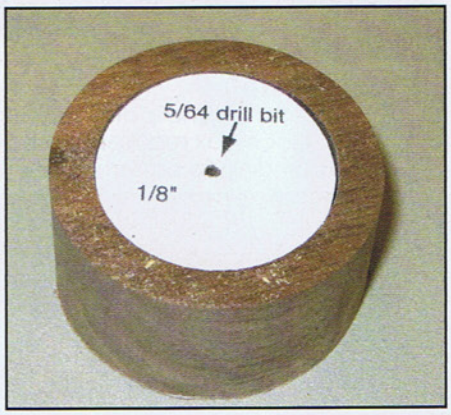
Step 6. Using temporary-bond spray adhesive, adhere the lid pattern to the 1/4"-thick work piece, and the lid liner pattern to the 1/8"-thick work piece. Using a 5/64" bit, drill a hole through each piece at the center dot.



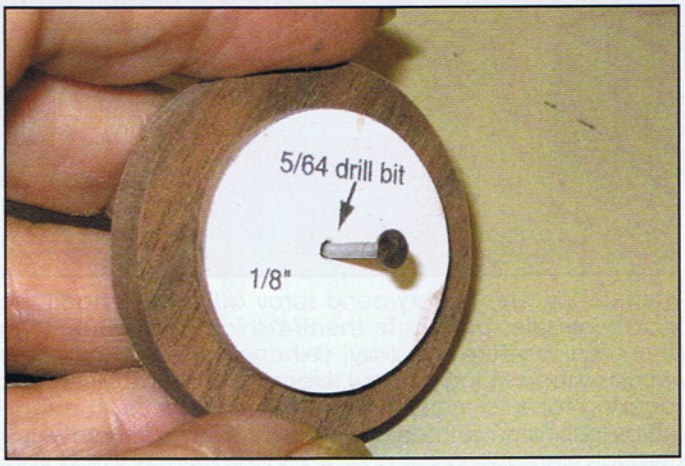
Step 7. Cut along the outer pattern line only on the lid. Cut just to the outside of the pattern line on the lid liner. Do not remove the patterns.



Step 8. Using the disc sander, carefully sand the perimeter of the lid liner up to the pattern line. Be sure to keep the piece moving at all times to avoid flat spots, and use a very light touch. Check the piece for fit into the box base/sides piece as you go, removing a small amount of material at a time. The lid liner should fit easily into the box, but not so loosely that it shifts around too much. As a general rule, the pattern line will actually need to be sanded away, but you should check for fit as you go. (Be aware that you should use both index fingers to control the work piece while sanding it, although only one finger is shown in the photo. Where is my other index finger? Poised on the "shoot" button of the camera, while trying not to have my hand shake!)

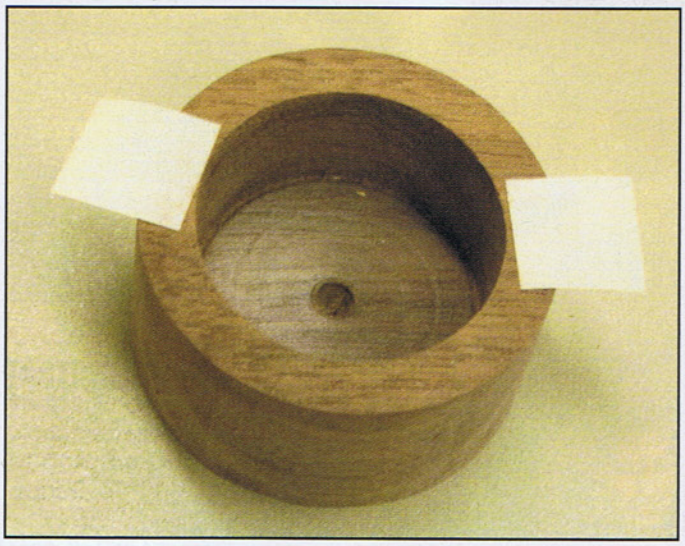


Step 9. The photo shows the correct positioning of the lid liner piece in relation to the box base/sides piece.

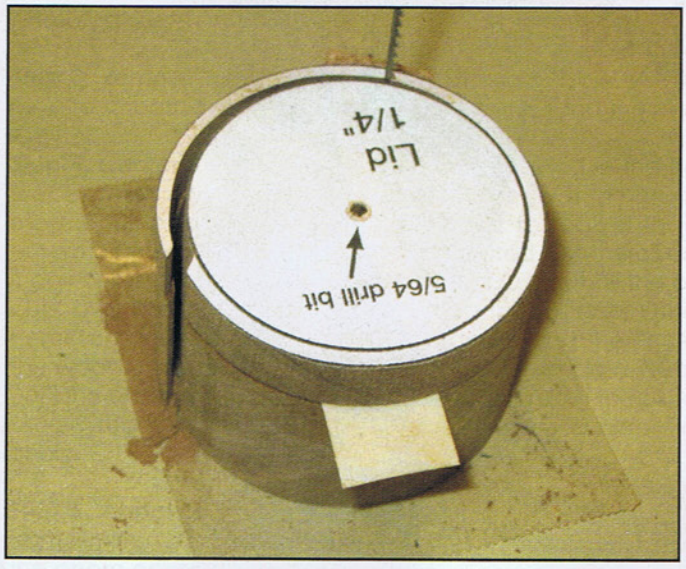


Step 10. Apply a thin layer of glue to the bottom of the lid liner. Thread the No. 16 nail through the center hole in the liner, inserting it from the front side, and then thread

the nail through the center hole in the lid. Push the nail all the way through both pieces, and join the pieces together, holding the assembly for a few moments until it sets. Allow the glue to dry for about thirty minutes. (I tried using several different types of clamps to hold the assembly in place, but each one made the pieces slip out of alignment. The nail ensures that the small holes in each piece line up perfectly with each other.)

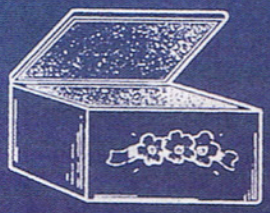


Step 11. Adhere two small pieces of double-sided masking tape to the top edges of the box, making sure the tape doesn't extend into the box opening. (It is okay if the tape extends beyond the outer edges.)



Step 12. Place the lid firmly on the box, and, cutting through both thicknesses, cut along the inner line of the lid pattern. Separate the two pieces, remove all patterns, and finish as desired. (*Watco* Danish oil was applied to the models shown.) When dry, install the brass knob into the pre-drilled hole.

For questions concerning this project, please send a SASE to: Diana Thompson, 6215 Old Pascagoula Rd., Theodore, AL 36582, or email her at: scrollergirl@aol.com. To view other designs by Diana, visit her website, www.scrollsawinspirations.com.



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Pattern Located in Full Size Pattern Section No. 2

Wedding Frame

pattern and write-up by Dirk Boelman; cut by Joe Diveley

Introduction

This beautiful frame would make a lovely wedding or anniversary gift. Don't have access to a wedding photo of the couple? Consider framing their invitation as a wonderful memento of their special day.

SUPPLIES

Wood: *walnut or wood of choice*—one piece 1/2" x 7" x 9"; *oak or wood of choice*—one piece 1/4" x 5" x 6-1/2" (for retainer ring)
Tools: scroll saw with No. 3 and No. 002 blades; drill with assorted small bits; 320-grit sanding mop (optional); air compressor (optional)
Temporary-bond spray adhesive
Blue painter's tape
Sandpaper, assorted grits
Wood glue
Finish of choice
Small sawtooth hanger with mounting hardware
Frame/mirror clips with mounting hardware (four)
Glass or acrylic oval—one piece 5-3/4" x 4-1/4" (optional)

Please refer to all manufacturer's labels for proper product usage.

INSTRUCTIONS

Step 1. Photocopy the patterns, saving the originals for future use. Cut the work pieces to size. Apply a layer of blue painter's tape to the wood, and attach the patterns to the taped surfaces using temporary-bond spray adhesive.

Step 2. Drill for all entry holes on the frame piece and for the interior opening on the retainer ring. When drilling the hole for the large interior opening on the frame, be sure to position the hole right on the pattern line. Make all interior cuts prior to cutting the perimeter of the pieces. (The center piece from the frame should be cut as one piece because it will be used as the photo backer.)

Step 3. Remove the patterns and tape. If available, use a 320-grit sanding mop to smooth the surfaces. Otherwise, hand-sand the pieces smooth.

Step 4. Center the retainer ring over the opening in the frame, and glue in place. When dry, apply your finish of choice. *Watco* natural oil was used on the model. After applying the oil, allow it to soak in for a few minutes to ensure all internal cuts are thoroughly coated. Let the oil drain off, and wipe it down. If an air compressor is available, blow out all the oil from the interior cuts, and then wipe the excess oil from the surface. Otherwise, place the frame on a piece of clean cardboard, allowing the excess oil to drain off the wood, then wipe the frame using a lint-free cloth. Repeat several times until the oil stops "bleeding" from the wood. Allow the oil to dry completely, usually requiring a few days. When dry, apply a clear finish coat of your choice.

Step 5. Attach a sawtooth hanger to the back of the frame. Attach four frame/mirror clips to the back of the frame, evenly spacing them around the photo opening. Trim the item to be framed so it fits the opening, insert it into the frame, and insert the backer cut from the center of the frame. Secure the photo and backer by twisting the mirror clips in place. If you choose to mount your photo under glass or acrylic, trace the center cut-out piece from the frame onto a thinner piece of wood. (The thickness of the wood plus the glass should equal the thickness of the frame.) Cut out the backer. Insert the glass into the frame opening, followed by the photo and the new backer. Twist the mirror clips in place to secure.

For questions concerning this project, send a SASE to Joe Diveley at P.O. Box 85, Graymont, IL 61743 or to Dirk Boelman, P.O. Box 701, Platteville, WI 53818. Email Joe at: jldiveley@yahoo.com or Dirk at: dirkdraws@centurytel.net.

Pattern Located in Full Size Pattern Section No. 2

Fret Key Plaque

by Sue Mey

Introduction

When making these plaques, I stack-cut the fretwork overlay pieces and attached them to hardwood backers of contrasting colors. The plaque on the right is comprised of an MDF overlay that I stained walnut and mounted on a blonde mahogany backer; the plaque shown above consists of a Baltic-birch overlay mounted on a walnut-stained pine backer. The contrast of the dark and light wood shows off the detail of the fret cuts. If you prefer, however, cut the design from a thicker, attractive hardwood, and eliminate the overlay. The key plaques shown have three pegs, but feel free to add more.

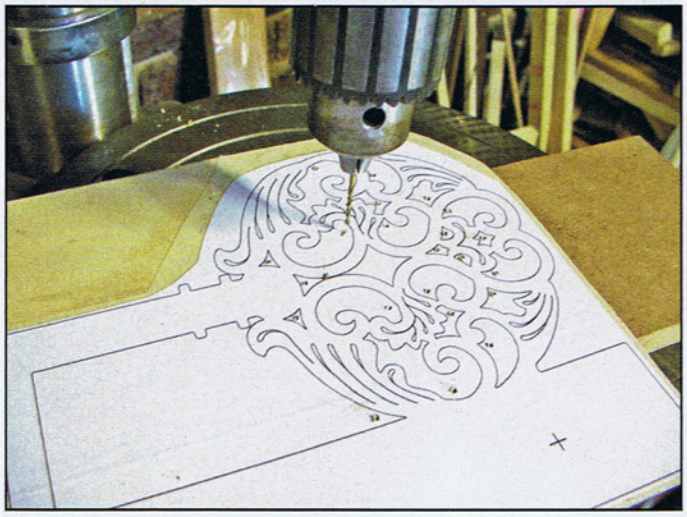
SUPPLIES

Wood: *MDF or plywood*—one piece 1/8" x 11" x 8-1/4" (for fretwork overlay); *hardwood in contrasting color*—one piece 3/4" to 1" x 11" x 8-1/4" (for backer); *scrap wood* (to place under work piece when drilling)
Tools: scroll saw with No. 3 and No. 7 reverse-tooth blades, or blades of choice; drill press or hand drill with 1/16", 1/32", and 1/4" bits; disc sander (optional); punch tool; clamps; craft knife with cutting board; scraper blade
Temporary-bond spray adhesive or glue stick
Wood glue
Thin double-sided tape
Masking tape
Sandpaper, assorted grits
Hard-bristled paintbrush
Lint-free cloth
Walnut wood stain
Medium-sized artist's brush
Deep-penetrating furniture wax liquid or Danish oil
Clear spray varnish
1/4"-diameter shaker pegs (three)
Sawtooth hanger

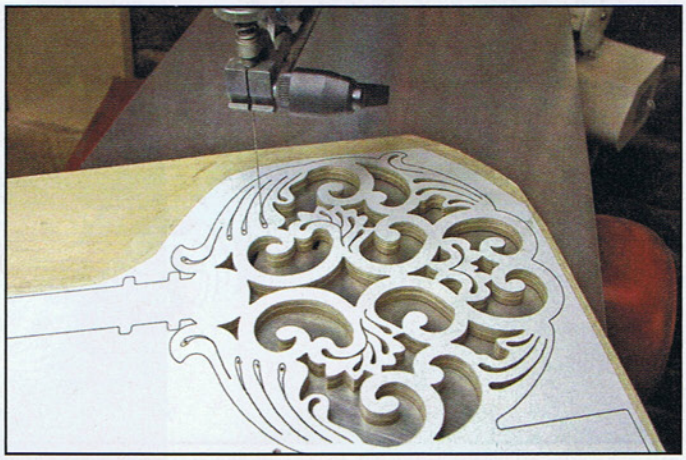
Please refer to all manufacturer's labels for proper product usage.

INSTRUCTIONS

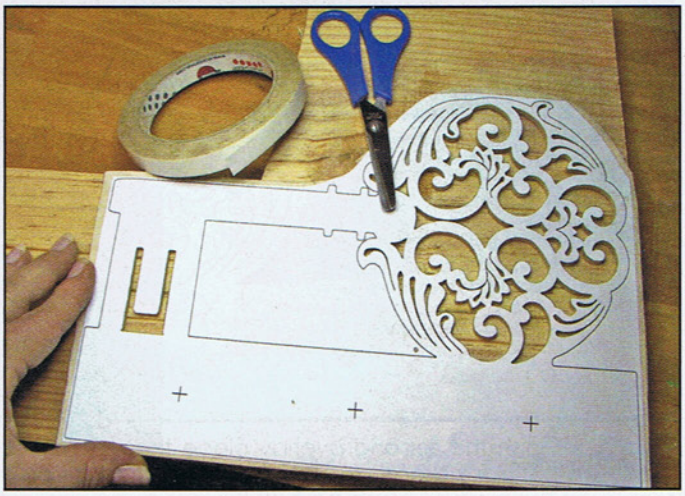
Step 1. Photocopy the pattern, saving the original for future use. If stack-cutting, join the work pieces using small pieces of thin, double-sided tape. Apply a layer of masking tape to the top of the stack or work piece, and use temporary-bond spray adhesive or a glue stick to attach the pattern to the taped surface.



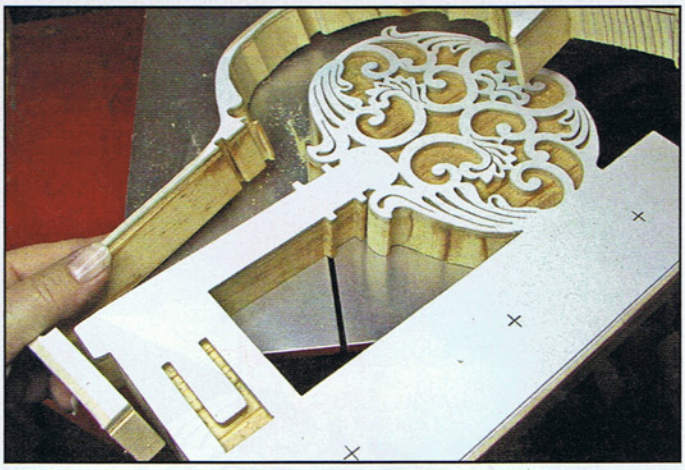
Step 2. Prior to drilling the blade entry holes, place a sturdy piece of scrap wood underneath the work piece. This will help prevent tear-out on the back of the project. Use the 1/16" bit to drill the majority of the blade entry holes. Switch to the 1/32" bit to drill holes in the very small openings. Remove the burrs created by drilling the holes by running a scraper blade along the back of the work piece, following the grain of the wood.



Step 3. Make the interior fret cuts using the No. 3 blade. Do NOT cut the larger interior opening or the perimeter of the piece yet.



Step 4. If the work pieces are stacked, insert a scraper blade between the layers and carefully pry them apart. Set aside the overlay piece that does not have a pattern attached to it. Place the overlay piece with a pattern attached to it on top of the work piece to be used for the backing. Using pieces of thin, double-sided tape, attach the overlay to the backer work piece.



Step 5. Using the No. 7 blade, cut out the large interior opening and along the perimeter of the piece.

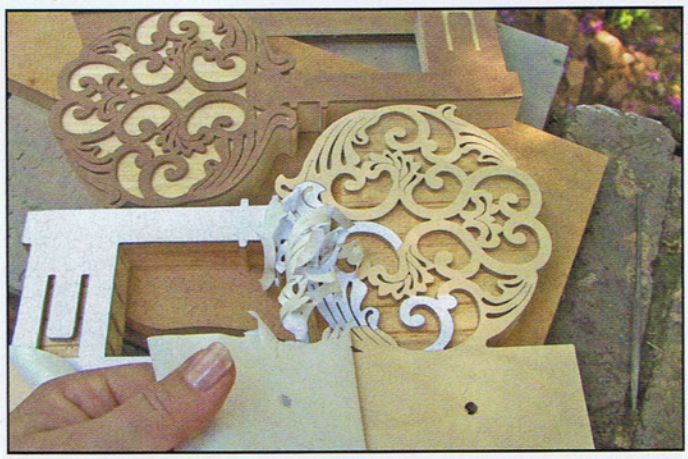
continued on page 18

continued from page 17

Step 6. Use the punch tool to mark the locations for the shaker peg holes. Using the 1/4" bit, drill the holes.

Step 7. To finish the second overlay piece that had been stack cut but has no pattern attached to it, another photocopy of the pattern is required. (If the overlays were not stack cut, this step can be skipped.) Place the pattern on a cutting board, and, using a craft knife with a sharp blade, cut out two or three of the fret openings. Line up the openings in the pattern with the fret-cut openings in the work piece, and secure the pattern to the wood using thin, double-sided tape. Place the overlay on the work piece for the backer, secure using double-sided tape, and complete the cuts. Also drill the holes for the shaker pegs.

Step 8. If desired, the bottom edge of the plaque may be straight-sanded using the disc sander.

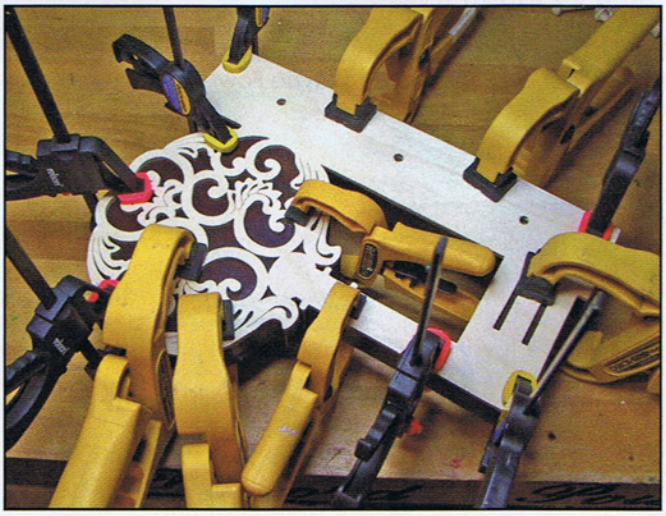


Step 9. Remove the patterns and tape from the work pieces. Sand all the wood work pieces by hand using 150-grit sandpaper or a sanding block. Switch to 320-grit sandpaper until the surfaces are smooth. Remove all sanding dust using a hard-bristled paintbrush and a lint-free cloth.

Step 10. If desired, apply walnut wood stain or your stain of choice to the work pieces. (In the models shown, walnut wood stain was applied to the MDF overlay and the pine backing piece.) Let dry.

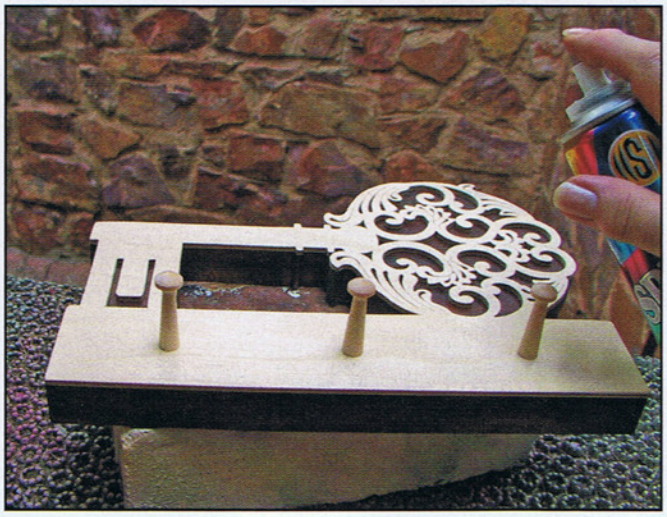
Step 11. Use the medium-sized artist's brush to apply deep-penetrating furniture wax liquid or Danish oil to all the surfaces of the light-colored hardwood backing. Wipe away the excess liquid or oil using a lint-free cloth, and set the work piece in the sun to dry. (If this is not possible, set it aside to dry for a few days.)

Step 12. Apply small beads of wood glue to the back of the fretwork overlay. Position it on top of the backing, and apply clamps. Use a toothpick to carefully remove any glue squeeze-out.



Step 13. Use wood glue to attach the shaker pegs, and allow the glue to dry.

Step 14. Apply several light coats of clear spray varnish to the project, allowing each coat to dry thoroughly before applying the next. Attach a sawtooth hanger to the center back of the key plaque.



I live in Pretoria, South Africa, and I enjoy all the various aspects of scroll sawing. I can be contacted via e-mail, at sue@scrollsawartist.com or suem@storage.co.za. To see more of my work, including a wide variety of patterns and pattern-making tutorials available for purchase, visit www.scrollsawartist.com. My first pattern book, Lighted Scroll Saw Projects, *is available from www.amazon.com and other outlets.*

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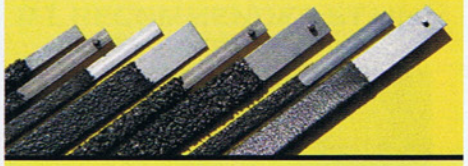

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Pattern Located in Full Size Pattern Section No. 1

Egret at Sunset

pattern by Jacob Fowler, cut and finished by Wayne Fowler

SUPPLIES

Wood: *hardwood of choice in light color, such as box elder, hackberry, or maple*—one piece 1/2" to 3/4" x 9-1/4" x 7"; *3/4"-thick hardwood in complementary color*—one piece 5" x 2" (approximate measurement, for optional base)
Tools: drill with assorted bits; scroll saw with No. 2R blades; fixed disc or belt sander with fine or extra-fine disc or belt (400- or 800-grit)
Temporary-bond spray adhesive
Clear packing tape
220- or 400-grit sandpaper
Clean paintbrush
Finishing oil of choice, such as Danish, tung, or walnut

Please refer to all manufacturer's labels for proper product usage.

Introduction

Whenever we can afford it, my wife and I vacation on Sanibel Island near Fort Myers, Florida, and I always bring my camera and lots of memory cards. Sanibel has over 50 species of birds in the wild, including many large water-base birds such as blue heron and, fortunately, egrets. Every morning and evening I can be found down by the fishing pier at the end of the island shooting a hundred or so pictures of birds, sunrises, and sunsets. This design is based upon one of my "egret at sunset" pictures, with a little detail added from other egret pictures taken during our most recent trip early last year.

I was fortunate to have found a piece of 1/2"-thick yellow hackberry in my "shorts" bin that allowed me to effectively use the water/sky line in the pattern. I recommend using a light- to mid-brown wood with some fine grain detail for this piece, because most of the wood will remain after it is cut. I used a No. 2R blade to cut this piece; a No. 5R blade could be used to cut the coarser features, such as the lines in the beach, if desired. The piece was cut on an Excalibur EX21 saw.

INSTRUCTIONS

Step 1. Photocopy the pattern, saving the original for future use. I recommend applying clear packing tape to the wood prior to attaching the pattern using temporary-bond spray adhesive. The tape seems to make the piece easier to handle while cutting, as well as reduce the burn from the tight turns you will have to make. After attaching the pattern, drill for all blade entry holes. I recommend using a No. 2R blade to reduce chipping on the bottom of the piece during cutting, but a No. 5 blade can be used for some of the coarser details.

Step 2. After cutting, peel off the tape and pattern. Sand both faces of the piece smooth using the belt or disc sander. Also smooth out the outer oval shape and round over the outer edges. Polish the faces using a very fine (400- or 800-grit) belt. Fold a piece of 220- or 400-grit sandpaper around your thumb, and remove any remaining burrs from the interior cut edges. Also lightly round the edges to give the project a more finished look. Clean the wood using a clean paintbrush or other tool of choice. Apply a thin oil, such as a mixture of tung and walnut oil, to seal the inner edges. Let dry.

Step 3. Because I sell much of my work at art or craft shows, I like to offer my customers the option of displaying the finished piece either hanging or mounted in a base. I typically use a simple slotted base for much of my work. Cut an oval or rectangular shape from a piece of 3/4"-thick complementary-colored hardwood measuring approximately 5" x 2". Fret-cut a slot in the center of the base measuring approximately 3" long and equal in width to the thickness of the upright. (It is better to undercut the width of the slot, and sand or shave off a bit if necessary, in order to have a tight fit between the upright and base.) When fitted correctly, the upright will stand vertically in the base, and the base will remain attached when lifted from the upright. Sand the base, and apply the same finish that was used for the egret. If you desire a more finished look, rout the top outside edge of the base using a router with a small bit. Because most of my bases are usually temporary mounts, I typically just do a quick rounding of the outside top edge using sandpaper, in order to mark the top side of the base.

Send questions concerning this project to: Wayne Fowler, 33 Longmeadow Cres., Markham, Ontario, Canada L3R 3J6; or email him at: fantasiesisaw@rogers.com.

Pattern Located in Full Size Pattern Section No. 2

Cross Plaque

by Sheila Landry

Introduction

This Cross Plaque is the latest addition to my series of self-framing plaques. I like the concept of self-framing patterns because they are "all inclusive"—not only do you have the pattern for a nice plaque, but also for a beautiful fretwork frame. Of course, you could make the project shown as is, but you could also make just the inner design of the cross and use it for a sun-catcher or ornament. Additionally, you could adapt the frame design and cut it independently to use with your favorite photograph or other scroll saw pattern. On my website, I have offered many new designs using the self-framing technique, in which I have made available sets of two complementary patterns with interchangeable frames in unique and unusual shapes. These are very versatile and fun to make, and I hope you enjoy trying out the simple process.

SUPPLIES

Wood: *maple or wood of choice*—one piece 1/4" to 3/8" x 8" wide x 10" long; *veneer or thin plywood in contrasting color*—one piece 8" wide x 10" long (for optional backer)

Tools: scroll saw with No. 2/0 and No. 5 reverse-tooth blades; drill press with small bit; handheld orbital sander with assorted grits (100-320) of sandpaper; planer (optional, for proper wood thickness); vacuum with soft-brush attachment; scissors or craft knife (for cutting optional veneer backer)

Temporary-bond spray adhesive
2"-wide clear packing tape
Clear-drying wood glue
Sandpaper, assorted grits
Spray varnish in finish of choice
Small hanger of choice
Two-part epoxy (for attaching hanger)

Please refer to all manufacturer's labels for proper product usage.

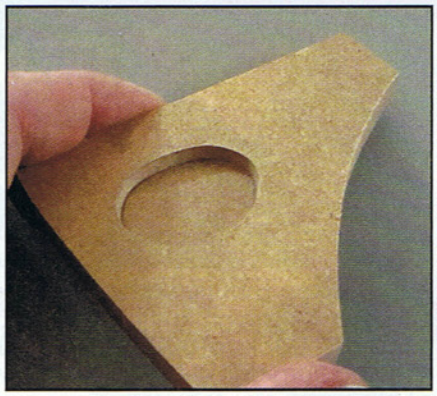
INSTRUCTIONS

Step 1. Plane the maple board to your desired thickness, ranging from 1/4" to 3/8" thick. Using 100-grit sandpaper and the orbital sander, sand both sides of the wood to remove the planer marks and smooth the surface. Graduate to 220-grit sandpaper, then 320-grit, until the surfaces are satin smooth. This will make it much easier to finish your project after cutting. Using the vacuum with the soft-brush attachment, vacuum all the dust from the wood.

Step 2. Photocopy the pattern, saving the original for future use. Apply a light misting of temporary-bond spray adhesive to the back of the pattern. Allow the adhesive to set up for a few seconds until it feels as tacky as masking tape, and attach the pattern to the wood. Apply a layer of clear packing tape over the entire surface of the pattern. This will help prevent the wood from burning while cutting.

Step 3. Using the No. 5 reverse-tooth blade, cut along the perimeter of the pattern.

Step 4. Tilt the scroll saw table down 5° to the left, so the left side of the table is lower than the right. Lock the table in place. Drill a blade entry hole in a piece of scrap wood that matches the thickness of your work piece. Cutting in a clockwise direction, cut out a test circle using the same blade that you will use to cut the inner oval. Test fit the circular piece into the opening. It should recess into the hole without falling through. If necessary, adjust the angle on the scroll saw table and continue test-cutting until the desired fit is achieved.



Step 5. With the scroll saw table set to the angle determined in the previous step, and using a small drill bit, drill the blade entry hole separating the frame from the center plaque, where indicated on the pattern. Thread the blade through the hole, and cutting in a clockwise direction, cut along the interior oval line, separating the frame from the center plaque. Lightly mark the top of the frame on the back of the work piece to aid with assembly later.

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Step 6. After cutting, the center plaque should be recessed into the surrounding frame. Be sure to reset the saw table to 0°.

Step 7. Using a small drill bit, drill the blade entry holes for the fretwork design in the frame and for the cross. Hand-sand the backs of the pieces to remove any tear-out created from drilling the holes. This will allow the pieces to sit flat on the saw table.

Step 8. Make all cuts in the frame and cross design using the No. 2/0 reverse-tooth blade. Remove the pattern pieces.

Step 9. If desired, an optional veneer or plywood backer can be added to the project. To do so, trace the perimeters of the interior cross plaque and the frame onto the veneer or plywood. Use the scroll saw with No. 2/0 reverse-tooth blades to cut out the plywood backers; use scissors

or a craft knife to cut out the veneer pieces. (The scroll saw can be too aggressive when cutting veneer.) Apply clear-drying wood glue to the backs of both pieces, and rub it into the wood using your finger or a paintbrush. Position the backers on the cross plaque and the frame piece, aligning all edges. Place the assemblies between boards of scrap wood, and clamp to secure. When dry, use the orbital sander to carefully sand the backs and outer edges of the pieces, being careful not to compromise the angled edges of the interior cross piece. Finish by hand-sanding the pieces using fine-grit sandpaper.

Step 10. If desired, place a small amount of wood filler where the blade entry hole was drilled to separate the frame from the interior plaque. Let dry thoroughly, then lightly sand it flush with the surface, and color as necessary.

Step 11. Apply a thin bead of clear-drying wood glue to the inner rear edge of the frame. Recess the center piece into the opening in the frame, inserting it from the front of the frame. Use a cotton swab or damp paper towel to remove any excess glue that seeps out from the seam. Let dry completely.

Step 12. To finish, vacuum all dust and debris from the project. Apply several coats of spray varnish, allowing each coat to dry before applying the next. Prior to applying the last coat of varnish, lightly sand the surfaces using fine-grit sandpaper. Use two-part epoxy to glue the hanger to the center back of the plaque; be sure to glue it to the center panel portion, not the frame. When dry, hang to display.

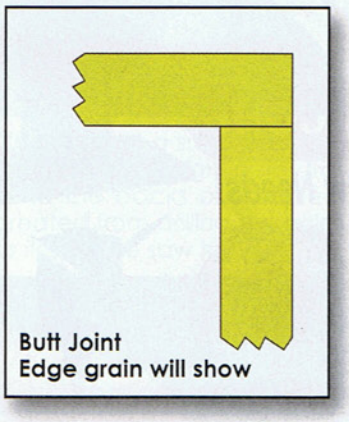
For questions concerning this project, email Sheila at sheilalandrydesigns@gmail.com or call (902) 482-7174. View and purchase other patterns by Sheila, as well as download free brochures of all her available designs, by visiting her website, www.sheilalandrydesigns.com.

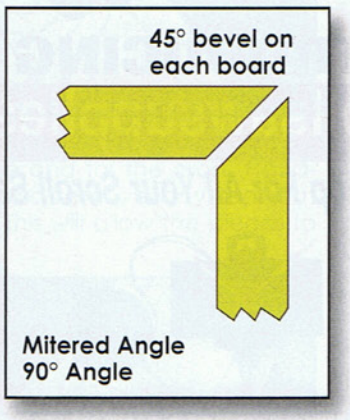
An Angling Challenge!

by Cindy Stewart

Many woodworking projects end up requiring much more work than originally anticipated. Building items that do not require angles, hooks, or curves can be rather limiting—you are basically left with a flat board to which you can add ornamentation of some sort, such as a silhouette or carving. Once you move beyond "flat-board" projects, you will be confronted with decisions to make regarding the use of joints and angles. You will have to decide what is best for the project, including aesthetics, structural design, available equipment, and your own skills. The following tips should help make that decision-making process a little easier.

One of the basic tasks of woodworking is box-making. If you can make a box, you have the skills necessary to create many other woodworking projects like clock cases, shadow boxes, cabinetry and furniture. While some of these items require more effort and thought, you will still need to use the basic principles of building a box.



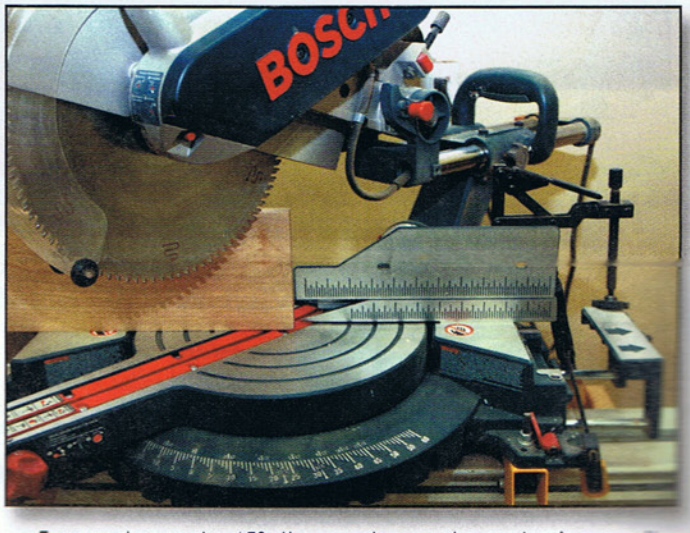


An important decision to make when building a box is what kind of joinery should be used to create it. When you are new to woodworking, the easiest answer may be a butt joint. One problem with butt joints, however, is that the raw end of the board will show on your box side. The butt joint also may not provide enough strength to your box. An alternative to the butt joint is to use mitered edges to create the desired angle, in which both sides are beveled to create the angle you desire.

One of the many questions I have been asked is, "What is the difference between an angle and a bevel?" Many plans will make reference to one or the other. You actually place a bevel on the board to create the angle needed to finish the project. For instance, if you have two boards and want to create a 90° angle, you would simply place a 45° bevel on each of the boards before gluing them together to create the angle. The advantage of a mitered angle over a butt joint is not only aesthetic, but structural as well, due to the extra glue surface along the joint.

While there are many other types of box-making joints available to you as a woodworker, we will concentrate in this article on how to make angles. Many angles can get rather complicated, depending on the size of the board or even the degree of bevel that you want on the board. The necessary tools may not be available to you, or you may not know how to safely undertake the process. Cutting angles can be easy, tricky, or even downright dangerous—let's take a look at a few different ways to get a bevel on a board in order to make cutting the angles easier, a little less tricky, and a lot safer for you.

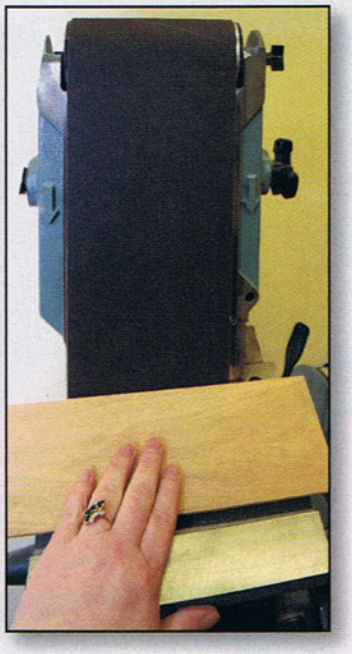
To cut small angles, it is very easy to set your scroll saw to the required angle, and then cut. This is a great way to cut round or curving angles, especially inside cuts. If you are dealing with glue joints, however, the scroll saw can create a few problems, such as leaving a cut that is not perfectly square and true. One remedy is to fit your scroll saw with a fence to make the cut. The opposing end of your piece should butt up to the fence as you run the board through the saw. With this method, you are, in fact, setting your scroll saw up as though you were going to rip a board on a table saw. While this method will work, it requires creativity and still allows the blade to flex a bit. I prefer using other methods which are quicker, more precise, and easier.



For angles up to 45°, the angle can be cut using a miter saw, providing the board is more than 3" long. (I always

like to keep the "three-inch rule" in mind when using a miter saw. The rule is that your fingers need to be 3" away from the saw blade or they could end up 3" shorter!) Although I like to use the miter saw for cutting the angles on the ends of boards, it is not a good choice for making parallel cuts on a board. The miter saw will tend to pull with the grain of the wood, which can change your angle or pull you into the saw blade. The table saw is a much safer choice for those cuts.

The table saw and miter saw are both easy to set up for cutting angles. Most miter saws have gauges that are pretty accurate; simply move the saw to the angle required, and make your cut. Boards can be cut lying flat or on their side depending on the width of the board. Table saws operate the same way and can be used with a miter gauge or sled to crosscut, or with a rip fence to bevel the long edge of a board. Just tilt your blade to the desired degree of angle.



Cutting angles gets a little trickier when we are dealing with small pieces of wood and/or cutting angles over 45°. If you need to cut an angle of 45° or less on a small item, a stationary sander works well. Install 120-grit sandpaper in the sander, and tilt the table to the desired angle, either by using the gauge provided on the sander or using a digital read-out angle finder. (The angle finder provides a more exact angle, and will also work on scroll saws, table saws, and other items when moving the main axis from 90°.) After setting the sander to the correct angle, mark the board at the desired length, and sand. You can even cut the piece to the desired size and then just sand the edges to the correct bevel. This method is very handy when working on small items such as steeples, which are featured in a lot of fretwork projects.

Cutting angles requiring a bevel of more than 45° poses the biggest challenge, and it is recommended to use a table saw when making these cuts. A little bit of math is required in order to accurately cut steep angles, but once you understand the formula, you will find the process is not difficult. When cutting angles less than 45°, we normally set the table saw at the degree of angle desired, and run the board with its larger flat surface face down across the table saw. To create an angle beyond 45°, we actually need to tip the board up on its edge and run it through the saw. Before we can do that, however, the saw needs to be prepared.

First, the blade needs to be set to the correct angle, which means we must know the degree of angle we want. For this example, we will use a 57° angle, which is a fairly common angle when making clocks. Because the number is greater than 45, we need to subtract the number from 90. Our result is: 90 minus 57=33. The table then needs to be set to that degree. In this case, the table saw should be set to 33°. With the board placed on edge, we can now create the required 57° angle.

There are a few safety steps that need to be followed when making these cuts. Whether you are cutting with the grain of the board or cross grain, you will need to use the rip fence along with a backer jig on your table saw. The jig can be very basic or fairly elaborate, depending upon your resources available and the thickness of wood you are using to make an angle. The jig serves several purposes: it works as a backer for the angle being cut; it keeps the board from rocking; and it gets the rip fence away from the blade.

The jig I use when cutting steep angles on 1/8" or 1/4" material is fairly basic. It is a flat, 3/4" piece of hard maple measuring at least 6" wide that has been surfaced on both sides and jointed on the bottom edge. I attach the piece that I am going to bevel onto the board, positioning it so it is flush with the bottom jointed edge of the board. For my purposes, I use a 23-gauge pin nailer to attach the board I am beveling to the backer board, being careful to ensure that the nails will not cross the path of the saw blade. Once the two are tacked together, I measure the distance between the rip fence and the angled blade, making sure that the saw is taking the edge off my work piece to make the bevel, but not touching my backer jig. Sometimes it is necessary to make a few sample cuts in order to guarantee everything is properly aligned. After determining that the saw is set correctly, I send the work piece through the saw, using the backer board to stabilize the piece against the rip fence. After the cut has been made, simply pop the work piece off the backer board using a putty knife, and pull the pin nails through the back side. Using the same backer, I can attach other pieces of the same thickness that require the same angle and continue beveling each piece until the project is complete.

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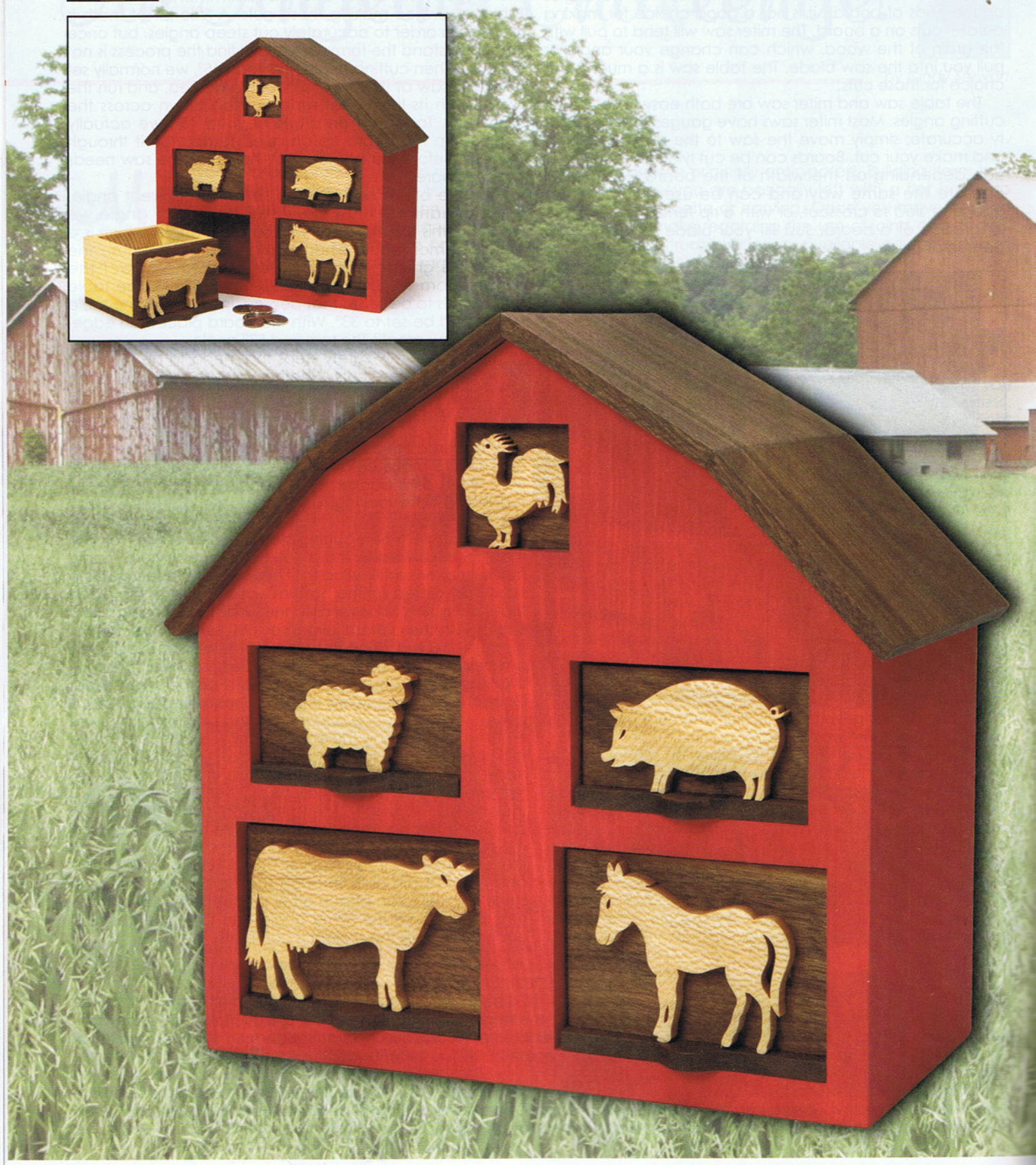
These are just a few examples of joinery techniques and methods for cutting bevels that are available to us as woodworkers. Always continue exploring new avenues to develop your woodworking techniques—you will be amazed at what you can accomplish with a few tools and a lot of ingenuity.

Cindy Stewart is the owner of Wildwood Designs and has spent over 20 years as a woodworker and designer in the woodworking industry. She holds a Master's certificate from Marc Adams School of Woodworking and has lectured throughout the United States at various events, including woodworking shows.

Pattern Located in Full Size Pattern Section No. 1

Old Red Barn Storage Chest

by Paul Boer



Background image supplied by ©istockphoto.com/Stan Rohrer

Introduction

Why are many old barns red? No, it isn't because of a fast-talking traveling paint salesman! Instead, one popular theory is that red barns originated in Europe, where farmers would seal the wood on their barns using linseed oil from the seed of the flax plant, mixed with skimmed milk and lime. Clever farmers mixed in rust (iron oxide) to give the mixture a reddish color. Immigrant farmers brought the tradition of red barns with them to America. Farmers also thought the red color absorbed heat and helped keep the dairy cows warm in the winter. Fortunately, you won't have to scrape the rust off an old shovel in the garage to complete this project! Just buy a can of red paint that matches your vision of a good "barn red," and mix in some water to create a red wash for your old barn.

SUPPLIES

Wood: *pine*—one piece 3/4" x 9" x 72" (for barn layers), one piece 3/4" x 4" x 48" (for drawer sides); *walnut*—two pieces 1/4" x 5" x 18" (for roof, drawer bottoms, drawer fronts, and hayloft); *maple*—one piece 1/4" x 4" x 15" (for animal overlays)

Tools: scroll saw with No. 2/0 and No. 5 skip-tooth or reverse-tooth blades; drill press with 1/8", 1/16", and smaller bits; stationary belt sander; table saw (optional); wood clamps or heavy weight

Temporary-bond spray adhesive

Fine-grit sandpaper

Wood glue

Masking tape

Barn red interior paint

Paintbrush

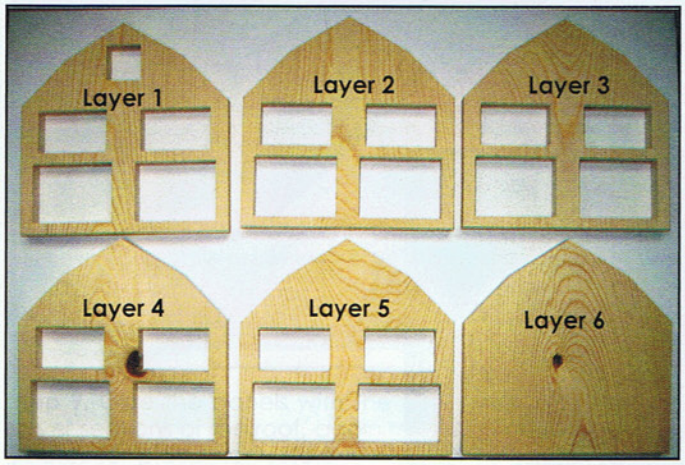
Danish oil

Please refer to all manufacturer's labels for proper product usage.

INSTRUCTIONS

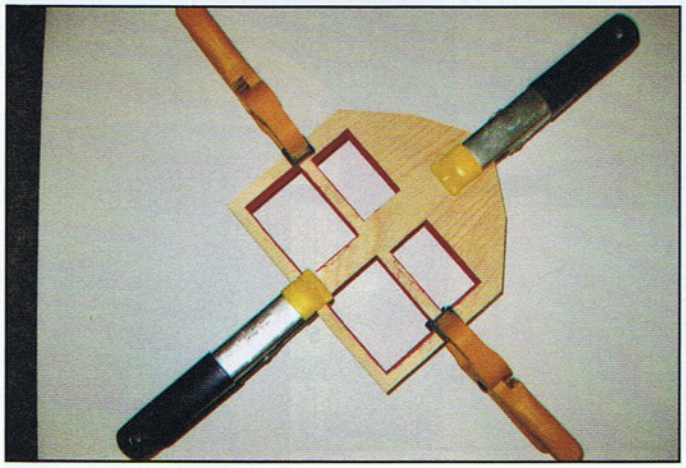
Step 1. Photocopy the patterns, saving the originals for future use. You will need six copies of the barn layers, six copies of the large drawer sides, four copies of the small drawer sides, two copies of the drawer front/animal overlays, and three copies of the hayloft/rooster overlay.

For barn:



Step 2. Using temporary-bond spray adhesive, attach the patterns for the six barn layers to the wood. Using a No. 5 blade, cut along the perimeter only for Layer 6, which is the back layer. Using a drill press and a 1/8" bit, drill for the blade entry holes in the remaining five layers. (Layer 1 is the only layer in which the hole for the hayloft is cut.) Cut out the openings for the four drawers in Layers 2-5, and cut out the openings for the drawers and hayloft in Layer 1. Cut along the perimeter of each layer last. (The thickness of all six layers stacked together should be 4-1/2".)

Step 3. Mix water with the red paint in a proportion of 1:1 or 1:2, depending upon the thickness of your paint. Apply this "wash" to the edges of the interior openings on the barn layers, and let dry.



Step 4. Glue Layers 2 and 3 together, being sure to align the edges and the drawer openings. In the same manner, glue Layers 4 and 5 together. When dry, glue the Layer 2/3 assembly to the Layer 4/5 assembly, again aligning all edges and openings. Glue Layer 1 to the front of the

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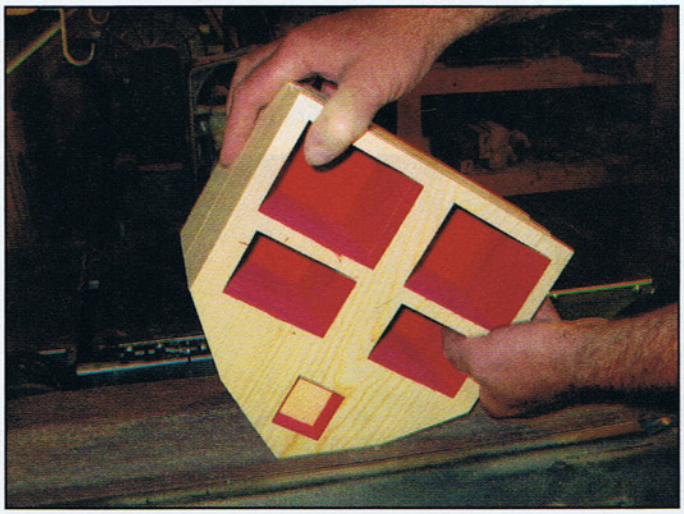
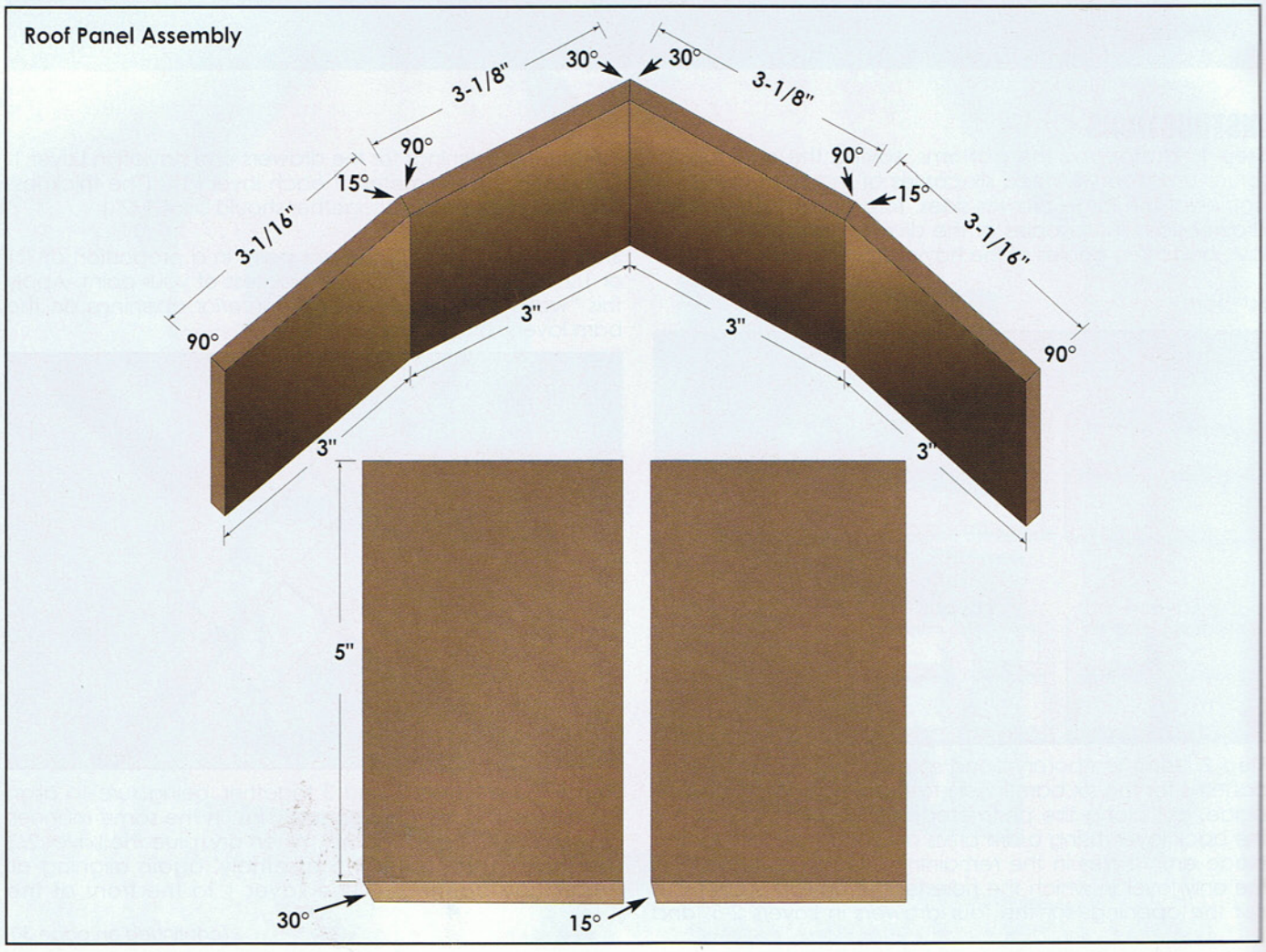
assembly, and Layer 6 (with no cut-outs) to the back of the assembly. Secure with clamps or a heavy weight until dry.



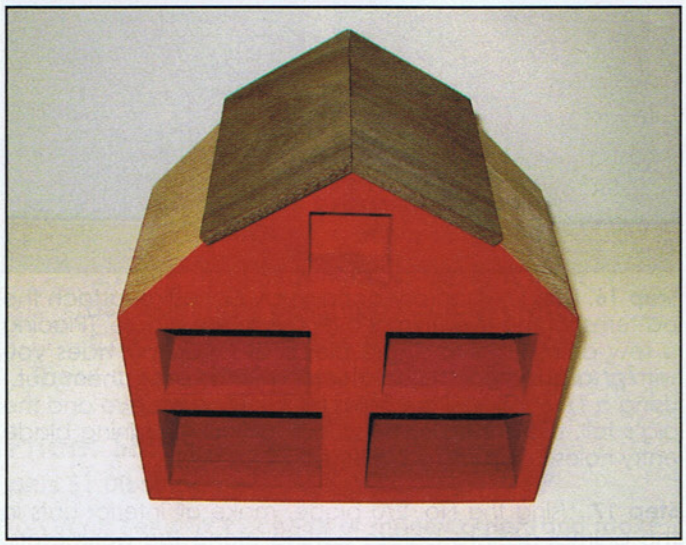
Step 5. Use a stationary belt sander to sand the outside edges of the assembly even, then hand-sand to knock down the sharp edges.

Step 6. Apply the wash of red paint to all sections of the barn assembly, with the exception of the roof.

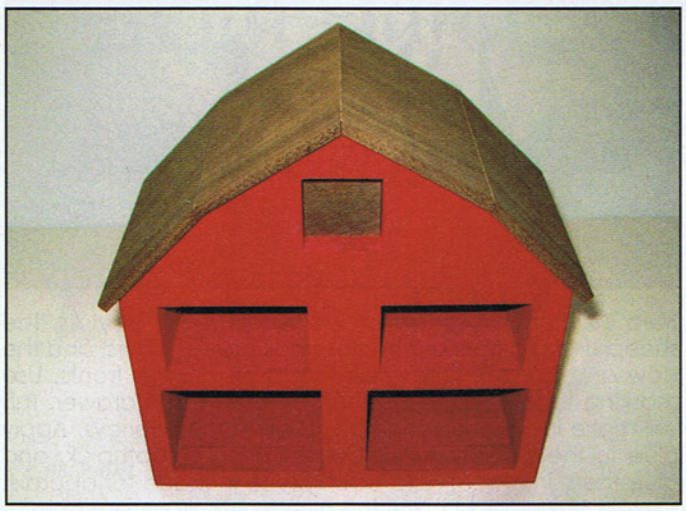
Step 7. The four roof panels will be cut from one of the 1/4" x 5" x 18" walnut boards. (To eliminate tear-out, wrap masking tape around the areas to be cut prior to making the cuts.) Set the table saw to 30°, and make a cut along the 5" length on each end of the board. Reset the blade to 90°. Measure and mark 3-1/8" over from each end of



the board, and make a cut at each mark. (These two pieces will form the top two pieces of the roof.) Set the blade to 15°, and again make a cut along the 5" length on each end of the board. Reset the blade to 90°. Measure and mark 3-1/6" over from each end of the board, and make a cut at each mark. (These two pieces will form the two outer sections of the roof.) If you don't have a table saw, measure and mark the panels on the wood, and make the angle and straight cuts using the scroll saw and a No. 5 or larger blade.

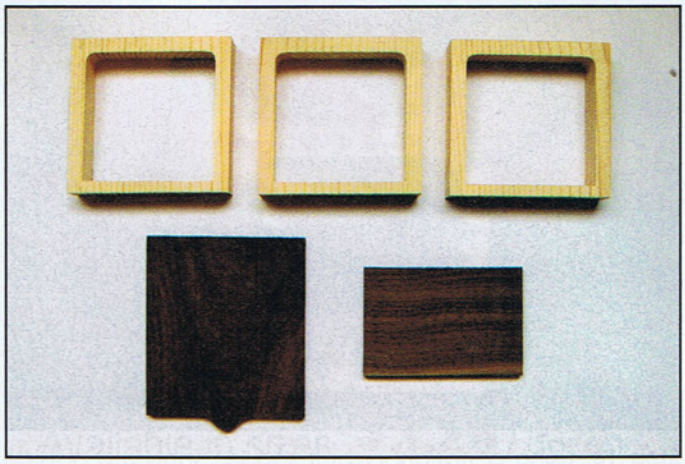


Step 8. Referring to the figure and photos, glue the panels with the 30° angle cuts in place on top of the barn assembly. The roof panels should be centered on top of the barn so that there is a 1/4" overhang at the front and back. Press in place and hold for at least five minutes. (There is no good way to clamp this assembly!)



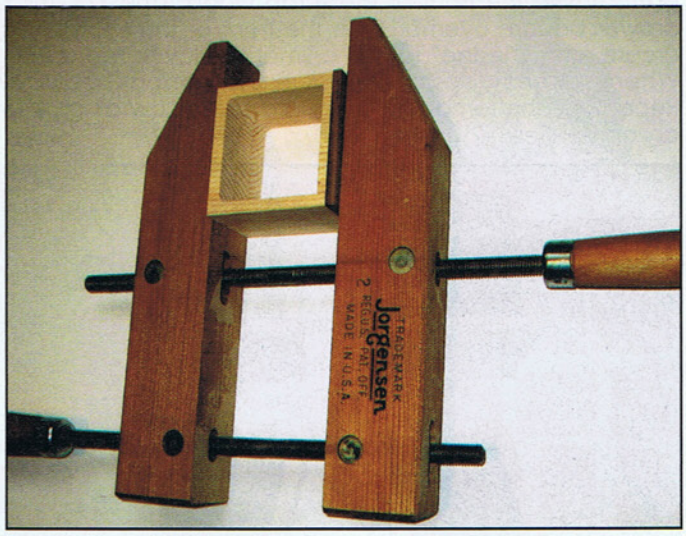
Step 9. Glue the panels with the 15° cuts in place on the lower sections of the roof, again referring to the figure and photos for placement. Hold in place for at least five minutes. Attach two patterns for the hayloft to the second walnut work piece, and cut them out along the perimeter. Remove the patterns, and glue the pieces into the hayloft opening in the barn assembly. (There should be a 1/4"-thick recess, allowing room for the rooster overlay.) After allowing the glue to dry completely, hand-sand the piece to remove any sharp roof edges.

For drawers:



Step 10. Using temporary-bond spray adhesive, attach the patterns for the drawer sides to the pine work piece, and attach the patterns for the drawer fronts and bottoms to the walnut work piece. (Each large drawer will require three 3/4"-thick drawer side layers, and each small drawer will require two 3/4"-thick drawer side layers. The photo shows all the elements required for one large drawer.) Using a 1/8" bit, drill for the openings in the drawer side pieces. Cut the openings using the scroll saw and the No. 5 blade. Leaving the line when cutting, cut along the perimeter of each drawer side, drawer bottom, and drawer front.

Step 11. Align the edges and openings of two of the small drawer side pieces, and glue together. In the same manner, glue the remaining two small drawer side pieces together. Align the edges and openings of two of the large drawer side pieces, and glue together. Stack a third large drawer side piece on the assembly, again aligning the edges and openings, and glue in place. Repeat for the remaining three large drawer side pieces.



Step 12. Sand the front edge of each drawer smooth. (Note that the front edge of the drawer is the side with the two square corners on the interior opening. The rounded corners are at the far side of the drawer.) Position a drawer front piece on each drawer, and glue in place. Clamp to secure.

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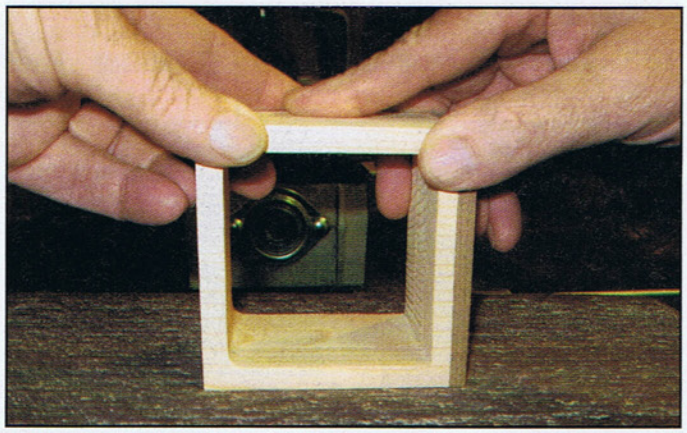
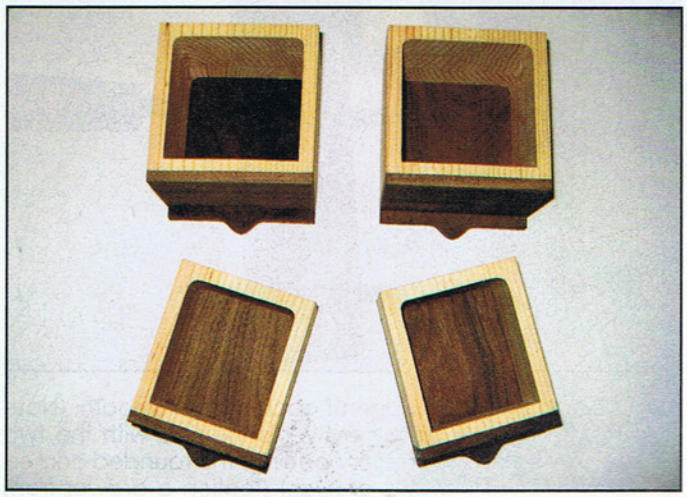
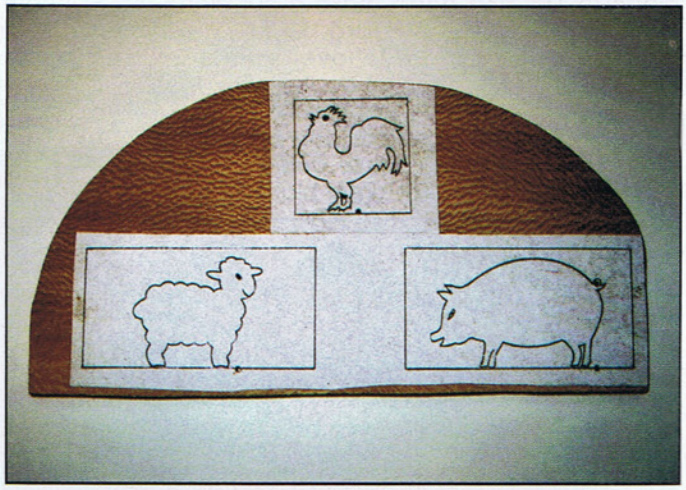


Step 13. Using a stationary belt sander, sand the outside edges of each drawer, checking for proper fit inside the openings in the barn assembly.

Step 14. Place a piece of 1/4"-thick scrap wood on top of a drawer front. Position a drawer bottom on the drawer. Align the straight portion of the front edge of the drawer bottom with the front of the scrap wood. (The 1/4"-thick drawer bottom overhang on the front of the drawer will create a tiny "ledge" for the animal overlay to rest upon.) When correctly positioned, glue the bottom in place. Repeat for the remaining three drawers. Allow all glue to dry completely.

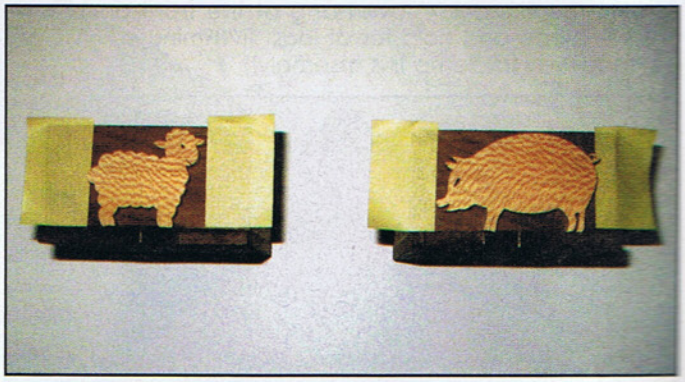


Step 15. Using a stationary belt sander, sand the sides and backs of the drawer bottoms until they are even with the sides of the drawer. Hand-sand the drawers to soften any sharp edges.



Step 16. Using temporary-bond spray adhesive, attach the patterns for the five animal overlays to the maple. (Placing a few animals on a single piece of wood provides you with a larger piece to hold onto when cutting them out.) Using a 1/16" bit, drill the holes for the rooster's eye and the pig's tail. Use a smaller bit to drill for the remaining blade entry holes in the animal designs.

Step 17. Using the No. 2/0 blade, make all interior cuts in the animal designs before cutting along the perimeters. Slow down your blade speed to increase your control of the cuts. Remove the patterns, and hand-sand the pieces to remove any burrs.



Step 18. Position the rooster overlay in the hayloft, the sheep and pig overlays on the small drawer fronts, and the cow and horse overlays on the large drawer fronts. Use masking tape to mask off the center of each drawer. This will make it easier to correctly position the overlays. Apply glue to the back of each overlay using a toothpick, and glue them in place. Hold each piece in place for approximately 5 minutes to allow the glue to set up.

Step 19. Apply your finish of choice to all pieces. I applied several coats of Danish oil, allowing 24 hours between applications. A clear spray finish would also work well. When dry, insert the drawers into the openings, and display your brand new "old barn!"

For questions concerning this project, send a SASE to Paul at: 16665 Thornton Ave., South Holland, IL 60473, or email him at: paulanddori@sbcglobal.net.

Pattern Located in Full Size Pattern Section No. 2

In For a Landing

by Mike Williams

Introduction

I had been trying to photograph ducks landing on water for a couple of years. I set up my blind at the edge of a lake in the swamp and spent countless hours photographing them as they came to roost in the evenings. It seemed that no matter how hard I tried, I could not get the picture I wanted. I even tried to sketch one, with no success. I thought this project was doomed! I discussed the problem with a relative of mine, G.D. Scott of Mobile, AL, who is a wonderful pen-and-ink artist. Within a few days, he provided me with the sketch that I used to develop this pattern. I want to thank him for giving me the wonderful drawing that turned out to be exactly what I wanted.

SUPPLIES

Wood: *red oak or wood of choice*—three to four pieces* 1/8" x 11" x 14"
Tools: scroll saw with No. 2/0 spiral blades or blades of choice; drill with No. 68 or No. 71 mini-drill bit
Temporary-bond spray adhesive
220-grit sandpaper
Masking tape
Mineral spirits or low-odor paint thinner
Boiled linseed oil
Sponge
Soft cloth
Mat and frame of choice

**Although only one piece is required, stack cutting three to four pieces at this thickness is recommended for stability.*

Please refer to all manufacturer's labels for proper product usage.

INSTRUCTIONS

Step 1. Photocopy the pattern, saving the original for future use. Stack up to four pieces of wood, and secure the stack using masking tape. (Stack cutting will provide additional stability during cutting.) Securely attach the pattern to the top of the stack using temporary-bond spray adhesive.

Step 2. Drill for all entry holes, being careful to maintain a little space between the holes by staggering their placement. Study the pattern well before cutting. With this project, I started cutting at one top corner and worked my way across and down the design. I recommend occasionally sanding the fuzzies from the back of the wood using a piece of 220-grit sandpaper. This helps keep the project clean and allows it to smoothly slide on the saw table surface.

Step 3. After cutting, carefully separate the stack. Dampen a small piece of sponge with mineral spirits or paint thinner. Wipe the sponge across the face of the pattern until the paper turns translucent. (Do not saturate the paper.) After waiting approximately thirty seconds, peel off the pattern. Using a soft cloth dampened with a little mineral spirits or paint thinner, gently rub off any glue residue.

Step 4. Use a small piece of 220-grit sandpaper to lightly sand any rough spots from the faces of the project. Clean off all sanding dust, and apply your finish of choice. I applied a mixture of 7 parts linseed oil to 3 parts mineral spirits/paint thinner. (The mineral spirits or paint thinner helps the finish to dry more quickly and it reduces the odor.) Use a sponge to gently rub the mixture onto the surface of the wood, and use a soft cloth to gently blot off the excess mixture. One application is usually sufficient to bring out the grain of the wood.

Step 5. Mat and frame the finished cutting as desired. I use precut black photo mats to provide stability to the cutting. The mats are available in many shades of black and in various textures, which add interest to the finished piece. I frame the whole project under glass in order to keep it clean.

For questions, email Mike at: mike@mikesscrollsawpatterns.com. Visit his website, www.mikesscrollsawpatterns.com to see more of his work.

Working with Acrylic

by Faye Benezue

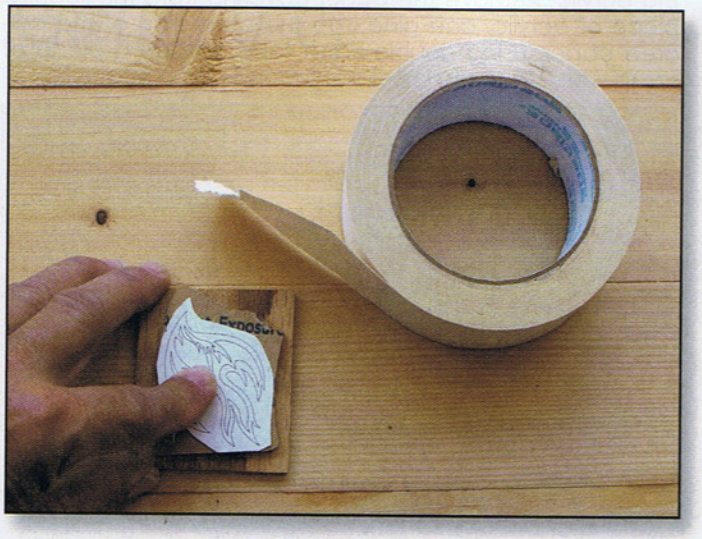
Next time you're looking for a different and interesting way to use your scroll saw, try substituting acrylic for wood. In this article, I will share with you some of the "dos" and "don'ts" of using acrylics, along with some design ideas.

While I refer to the material as "acrylic," it is also sold as "plastic" and "*Plexiglas*." I have gone into stores and asked for the product by any of those three names—invariably, the salesperson brings out the acrylic I need, regardless of which term I use. For the sake of this article, I will call it acrylic.

The best place to buy acrylic is at a glass store. Any store that replaces car or home windows or builds shower doors will carry acrylic. Clear acrylic is always on hand in these stores, but colored varieties may have to be ordered. While the local big retail home stores carry a limited supply of acrylic, the quality does not seem to be as good.

Acrylic comes in many thicknesses. I find the 1/8"-thickness is the best for scrolling. Acrylic is sold by the square foot, and I usually buy 4 x 4 foot squares unless I am planning a larger project. There are also acrylic pen blanks that are used by pen turners, but I have not been successful in cutting these on a scroll saw. The acrylic becomes so hot that the cut behind the blade melts back together. I have tried using a variety of blades and methods to cut the blanks, but have not yet found a method that works well for me.

Any design that you would cut into wood or metal can be cut into acrylic. Small, intricate designs work especially well. Because there are no grain lines to worry about, you can position your design anywhere on your work piece, thereby getting more designs out of your acrylic.



There is a paper or film on both sides of the acrylic. Attach your pattern directly to the covering using your favorite method. I simply glue the pattern in place. (You are going to be removing the paper when you finish, anyway.) I always back my acrylic with scrap wood before I begin to cut. This provides a firmer foundation and makes it easier to cut the 1/8" thickness of the acrylic. Use double-sided tape to secure the wood to the back of the acrylic. The double-sided tape helps lubricate the blade and keeps it cooler during cutting.

> *"Any design that you would cut into wood or metal can be cut into acrylic."*

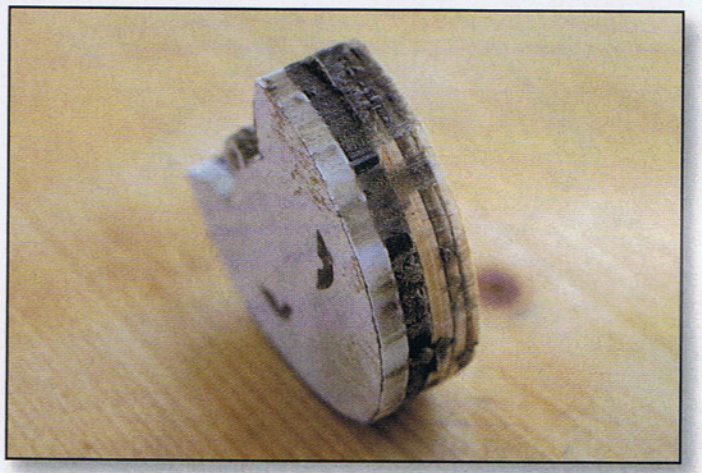
The selection of blades is a very personal choice. I use On Line Premium scroll saw blades, Platinum Line No. 5 (for regular cuts) and No. 2 (for smaller, detailed cuts). I have experimented with many different blades for cutting acrylic, and these suit me best. However, blades are like shoes—what feels best for you is the one you should use! I am always open to suggestions for blades, and I continue to test different types to see if I like them better.

At this point, the pattern is attached to the acrylic, the scrap wood backing is secured, and a new blade is in the saw. We are ready to cut...almost. Although cutting acrylic does not create a lot of sawdust and does not tend to cause little bits or pieces to go flying around the workshop, you should *always* wear a mask and eye protection. It is too late to put the protection on after you are injured.

Now you're ready to cut! The most important thing to remember when cutting acrylic is to GO SLOWLY. Use the scroll saw's slow RPMs, and keep your blade speed at about 2 or 3. Take your time, letting your blade tell you when to advance. Don't try to hurry the blade, otherwise the blade will get too hot. If it gets hot, the acrylic will melt and fuse together behind the blade. Or, a residue will be left on the acrylic, similar to the "fuzzies" that are created when cutting wood. Too fast a cut will also melt the plastic on the edge of the piece, which will have to be sanded. If there is the smell of hot acrylic, the cut is too fast or the RPMs are too high...slow down.

On some patterns, it is necessary to drill blade entry holes for openings in the middle of the design. Again, go slowly, and drill the hole more than once. The sawdust from the drill will cool down, and sometimes the saw blade will not go all the way through the hole. I keep an old sewing machine needle handy to re-open the drill holes. (Actually, I even use sewing machine needles to drill small holes just large enough to accommodate a small No. 2 blade.)

After completing the cuts, remove the scrap wood and the paper from both sides. Smooth the edges using fine-grit sandpaper. Dip the piece in water, wet a piece of 2000-grit wet/dry sandpaper, and polish the surfaces until the desired result is achieved.



Acrylic does not tend to fare well with stack cutting. The different layers frequently melt together, and even if you can separate them, there will be a lot of sanding to do. Not good!

One way to avoid this problem is to insert something between the layers, such as another layer of scrap wood or a sheet of wax paper; two layers of wax paper work even better. (The entire stack still needs to be backed with scrap wood.) Even with this preparation, there may still be some places where the acrylic melts together, such as inside a tight curve. If so, use a craft knife to gently pry the layers apart. The edges will then have to be sanded very well in order to remove the build-up of melted acrylic.

> *"The most important thing to remember when cutting acrylic is to GO SLOWLY."*

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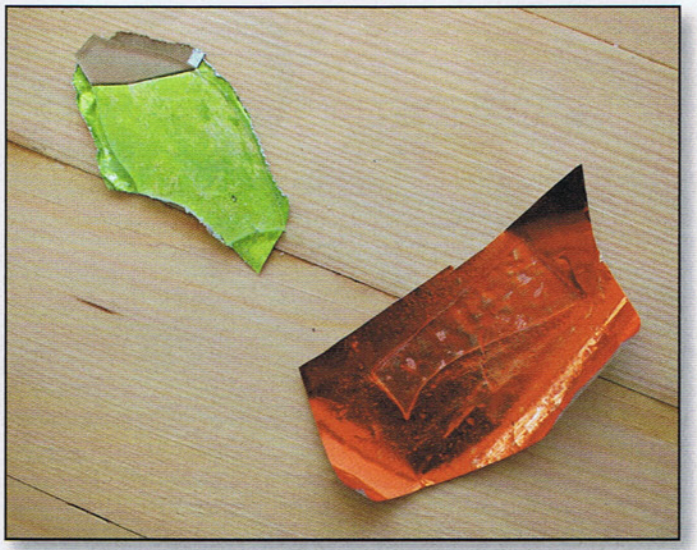
An interesting technique for adding color to your acrylic pieces is to glue a layer of colored paper in between two layers of clear acrylic. (This stack will be glued together permanently.) I like to use origami paper, a thin but sturdy paper that is available in a wide range of colors.

To prepare the stack, glue the pattern directly onto the paper covering attached to the acrylic. Remove the paper covering from the back of the acrylic piece. Using a fine-mist spray glue, glue the colored paper to the back of the acrylic. Remove the paper covering from the second piece of acrylic, and glue it to the other side of the colored paper. Using double-sided tape, attach a piece of scrap wood to the back of the second piece of acrylic.



Be sure that the spray-on glue used to adhere the colored paper to the acrylic comes out in a fine mist, as opposed to thick clumps of glue. Shown here are examples of pieces prepared with the wrong type of glue.

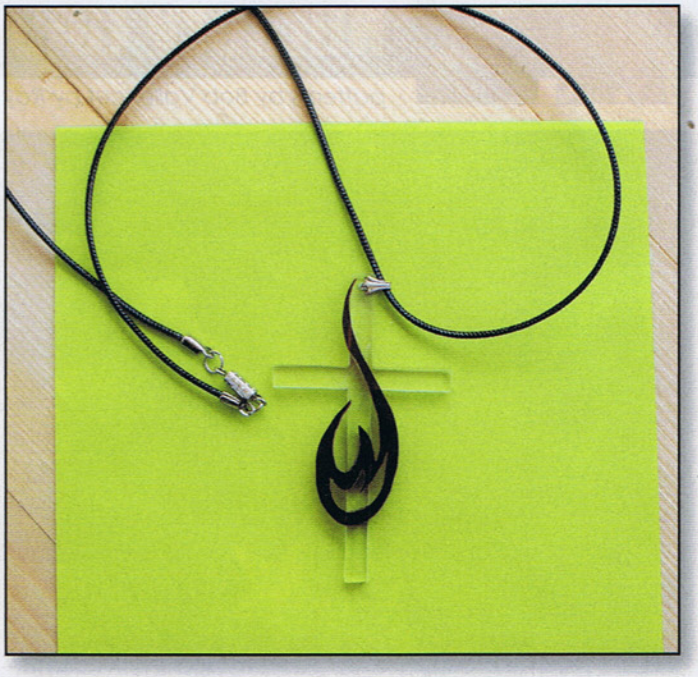
After cutting, remove the scrap wood and paper backings, sand the edges using fine-grit sandpaper, and/or polish them using the wet/dry sandpaper.

Non-Frosted Acrylic

Frosted Acrylic

For yet another eye-catching look, sand the acrylic before cutting to achieve a nice frosted effect. To do so, remove the paper backing from one side of the acrylic, and sand going in all directions. Glue the pattern to the side still protected with the paper backing, add the scrap wood to the bottom, and cut. Remove the pattern and scrap wood. The piece will look as though the sanded side is etched into the acrylic. For a different effect, try sanding in just one direction.

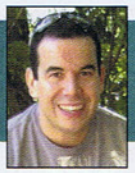
Gallery of Acrylic Pieces



These are just some interesting methods I have used on this very versatile material. I plan to continue experimenting with acrylic, and I know there are many more creative ideas just waiting beyond the horizon—that is the fun of scrolling!

Faye lives in the Dallas/Fort Worth area and belongs to the DFW Scrollers. For questions concerning this article, email her at: tbenezue@charter.net.

Patterns Located in Full Size Pattern Section No. 1



Nursery Tales

patterns by Bob Valle; cut by Ray Wilckens

Introduction

Bring the walls of your child's (or grandchild's!) room to life with these endearing images of favorite nursery rhymes. The classic Humpty Dumpty will be a great reminder that there will always be days when we will need to "pick ourselves up again" along the way, and the serene Man in the Moon will watch over your precious one's nights. Whether painted or left in their natural wood state, these Nursery Tale plaques will be a highlight in any child's room.

SUPPLIES

Wood: *1/4"- to 1/2"-thick wood of choice*—one piece 10-1/2" wide x 8" tall (for Man in the Moon), one piece 8" wide x 10-1/4" tall (for Humpty Dumpty)
Supplies: scroll saw with blades of choice; drill with assorted bits
Temporary-bond spray adhesive
Clear packaging tape
Sandpaper, assorted grits
Clear finish of choice

For optional painted finish:
Acrylic paints in dark yellow, metallic gold, pale blue, and white (for Man in the Moon); acrylic paints in blue, cream, gold metallic, grey, lavender, orange, pink, and white (for Humpty Dumpty)
Assorted paintbrushes, including 1/2" flat brush, small soft-haired mop brush, and liner brush
Fine-tip permanent-ink marker in black (for Man in the Moon) and in black and brown (for Humpty Dumpty)
Glitter glue in gold (for Man in the Moon) and in clear, gold, and lavender (for Humpty Dumpty)

Please refer to all manufacturer's labels for proper product usage.

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INSTRUCTIONS

Step 1. Photocopy the patterns, saving the originals for future use. Attach the patterns to the wood using temporary-bond spray adhesive. Apply a layer of clear packing tape over the patterns. (The tape lubricates the blade as you cuts, which reduces burning and extends the life of the blade.)

Step 2. Drill for all blade entry holes and make all interior cuts on the pieces. Cut the perimeter of the patterns last.

Step 3. Remove the tape and patterns, and sand the surfaces smooth. If desired, paint the pieces, referring to the photos and painting techniques section. Let dry completely.

Step 4. Apply your clear finish of choice, and let dry.

Painting Techniques

by Jane Guthrie

For Man in the Moon:

Squeeze a nickel-sized puddle of each paint color onto a palette, and add a few drops of water to each puddle. Dampen the paintbrush with clean water, and brush the water over the surface of the moon. (By preparing the surface with water, the paint will thin out, allowing the wood grain to show through.) With the paintbrush still wet, pick up a small amount of dark yellow paint, and brush it sparingly along the outer edges of the moon. Use the mop brush to gently pounce the paint into the wood. The paint will dry quickly, so work in small areas at a time.

Dampen the paintbrush with water, and brush over the clouds. White still wet, pick up white paint and brush along the top sections of the clouds. Paint the lower sections of the clouds using pale blue paint.

Paint the stars using metallic gold paint. Apply gold glitter glue to a few of the stars, referring to the photo for suggested placement. Allow all paint and glue to dry thoroughly.

Using the black marker and referring to the photograph for suggested placement, add the freehand linework along the edges of the clouds and moon.

Clean the brushes using warm, soapy water, and place them on a paper towel to dry.

For Humpty Dumpty:

Squeeze a nickel-sized puddle of each paint color onto a palette, and add a few drops of water to each puddle. Dampen the paintbrush with clean water, and brush the water over the surface of Humpty Dumpty's shirt. With the paintbrush still wet, pick up a small amount of white paint, and brush it sparingly along the outer edges of the shirt. Use the mop brush to gently pounce the paint into the wood. Repeat as necessary until the desired shade is achieved.

Paint the remaining sections of Humpty Dumpty and the wall following the same method, whereby a section is dampened with clean water, paint is sparingly applied, and the mop brush is used to pounce the paint into the wood. Paint the bow and shoes using lavender paint, the pants using blue paint, the ladder using orange paint, the stones using grey paint, and the wall using cream paint. "Rouge" the cheek area, nose, mouth, and tummy area using pink paint, and highlight the eyelids using a very light application of blue paint.

When painting the clouds, apply white paint to the upper sections and blue paint to the lower sections. Paint the stars using metallic gold paint.

Allow all paint to dry thoroughly.

Using the brown marker and referring to the photograph for suggested placement, add the freehand linework to the ladder. Use the black marker to add the dots and linework to the clouds, Humpty Dumpty, and the wall. Randomly apply clear glitter glue to the clouds and stones, lavender glitter glue to the shoes and bow, and gold glitter glue to the stars. Allow all glue to dry completely.

Clean the brushes using warm, soapy water, and place them on a paper towel to dry.

For questions concerning this project, contact Bob Valle at valle1968@yahoo.com.

Pattern Located in Full Size Pattern Section No. 2

Dressing Table Mirror

by Wayne Bosler III

Introduction

I had mentioned to my wife, Karen, that I really liked a full-length oval mirror we had seen at an antique shop, but that it was much too big to attempt for a reproduction. She suggested I design something on a smaller scale that could be placed on a dresser, and here is the result!

With past projects requiring mirror or glass inserts, I usually had the pieces professionally cut. However, I was looking for a more economical solution this time around. At my local "supercenter" store, I found 12" x 12" mirror tiles in the framing section. Priced at six for $8, they were a deal. To cut the mirrored tile down for the frame, I simply traced the perimeter of the frame onto the back of the tile, drew four straight lines to outline the area required for the mirror, and used a glass cutter to make the four cuts.

I think my granddaughters will be happy Karen suggested making this smaller-scaled mirror when they receive their mirrors as gifts! Good luck making your versions, and let me know how they turn out.

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SUPPLIES

Wood: *hardwood of choice*—one piece 1/2" x 6-1/2" x 12-5/8" (for base), four pieces 1/2" x 5-3/8" x 8-1/2" (for frame), two pieces 1" x 1" x 13"* (for legs), two pieces 1/2" x 1-3/4" x 8-1/4" (for leg supports), two pieces 1" x 1" x 2"* (for wings), two pieces 1/4" x 5" x 9-3/4" (for overlays), one piece 1/4" x 1/2" x 2" (for mirror clips); glass cutter (if cutting the mirror yourself)

Tools: scroll saw with No. 5 double skip-tooth blades and No. 3 spiral blades; drill press with 1/4", 5/32", and 7/64" bits, and 3/8" countersink; table saw; compound miter saw; router with 3/8" roundover bit (optional); hand drill; rotary tool with 1/4" drum sander attachment; assorted clamps; metal square

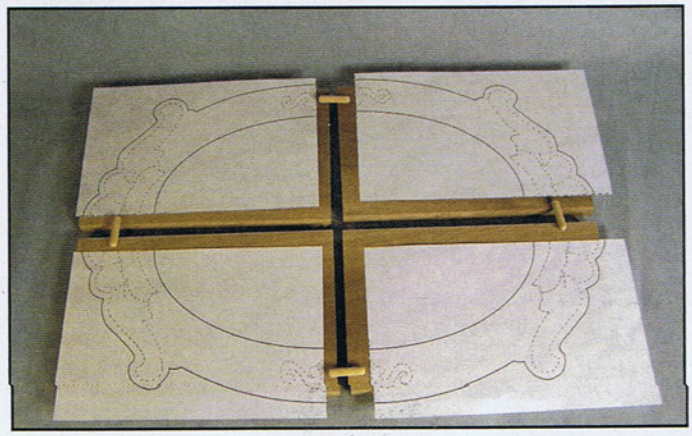
Temporary-bond spray adhesive
Carbon paper
Clear packing tape
Wood glue
Cyanoacrylate (CA) glue
Sandpaper, assorted grits
1/4"-diameter dowel pins (six)
No. 6 x 3/4" round-head screws (two)
No. 4 x 1/2" flat-head screws (four)
Finish nails (or brad gun)
Nail filler
Golden oak stain
Semi-gloss spray lacquer or clear finish of choice
Permanent-ink marker
Mirror, approx. 8" x 12"

**If 1"-thick wood is unavailable, glue up two pieces of 1/2"-thick wood.*

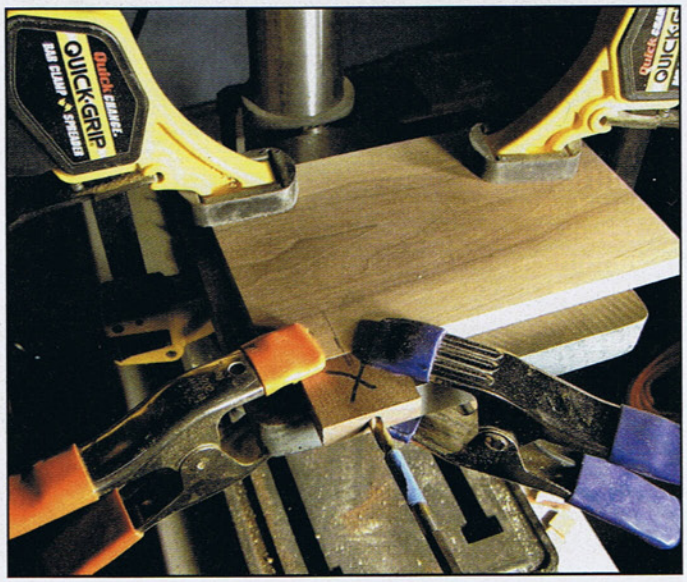
Please refer to all manufacturer's labels for proper product usage.

INSTRUCTIONS

Step 1. Photocopy the patterns, saving the originals for future use. You will need four copies of the frame, two copies each of the leg, wing, leg support, and overlays, and one copy each of the base and mirror clips. Sand all the work pieces.



Step 2. I chose to use 1/4"-diameter dowel pins to join the four sections of the frame. Check that the four 1/2" x 5-3/8" x 8-1/2" frame work pieces are accurately cut, and that they fit together perfectly where they will meet. Position the pattern pieces on the wood, and note the locations for the dowels. Using a metal square and a pencil, draw a line at the point where the holes for the dowels will need to be drilled.

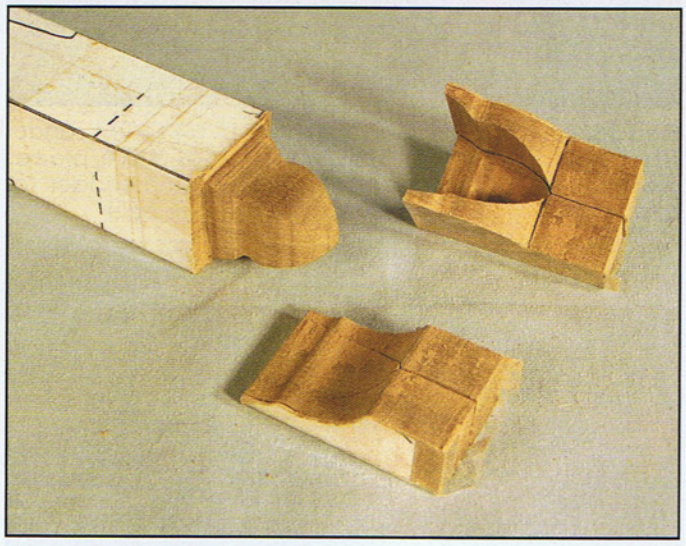


Step 3. Make a jig for drilling the dowel holes using a small scrap of wood that exactly matches the thickness of the frame work pieces. (Using a jig will ensure that, even if a hole is drilled slightly out of center, all the holes will be off by the same slight amount, and the fit will still be perfect.) To make the jig, drill a hole through the 1/2"-thickness using a 1/4" drill bit and drill press. Draw a line on the jig marking the center of the hole, and mark one surface of the jig so you will know which side should always be facing up. Clamp one frame work piece to a flat surface. Align the mark made on the frame piece with the center hole line on the jig, and clamp in place. Mark the bit so that the hole depth will be just slightly deeper than half the length of your dowel pins. Holding the drill as level as possible, drill the hole. Test fit the dowel pin to the hole. As long as the fit is good, drill the remaining seven holes; otherwise, adjust as necessary before drilling the other holes.

Step 4. Line up the four frame sections on a level work surface. Using carbon paper, transfer the frame pattern

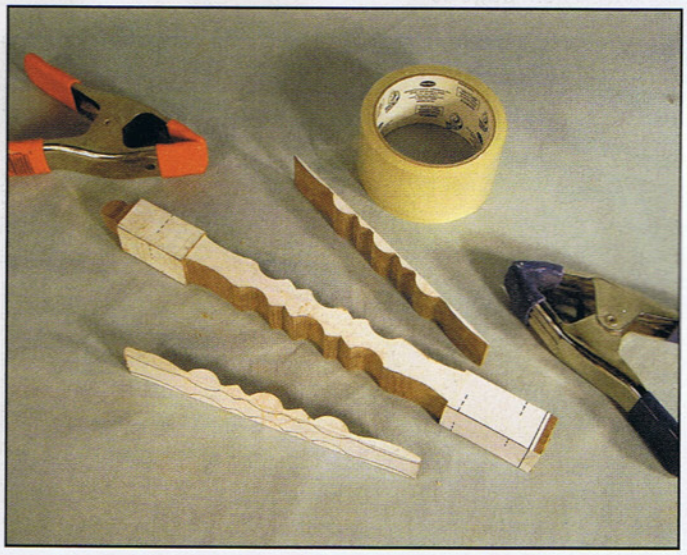
lines to each piece. Apply clear packing tape to the bottom of the pieces to prevent burning while cutting. Using the scroll saw and No. 5 double skip-tooth blades, cut out the four segments. Insert the dowels and test-fit the pieces. When satisfied with the fit, glue up the sections using wood glue, and clamp to secure. Let dry completely. If desired, round the interior opening of the frame using the router and a 3/8" roundover bit.

Step 5. The leg pieces require compound cuts. Cut out a leg pattern, and fold it along the dotted line. Align the dotted line with one long edge of a leg work piece, and attach the pattern to the wood using temporary-bond spray adhesive. Wrap a layer of clear packing tape around the pattern. (A wallpaper seam roller comes in handy for smoothing out the pattern and tape.)

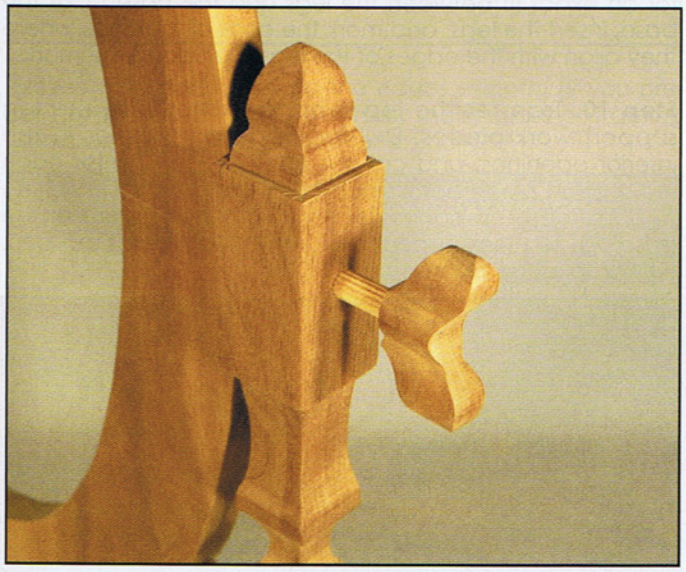


Step 6. Make the first cut to the top of the leg, following the arrow for the entry cut. Re-tape the waste and pattern in place, and cut the second side of the pattern to complete the top.

Step 7. Make the long cut along one side of the leg piece, being careful to keep the waste in one piece. Repeat for the other side. Reposition the waste on the work piece, tape it in place, and turn the work piece to make the side cuts to the second surface. Remove the waste. (If you are



not comfortable using just the tape to hold the waste in place while making the additional cuts, you may want to apply spring clamps to provide more stability.) Repeat for the second leg.



Step 8. In the same manner as for creating the compound-cut legs, attach the wing patterns to the wing work pieces, and make the compound cuts. (The wings are simply decorative; they don't actually adjust or tighten the mirror's tilt.) Fit the drill press with a 1/4" bit (or one that matches the diameter of your dowels), and drill a hole approximately 3/8" deep into each wing, referring to the pattern for placement. While still at the drill press, use a 5/8" bit to drill a hole through both legs, referring to the pattern for placement. Change to a 1/4" bit (or one that matches the diameter of your dowels), and drill halfway through the holes just drilled in the legs. (The holes are "double-drilled" so that, at final assembly, a No. 6 x 3/4" round-head screw will pass through the holes, allowing the leg to be attached to the frame, while the 1/4" dowel will fit into the larger hole behind the screw, allowing the wing to be attached.) Be aware that during final assembly the dowel piece extending into the wing may need to be trimmed in order to allow for a tight fit against the leg.

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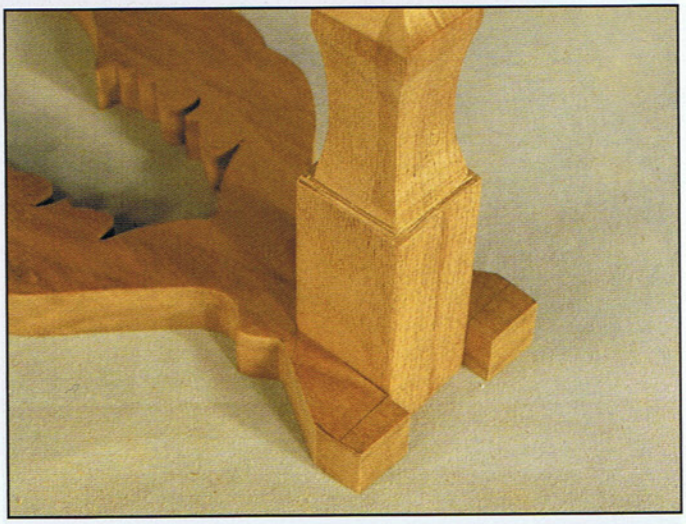
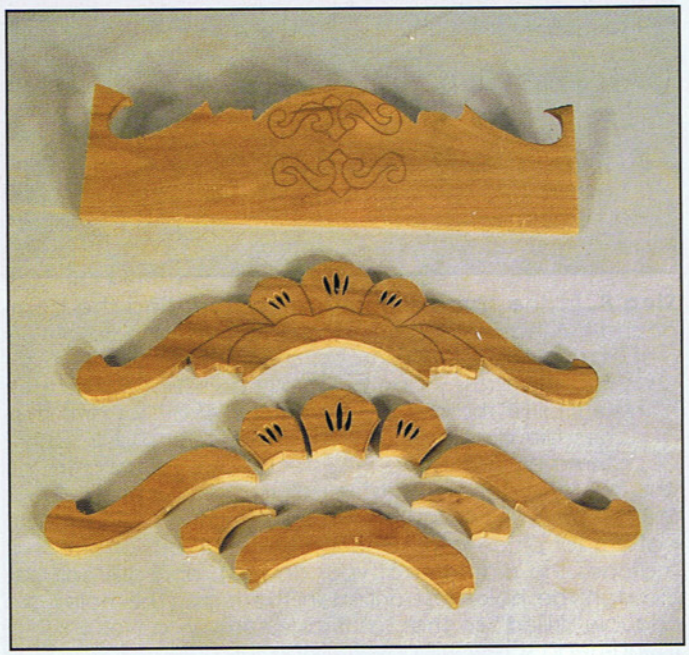
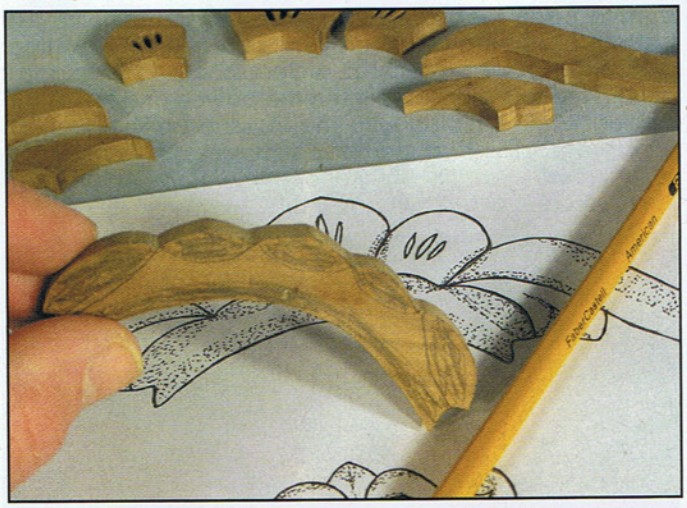


Step 9. Center the base pattern on the base work piece, and transfer the pattern lines to the wood using carbon paper. (The pattern is intentionally a little longer at both ends than is necessary for the final project. This will allow for an exact fit between the legs and the base.) Cut the base, insert the legs, and mark the ends of the base where they align with the edges of the legs. Cut along the marks.

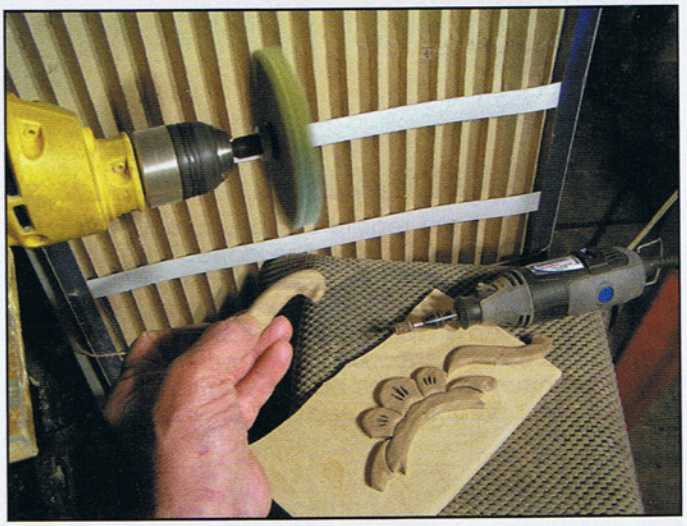
Step 10. Transfer the leg support patterns to the leg support work pieces. Drill for blade entry holes in the interior openings, and cut out each piece. Center each leg support along each side of the base, making sure the bottoms of the supports are flush with the bottom of the base. Attach the supports using finish nails or a brad gun. Fill the holes, and sand smooth.



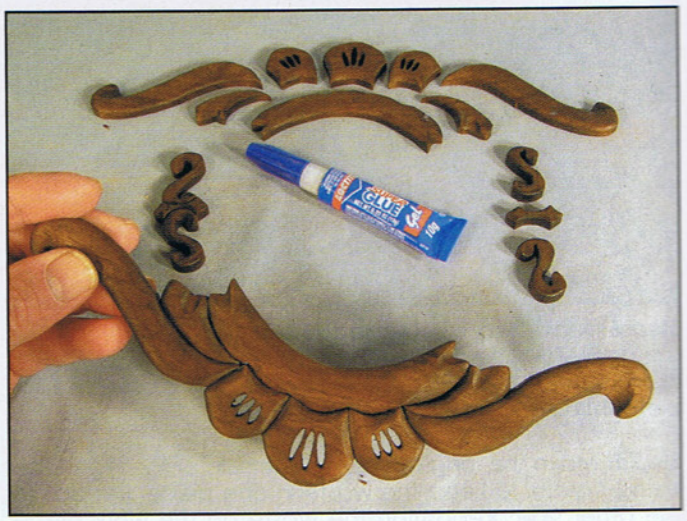
Step 11. Use carbon paper to transfer the overlay designs onto the work pieces. Drill blade entry holes in the interior openings, and use a No. 3 spiral blade to cut the openings. Cut the perimeter of each piece using a No. 5 double skip-tooth blade. Be sure to keep the pieces in order as you cut them because they are not interchangeable.



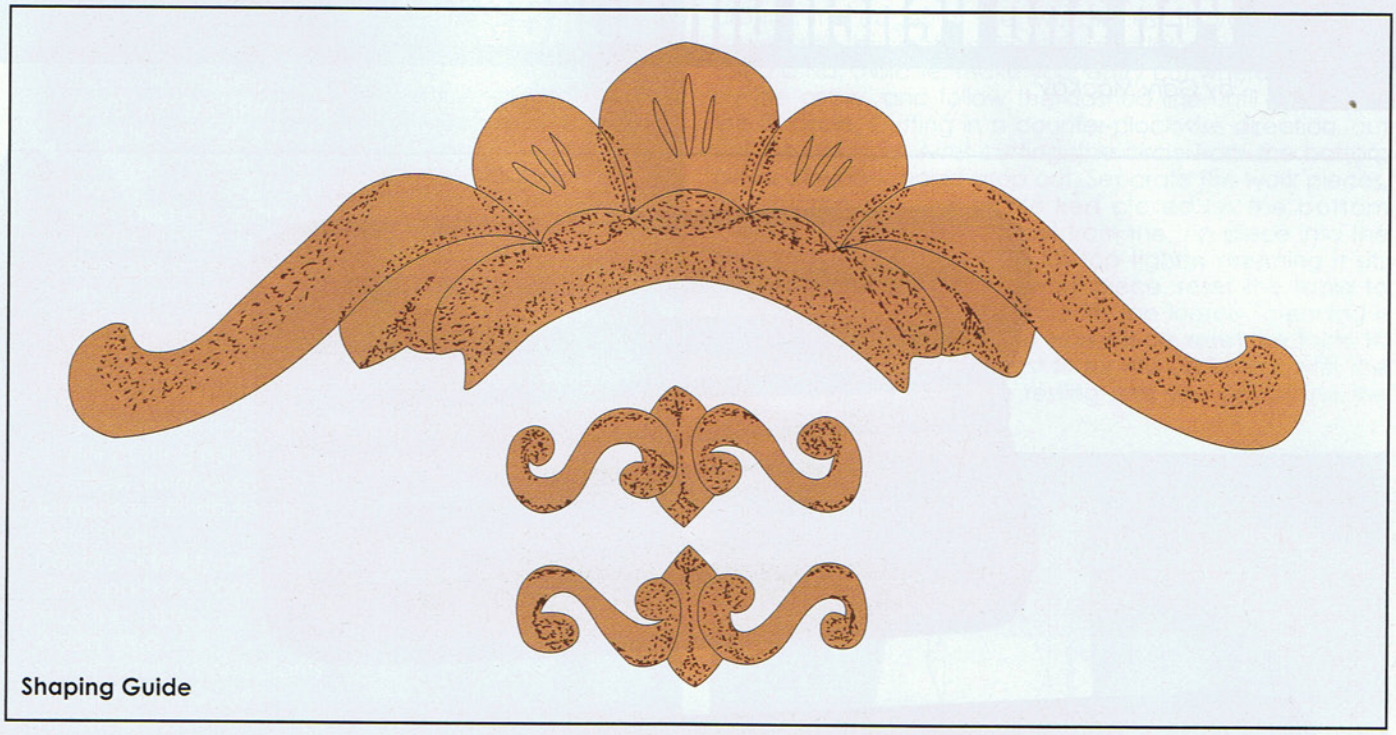
Step 12. Referring to the Shaping Guide at right, mark the sections of each overlay to be shaped down.



Step 13. Use a rotary tool fitted with a 1/4" drum sander attachment to shape the overlays. Sand the pieces smooth. (I highly recommend using a mop sander for removing all sanding marks left by the rotary tool.)



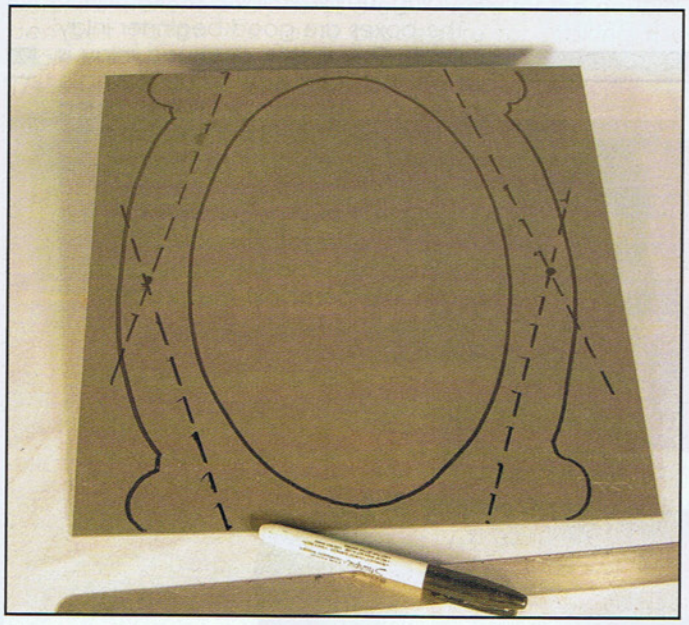
Step 14. Apply golden oak stain or your stain of choice to the overlays. When dry, glue the overlay sections together



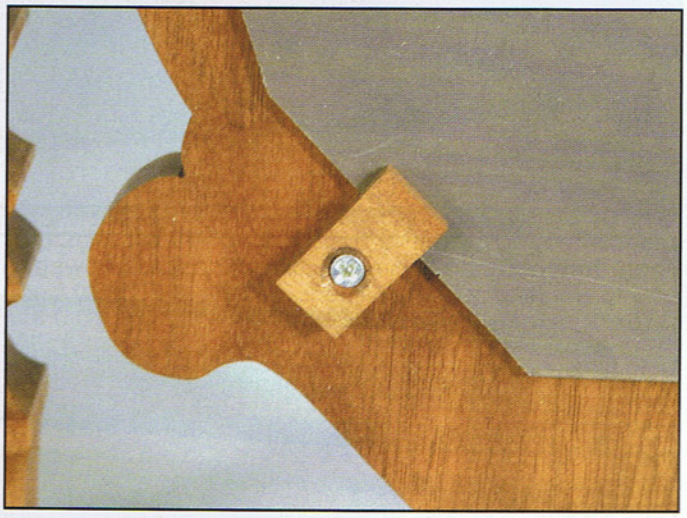
Shaping Guide

using CA glue. (The overlays are much stronger when they are glued up as units prior to applying them to the frame, rather than gluing each individual piece directly to the frame.)

Step 15. Apply spray lacquer or your finish of choice to all the pieces. (For best results, place the pieces on a sheet of cardboard or other disposable flat work surface prior to applying the finish.) Let dry completely.



Step 16. If cutting the mirror yourself, trace the perimeter of the frame onto the back of the mirror using a marker. Referring to the photo, draw four lines to trim down the sides of the mirror to fit between the interior oval opening and outer edges of the frame. Use a glass cutter to cut along the marked lines. Wearing a sturdy pair of work gloves, very carefully sand the edges smooth. (If you prefer not to cut the mirror yourself, many glass or framing stores will provide the service for a small fee.)



Step 17. Transfer the pattern lines for the mirror clips to the 1/4" x 1/2" x 2" work piece. Use a 7/64" bit to drill a hole at the four locations, and countersink the holes. After drilling, cut the four pieces apart along the solid lines. Using the scroll saw, cut away the section of each clip that will overlay the mirror, matching the thickness of the notch to the thickness of the mirror. Evenly space the clips around the mirror, and use No. 4 x 1/2" flat-head screws to attach the clips to the frame, securing the mirror in place.

Step 18. To finish, screw the legs onto the sides of the frame. Attach the wings to the legs. Insert the legs into the leg supports on the base.

For questions, comments, or suggestions concerning this project, email Wayne at: k.wbosler@juno.com.

Patterns Located in Full Size Pattern Section No. 1

Pen and Pencil Gift Boxes

by Gary MacKay

Double-Pen Box

Introduction

These pen and pencil boxes make ideal gift boxes or display cases for pens and pencils that you turned yourself or bought as gifts. The boxes are designed to fit pens and pencils with a barrel diameter of 1/2" or less, including the pen clips.

The boxes are good beginner inlay projects. The simple diamond inlay is cut on the scroll saw using a single angled cut. The saw kerf is then glued and clamped together. Directions are provided for making small "test" inlays using 1/4"-thick scrap wood prior to committing your good wood to the project. While all the step photos included with the instructions show the double-pen box, the process for constructing the single-pen box is exactly the same.

Single-Pen Box

SUPPLIES

Wood: *walnut or wood of choice*—two pieces 1/4" x 2-5/8" x 6-3/4" (for double-pen box lid and bottom), two pieces 1/4" x 1-3/4" x 6-3/4" (for single-pen box lid and bottom); *cherry or wood of choice*—three pieces 1/4" x 2-5/8" x 6-3/4" (for double-pen box inlay and compartments), three pieces 1/4" x 1-3/4" x 6-3/4" (for single-pen box inlay and compartments), one piece 1/4" x 3" x 6-3/4" (for double-pen or single-pen box hinge; one piece per box required); *scrap wood*—two pieces 1/4" x 1-1/2" x 4" (for test inlay)

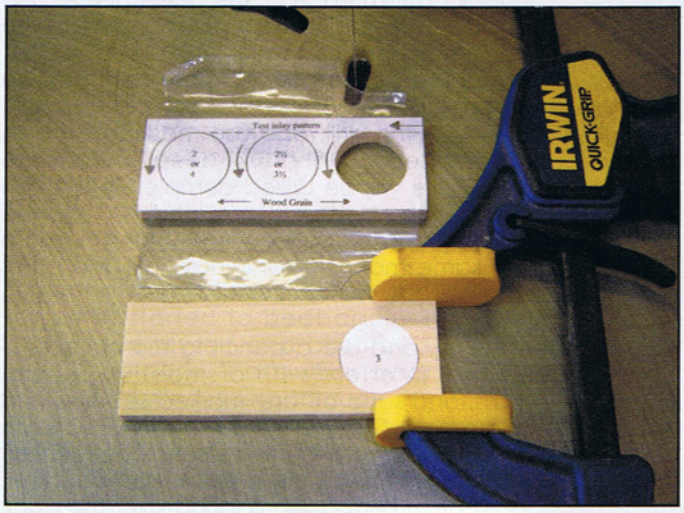
Tools: scroll saw with No. 5 and No. 9 or larger blades; handheld drill with 1/16"- and 1/8"-diameter drill bits; belt sander; hacksaw or metal-cutting rotary tool (for cutting nails); five quick-grip clamps; flat- blade screwdriver or awl

Temporary-bond spray adhesive
Glue stick
Double-sided tape
Clear packing tape
Masking tape
Wood glue
Sandpaper, assorted grits
Straight pin
Wood filler
No. 1 x 17 wire nails, or any 1"-long nails that fit inside a 1/16"-diameter hole (two, for hinge pins)
Clear finish of choice

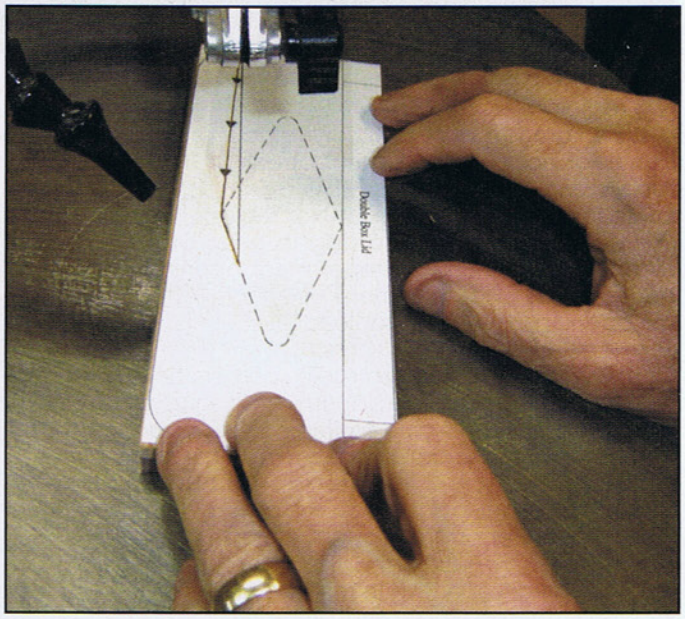
Please refer to all manufacturer's labels for proper product usage.

INSTRUCTIONS

Note: instructions and photos are provided for the double-pen box. Follow the same procedure for making the single-pen box, using the single-pen box patterns and the 1/4" x 1-3/4" x 6-3/4" work pieces.



Step 1. Prior to cutting the lid inlays, the correct angle for the scroll saw table needs to be determined by cutting test inlays from the scrap wood. Photocopy the test inlay pattern, and adhere it to one 1/4" x 1-1/2" x 4" scrap wood work piece. Stack this work piece on top of the other scrap wood piece, and secure the stack by wrapping clear tape around the edges of the two pieces. Tilt your scroll saw table 3° to the right, so the right side is lower than the left. Using a No. 5 blade, make your entry cut where indicated by the arrow, and follow the dashed line until you reach the 3° circle. Cutting in a counter-clockwise direction, cut out the 3° circle. After cutting, the circle from the bottom piece of wood should drop out. Separate the work pieces, and clamp the saw blade kerf closed on the bottom piece. Test-fit the 3° circle cut from the top piece into the bottom piece. If the circle fits too tightly, meaning it sits above the surface of the work piece, reset the table to 2-1/2°, and re-test. If the circle fits too loosely, meaning it sits below the surface of the work piece, reset the table to 3-1/2°, and re-test. (The best fit for my circle was with the table set to 3°.) Continue testing until you determine the best angle for your table.



Step 2. Make five photocopies of the lid/bottom pattern and two photocopies of the compartments pattern. Stack one 1/4" x 2-5/8" x 6-3/4" cherry work piece on top of one 1/4" x 2-5/8" x 6-3/4" walnut work piece. Secure the two pieces using double-sided tape. Use a glue stick to adhere a lid/bottom pattern to the top of the stack. Apply clear tape over the dashed inlay pattern lines. Set your scroll saw table to the angle determined in the previous step. Using a No. 5 blade, make your entry cut where indicated by the arrow, and follow the dashed line until you reach the point of the diamond. Cutting in a counter-clockwise direction, cut out the diamond. After cutting, return the table to 0°.

Step 3. Carefully separate the two pieces, and brush off all sawdust. Use a pin to apply wood glue to the saw blade kerf on the walnut work piece. Apply wood glue to the edges of the cherry diamond piece, and insert it into the opening in the walnut work piece. Apply two clamps to clamp the saw kerf closed, and allow the glue to dry completely. When dry, sand the back of the work piece, and attach a lid/bottom pattern to the top surface using temporary-bond spray adhesive. Also attach a lid/bottom pattern to the remaining walnut work piece. Cut the two radius corners on both pieces. Remove the patterns, and sand off any wood "fuzzies."

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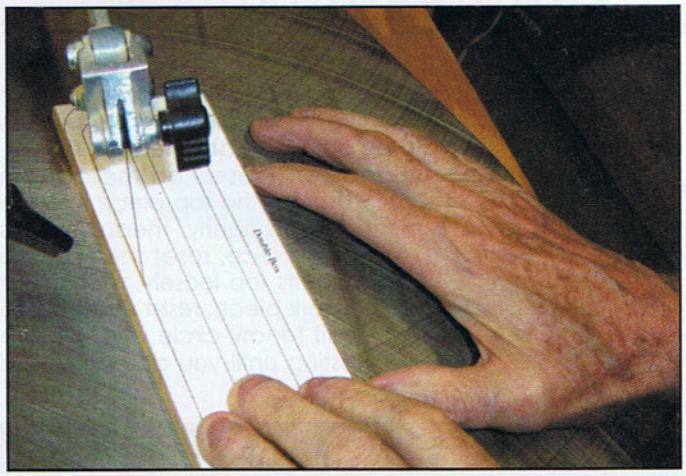
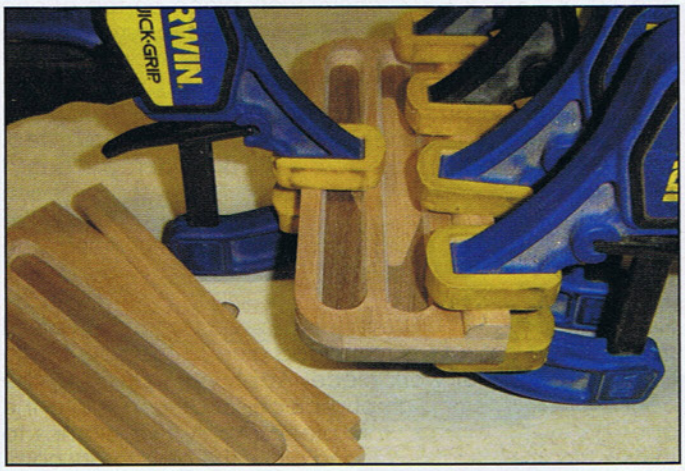


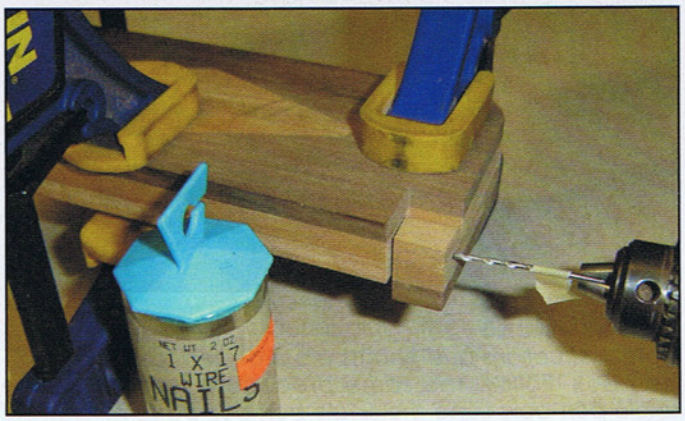
Step 4. Adhere a compartment pattern to each of the two remaining cherry 1/4" x 2-5/8" x 6-3/4" work pieces. Use a 1/8"-diameter drill bit to drill blade entry holes in the center of each compartment opening. Tilt the scroll saw table down 15° to the right, so the right side of the table is lower than the left. Thread a No. 5 blade through one of the entry holes, and cutting in a counter-clockwise direction, cut out the compartment opening. Repeat for the remaining compartment openings. After cutting out the openings, return the table to 0°.

Step 5. Cut along the two radius corners on each cherry work piece. Remove the patterns, and sand off any wood fuzzies. Apply wood glue to the bottom of one compartment piece, and clamp it to the bottom of the lid piece. (With the angled cut, the openings on the compartments should be wider on the top surface of the piece, and slightly narrower on the bottom.) Allow the glue to set for ten minutes, then unclamp the assembly and use a flat-blade screwdriver or awl to remove any glue squeeze-out. Re-clamp the assembly and let dry. In the same manner, glue and clamp the bottom of the second compartment piece to the top surface of the walnut box bottom.



Step 6. Use the belt sander to round over the top long edges of the 1/4" x 3" x 6-3/4" hinge work piece, creating a 1/4" radius on both sides. Turn the work piece over to the side with the square edges, and measure and mark 1/2" in from each long edge. Cut along both marked lines, creating two pieces each measuring 1/2" x 6-3/4", with a 1/4" radiused side. (The center of the original work piece, measuring 1/4" x 2" x 6-3/4", is waste. However, the larger work piece is required in order to safely round over the edges.) Glue and clamp one hinge piece to the bottom of the lid assembly, aligning the square, straight edge of the hinge with the straight edge of the lid. Allow the glue to set for ten minutes, then remove any glue squeeze-out, and re-clamp. Repeat to glue the second hinge piece to the top of the bottom assembly.

Step 7. Adhere a lid/bottom pattern to the top of the lid work piece. Adhere a lid/bottom pattern to the bottom surface of the bottom work piece. Apply clear tape over the hinge section of both patterns. Supporting the lid work piece with a piece of 1/4"-thick scrap wood placed underneath, use a No. 9 or larger blade to cut away the two square sections on each end of the hinge. (The long center hinge piece should be left intact.) Supporting the bottom work piece with a piece of 1/4"-thick scrap wood placed underneath, cut away the long center hinge section, leaving the two square sections at the corners intact. Remove the patterns.



Step 8. On one short side of the bottom piece, measure in 1/4" from the back bottom edge of the hinge piece, and make a pencil mark. Repeat for the other short side of the bottom piece. Position the lid on the bottom piece, inserting the long hinge section on the lid between the two short hinge pieces on the bottom piece. Insert a 1/16"-diameter drill bit into the drill, and use masking tape to mark off a 3/4" drill depth. Drill a 3/4"-deep hole at one pencil mark. (The hole will be drilled completely through the hinge section on the bottom piece, and 1/4" into the hinge section on the top piece.) Insert a 1"-long nail into the hole. In the same manner, drill a hole into the other side, and insert a nail into the hole.

Step 9. Open the lid, and use a pencil to mark any sections of wood that interfere with a smooth opening. Remove the nails, and sand off any marked sections until the lid opens smoothly. Cut the heads and 3/8" off both nails using a hacksaw or metal-cutting rotary tool. Re-insert the nails into the holes, and fill the holes using wood filler. Use a belt sander and sandpaper to round over the back edges of the box. (Leave the back edges of the hinge portion square.) Sand all other surfaces smooth. Apply your clear finish of choice, and let dry.

For questions concerning this project, send a SASE to: Gary MacKay, 2779 Canvasback Trail, Myrtle Beach, SC 29588. Gary is the author of the book Box-Making Projects for the Scroll Saw, *available from Fox Chapel Publishing.*

The Cougar

pattern by Kristin Kendle, cut and finished by Don Calhoun

Introduction

I used to be an avid hunter. All my spare time was spent in the woods, where I was either hunting or scouting out new hunting grounds. I had many adventures on these outings, but one sticks with me more than any other.

About two weeks before this specific adventure occurred, I had been talking with a game warden who told me a story about a certain hunting area that made the hair on the back of my neck stand up. It seems folks in that area were having some bad problems with a really big cougar that was raising havoc with the local farmers and was responsible for the loss of a few cows, three horses, and a bunch of pets. The cougar had also visited a nearby fishing site, where he stole two fishermen's catch from right next to them. As I left the warden, he said, "When you're in these woods be careful, because this cat is not scared of humans."

Two weeks later, I had forgotten the warning and was up in the area doing some scouting. I was about five miles in when I decided to take a break. As I reached to get a bottle of water out of my backpack, a wounded-rabbit call fell out of my pack and onto the ground. Now, the sounds these calls make are almost exactly like those of the critters you are trying to imitate. As it hit the ground, the sound of a wounded rabbit drifted across the still valley like a lightning bolt.

As the sound faded away and my heart started to beat again, I composed myself and absorbed what I had done. That's when crazy thoughts started going through my mind, like, "It's too hot today for deer and elk to be moving around; let's see if there are any bobcats or coyotes around."

It took only a few shakes of that device before I saw a golden yellow movement across the valley. However, it was not what I was looking for—it was a big cougar, and I had just woken him up from his afternoon nap. That's when the game warden's warning came back to me!

My next thought was, "You did it this time!" I decided to snap a photo of this big cat so that in case I did not make it out of there, my loved ones would know what happened. I snapped my photo, and hurried out of the area to safety. Being so emotionally attached to

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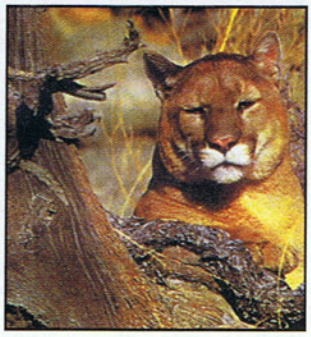

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this photo and unable to get any further than reminiscing of what might have happened that day, I teamed up with an up-and-coming new designer, Kristin Kendle, to create the pattern. Let your skills bring this monarch to life, and we hope you will enjoy scrolling it as much as we enjoyed designing it!

SUPPLIES

Wood: *hardwood of choice*—one piece 3/4" x 13" x 16"
Tools: drill with No. 60 drill bit; scroll saw with No. 2/0 spiral (35TPI) blades and No. 2/0 flat (27 TPI) blades; belt sander; orbital sander; craft knife
Carbon paper
No. 2 pencil or stylus
Sandpaper in 80-, 220-, and 320-grits
Clear finish of choice
Backer of choice
Permanent-bond glue stick (for attaching backer)
Sawtooth hanger

Please refer to all manufacturer's labels for proper product usage.

INSTRUCTIONS

Step 1. Using the belt sander fitted with 80-grit sandpaper, sand the wood. Graduate to 220-grit, then 320-grit, until the surface is smooth and all irregularities or marks left by the mill are removed. (Be sure to clean all sanding dust from the wood when changing the sandpaper.) Photocopy the pattern, saving the original for future use. Using carbon paper and a pencil or stylus, transfer the pattern to the wood.

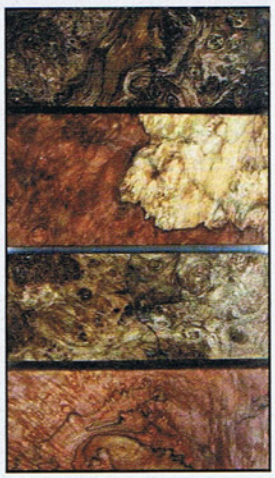
Step 2. Using a No. 60 drill bit, drill all blade entry holes. Make all veining and internal cuts first. To prevent breakage of the delicate areas, set your saw speed to slow, install a zero-clearance insert, and adjust your feed rate to slow. Cut the large sections of the design last.

Step 3. Remove all burrs from the back of the piece. Using the orbital sander fitted with 320-grit sandpaper, lightly sand the front of the piece to remove any blemishes. Remove all sanding dust. Apply several coats of your clear finish of choice. Between applications, allow each coat to dry and lightly sand the surface using 320-grit sandpaper. Cut the backer to size, and attach it to the back of the cutting using permanent-bond glue. Attach a sawtooth hanger to the back, and display your creation.

For questions concerning the cougar project or burl article, email Don at: donald_c98503.net.

Northwest Big Leaf Maple Burl

by Don Calhoun



People are frequently so mesmerized by the beauty of burl that they have no idea that burl is actually very hard to work with due to the fact that its grain is misshapen and not straight. A 3/4"-thick slice can be filled with void pockets and bark inclusions just below the surface. Burl does yield a very peculiar and highly-figured wood—applying a varnish or an oil to it only magnifies its beauty. Of course, its beauty and rarity also add to its expense.

Years ago, burls were considered a nuisance to sawmills because they made log cutting more difficult. The timber cutters removed the burls from the logs and left them to rot on the forest floor! Now they are sought after for their spectacular grain pattern and natural beauty.

While I am by no means an expert on the subject of burl, I will pass on the knowledge I have picked up through trial and error while working with burl over the years. Burl is an amazing wood; the color and figure invites us to sit and imagine all sorts of shapes and forms—it's rather like looking for images in the clouds! Spalting, voids, and bark inclusions are not considered defects in the wood, but rather add immeasurably to its value because of the unique patterns and character they lend to a piece.

There are all kinds of theories as to how a burl is formed. Burls are wart-like deformities growing on the trunk, root, and even branches of a tree. The traditional belief is that they are the result of a tree reacting to some form of stress, be it environmental, such as fire, insects, an injury, or fungus, or a stress introduced by humans, such as nails or bullets. It is thought the unformed bud has all the genetic material necessary to grow a full branch, but for some reason, it did not grow properly. The result is that the tree cells divide and grow excessively and unevenly in a process somewhat analogous to cancer cells in a mammal. Burls will continue to grow following the contours of the original deformities, producing all manner of twists, swirls and knots in the wood fiber. Usually, this results in wood that has a spectacular pattern that can be used to great effect in woodworking. Sometimes it is also accompanied by the creation in the burl of dormant buds which create "eyes," making the burl even more spectacular when worked.

Burl wood is usually darker than the rest of the tree and, in some cases, such as with paela, it may be a significantly different color altogether. Big leaf maple burl varies in color from light cream to dark brown. Because of the diverse grain direction, burl wood cannot be relied on for strength, but that's of little consequence because burls are prized for beauty, not strength. There are certain charac-

teristics that an artist or woodworker looks for in a burl. The more exotic, beautiful, and rare the burl is, the more expensive it will be.

"Figure" refers to the form of the grain and color patterns in wood that give it a unique appearance. There are many factors or characteristics that go into making up the figure, and some of the terms that are associated with figure include curly, wavy, fiddleback, spalting, tiger stripe, marbled, feather, bee's wing, and bird's eye. The figure of woods is heavily influenced by how the wood is cut, whether quartersawn, flat cut, or rift cut.

Curly or Quilted

Contortions in grain direction sometimes reflect light differently as one looks down the grain, and this creates an appearance of undulating waves known as curly grain. It is frequently described as looking like a wheat field in a mild wind, and can yield so strong an effect that your eyes will swear that a flat piece of wood has a wavy surface. It is also referred to as having a "washboard" effect because it looks like an old, corrugated-steel washboard. The amount of curl in a wood sold as "curly" can range from almost none to quite a lot.

Fiddleback

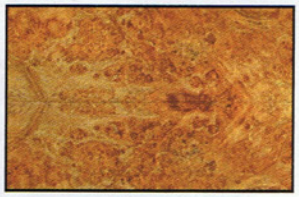
An extreme form of curly figure is called "fiddleback." With fiddleback figure, the curls are very tight and fairly uniform, generally running perpendicular to the grain and across the entire width of a board. The name comes from the fact that this type of wood was commonly used on the backs of violins (fiddles), and more recently, guitars, because the figure is often very lively and attractive, and has good resonance properties.

Spalting

Spalting is a dark vein running through the wood that is caused by a pattern of bacterial rot in dead wood. Once stabilized, it often looks like a black ink line of varying thickness and great irregularity drawn through the wood. When it appears as very sharply defined black lines, it is sometimes called "black-line spalting." In some trees, such as oak, spalting is never black-line, and it can in fact be very vague and amorphous, resulting in blotchy black or dark-grey areas. Spalting in other trees can cause some color changes other than black and can be very colorful.

Swirl

Also sometimes called "crotch swirl," this figure is usually from areas near a crotch. As the name implies, the grain meanders and swirls around, often seeming to convolute and fold in upon itself. The densest portions of the swirl show up darker or shaded, compared to the lighter surrounding wood. Swirl occurs in several species including walnut, mahogany, cherry and maple.



Bird's Eye

Bird's eye figure is a phenomenon that occurs within several kinds of wood, most notably in maple, i.e. "bird's eye maple." It has a distinctive pattern that resembles tiny, swirling eyes disrupting the smooth lines of grain.

For those of you who want to run out and purchase that special piece of burl, you will need to understand that you are unlikely to find it at your local lumber yard, and cutters who use burl normally only handle enough for their own personal use. They may advise you to search the internet for sources. Although you may think these cutters are rude and stingy, if you follow their advice and conduct an internet search, all the information you've been given starts to make sense!

In addition to the high price of the burl, you learn that you will also have to re-saw your purchase because most vendors sell it in 2"- to 4"-thick slabs, and because its grain is misshapen, you can only sand it. If you run it through a planer, it will explode. You may ask the vendors if they can re-saw it for you. While it might be possible, you will have to consider 1/4" of the slab is lost as sawdust every time it is run through the saw. Other requests, such as leaving the natural edge and having the bark left on, incur additional expenses. The cost of the wood, plus the cost to have it shipped to you, begin to add up...beauty has its price!

> **"Burls are prized for beauty, not strength."**

Burl can be sold rough-cut by board foot or by the pound, and/or priced per piece depending on grain and figure. When purchasing a burl cap, which is the complete burl, it is sold "as is" because there is the chance that the burl cap may be completely hollow inside.

All of the big leaf maple burl I use is from trees that people needed removed or that have been knocked down in storms. I hear about them through word of mouth, local saw mill owners, and individual loggers. The cutting, milling and drying is all done by me. After milling my finds into 3/4"-thick slices, I stack them in my shop, where they are left to dry for one year. At that point, each piece must be sanded to remove milling marks and to remove other flaws such as dents and gouges. As you see, your expenses can be decreased if you do a little hard work.

I am always on the lookout for new sources of burl, and there are times I must convert to commercial sources in order to meet the demands of my scroll saw business. When conducting an internet search, try the terms "Oregon Maple Burl" or "Washington Maple Burl," or try a search for a source closer to your location to keep shipping expenses down. Bottom line...shop around.

I hope these little tidbits of information help you in your search for that special piece of wood!

Pattern Located in Full Size Pattern Section No. 1

Crowley Shelf Bracket

by Dan and Ray Wilckens

Single-Bracket Shelf

Double-Bracket Miniature Shelf

Introduction

This bracket can be put to use in many ways. Mount a single bracket on the wall as a stand-alone shelf to hold a favorite accent piece. Rest it on its top assembly, and it serves as a bookend. Make and mount a set of brackets, and lay a shelf board across the span. To accommodate a heavier or longer shelf board, you may want to make three brackets to provide a center support. For a final option, reduce the patterns 50% and make a miniature bracket or shelf. Enjoy this versatile addition to your decorative woodworking pieces!

Bookends

Double-Bracket Shelf

SUPPLIES

Wood: *hardwood of choice*—one piece 1/2" x 5" x 9-1/2" (for back), one piece 1/2" x 6" x 7-1/2" (for top layer of top assembly), one piece 1/2" x 5-1/2" x 7" (for middle layer of top assembly), one piece 1/2" x 5" x 6-1/2" (for bottom layer of top assembly); *hardwood of choice in contrasting color*—three pieces 1/2" x 6" x 8-1/2" (for fretwork supports), two pieces 1/2" x 5-1/2" x 8" (for fretwork support spacers)

Tools: drill press with very small bit; scroll saw with blades of choice; table saw (or similar saw); planer (for proper wood thickness); belt sander and/or handheld sander; craft knife and/or needle pick; assorted clamps

Temporary-bond spray adhesive

Sandpaper, assorted grits

Wood glue

Oil finish of choice

Hanger of choice

Please refer to all manufacturer's labels for proper product usage.

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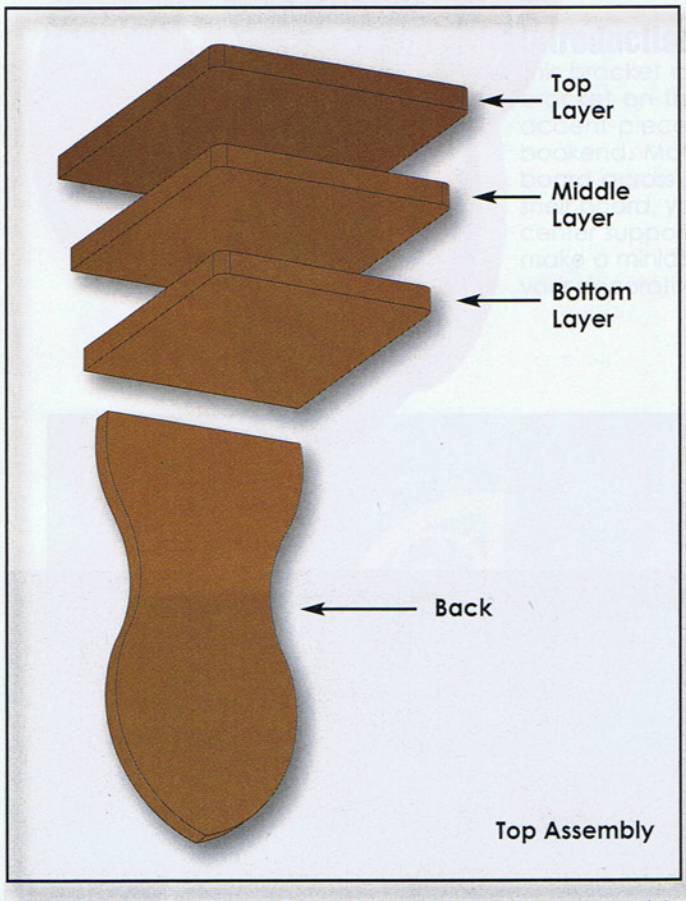
INSTRUCTIONS

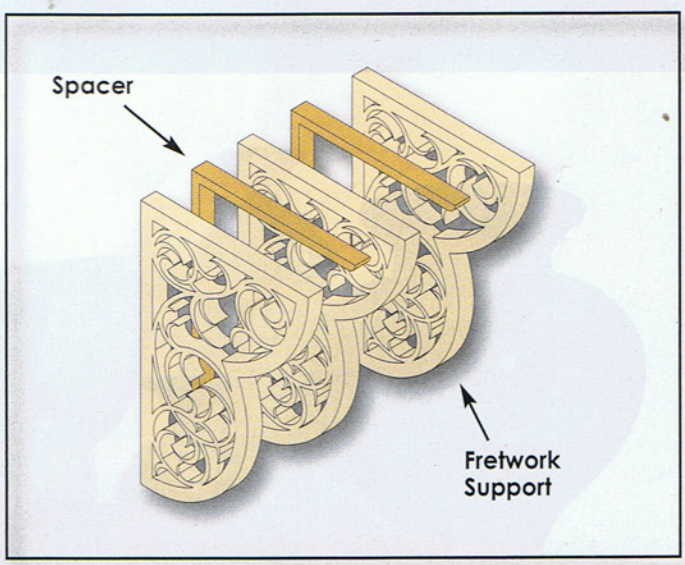
Step 1. Photocopy the patterns, saving the originals for future use. You will need three copies of the top assembly pattern (one for each layer). Plane the wood to the proper thickness. Cut the work pieces to the size of the patterns. All straight-edged pieces should be cut to size using a table saw or similar saw to ensure accuracy and straight cuts. Cut scroll saw edges oversize. Using temporary-bond spray adhesive, attach the patterns to the wood. Be sure to align the straight edges of the patterns with the straight edges of the wood you have cut.

Step 2. Drill for all blade entry holes using a very small drill bit. Feed the scroll saw blade through the holes, and make all interior cuts first. To cut the perimeter of the pieces, either cut in from the edge or drill a small blade entry hole just outside the pattern line.

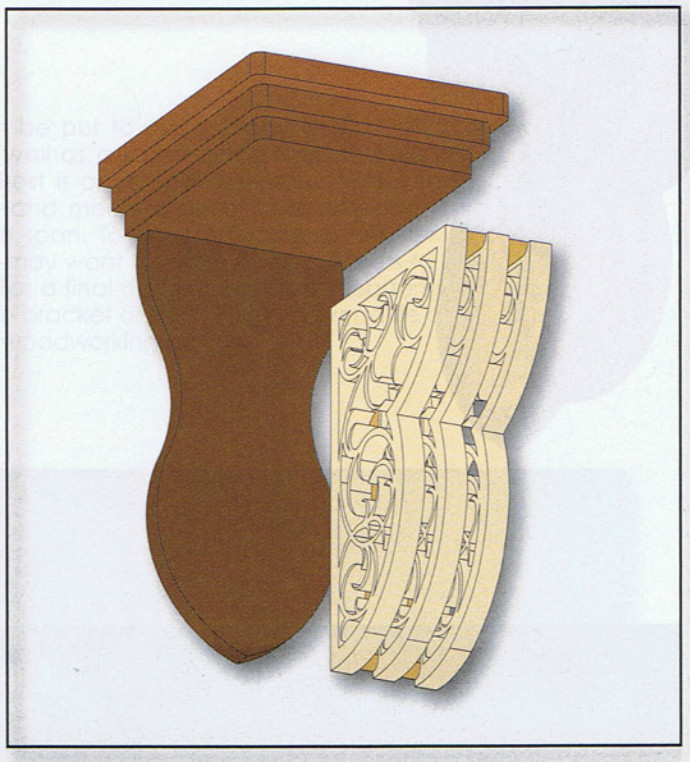
Step 3. Carefully remove all patterns. Sand the work pieces using a belt sander and/or handheld sander. Remove any burrs and clean up the cuts using a craft knife or needle pick. If desired, round over the front and side edges of the top assembly layers. (Leave the back edge that will be flush to the wall square.)



Step 4. Position the middle layer of the top assembly underneath the top layer so it is centered side to side and flush along the back edge. Glue in place. In the same manner, position and glue the bottom layer on the middle layer. Glue the top edge of the back piece to the top assembly. The back needs to be centered side to side with the top assembly, and flush at the back edge.



Step 5. Glue a spacer between each fretwork support. They need to be flush to each other at the back and top surfaces.



Step 6. Apply glue to the back and top surfaces of the support assembly, center it in the top/back assembly, and glue in place. (If making two or three brackets to support a shelf, cut the shelf board to size at this point, finish the front and side edges as desired, and glue it to the brackets.) Let all glue dry for one hour.

Step 7. Following the manufacturer's instructions, apply your oil finish of choice. If mounting the bracket(s) on a wall, install your hanger(s) of choice on the back.

For questions concerning this project, send a SASE to: Wilckens Woodworking, P.O. Box 520496, Independence, MO 64052, or email: wilkswood@yahoo.com.

Daisy Pen Box

by Sue Mey

Introduction

This easy-to-make daisy box is the perfect size for holding pens and pencils, and can be used as a lovely gift box. The model shown is cut from 1/4"-thick plywood that has been treated with furniture wax liquid. However, the box would also be beautiful cut from your hardwood of choice.

SUPPLIES

Wood: *1/4"-thick plywood of choice*—two pieces 8-1/2" x 2-1/4" (for long sides), two pieces 2-1/4" x 2-1/4" (for ends), two pieces 8" x 2-1/4" (for base and inner lid), one piece 8-1/2" x 2-3/4" (for lid), one piece 2-1/2" x 1-3/4" (for handle)
Tools: scroll saw with No. 5 reverse-tooth blades, or blades of choice; drill press or hand drill with 1/16" and 3/32" bits; disc sander; clamps; scraper blade
Temporary-bond spray adhesive or glue stick
Wood glue
Thin double-sided tape
Masking tape
Sandpaper, assorted grits
Hard-bristled paintbrush
Medium-sized artist's brush
Deep-penetrating furniture wax liquid or Danish oil
Lint-free cloth
Clear spray varnish

Please refer to all manufacturer's labels for proper product usage.

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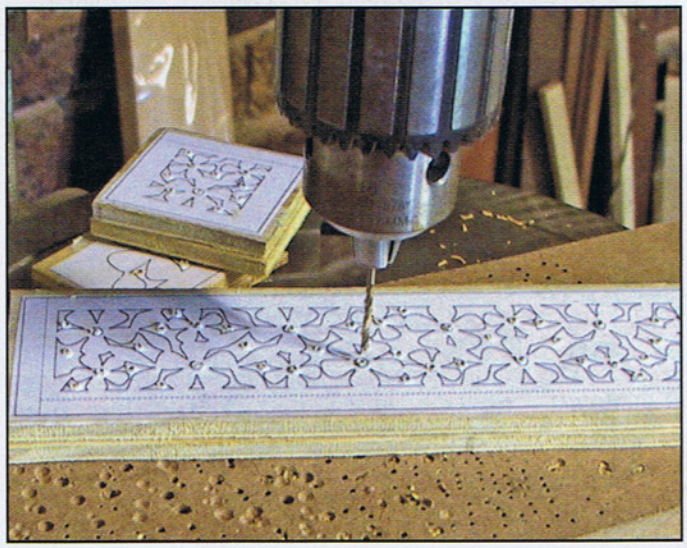
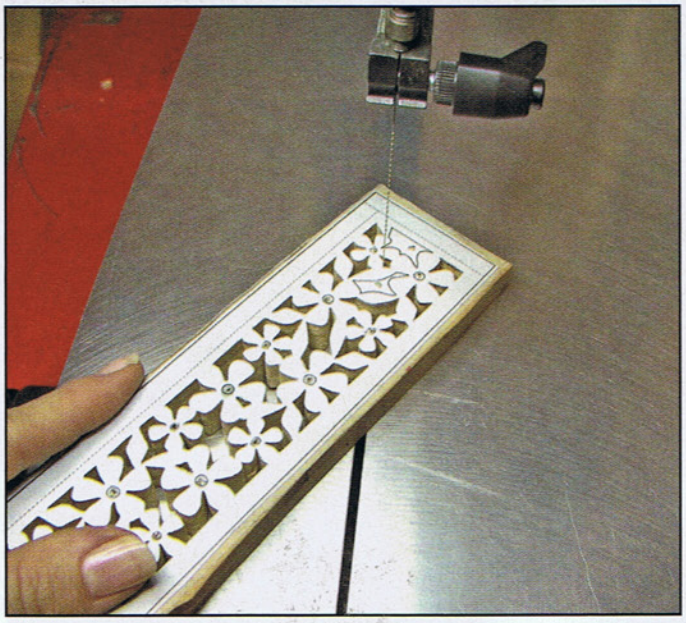
INSTRUCTIONS

Step 1. Cut the work pieces to size using the scroll saw. Stack the work pieces for the long sides, and secure the stack using small pieces of double-sided tape. In the same manner, stack and secure the work pieces for the ends. The base and inner lid work pieces can also be stacked.

Step 2. Photocopy the patterns, saving the originals for future use. (You will need two copies of the Lid/Base/Inner Lid pattern.) Apply a layer of masking tape to the top of each work piece or stack. Using temporary-bond spray adhesive or a glue stick, attach the patterns to the taped surfaces.



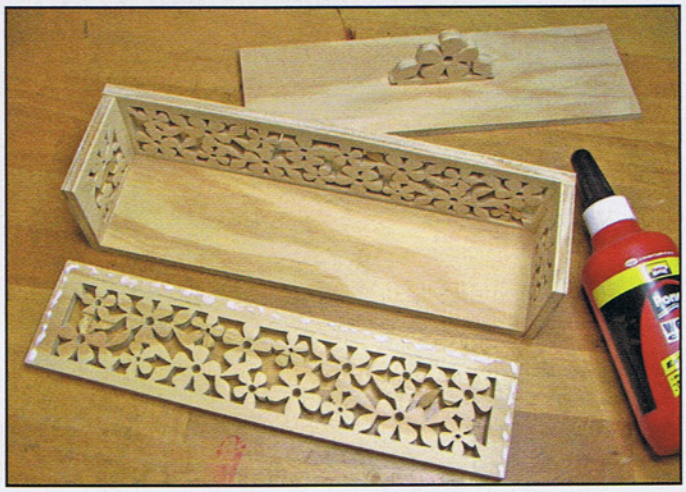
Step 3. Using the 3/32" bit, drill the majority of the blade entry holes. Switch to the 1/16" bit to drill the holes in the very small openings. Remove the burrs created by drilling the holes by running a scraper blade along the back of the work piece, following the grain of the wood.



Step 4. Using the No. 5 blade, make all the interior fret cuts in each piece.

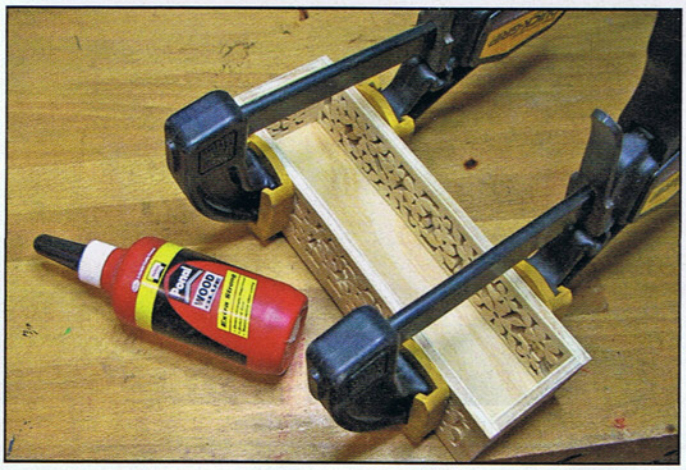
Step 5. Straight-sand all straight edges up to the pattern lines using the disc sander.

Step 6. Use a scraper blade to carefully pry apart the stacked work pieces. Remove all tape and patterns. Sand the work pieces using 150-grit sandpaper or a sanding block. Graduate to 320-grit sandpaper until the surfaces are smooth. Remove all sanding dust using a hard-bristled paintbrush.

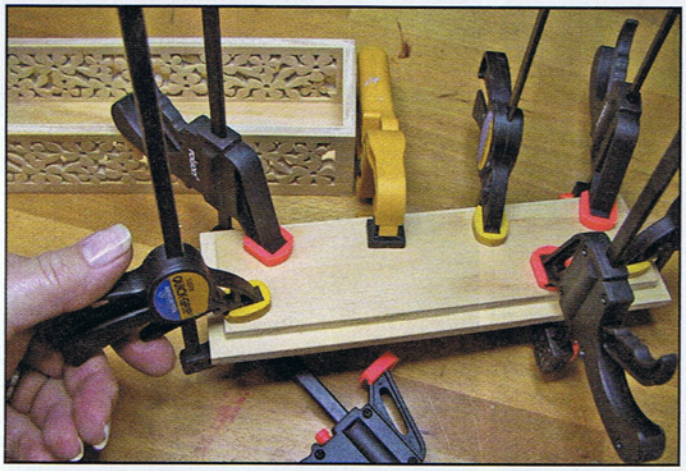


Step 7. Dry-fit the pieces to ensure a good fit. The side and end pieces fit to the outside of the base, and the end

pieces fit inside the side pieces. Cut or sand any pieces as necessary. When satisfied with the fit, glue the pieces in place using wood glue. Wipe away any glue seepage using a damp cloth or a scraper blade.

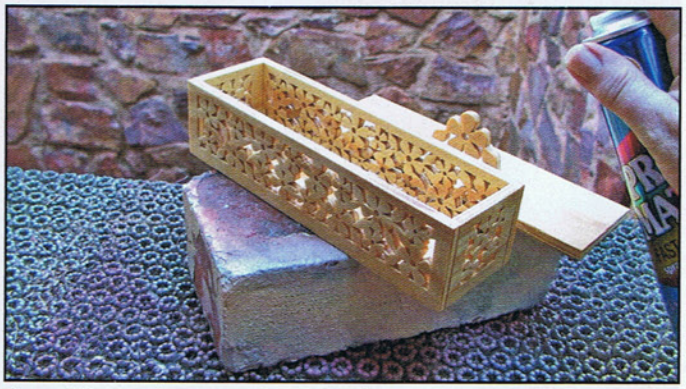


Step 8. Apply clamps to the box assembly, and allow the glue to dry completely.



Step 9. Center the inner lid on the lid, and glue in place. Clamp the assembly, and allow to dry.

Step 10. Glue the tab of the lid handle into the slotted opening in the lid, and let dry. Soften the edges of the box using sandpaper, and remove the sanding dust. Use the medium-sized artist's brush to apply deep-penetrating furniture wax liquid or Danish oil to all the surfaces of the box and lid. Wipe away the excess liquid or oil using the lint-free cloth, and set the project in the sun to dry. (If this is not possible, set it aside to dry for a few days.)



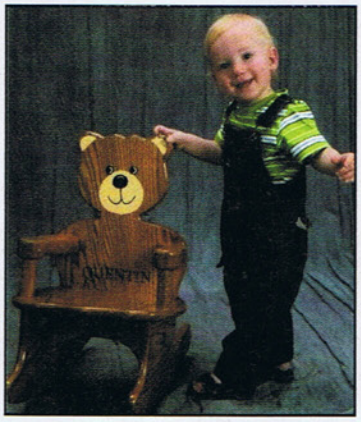
Step 11. Apply several coats of clear spray varnish, allowing each coat to dry thoroughly before applying the next.

I live in Pretoria, South Africa, and I enjoy all the various aspects of scroll sawing. I can be contacted via e-mail, at sue@scrollsawartist.com or suem@storage.co.za. To see more of my work, including a wide variety of patterns and pattern-making tutorials available for purchase, visit www.scrollsawartist.com. My first patterm book, Lighted Scroll Saw Patterns, *is available from www.amazon.com and other outlets.*

Readers' Gallery

Beth and Mike "Moose" Walter of Scales Mound, IL have clearly kept their grandson, Quentin, well-stocked with woodworking projects! Quentin is shown here with his personalized rocking bear chair that Moose made from a pattern from Rockler. An older Quentin shows off his railroad crossing sign, based on a pattern by Timothy A. Timm and featured in the October 1994 issue of *Creative Woodworks & Crafts*. Beth and Moose added a PVC pipe to the back to amplify a train sounds mechanism that plays when the button is pushed. (They purchased the mechanism from Dirk and Karen Boelman, of The Art Factory.)

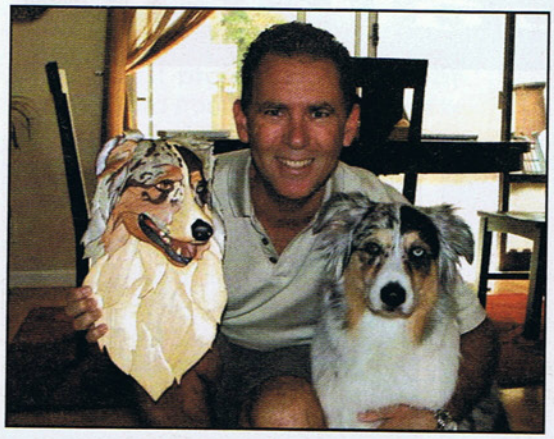
Quentin sure is a lucky grandchild—just imagine how nicely his first apartment will be furnished!



Arnulfo Delgado of Chicago, IL describes himself as an "avid reader" of *Creative Woodworks & Crafts*, having never missed an issue since 1997! He is shown here with several projects that he has made based on patterns from the magazine.

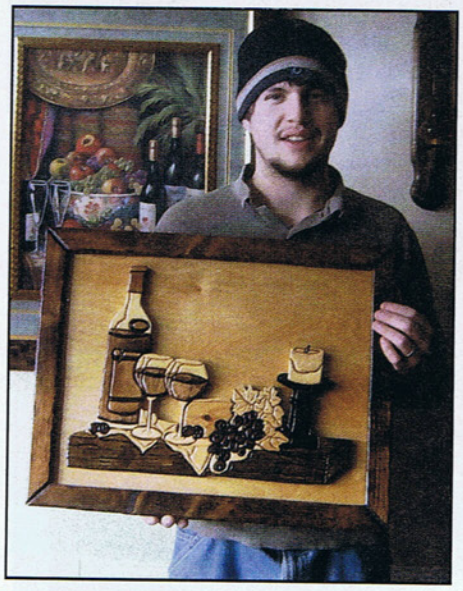
The *Gargoyle Grandmother Clock* was designed by Dan and Ray Wilckens and featured in the December, 1997 issue; the *Tiger* (August, 2002), *Cougar* (August, 1997), and *Red-Tailed Hawk* (March, 2000) intarsia pieces were all designed by Bob Hlavacek; the *Bald Eagle* was designed by Fred Martin and featured in the January, 2004 issue; the two versions of *Siesta* were designed by George Ahlers and featured in the October, 2001 issue; finally, the *Grinning Gator*, by Deb Nicholson, was featured in the March, 2007 issue.

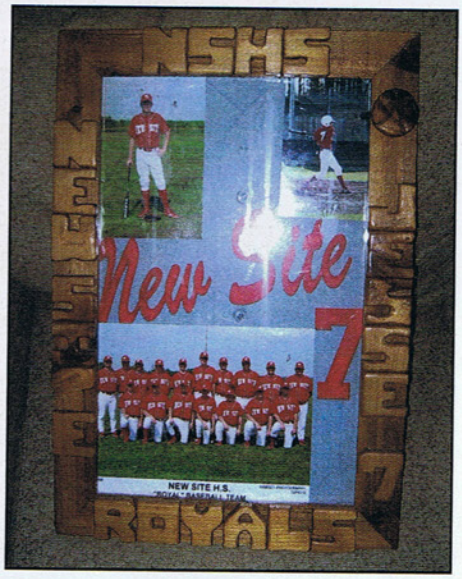
Thank you for being such a loyal reader, Arnulfo. Your workmanship is lovely, and we are happy to have you grace the pages of our Readers' Gallery!



Les Moore of Corvallis, OR contacted Janette Square, who is a frequent contributor to the magazine, and asked her to design an intarsia pattern based on his son's Australian Shepherd. Les completed the piece last spring and gave it to his son as a birthday present. His son is shown holding the finished intarsia piece and Callie, the "real live" shepherd on whom the pattern was based.

Janette and Les—you both did an amazing job capturing the dog's likeness! What an extraordinary present!





Jesse Dunn of Baldwyn, MS started woodworking about six years ago, when he was 15 years old. His interest for the hobby was piqued after seeing a piece made by his father when he was younger. Jesse's dad showed him how it was made, and he says he "fell in love with intarsia right away."

Jesse is shown holding his version of *Wine Country*, which was designed by Bruce Worthington and featured in the January 2007 issue of *Creative Woodworks & Crafts*; Jesse made this piece as a present for his mother-in-law. The portrait of Elvis is from a pattern he purchased from Gekko Timbers, and the New Site High School frame was a project that Jesse designed himself.

Most of the projects are made from one type of wood, which Jesse then stains to add color. While he currently enjoys making items as gifts for others, Jesse hopes one day to be able to sell his finished pieces.

You certainly look like you're on the right path, Jesse! We can't wait to see your future projects, and hope that you'll pass on your love of woodworking to *your* son, once he's a little older!

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Readers' Gallery

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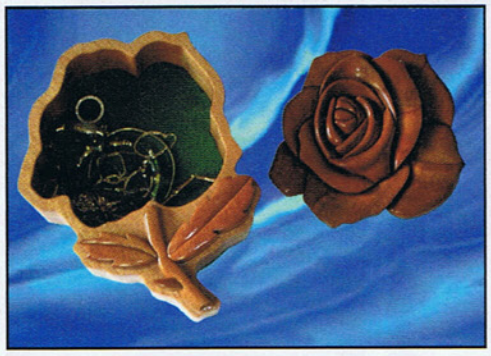
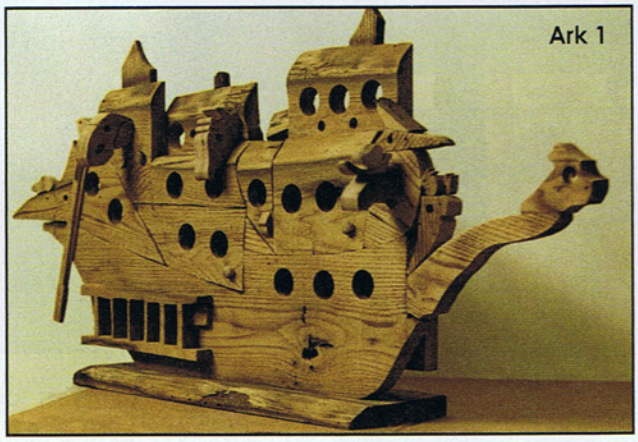
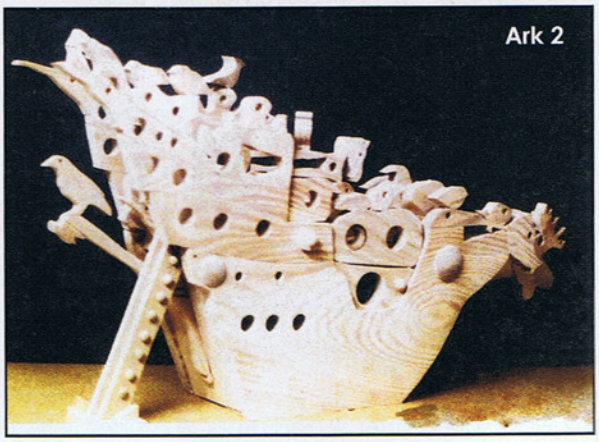


Léo Gautreau of Sherbrooke, Quebec first became aware of intarsia after seeing some finished pieces in Florida in 1996. He returned home, did some research, purchased some patterns...and has clearly become quite successful at making the projects himself!

Featured here are the *Rose Box* by Robert Ardizzoni, *Piano Girls* and *Clydesdale and Colt* by Kathy Wise, and the *Cow* by Judy Gale Roberts. The golfer is based on a 1" x 2" picture that Léo had seen. He enlarged it until it measured 20" x 34", at which point he worked it into an intarsia pattern. Thank you so much for sharing your project photos, Léo. Your work is beautiful!



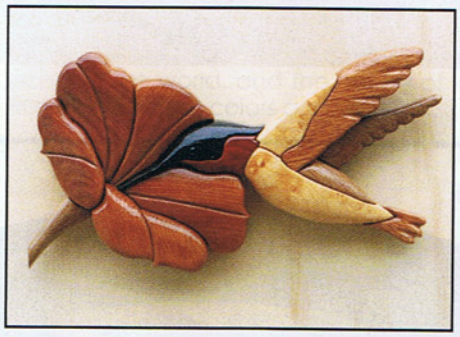


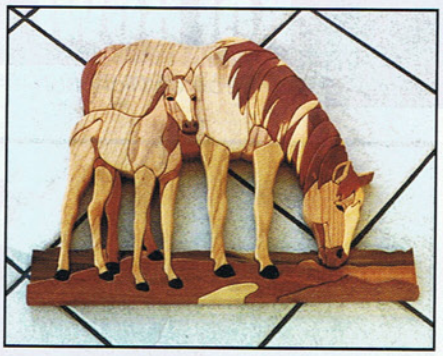
Frayda Shalowitz of Baltimore, MD trained as a sculptor and loves to draw, and her talents are clearly evident in these arks she has created. They are original designs by her, and she made her first one in 1996. Since then, she has created 26 more, in various sizes, woods, and designs. They are not meant to be toys, but pieces of artwork; as such, the animals are part of the ship's design and do not come apart from the overall work.

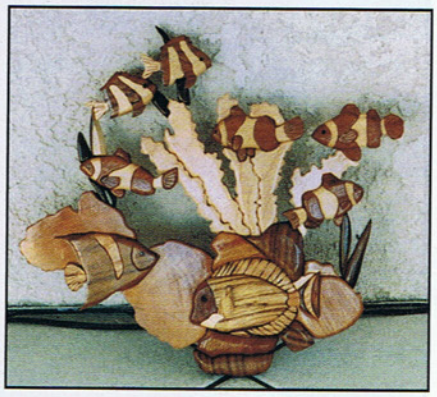
Ark 1 measures 31" long and 20" high; *Ark 2*,which was designed "in the round," measures 36" long and 18" high. Frayda does not work from any plans when building her arks; she just "slowly lets them evolve" from the wood.

Your arks are amazingly beautiful and creative, Frayda. What a wonderful marriage of your sculpting, drawing, and woodworking talents!

Harold Stelter of Lake Havasu City, AZ has been woodworking since 1995, and his first project was the *Ruby Hummingbird* from The Wooden Teddy Bear. Since that time, Harold has made over a hundred more intarsia projects. Most of his work is given to his family members, who have made a list of things for him to make! Other pieces are given as gifts and as donations for local fund raisers. Harold also makes Christmas ornaments every year for his family, including his grandchildren and great-grandchildren.

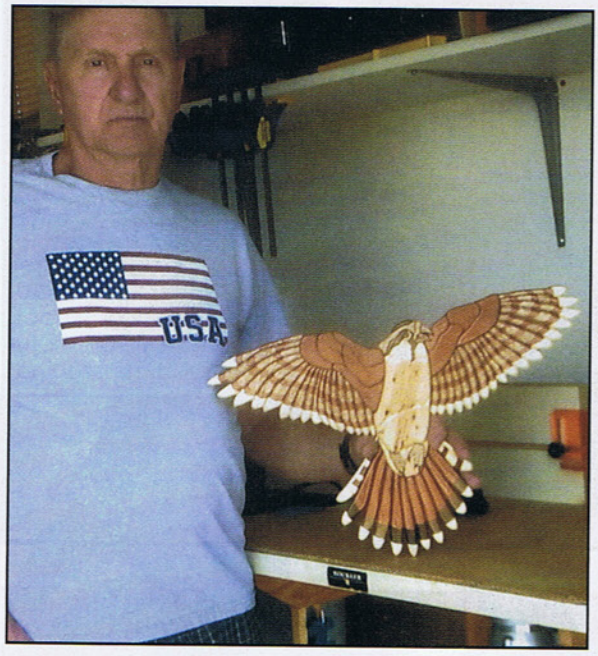


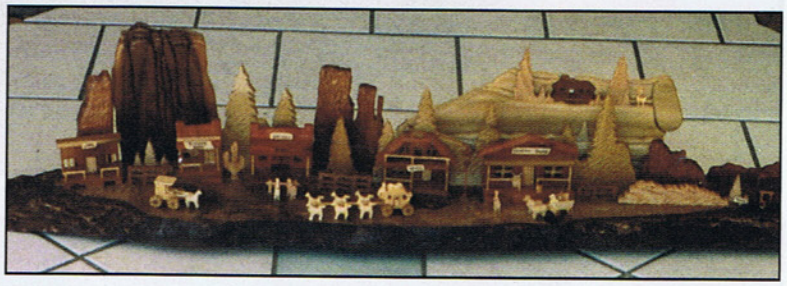




Harold is shown holding the *Kestrel Intarsia* by Annja Starrett and featured in the January 2007 issue of *Creative Woodworks & Crafts*. Other pieces include the *Mare and Foal*, *Feathered Friends*, and *Reef Fish*, all by Judy Gale Roberts, and an assortment of cars, trucks, planes and trains. The *Western Village* is a compilation of patterns that Harold has assembled into his original design.

It sounds as though your woodworking must keep you very busy, Harold. From the looks of these projects, it is understandable why your family has a long request list! Thanks for sharing.





Attention readers:

We invite you to send us photos of your work, whether original or not, to be included in Readers' Gallery. ***If it is not of your own design, please tell us whose design it is*** and, if possible, add a few sentences about the piece(s) being shown. Please do NOT send the item itself. Include your mailing address, and feel free to include a photo of yourself!

Digital photographs are acceptable with a resolution of 300 dpi at a minimum of 3" x 4", preferably in jpeg or tiff format. Email to: editors@woodworksandcrafts.com. Good, clear, flat photos are also acceptable; please mail them to *Creative Woodworks & Crafts*, 7 Waterloo Road, Stanhope, NJ 07874, Attn: Robert Becker.

Please note: Due to a computer malfunction, some submissions that had been digitally sent to us prior to August 2009 may have been deleted. Please feel free to resend your emails, and we will update our files.

Pattern Located in Full Size Pattern Section No. 2

Koi Bowl

by Deborah Nicholson

SUPPLIES

Wood: *pine*—three pieces 1" x 12" x 12"; *1/8"-thick scrap wood pieces* (for lily pad risers)
Tools: scroll saw with No. 5 blade; drill with very small bit; assorted sanding tools, including drum sander, palm sander, and rotary tool; assorted clamps
Carbon paper
Wood glue
Acrylic paints in black, dark blue, dark green, light green, orange, and white
Paintbrushes
Primer or inexpensive paint (to prime base before painting)
Clear gloss finish
Wax paper

Please refer to all manufacturer's labels for proper product usage.

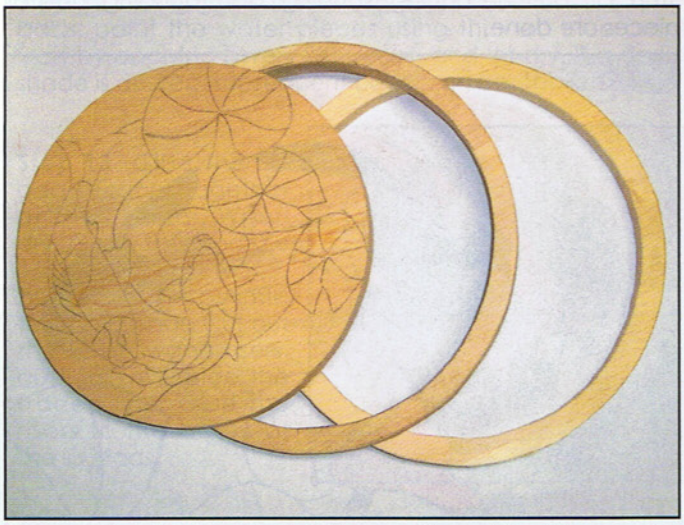
Introduction

Koi, which developed from common carp, were first bred for their color variations in Japan. In 1914, at an annual exposition in Tokyo, the colorful fish were introduced to the world, and the hobby of keeping Koi spread worldwide. Koi are symbols of love and friendship, and come in many different colors and varieties.

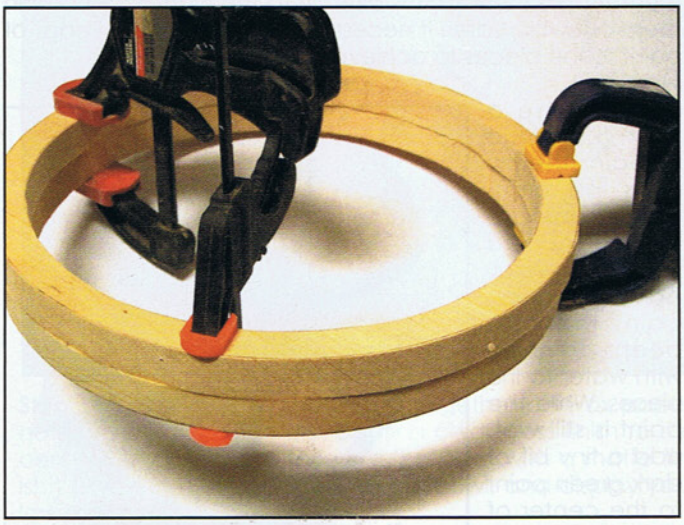
INSTRUCTIONS

Step 1. Photocopy the pattern, saving the original for future use. Trace the entire pattern onto one of the work pieces. On the second work piece, trace only the two outer circles. On the third work piece, trace only the outer circle. Cut along the outer circle on all three work pieces. Set the third work piece aside.

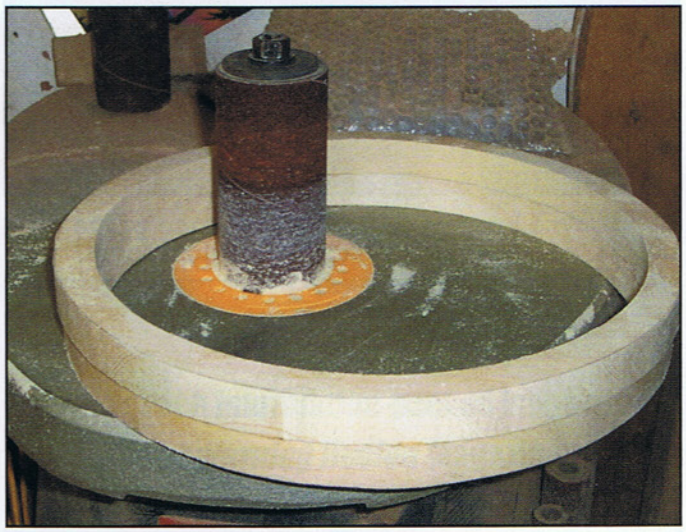
For bowl:



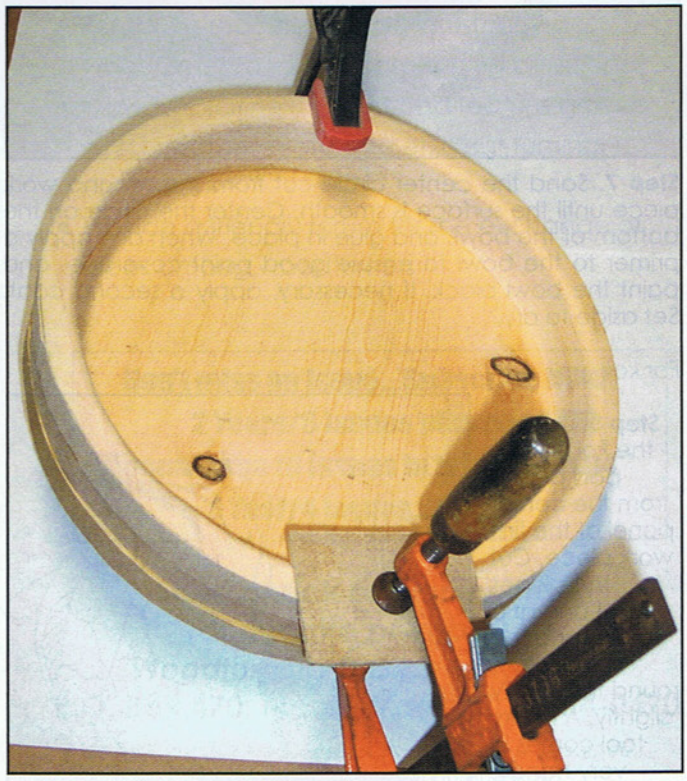
Step 2. Using the smallest drill bit possible, drill a blade entry hole on the inner circle on the first and second work pieces. Carefully cut along the circles, separating the outer rings from the center pieces. Set aside the center portions from both work pieces.



Step 3. Glue and clamp the two rings together. Let dry completely.



Step 4. Using the drum sander, sand the interior opening of the rings. Round over the top edge of the assembly.



Step 5. Position the third work piece on the bottom of the ring assembly, aligning the outer edges. Glue and clamp in place.

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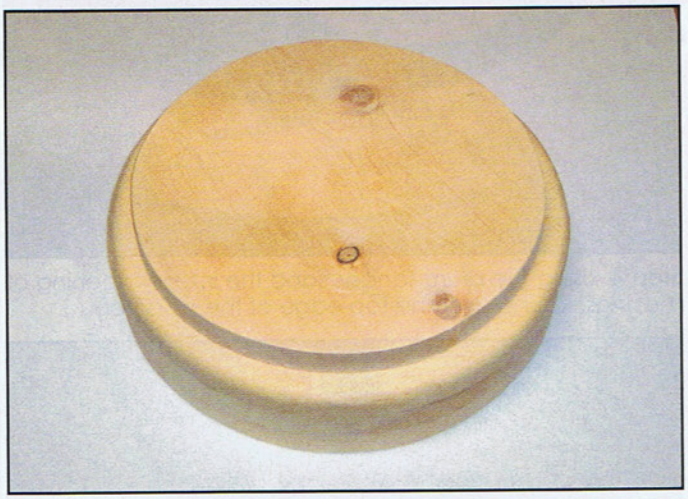
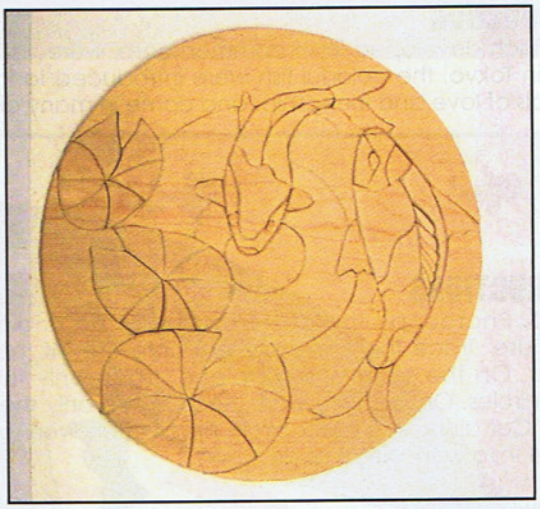
Step 6. When dry, sand the outer surface of the bowl smooth, and round over the top and bottom edges.



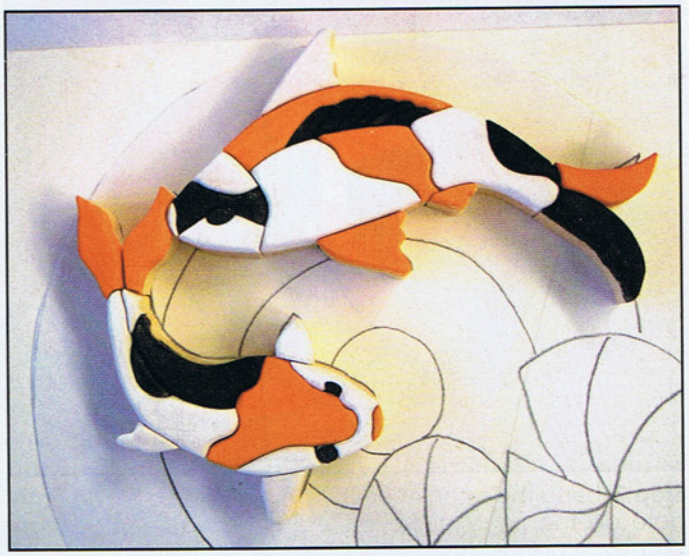
Step 7. Sand the center circle cut from the second work piece until the surface is smooth. Center the circle on the bottom of the bowl, and glue in place. When dry, apply a primer to the bowl to ensure good paint coverage, and paint the bowl black. If necessary, apply a second coat. Set aside to dry.

For koi:

Step 8. Cut out the koi and lily pad pieces from the center panel of the first work piece. Cut the pieces apart one at a time, sand the edges, and round them only slightly. A rotary tool comes in very handy, especially for pieces with tight curves on them.

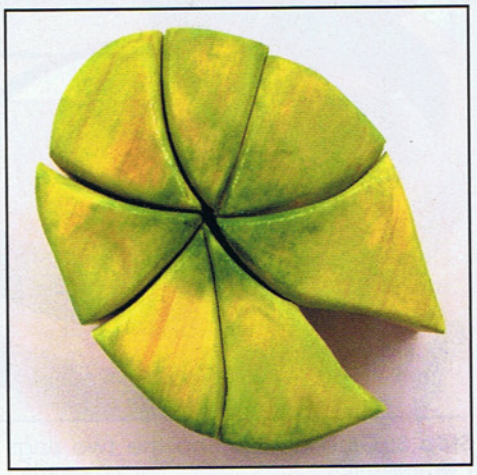


Step 9. Continue cutting, sanding, and rounding, until all pieces are done.



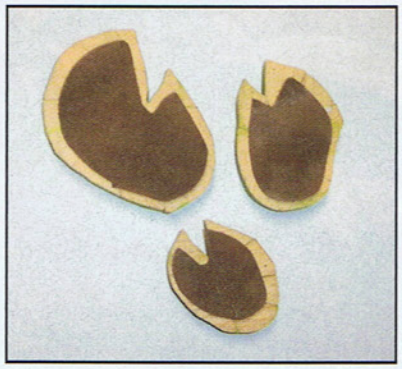
Step 10. Paint the fish using white, black, and orange paint, referring to the photos for suggested color placement. Apply these paints directly to the wood; do not thin them out with water. If necessary, apply a second coat of paint to the pieces to achieve solid coverage.

Step 11. Use a wash technique to paint the lily pads. First, dampen the pieces of one lily pad with clean water. Apply light green paint that has been thinned with water to the pieces. While the paint is still wet, add a tiny bit of dark green paint to the center of the lily pad, and blend it outward. Repeat for the remaining two lily pads.



Step 12. Using the same wash technique as for the lily pads, paint the water pieces using thinned blue paint. Start by applying a very light coat, and let dry. If a darker shade is desired, subsequent coats can be applied.

Step 13. Glue the lily pad sections together on wax paper. When dry, place them on the 1/8"-thick scrap wood, and trace the perimeter of the pads. Cut out the scrap wood risers, cutting 1/4" inside the traced line. Glue the risers to the backs of the lily pads.



Step 14. Edge-glue all the pieces together on wax paper, not in the bowl. When dry, apply a clear gloss finish to the center panel. (I chose to leave the bowl with a matte finish.) Glue the center panel into the bowl, and display your low maintenance koi pond!

For questions concerning this project, send a SASE to Deborah at: 4017 Casa Ct., Hernando Beach, FL 34607.

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Pattern Located in Full Size Pattern Section No. 1

Macho Dragonfly

by Jeff Powell

Introduction

Spring is in the air! I'm sitting on a loading dock waiting for a load of dog food, watching the bees and dragonflies dancing in the wind as I listen to the music on the radio. I pull out my sketch pad and begin to draw. At first, I draw a simple dragonfly. The music switches to an older song, and I can't help but be inspired to play with the image. Expressions and personality are what this little guy needs to really capture his spirit. I give him a smile, and then decide a toothy smile is what he needs, and finally...some big lips to really give him some punch! Now he's Macho, like a member of the "Beetles," and ready for a night on the town!

I usually tend to work with larger, more complex intarsia pieces, but every so often one has to just sit down and relax with something quick, simple, and fun. From the business side of things, be aware that smaller artwork tends to bring smaller profits. In order for a small piece like this to generate any revenue at all, it must be able to be produced very quickly without sacrificing quality. Here are a few tips for accomplishing this task.

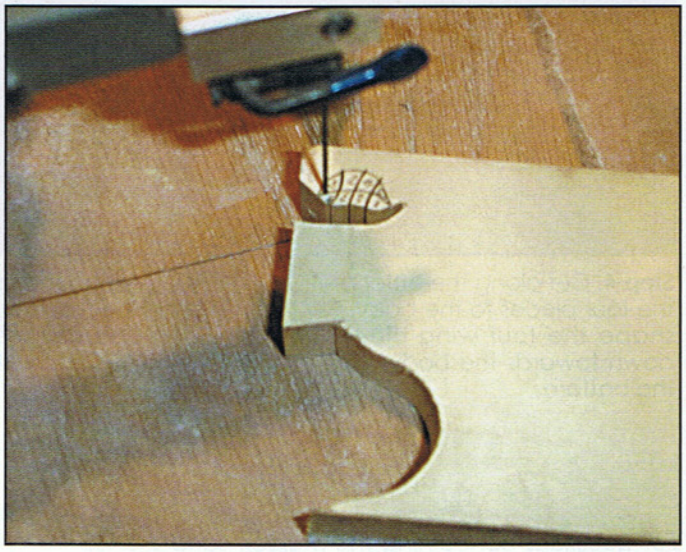
SUPPLIES

Wood: *1/2"- to 3/4"-thick pieces of buckeye, ebony, holly, paella, purpleheart, and walnut* (for dragonfly); *red fruit mallee burl cap*—one piece 3/4" x 12" x 7" (approximate measurement, for backer)
Tools: scroll saw with No. 9 skip-tooth blades; assorted sanders, including a stationary belt sander; clamps
Tracing paper
Carbon paper
Wood glue
Masking tape
220-grit sandpaper
Semi-gloss polyurethane
Hanger

Please refer to all manufacturer's labels for proper product usage.

INSTRUCTIONS

Step 1. Photocopy the pattern, saving the original for future use. Trace the pattern lines for the mouth and teeth onto the holly. The mouth section is a very small area. When tracing the outline for the mouth, enlarge it just a tiny bit. Although the height of the mouth will not change significantly during cutting, it is possible for the width to shrink by as much as 1/16", so concentrate on extending the width of the mouth more than the height. Mark each tooth with a number to assist with assembly. Cut a relief line above the mouth, and then cut out the top of the mouth in order to remove a section of wood. Cut down through the three lines that separate the teeth from each other. Cut through the center to remove the upper teeth,



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and then finally cut along the bottom tooth line to remove the rest. Gently sand away any rough edges. Using a thin strip of masking tape, tape all the teeth back together. (Because they are all cut at the same time, they will fit back together perfectly.)

Step 2. Use the taped teeth assembly to draw the cutlines for the lips. (When it is time for shaping, first shape the teeth as one piece while they are still taped together, then separate the teeth and place a small bevel on each edge to create shadows.)

Step 3. Continue cutting, fitting, and shaping the pieces of the dragonfly's body. Edge-glue all the pieces together. When dry, place the dragonfly body assembly on the wood for the wings, and match the wings to the body.

Step 4. Cut along the outer perimeter of each wing, and fit the four pieces to the body. Using a stationary belt sander, shape the four wing pieces so that each one shapes down towards the body and is thicker at the top than at the bottom.

Step 5. Use a pencil to draw the vein lines onto the already-shaped wing pieces. The vein lines do not have to exactly follow the pattern lines; they can be as complicated or as simple as you choose.

Step 6. Cut along each drawn line, and put a quick little bevel along every top edge. Hand sand each piece, then edge-glue all the wing pieces back together. They should fit like a glove. When dry, edge-glue the wings to the dragonfly body.

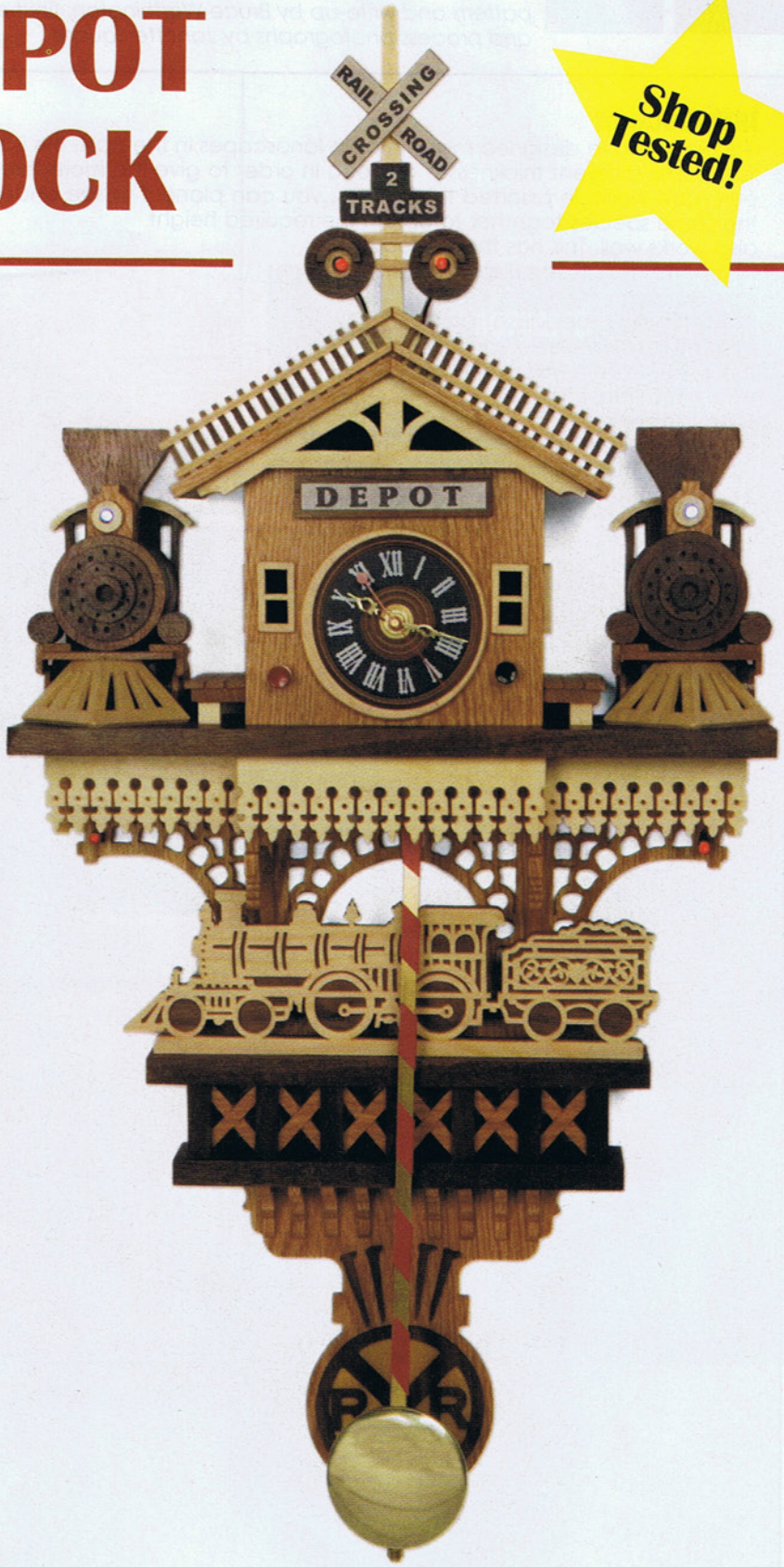
Step 7. Apply your clear finish of choice to the top and sides of the dragonfly and to the back of the burl cap. I use satin or semi-gloss spray polyurethane. (If ebony was used for the eyes and legs, prepare those surfaces by first applying a coat of shellac to them. Polyurethane will not dry over the oily surface of ebony, but shellac will. The polyurethane can then successfully be applied over the shellacked surface.) Apply at least two coats of polyurethane, and let cure for 3 to 4 days.

Step 8. Using 220-grit sandpaper, gently sand the dragonfly, concentrating on the edges. (It is much easier to sand the edges prior to attaching the dragonfly to the backer.) Use wood glue to attach the dragonfly to the upper unfinished surface of the burl cap, and clamp to secure. Watch for and remove any glue squeeze-out that might occur as the assembly dries. When dry, apply two additional coats of polyurethane to the surface of the assembly to seal the burl cap. Attach your hanger of choice to the back of the burl cap.

For questions concerning this project, send a SASE to Jeff at 11797 June Circle, Eaton Rapids, MI 48827; email him at intarsias@hotmail.com; or visit www.masterscroller.com.

TRAIN DEPOT WALL CLOCK

Shop Tested!



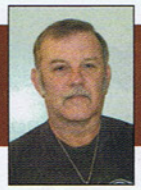
- With its realistic train sounds and flashing lights, this clock is an incredible attention-getter which has unfailingly drawn crowds at every woodworking show in which it has been displayed.
- Dimensions:
  28-1/4" H x 14" W x 4-1/4" D
- Extremely detailed plans provide color photos, all full size patterns, and many assembly drawings.
- Plans provide source for ordering ALL clockworks/ hardware components, which are not included with plan purchase.

Plan price: $15.95
plus $2.00 Shipping

To Order:

To Order: Specify "Train Clock." Send check or money order (and make payable) to All American Crafts, 7 Waterloo Rd., Stanhope, N.J. 07874, Attention R. Becker. By phone: call 973-347-6900, extension 141, and ask for Marie; have your credit card (MasterCard, Amex, Visa) ready. U.S. funds only.

Pattern Located in Full Size Pattern Section No. 1

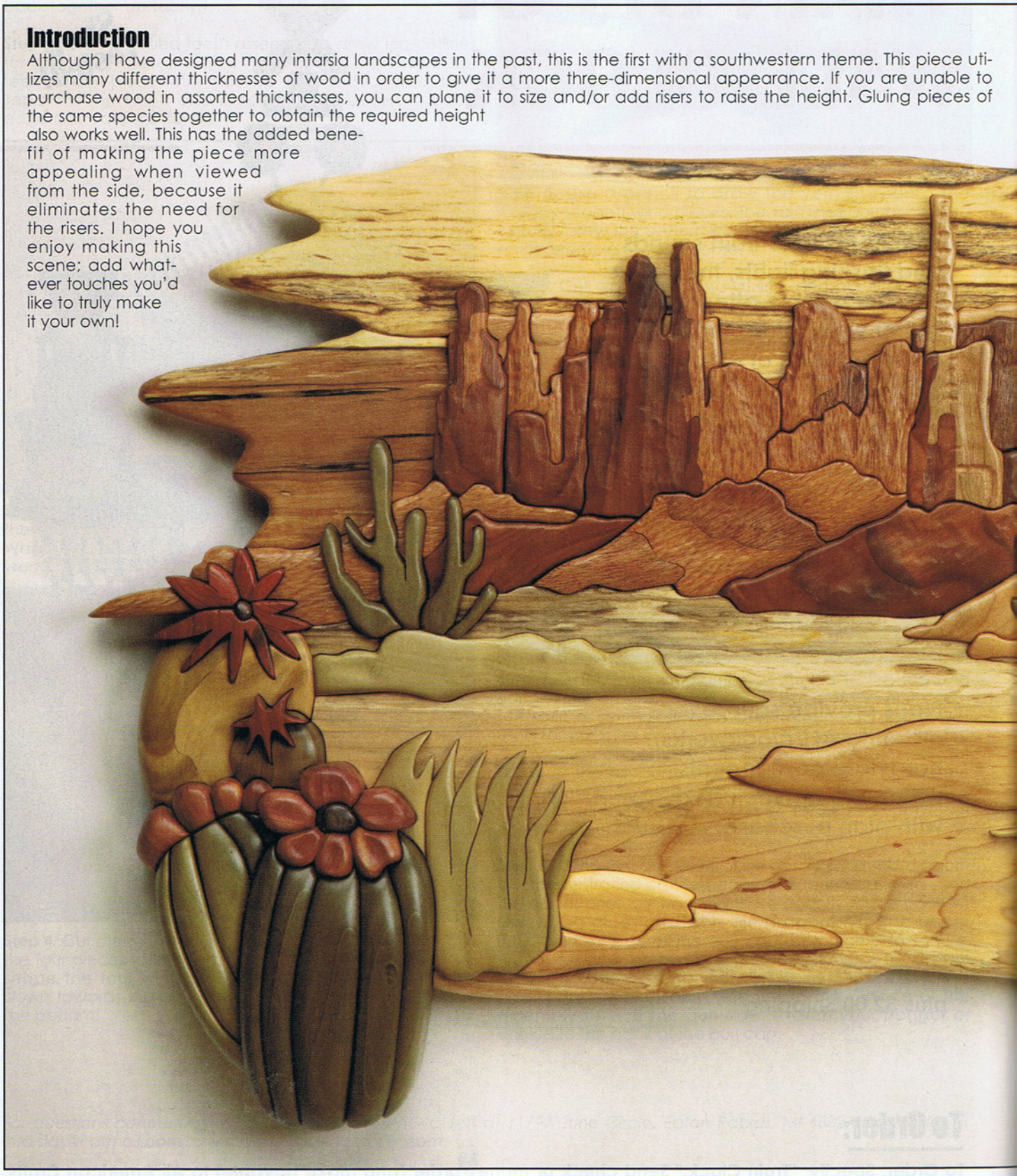


Southwest Landscape

pattern and write-up by Bruce Worthington; finished piece and process photographs by Janette Square

Introduction

Although I have designed many intarsia landscapes in the past, this is the first with a southwestern theme. This piece utilizes many different thicknesses of wood in order to give it a more three-dimensional appearance. If you are unable to purchase wood in assorted thicknesses, you can plane it to size and/or add risers to raise the height. Gluing pieces of the same species together to obtain the required height also works well. This has the added benefit of making the piece more appealing when viewed from the side, because it eliminates the need for the risers. I hope you enjoy making this scene; add whatever touches you'd like to truly make it your own!



SUPPLIES

Wood*: *1/2"- to 3/4"-thick pieces of: alder* (for piles of sand); *cherry* (for background and mountains); *green cherry* (for lighter cactus towards back); *lacewood* (for background and mountains); *mahogany, in two shades* (for background, mountains, and cactus on center right); *padauk* (for flowers); *poplar* (for cactus); *redwood* (for background and mountains); *spalted maple* (for sand and sky); *Tennessee cedar* (for flowers); *walnut* (for flower centers); *Baltic birch plywood*—one piece 1/8" x 14-1/2" x 21" (for backer)

Tools: scroll saw with assorted blades (No. 5 and No. 7 blades were used for the majority of the cuts); assorted sanders, including: belt sander, oscillating spindle sander, inflatable drum sander, and detail sander; rotary tool with assorted attachments

Temporary-bond spray adhesive

Clear packing tape

Fine-grit sandpaper

Wood glue

Black permanent-ink marker

Wipe-on urethane or finish of choice

**All listed woods are suggestions only. They were chosen for their color and grain configuration, and can easily be substituted with other wood species having similar colors or grain. Wood thicknesses can vary as desired. For design elements such as the cactus near the front of the landscape, 1" or thicker pieces are suggested; glue up pieces of wood to achieve this height.*

Please refer to all manufacturer's labels for proper product usage.

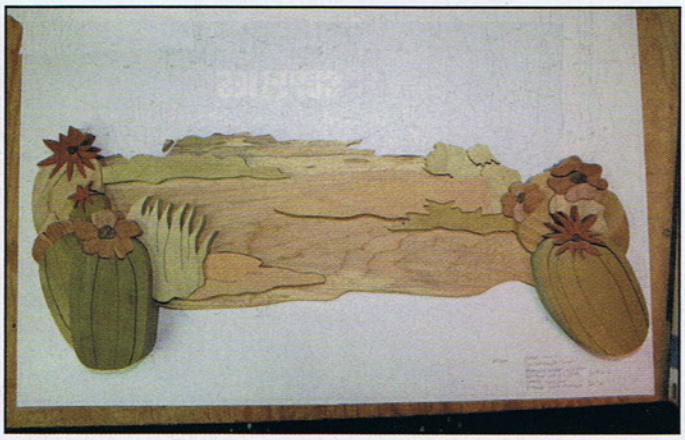
continued on page 74

continued from page 73

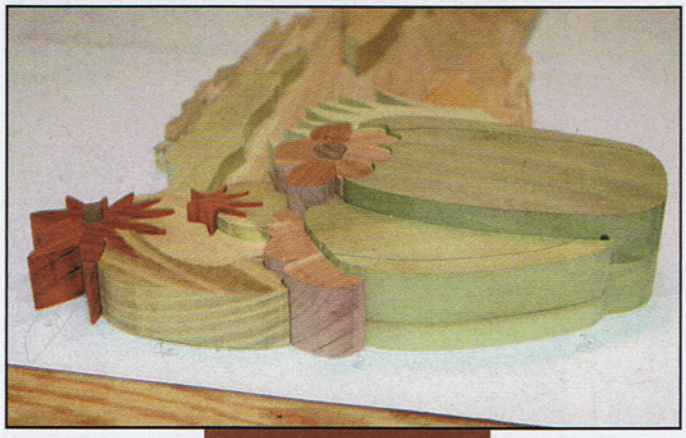
INSTRUCTIONS

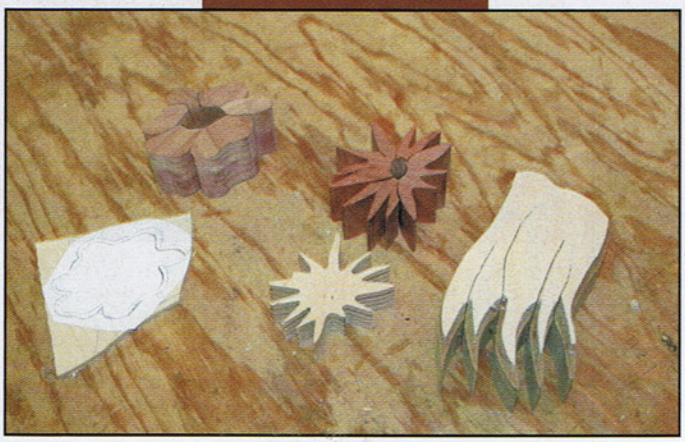
Cutting:

Step 1. Make several photocopies of the pattern, saving the original for future use. Apply clear packing tape to the assorted pieces of wood. Using temporary-bond spray adhesive, attach the pattern sections to the appropriate work pieces, paying attention to the grain direction. (This is our preferred method of pattern transfer. However, feel free to use carbon paper and tracing paper to transfer the pattern, if you prefer.)

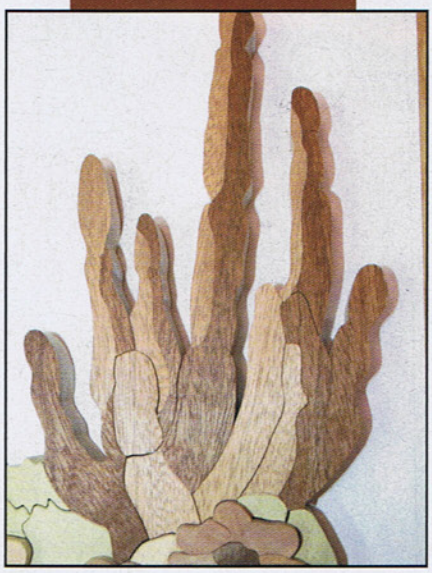


Step 2. Begin cutting elements starting from the "front" of the design.

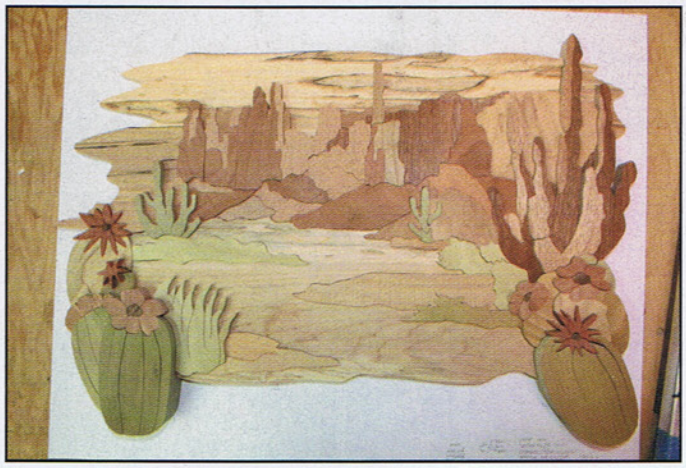




Step 3. Note the range of wood thicknesses and the placement of risers used for the cactus and flowers.



Step 4. When constructing the tall cactus along the right side of the pattern, cut the pieces from two shades of wood, and edge-glue them together before shaping. This provides the correct shape for the cactus, and eliminates a distinct line between the two shades of wood.

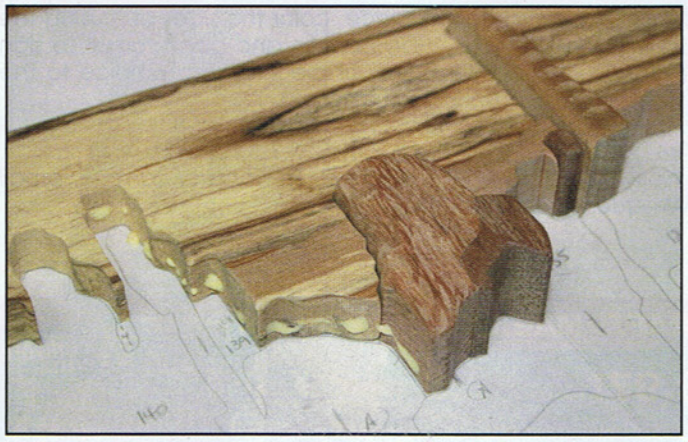


Step 5. The mountains are comprised of several types of wood. (Cherry, lacewood, and mahogany were used in the model shown.) Work one species at a time until all the background has been filled in.

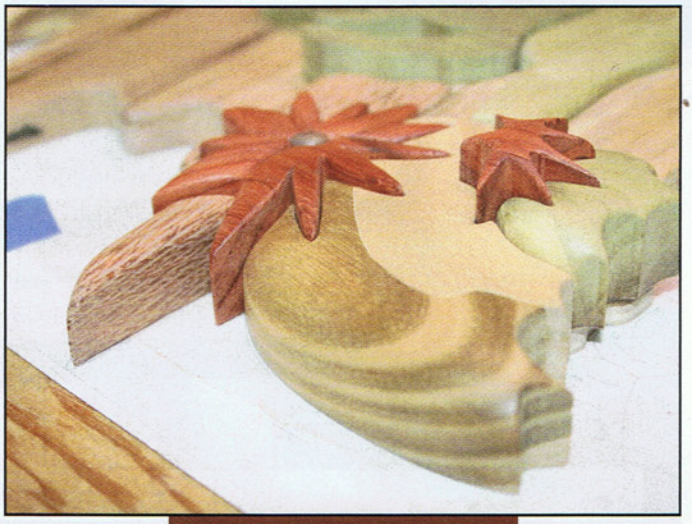
Step 6. This photo shows the many different thicknesses of wood used, helping to create the three-dimensional appearance of the finished piece.

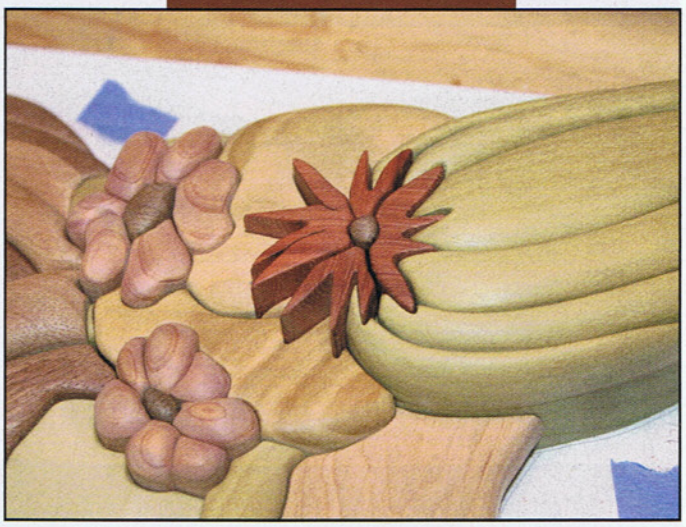
Shaping and finishing:

Step 7. Texturing the mountains is a good way to make them more realistic looking. A rotary tool fitted with a shaping bit was used to carve some texture into a number of the mountain pieces.

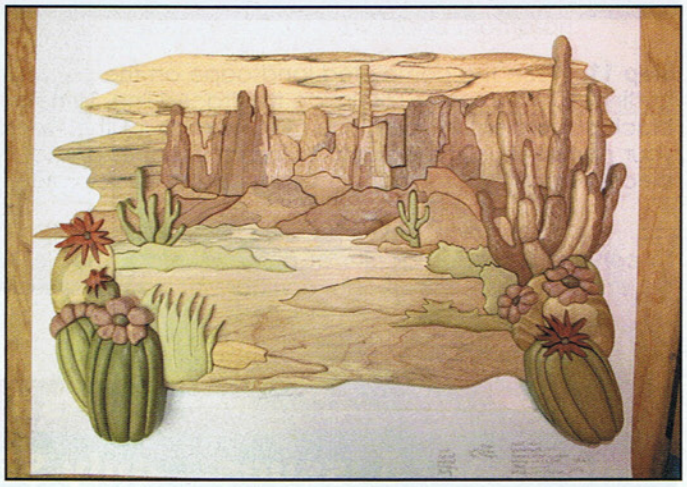


Step 8. Edge-gluing your pieces together as you shape them will aid in keeping your finished piece from shifting, as well as providing a better final fit.





Step 9. Certain pieces, such as the flowers, should retain their sharp edges in order to help them stand out from the adjacent pieces.



Step 10. At this stage, all shaping and edge-gluing should be complete.

continued on page 76

continued from page 75

The landscape is shown viewed from several angles in order to provide a better feel for the assorted thicknesses of woods used, and the relationship of certain pieces to their adjacent ones.

Step 11. Place the completed landscape on the plywood, and trace the perimeter of the design. Cut out the backer, cutting approximately 1/4" inside the traced line. To help the backer blend into the piece, color the sides of it using the black permanent-ink pen. You may want to list the woods used in the project on the backer, and don't forget to sign your name! Glue the backer to the landscape, and allow to dry completely. Apply your clear finish of choice to the piece. Attach a sturdy hanger to the center back in order to display your completed landscape.

To contact Bruce, email him at brucew@intarsia.net, or visit his website at www.intarsia.net. To contact Janette, email her at jsquare@square-designs.com, or visit her website at www.square-designs.com.

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A Sneak Peek from our July Issue on sale May 18th!

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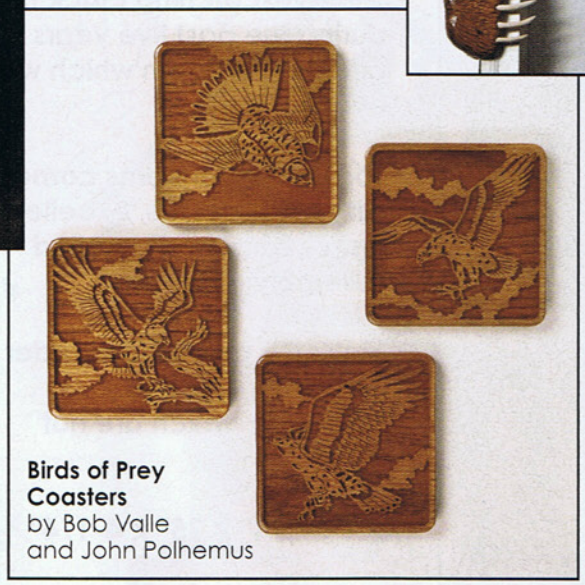
by Wayne and Jacob Fowler

Bear Door Topper
by Deb Nicholson

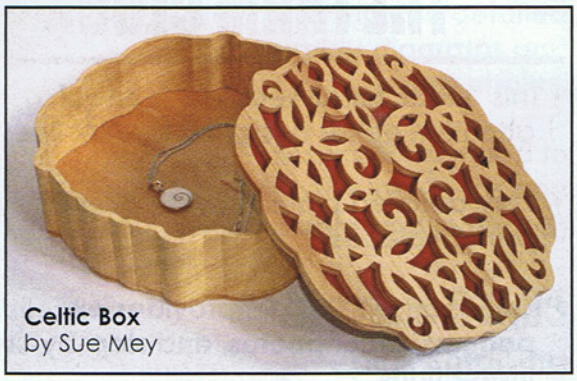


Birds of Prey Coasters
by Bob Valle and John Polhemus

Birdhouse Feeder
by Diana Thompson

Cattail
by Janette Square and Bruce Worthington

Pen Holder
by Roy King



Celtic Box
by Sue Mey

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CREATIVE Woodworks & CRAFTS

FULL SIZE PATTERN SECTION NO. 1 JUNE 2010

Side A

Crowley Shelf Bracket.....from page 54
Miniature Trinket Boxes.....from page 10
Old Red Barn Storage Chest.....from page 28
Pen and Pencil Boxes.....from page 48

Side B

Egret at Sunset.....from page 20
Macho Dragonfly.....from page 68
Nursery Tales.....from page 40
Southwest Landscape.....from page 72

Metric Conversions:

1 inch = 25.4mm = 2.54cm = 0.0254m

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

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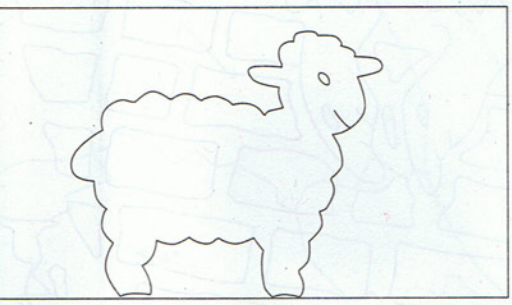
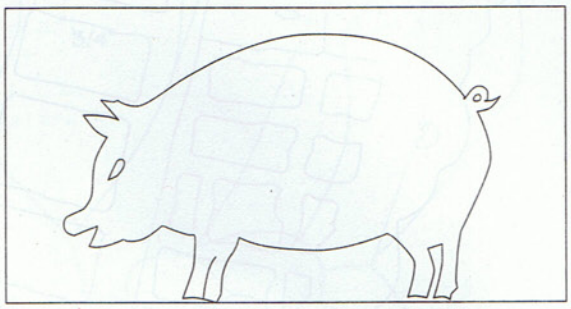
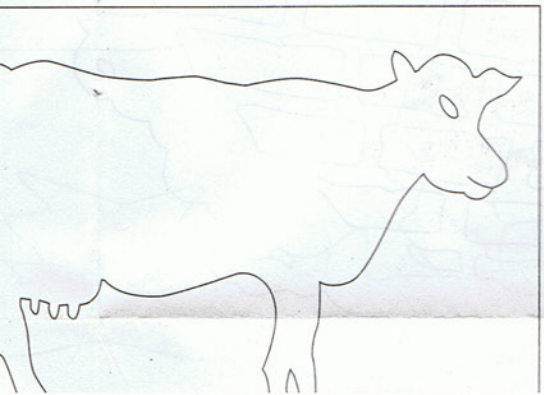
Old Red Barn Drawer Fronts and Animal Overlays

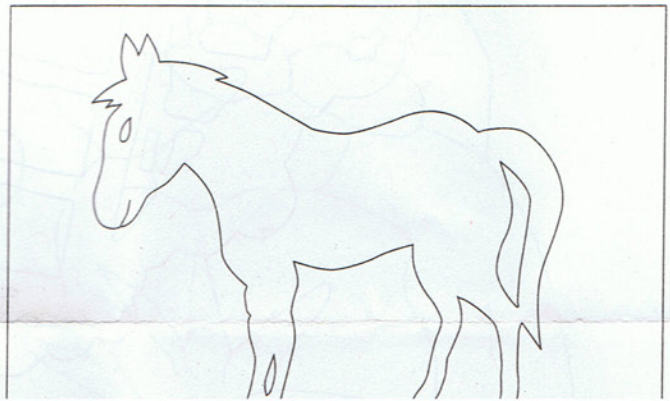


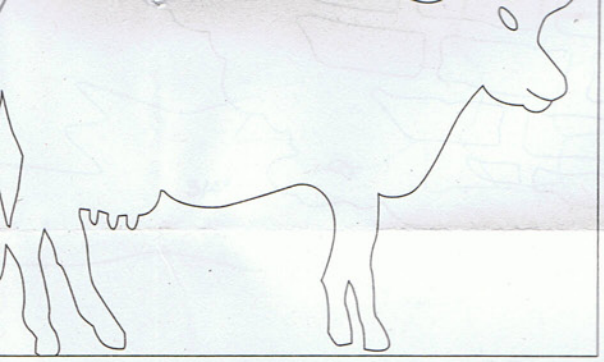
Cut along rectangular perimeter for drawer fronts

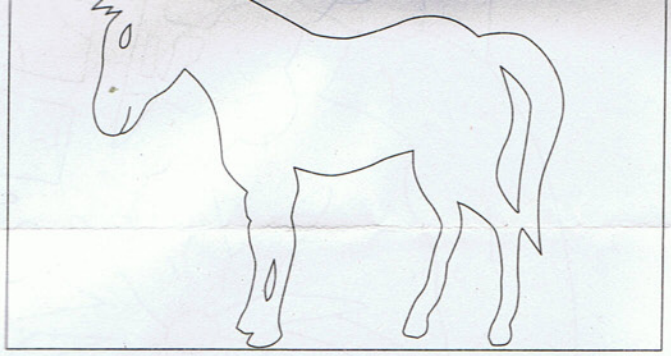


Cut along perimeter of animals for the overlays









Red Barn Storage Chest
Full Size Patterns

Old Red Barn Layers 1-6

Hayloft Opening

Cut all openings on Layer 1

Cut the four drawer openings on Layers 2-5;
do not cut the hayloft opening on Layers 2-5

Do not cut any openings on the back layer (Layer 6)

Small Drawer Opening

Small Drawer Opening

Large Drawer Opening

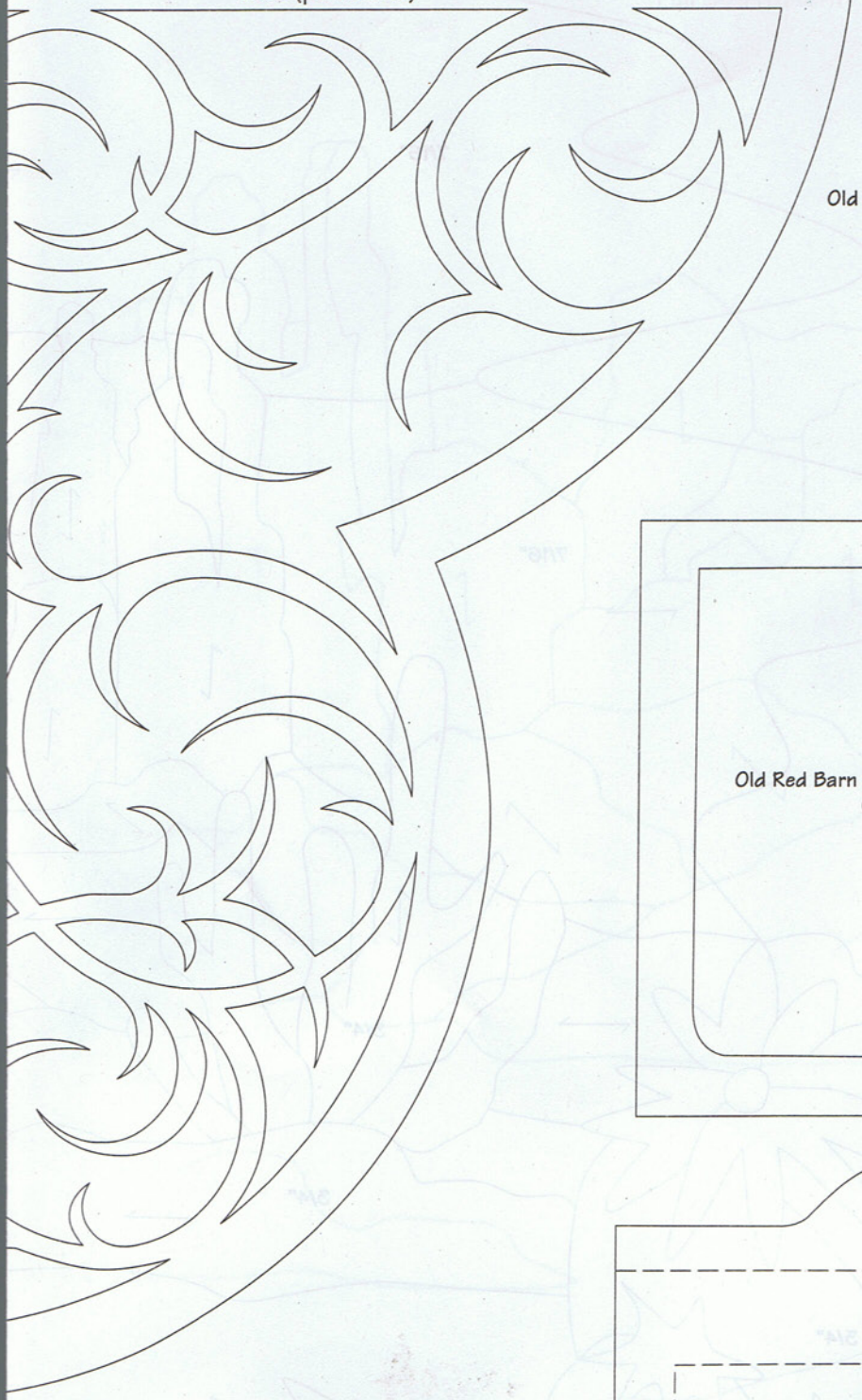
Large Drawer Opening

Crowley Shelf Bracket
Fretwork Support Spacer

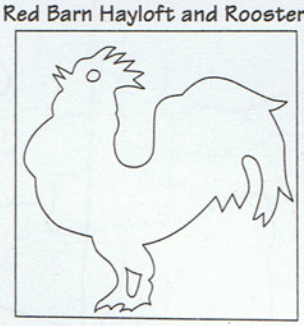
Cut 2 (per bracket)

Crowley Shelf Bracket

Fretwork Support
Cut 3 (per bracket)

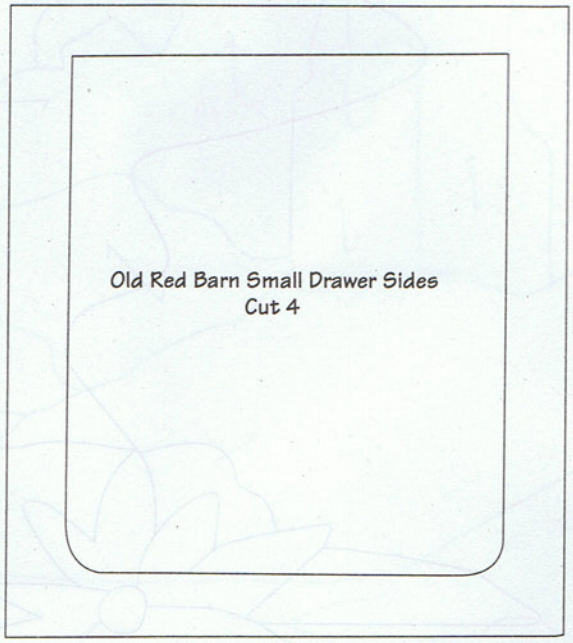


Old Red Barn Hayloft and Rooster Overlay

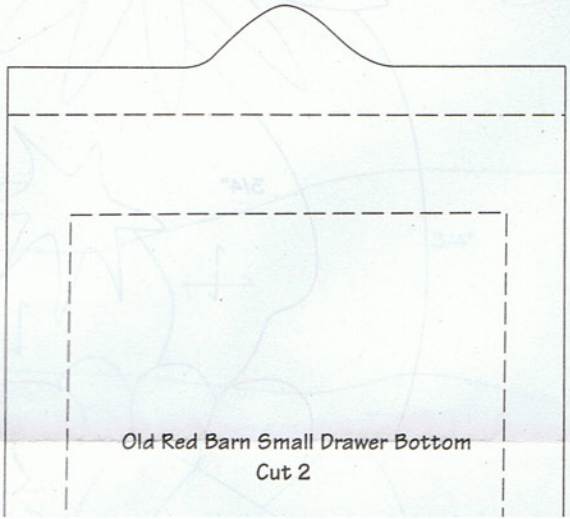


Cut along perimeter of rooster for overlay

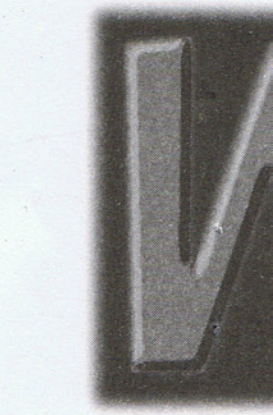
Cut along square perimeter for hayloft



Old Red Barn Small Drawer Sides
Cut 4



Old Red Barn Small Drawer Bottom
Cut 2



F

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Old Red Barn Small Drawer Bottom
Cut 2

Dotted lines represent placement
of drawer sides on drawer bottom

Old Red Barn Stora
Full Size Patte

Drill opening using
1-1/8" forstner bit

Round Box Lid

Drill opening using
1-1/8" forstner bit

Drill hole for handle
using 5/64" drill bit

Old Red Barn Large Drawer Sides
Cut 6

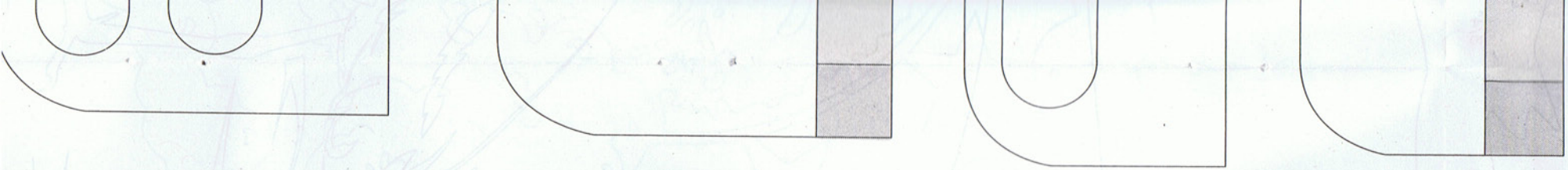
Small Drawer

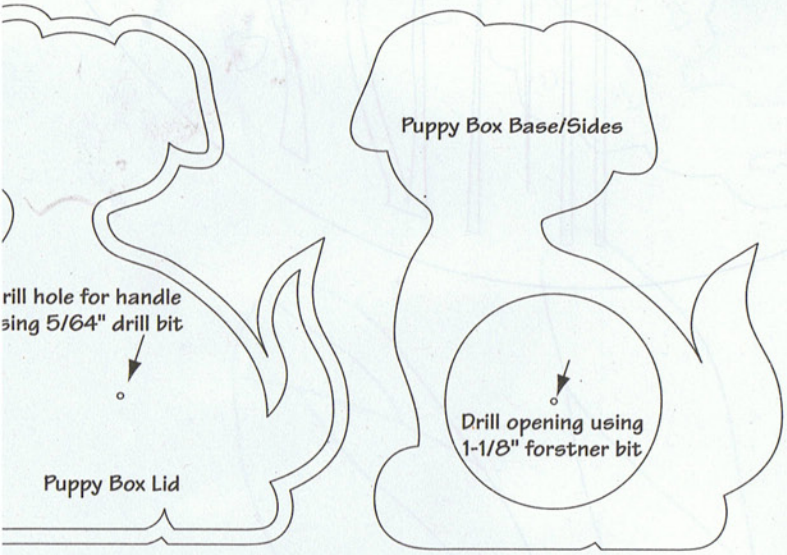
Large Drawer

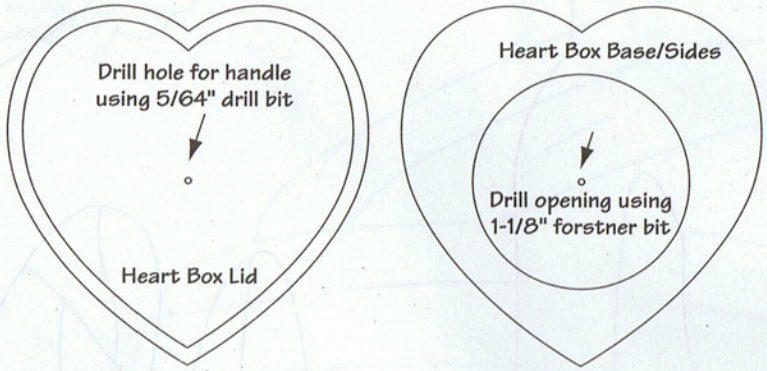
Old Red Barn Large Drawer Bottom
Cut 2

Dotted lines represent placement
of drawer sides on drawer bottom

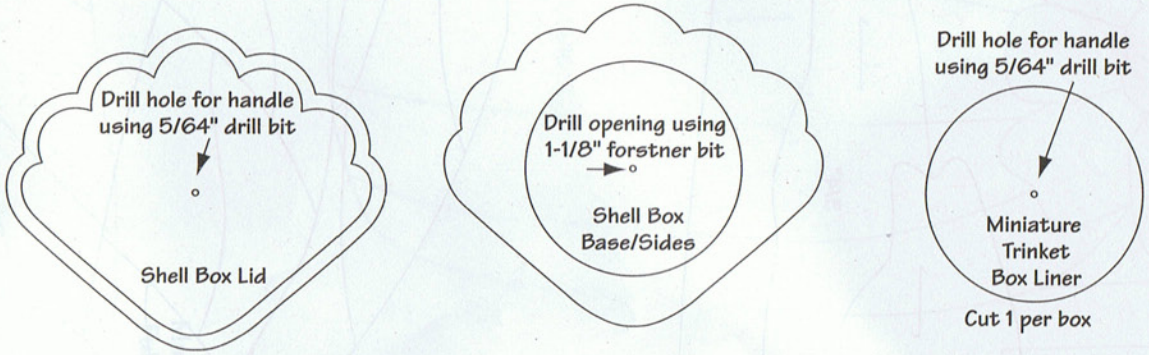
Crowley Shelf Bracket
Full Size Patterns







Miniature Trinket Boxes
Full Size Patterns



Crowley Shelf Bracket
Bracket Top Assembly

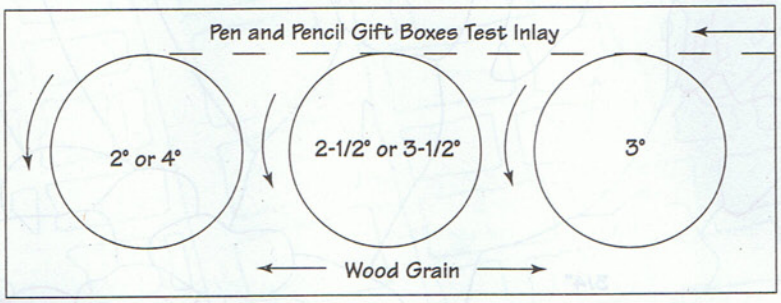
Top Layer/Middle Layer/Bottom Layer
Cut 1 layer each (per bracket)

Cut along this line for Middle Layer

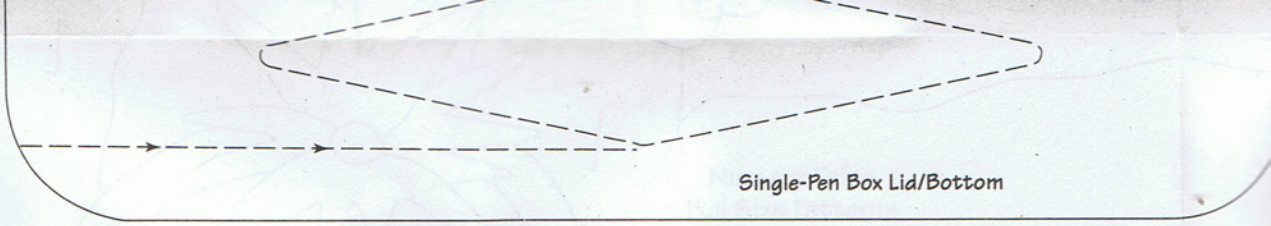
Cut along this line for Bottom Layer

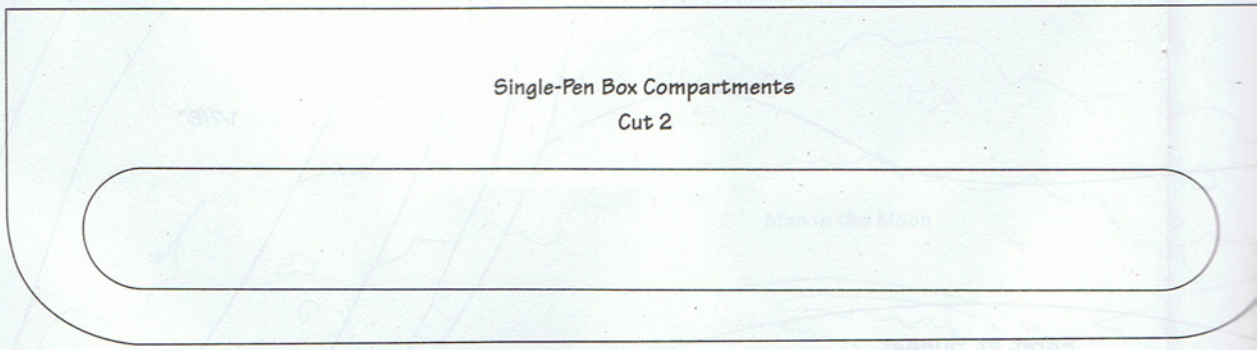
Cut along this line for Top Layer

Pen and Pencil Gift Boxes
Full Size Patterns

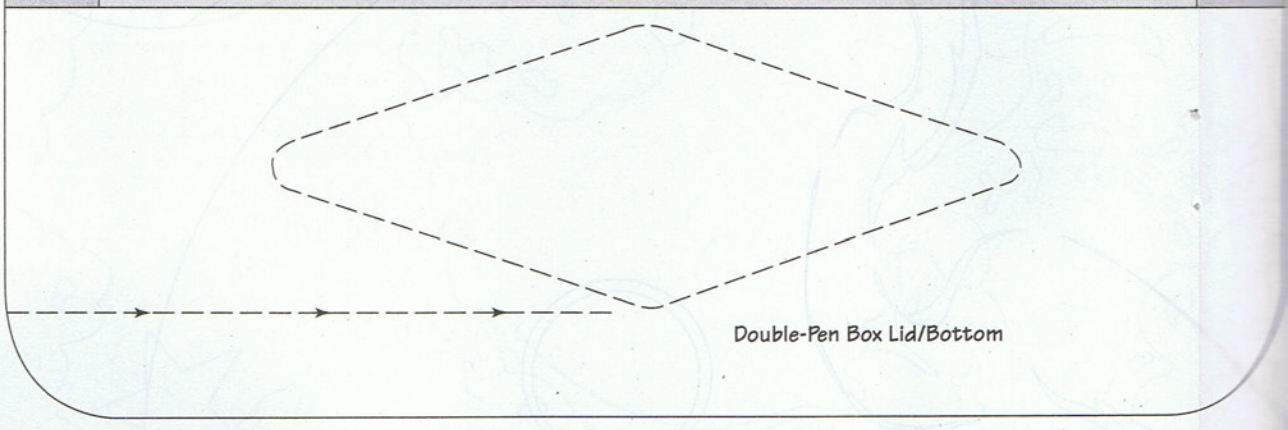


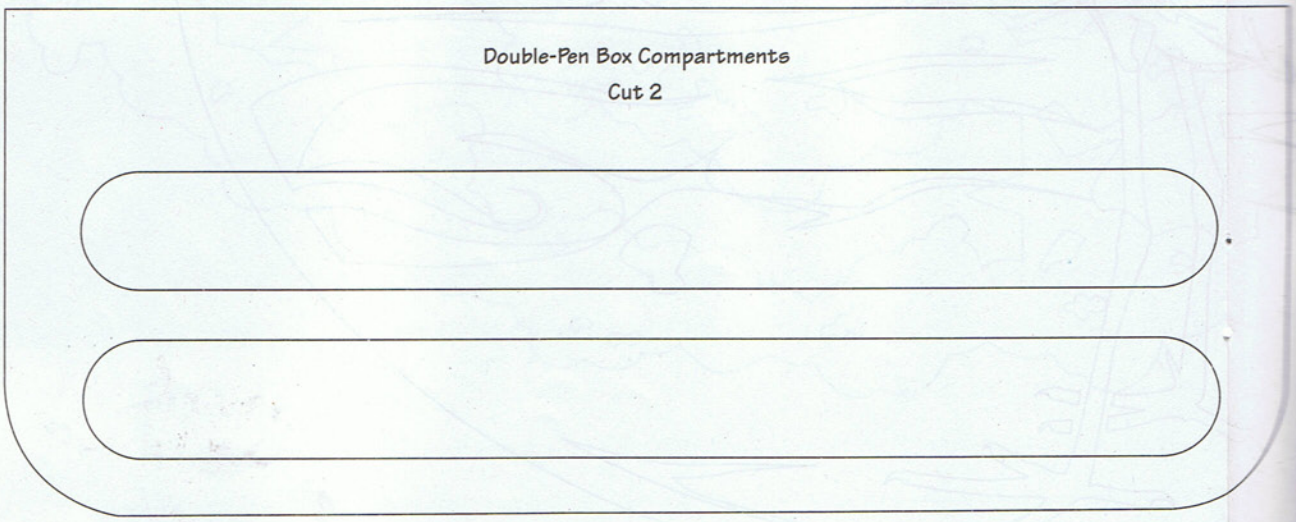
Retain center hinge portion on Lid; cut away end pieces of hinge on Lid.
Retain end pieces of hinge on Bottom; cut away center section of hinge on Bottom.

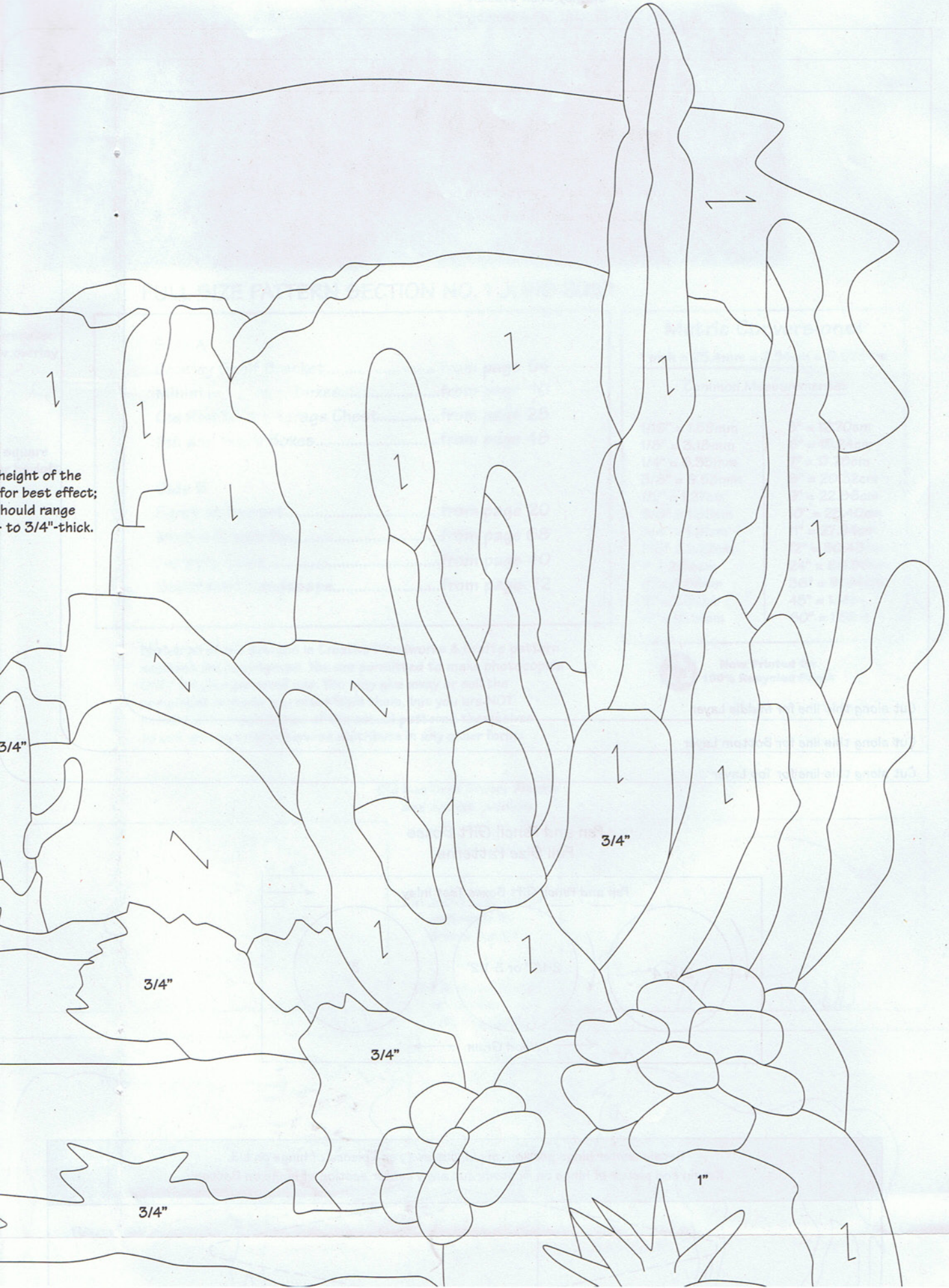


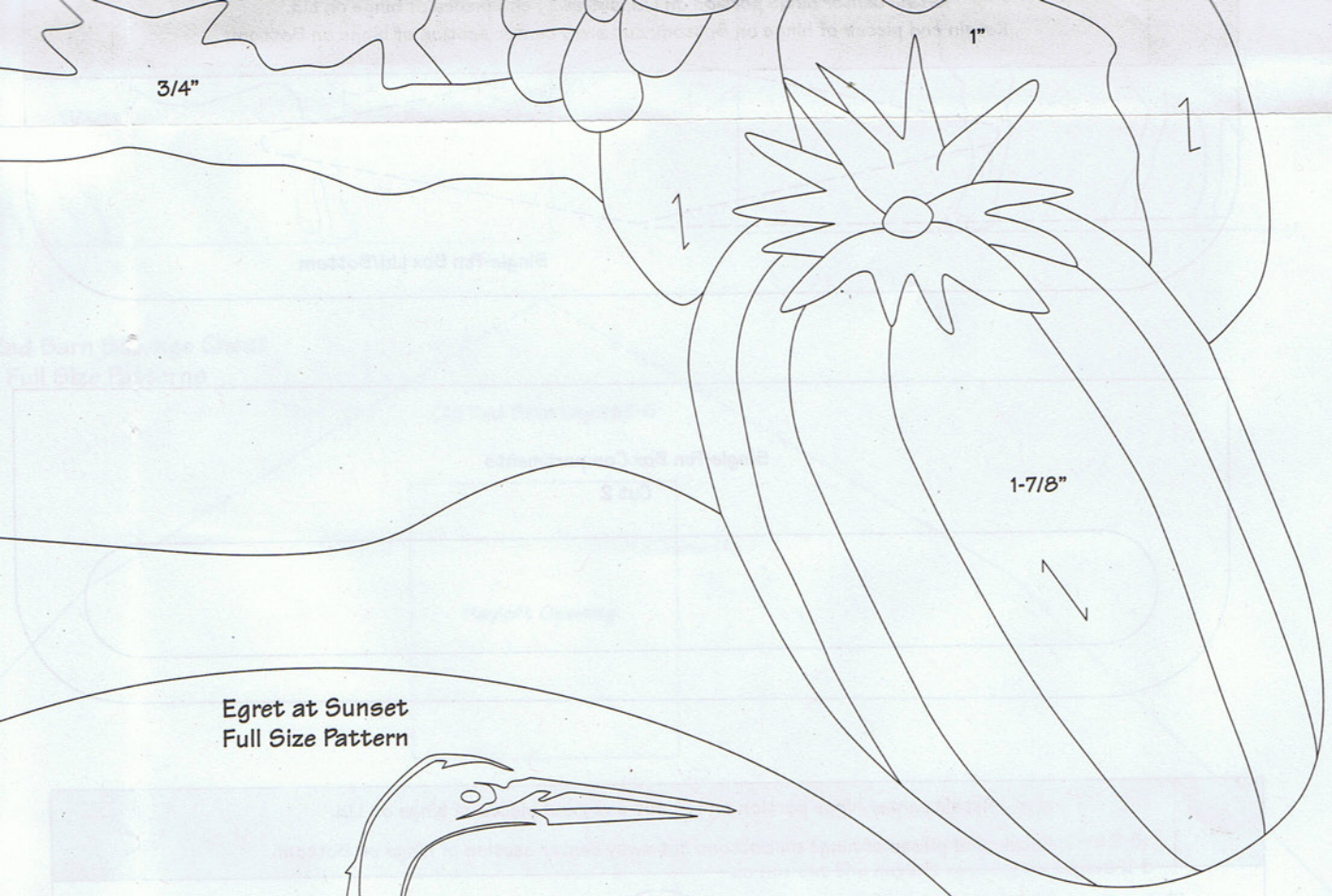


Retain center hinge portion on Lid; cut away end pieces of hinge on Lid.
Retain end pieces of hinge on Bottom; cut away center section of hinge on Bottom.

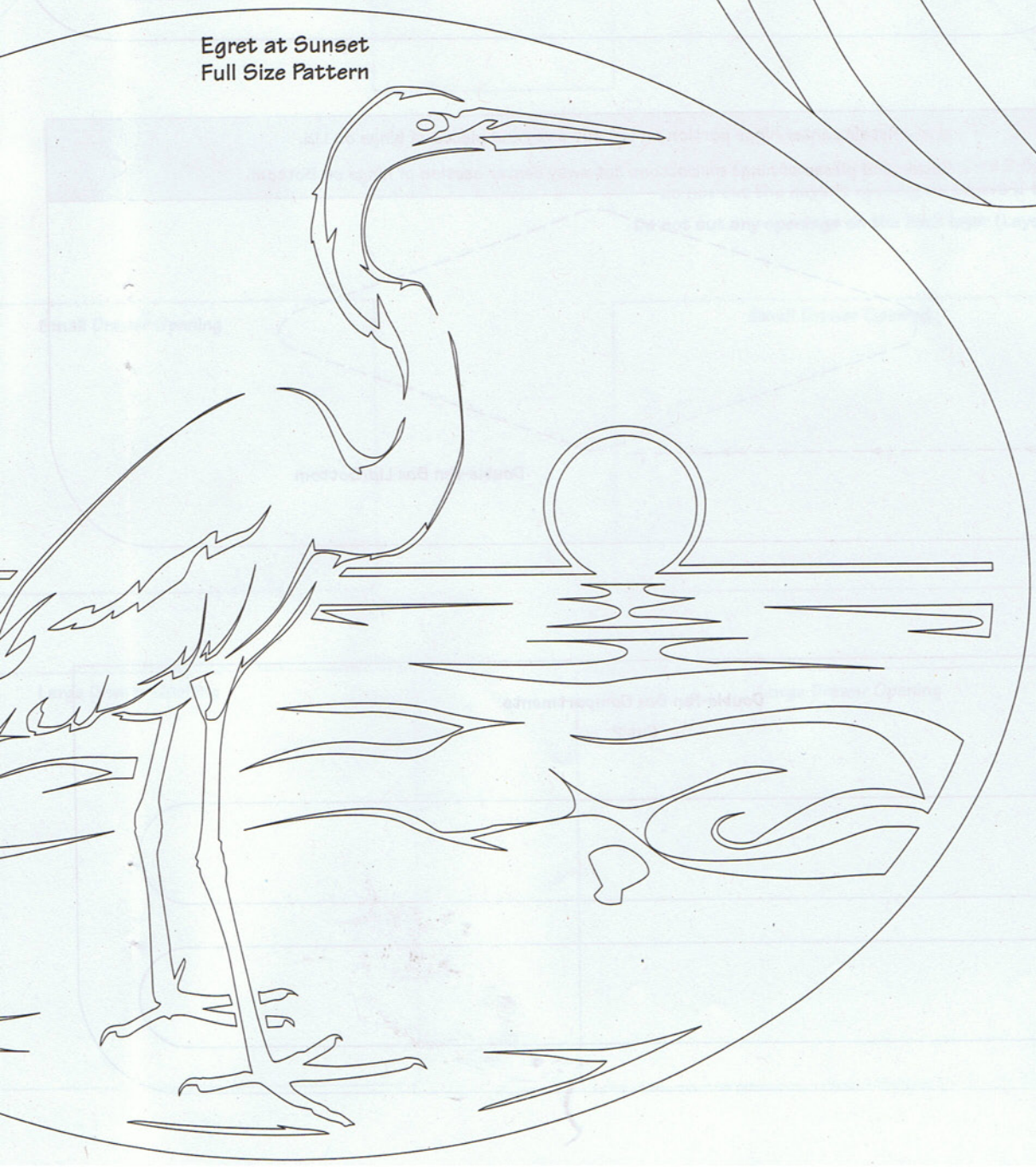




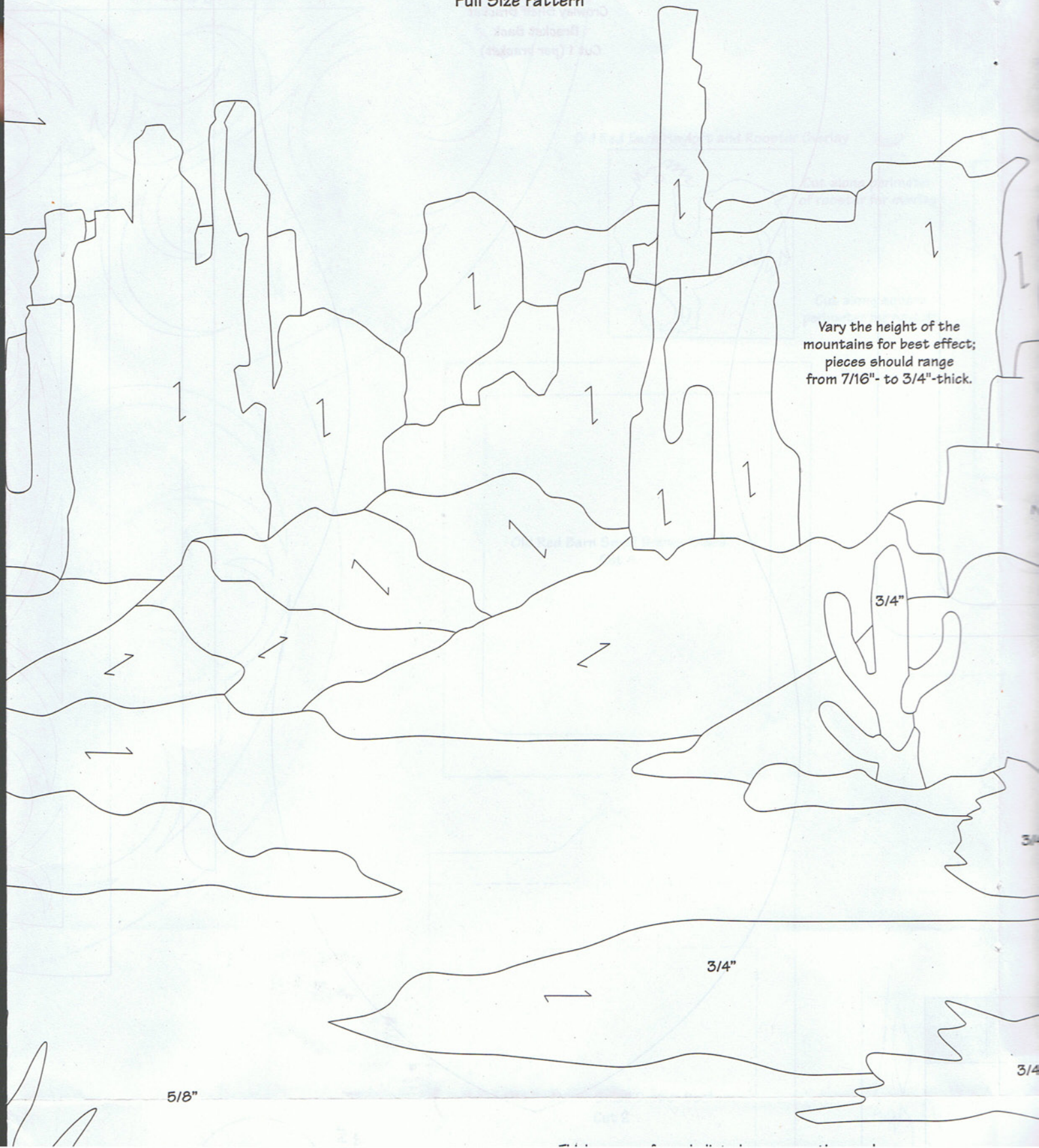

height of the
for best effect;
hould range
to 3/4"-thick.
3/4"
3/4"
3/4"
3/4"
3/4"
3/4"
1"

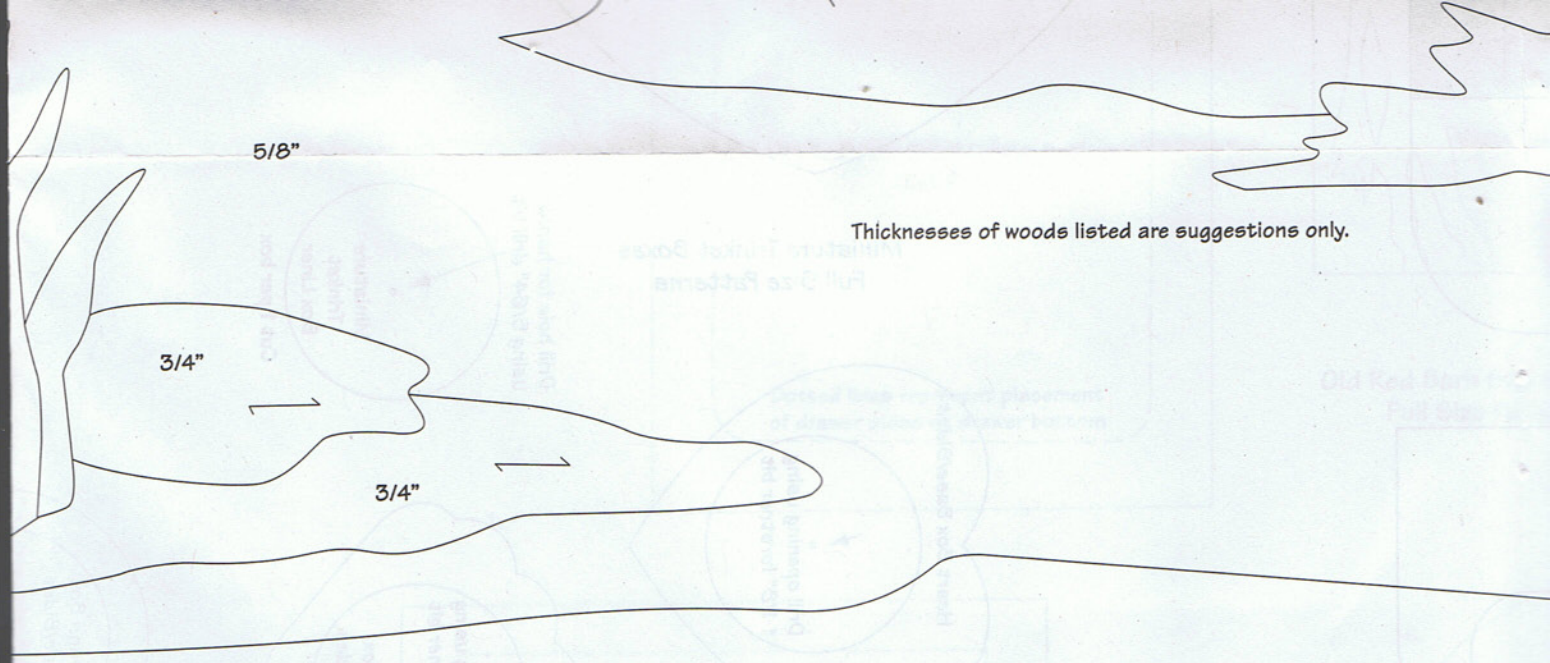


Egret at Sunset
Full Size Pattern

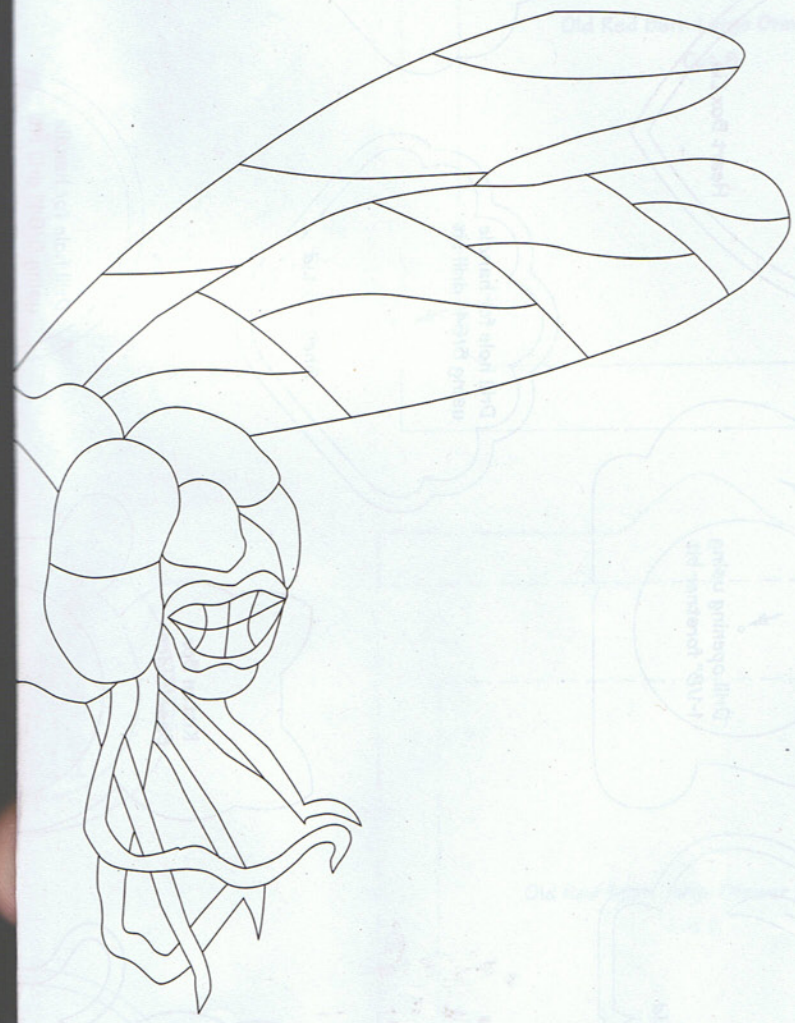


Southwest Landscape
Full Size Pattern

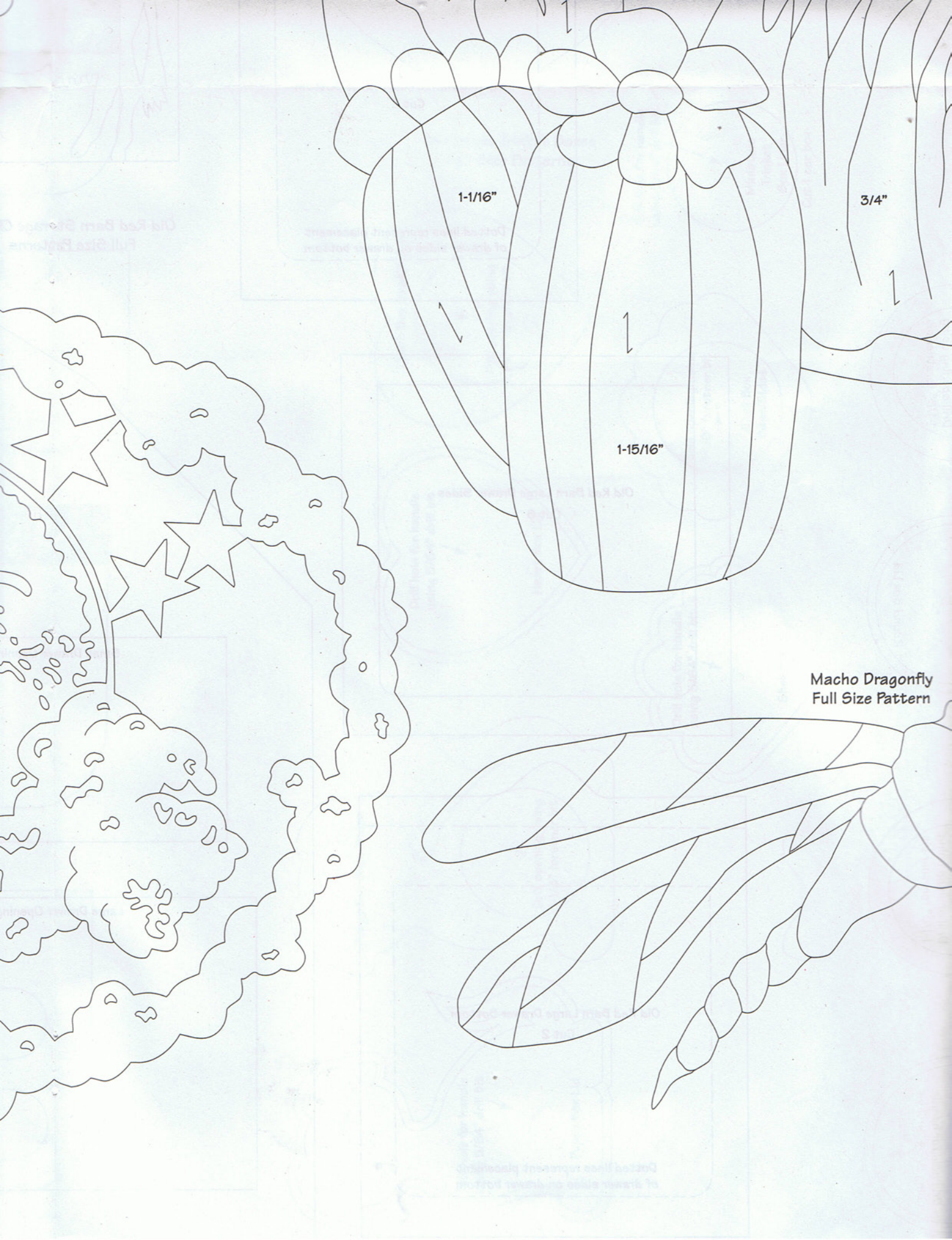


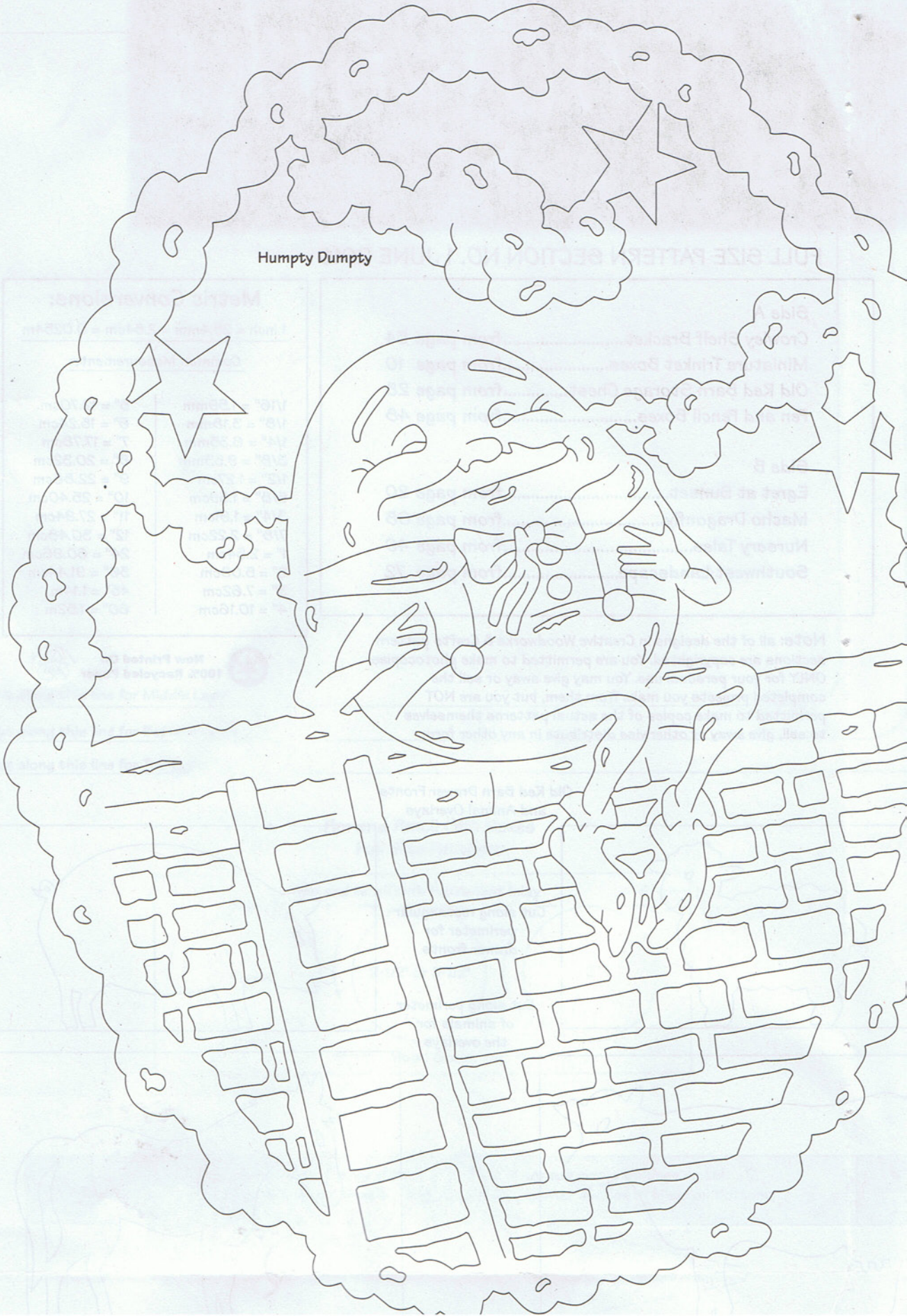


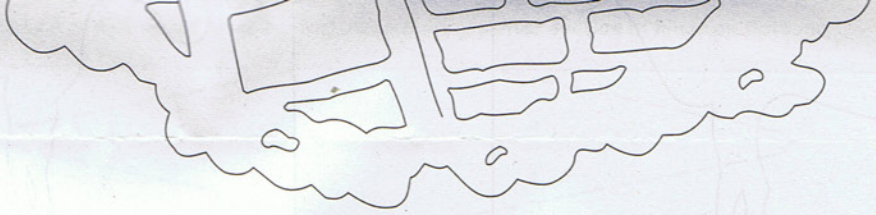
Thicknesses of woods listed are suggestions only.



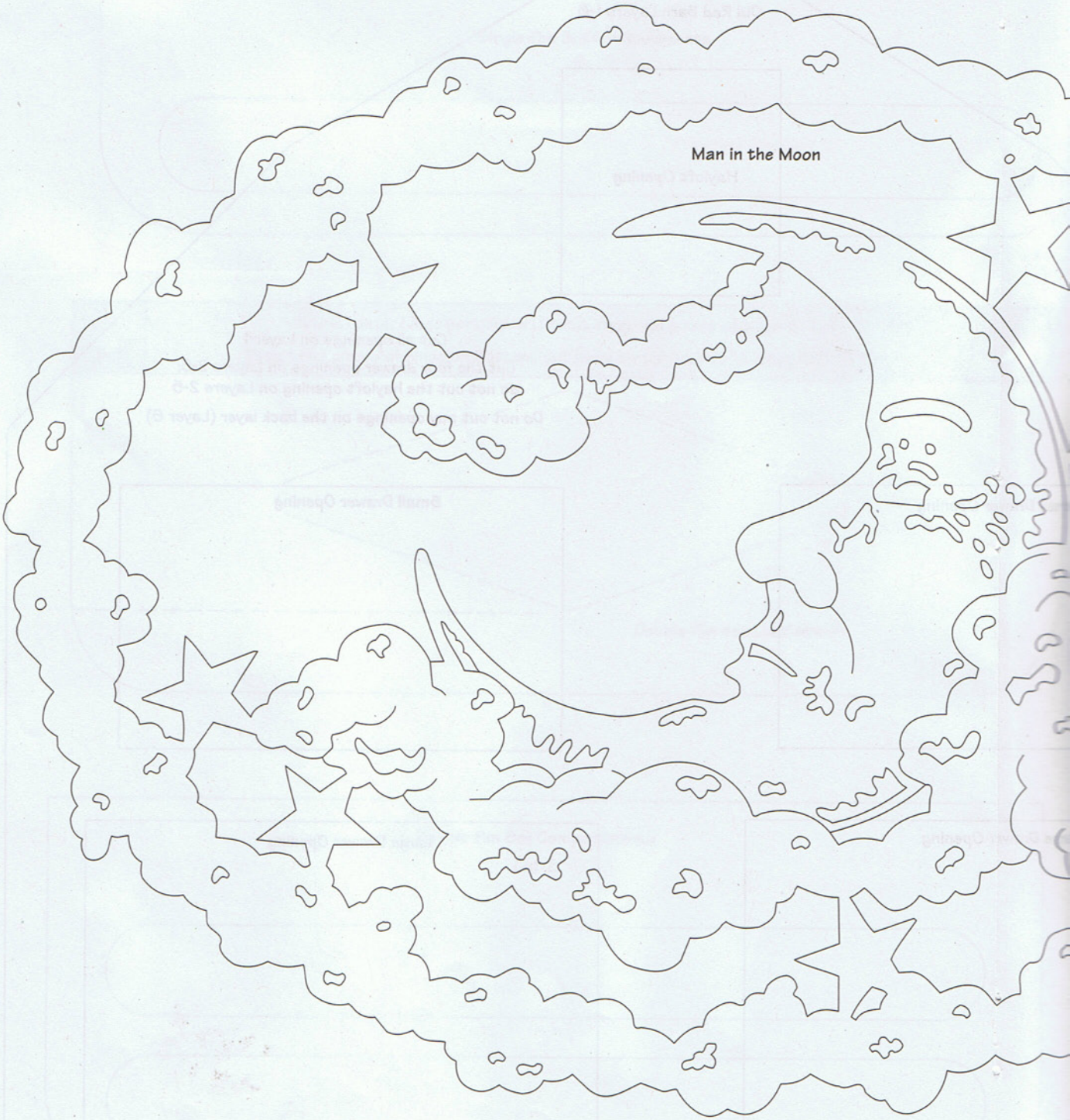
7/16"
7/16"
3/4"
3/4"
3/4"


1-1/16"
3/4"
1-15/16"
Macho Dragonfly
Full Size Pattern


Humpty Dumpty



Nursery Tales
Full Size Patterns



CREATIVE Woodworks & CRAFTS

FULL SIZE PATTERN SECTION NO. 2 JUNE 2010

Side A

Bison and Calf.....from page 6
Daisy Pen Box.....from page 57
Dressing Table Mirror.....from page 43
Koi Bowl.....from page 64

Side B

The Cougar.....from page 51
Cross Plaque.....from page 22
In For a Landing.....from page 34
Fret Key Plaque.....from page 16
Wedding Frame.....from page 14

Metric Conversions:

1 inch = 25.4mm = 2.54cm = 0.0254m

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

Note: all of the designs in Creative Woodworks & Crafts pattern sections are copyrighted. You are permitted to make photocopies ONLY for your personal use. You may give away or sell the completed projects you make from them, but you are NOT permitted to make copies of the actual patterns themselves to sell, give away or otherwise distribute in any other form.

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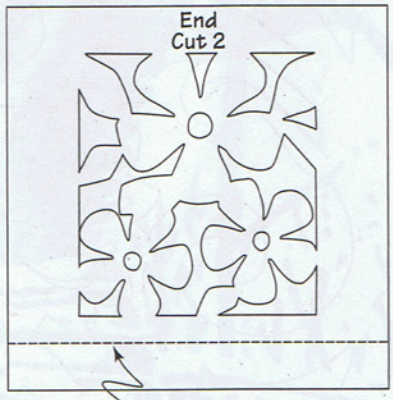
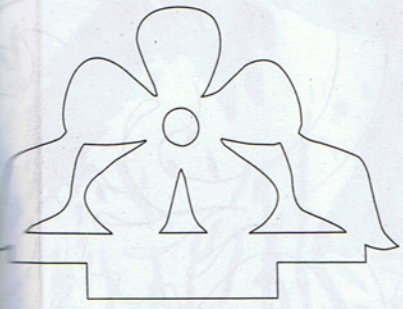
Daisy Pen Box



Dotted lines represent placement of end on base

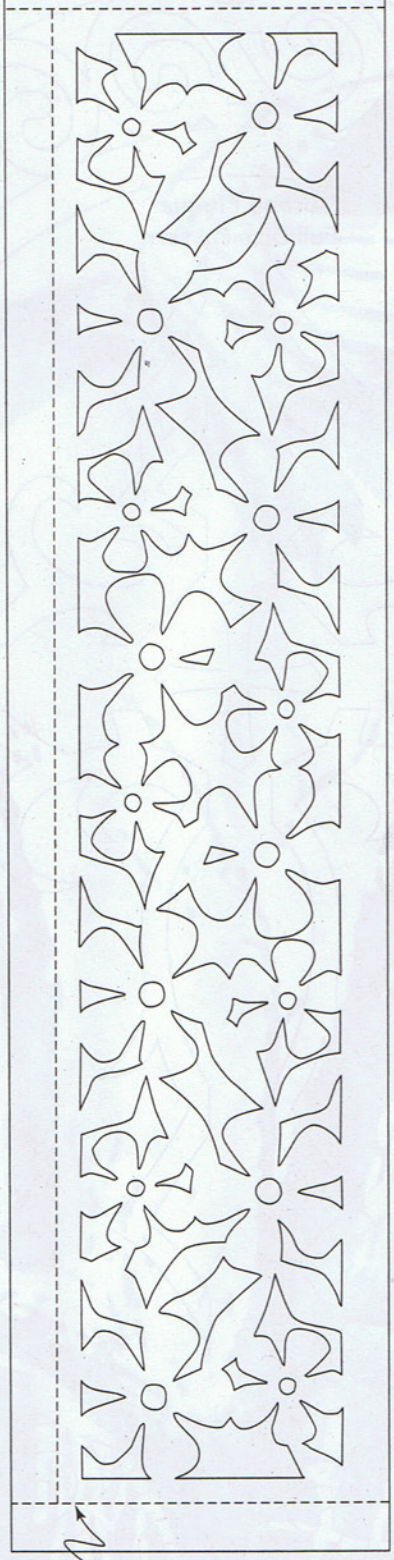


Daisy Pen Box Handle

Koi Bowl
Full Size Pattern

Daisy Pen Box
Side

Cut 2



Dotted lines represent placement of side on base and ends

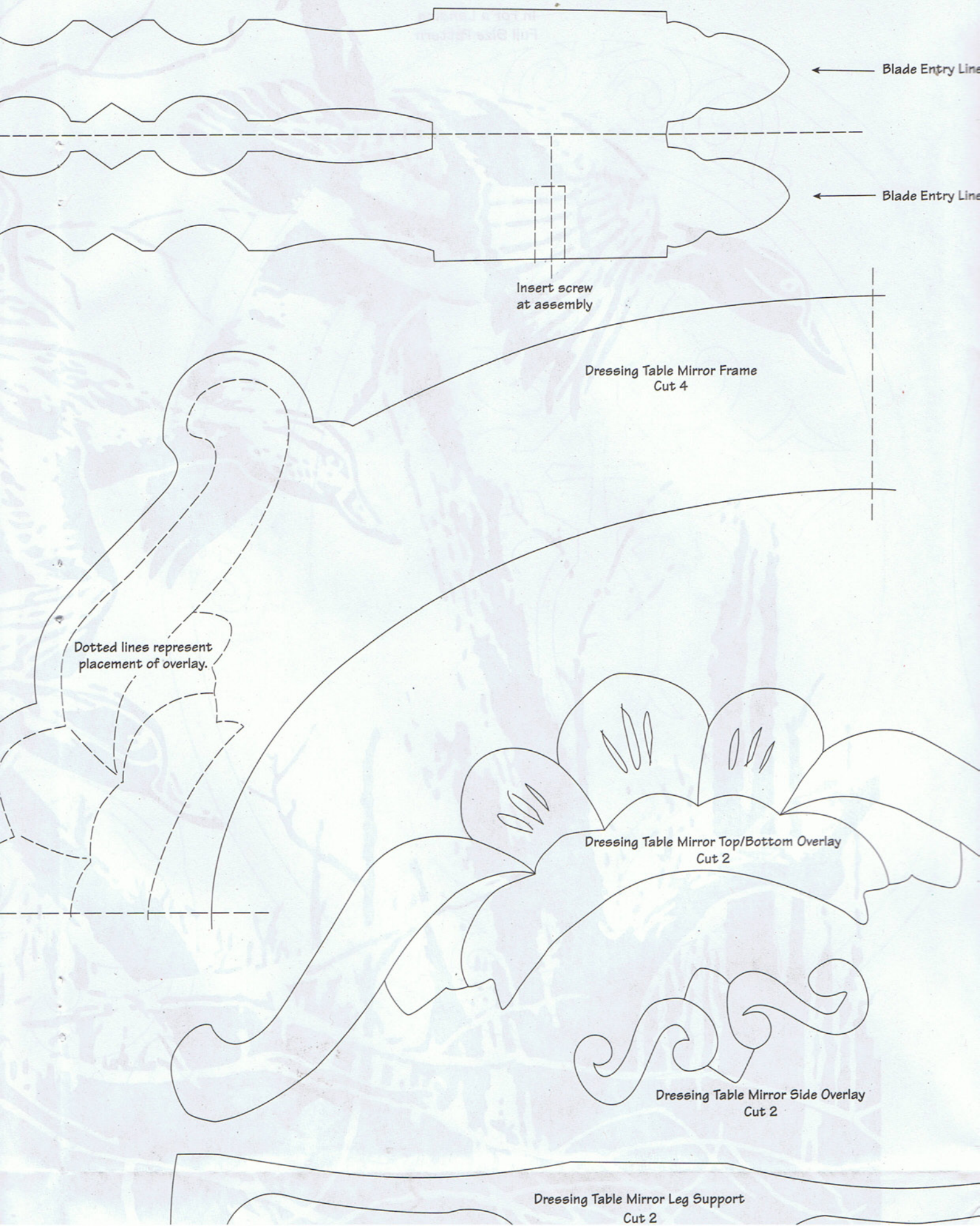
Cut along perimeter for Lid

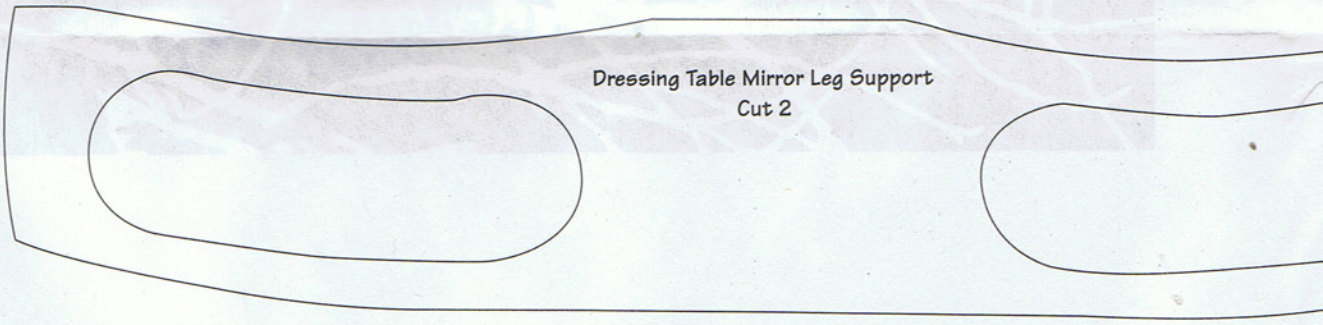
Cut along interior dashed line for Base and Inner Lid

Daisy Pen Box Lid/Base/Inner Lid

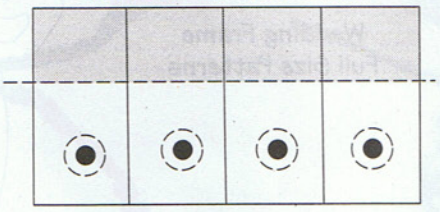
Cut lid handle hole opening in lid only

Daisy Pen Box
Full Size Patterns


Blade Entry Line
Blade Entry Line
Insert screw
at assembly
Dressing Table Mirror Frame
Cut 4
Dotted lines represent
placement of overlay.
Dressing Table Mirror Top/Bottom Overlay
Cut 2
Dressing Table Mirror Side Overlay
Cut 2
Dressing Table Mirror Leg Support
Cut 2



Dressing Table Mirror Leg Support
Cut 2



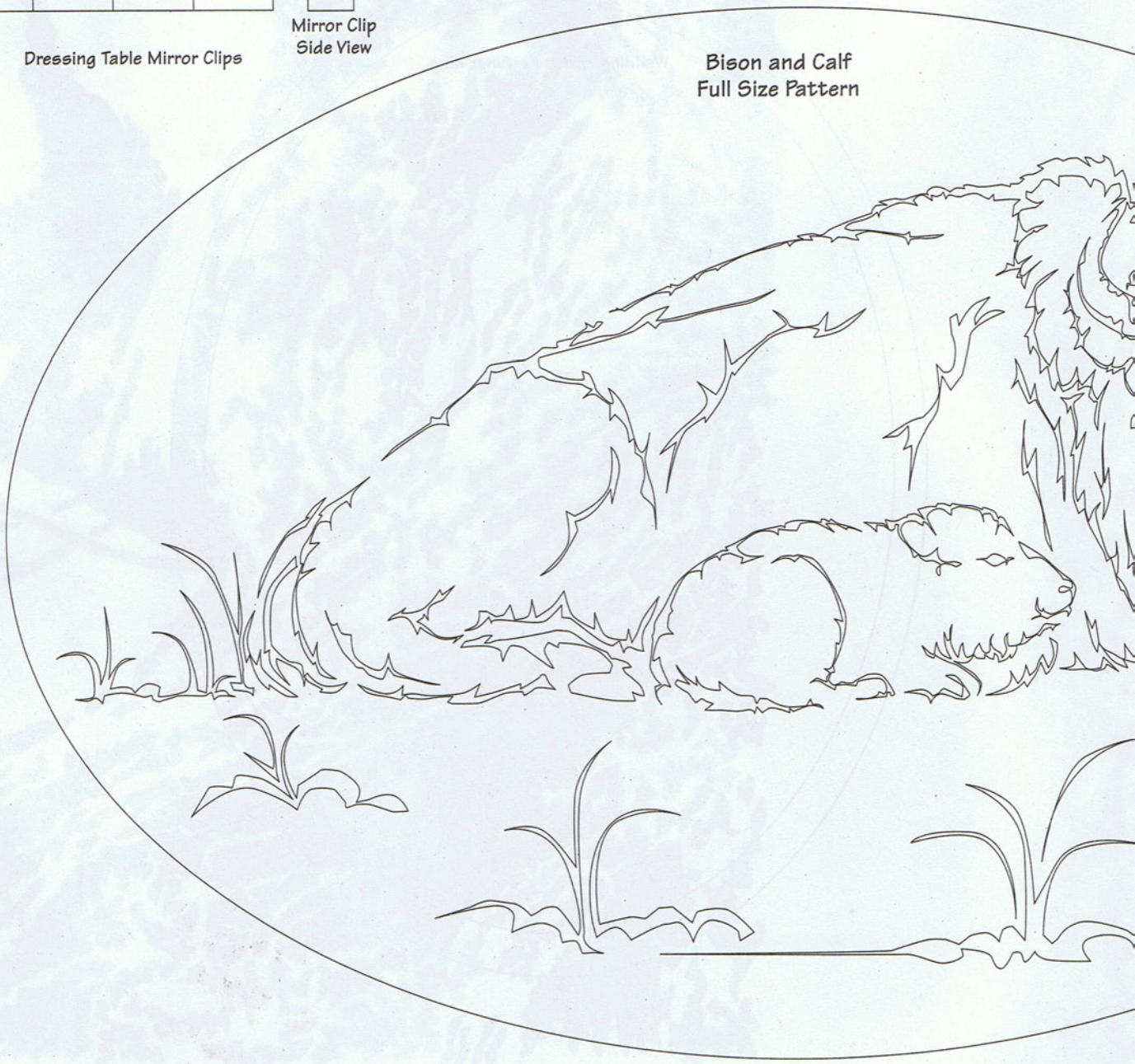
Cut notch in shaded section

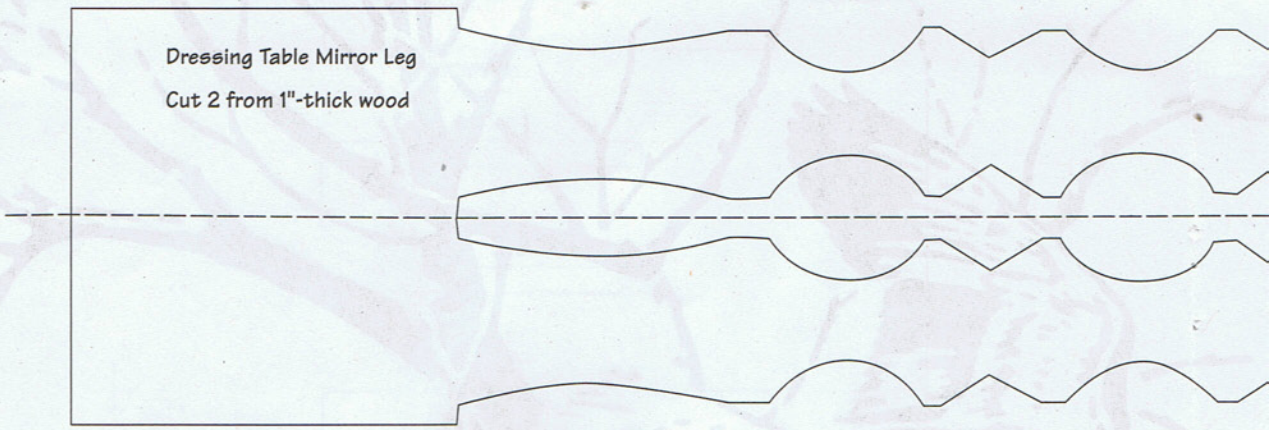
Dressing Table Mirror Clips

Cut away enough to match thickness of mirror.

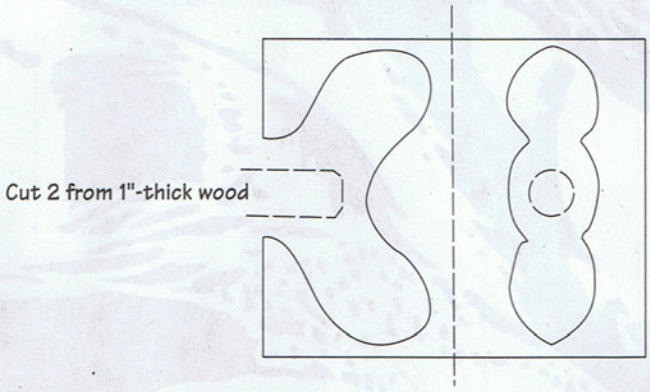
Mirror Clip
Side View

Bison and Calf
Full Size Pattern

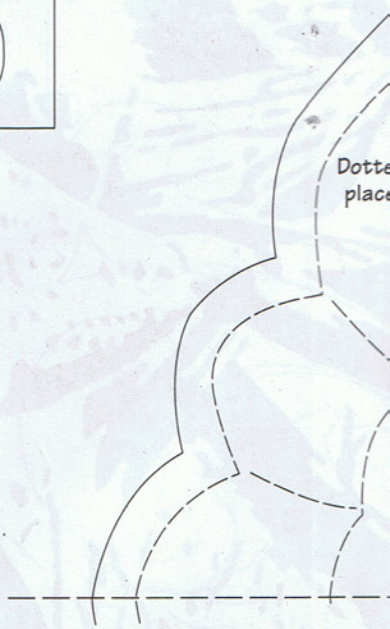


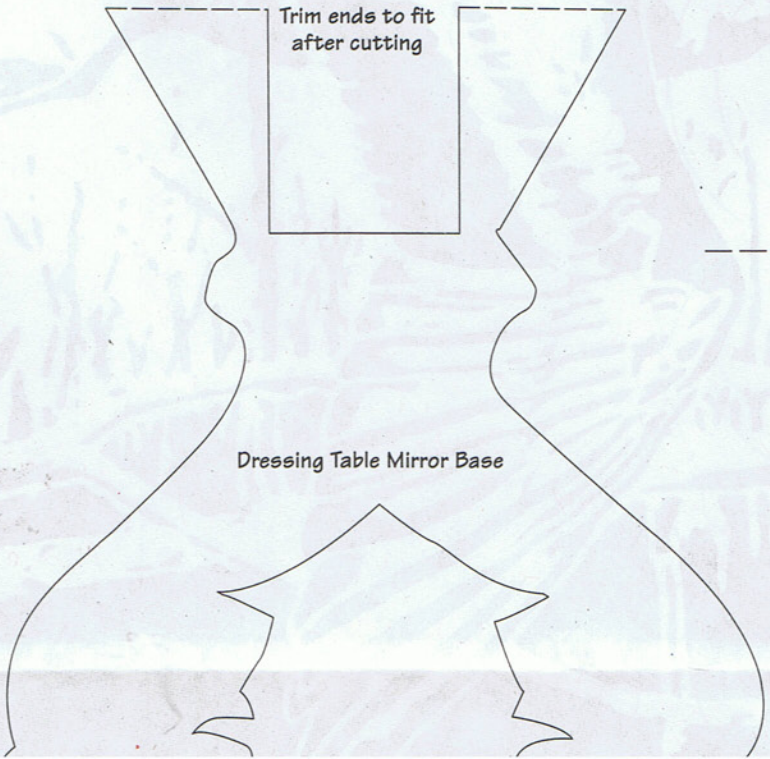


Dressing Table Mirror Wing

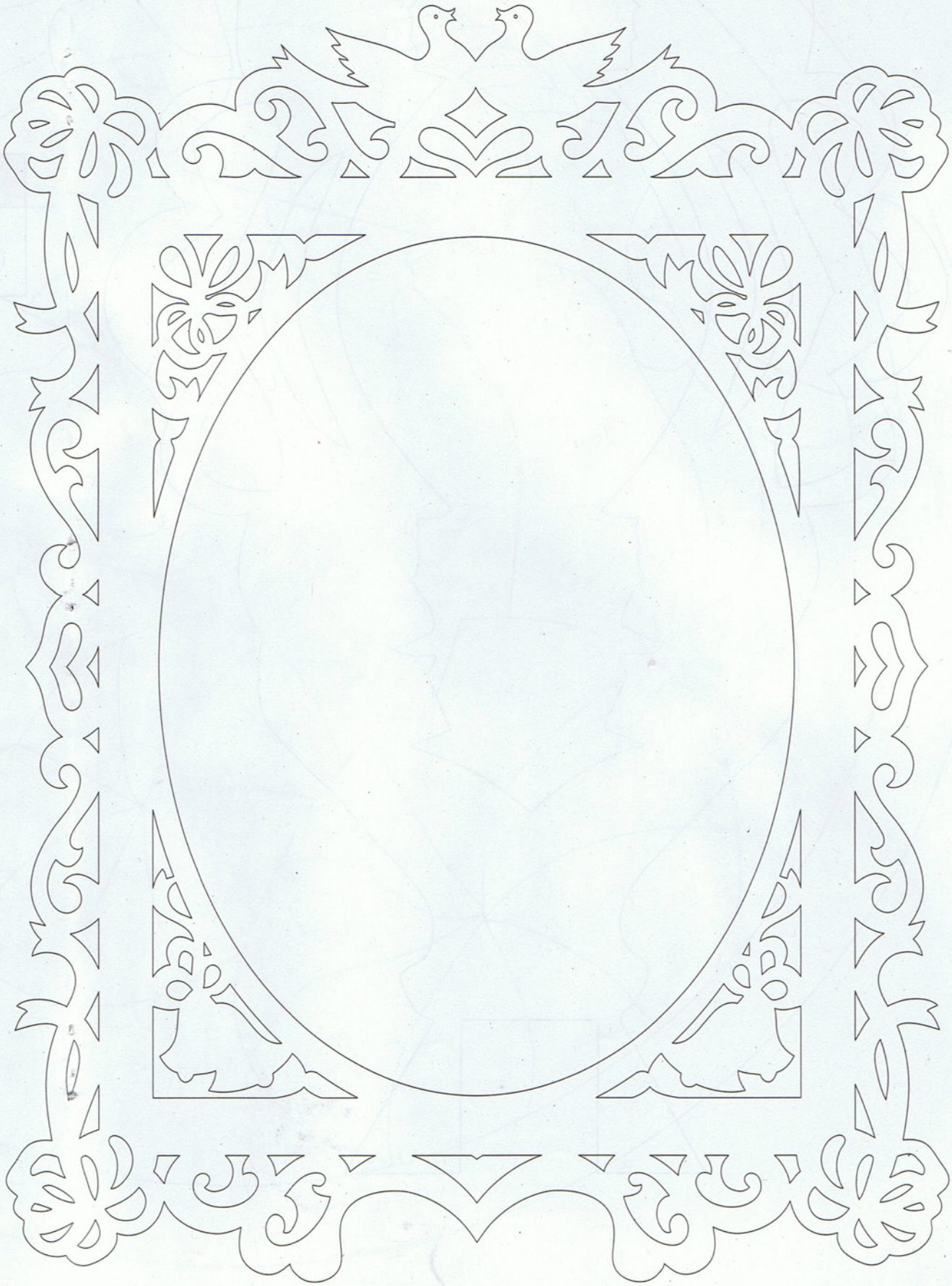


Dressing Table Mirror
Full Size Patterns



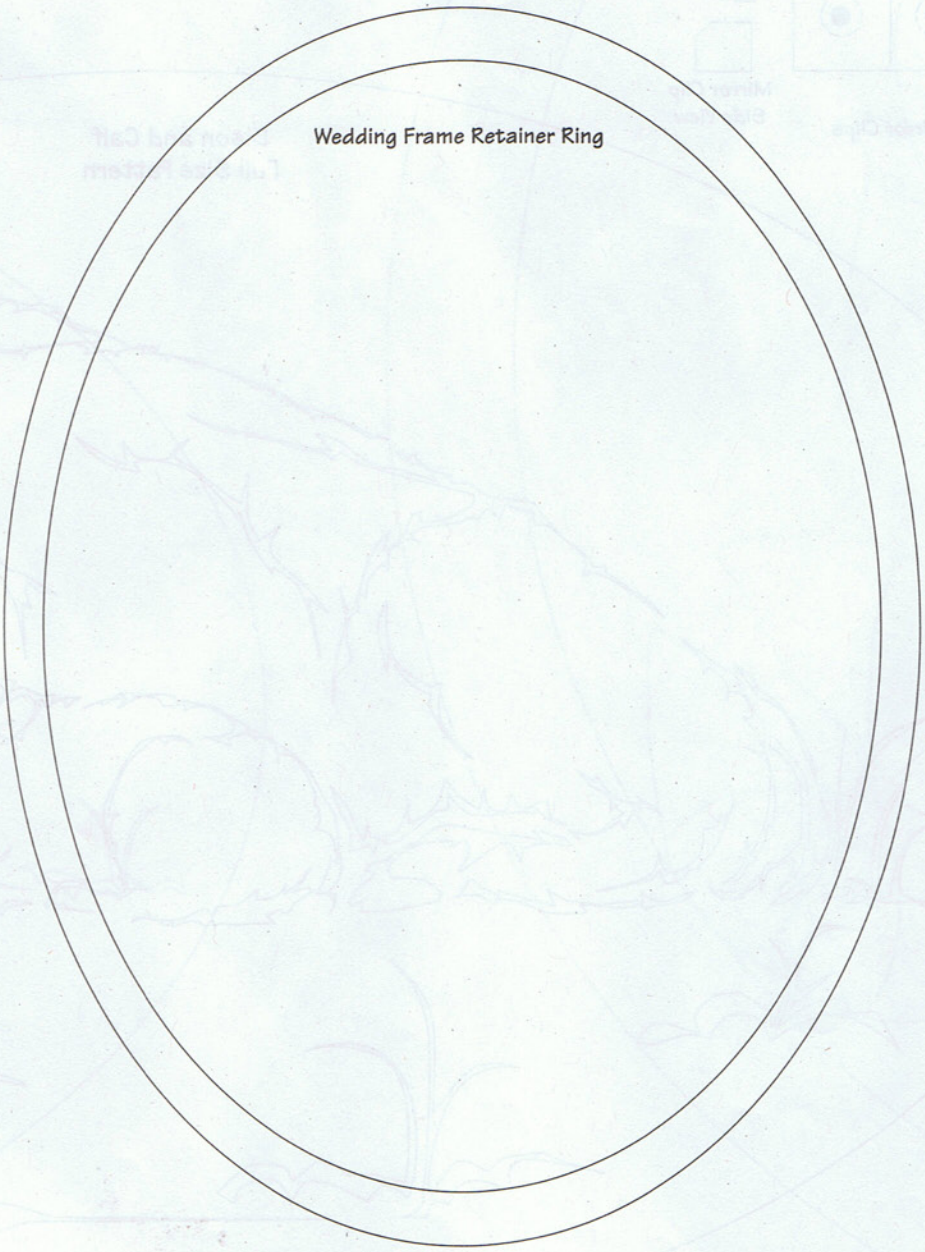


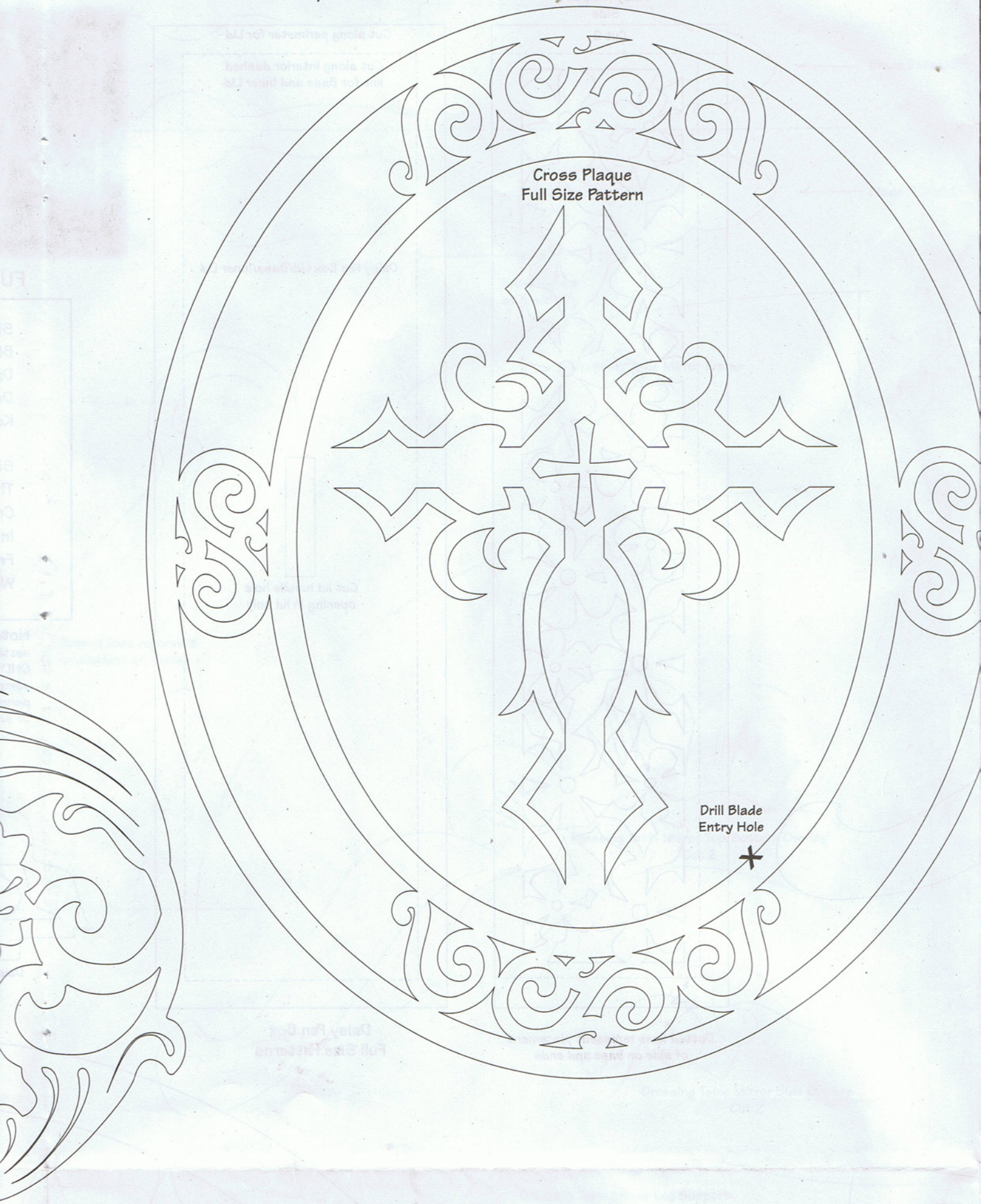
Dressing Table Mirror Base



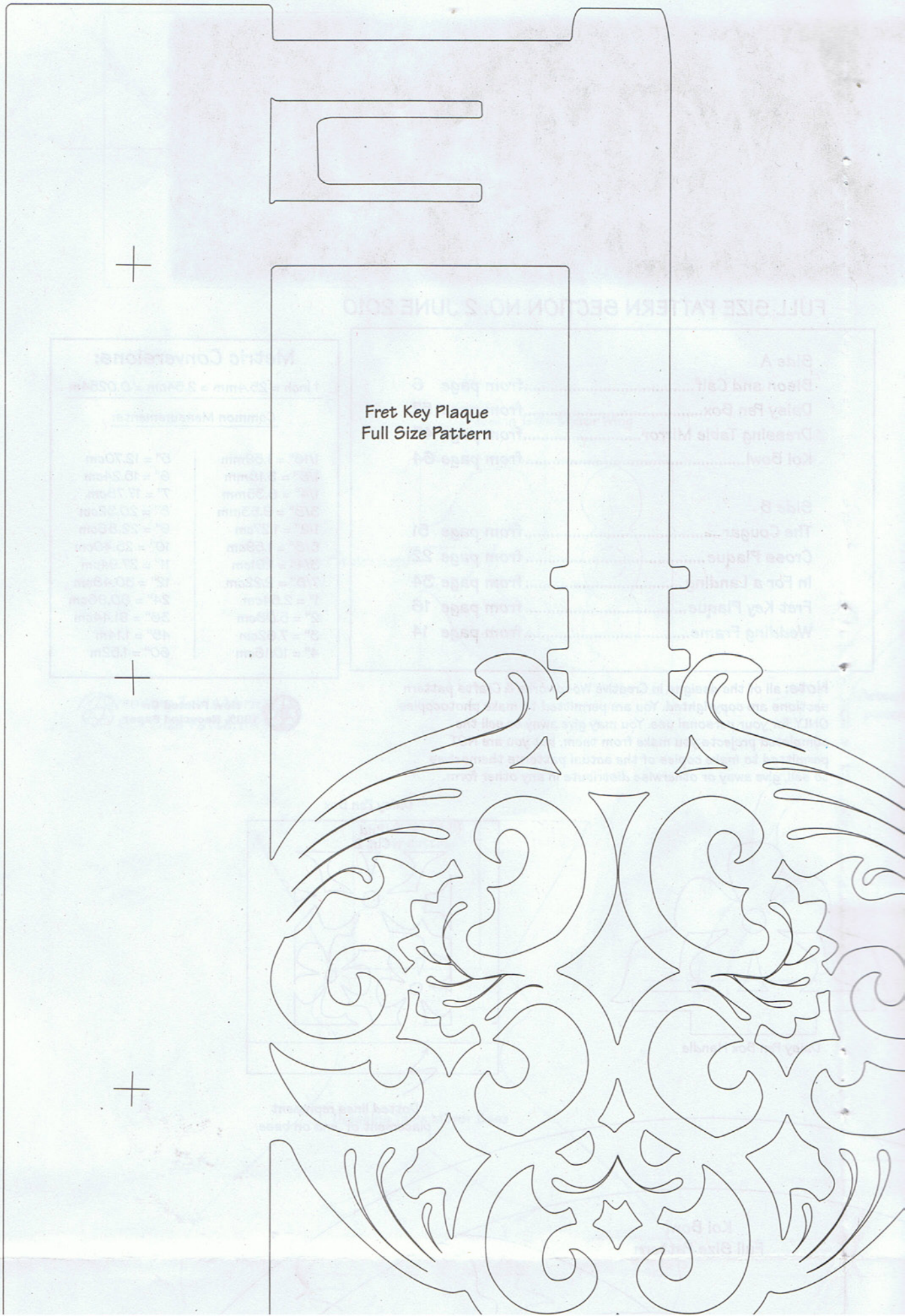
In For a Landing
Full Size Pattern

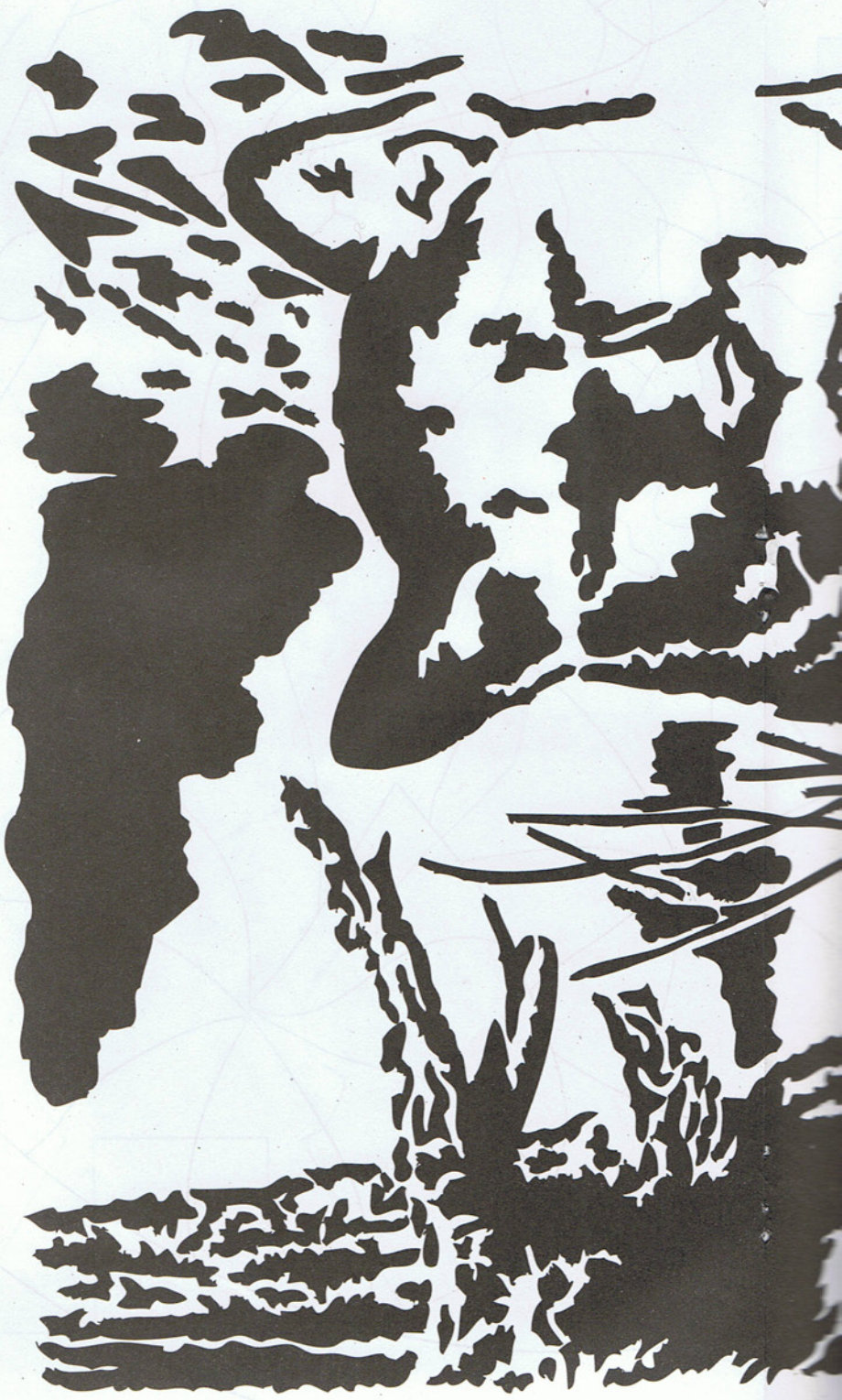
Wedding Frame
Full Size Patterns




Cross Plaque
Full Size Pattern
Drill Blade
Entry Hole

The Cougar
Full Size Pattern


Fret Key Plaque
Full Size Pattern



The Ca
Full Size