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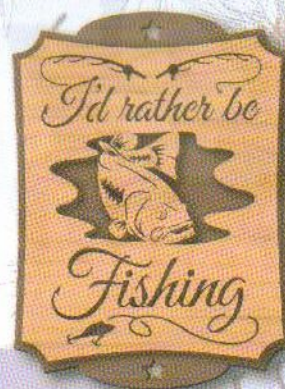
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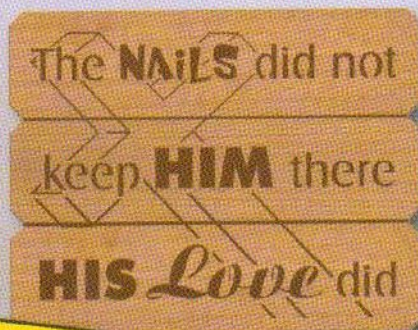
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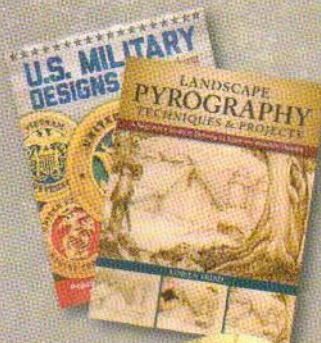


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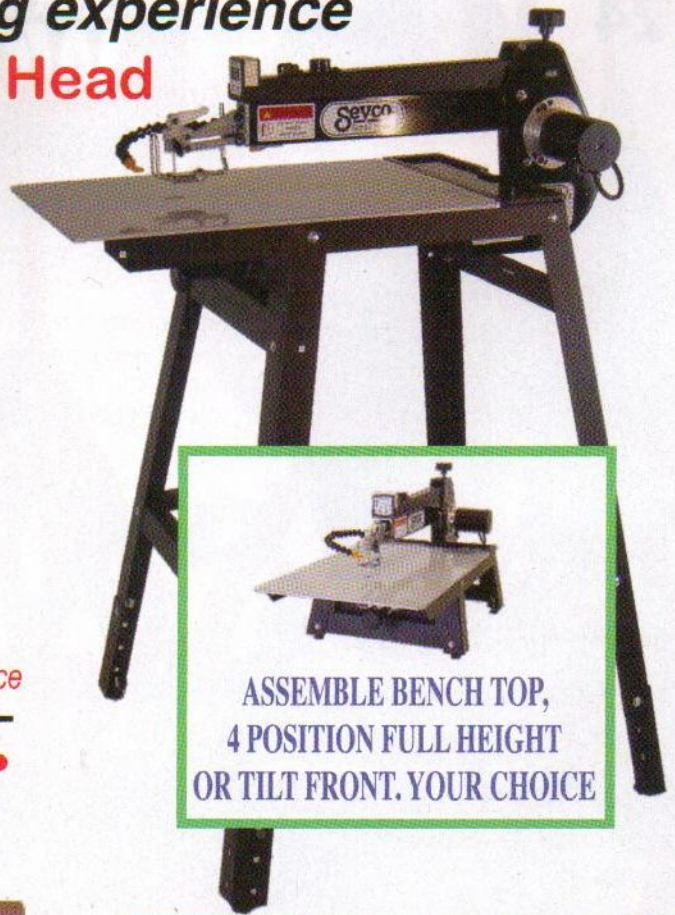
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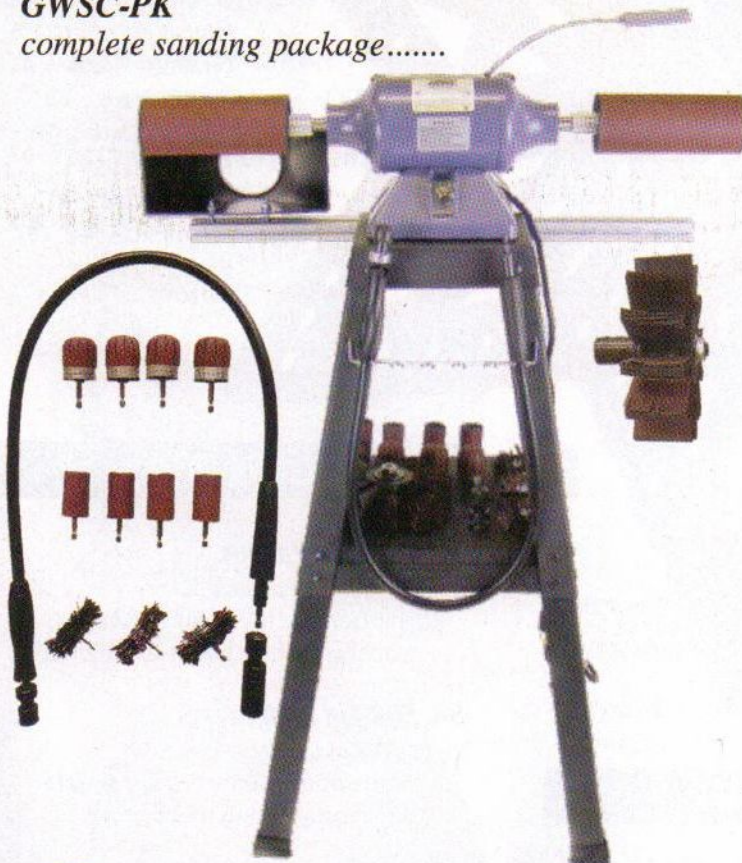
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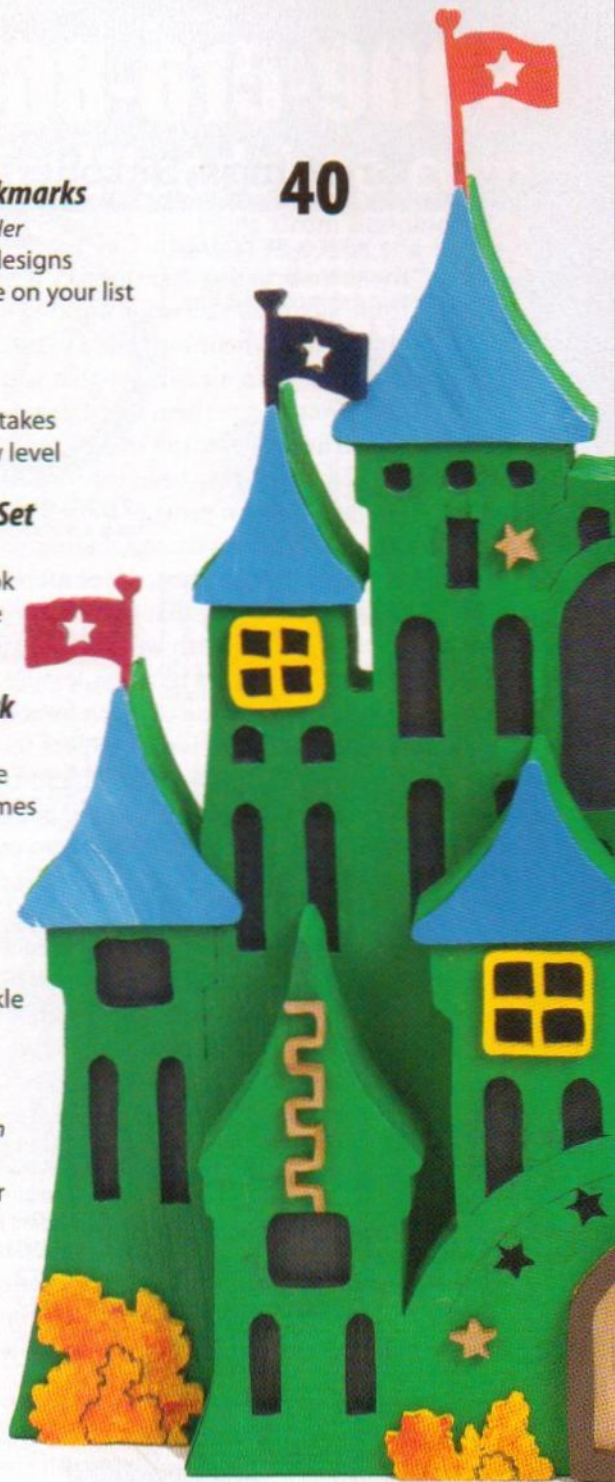
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By Sarah Lyn Chamberlain

Scroll this child-friendly pattern in under an hour



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• Bonus Pattern

Download a bonus Prancing Reindeer Intarsia pattern (pg. 18).

• Video Extra

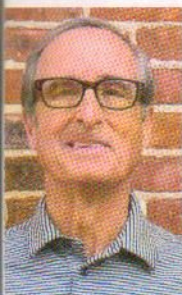
Explore all the uses for the MatchFit Clamps we reviewed (pg. 14).

• Free Projects

For cheery patterns to get you in the holiday spirit, visit scrollsawer.com/category/patterns/winter-scrolling.



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Greetings, Scrollers!

As your new Editor-in-Chief, it is now my privilege to lead the team bringing you the very best patterns and projects from the scroll saw woodworking world—an enviable but almost overwhelming task! I've only been here a short time, but I can already see that while you all love your saws, you all use them in different ways—versatility being one of our favorite tool's main virtues.

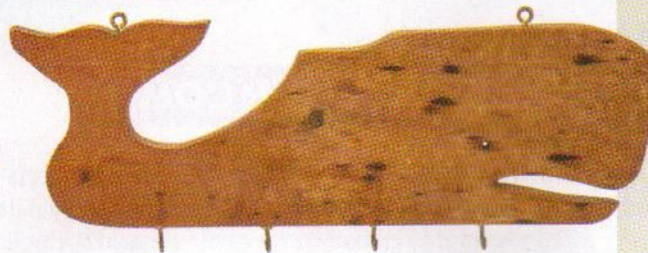
Of course, it has always been the magazine's guiding mission (and biggest challenge) to provide something wonderful in every issue for every scroller out there, whether you like fretwork, portraits, toys, puzzles, gizmos, decorations, intarsia, or all of the above. Fortunately, guiding that curation with the talented SSW crew is great fun. This month we're all smitten with Judy Gayle Roberts's delightful intarsia reindeer featured on the cover—how cool would it be to make one of those for a family heirloom!

What's next? In future issues, expect more new designs from emerging talents along with the tried-and-true patterns and projects you've come to love. We'll also be regularly running a special "Scroll School" project to help you introduce the craft to a youngster—in this issue, it's a wooden rendition of every kid's favorite noisemaker, the kazoo (page 47).

Speaking of youngsters, by chance I recently found the first scroll saw project I ever made, many decades ago: a whale of a key-holder (shown below) crafted in junior high woodworking class, under the direction of a humorless scold who liked to dig his pencil deep into kids' work and demand, "Sand here. And here. And here. And here..." My mother never hung a key on it, that I recall, but as you can see from the burn marks it seems to have earned its keep as a hot plate. (Some heirloom, right?)

But enough about me—we're much more interested in what *you* are up to! We love seeing not only your stylish takes on the pieces featured in this magazine but also the creations that you invent on your own. Refer to the submission details on page 10, then get busy and send us photos of your handiwork. As we do in every issue, we'll share the best with the world.

Here's hoping the projects in these pages bring you and your friends and family a little extra joy this holiday season!



I scrolled this handsome nautical beast in shop class some 40 years ago. He looks to be aging well!

Cheers,

John Atwood
John Atwood
atwood@foxchapelpublishing.com

SCROLLSAW woodworking & CRAFTS

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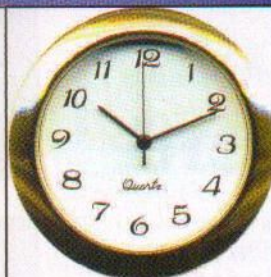
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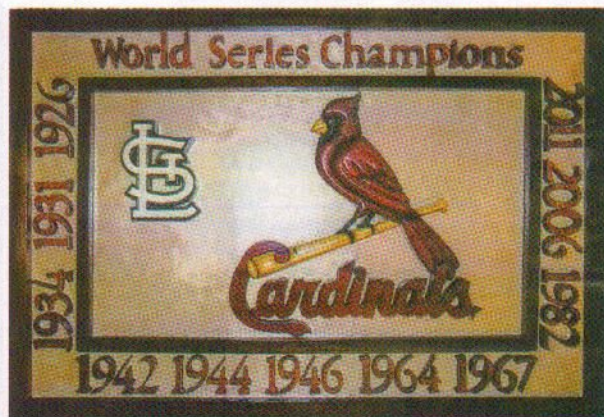
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The “Dizzy Bowl” Experiment

Three decades ago, after building my new workshop and attending a woodcraft symposium, I fell for the Excalibur saw and ordered it immediately. This summer, I read Carole Rothman’s inspiring “Scroll Saw Dizzy Bowl” article (Issue #71), and the bowl-making took off from there. I’ve used her techniques and gotten wonderful results; there appears to be no limit to the designs and possibilities.

Paul Smith
Del Rio, Texas



Calling All Cardinals Fans

A friend asked me to make a woodcraft picture commemorating the eleven World Series championships won by the St. Louis Cardinals from 1926 to 2011. After some research, my daughter designed the final pattern, and I completed it using a mixture of fretwork and intarsia. I used redheart for the numbers, letters, and cardinal; yellowheart for the bat; aspen and wenge for the STL letters; walnut for the frames; and oak for the background. The piece stands at 20½" by 30½" (52.1cm by 77.5cm). This could be of considerable interest to sports aficionados, because a person could adapt the design to any sport.

Anthony Dale Reed
Sedalia, Mo.

Intarsia Owl and Chick

My fascination with intarsia started as a stained-glass hobby. After a visit to Judy Gale Roberts’ studio in Seymour, Tenn., I was even more inspired. This project is a blend of two designs that I found in your magazine: “Create a Realistic Owl Scene” by Deborah Nicholson (Issue #43) and “Great Horned Owl” by Kathy Wise (Issue #52). All of the intarsia features are natural wood, the tree slab is white cedar, and the backdrop

is an aromatic cedar board spliced into the cedar slab. When I commissioned the slab, the mill damaged the bark, so I applied a red stain where the bark was ripped off. I have now started a bucket list for myself. My goal? To laminate the outside wall of my meager workshop with intarsia projects.

Ed Kupec
Okemos, Mich.



Write to Us!

We’d love to hear your thoughts on our projects, ideas for new patterns, scrolling experiences, and woodworking show stories. Write to us at: Letters to the Editor, *Scroll Saw Woodworking & Crafts*, 1970 Broad Street, East Petersburg, Pa., 17520 or e-mail editors@scrollsawer.com.

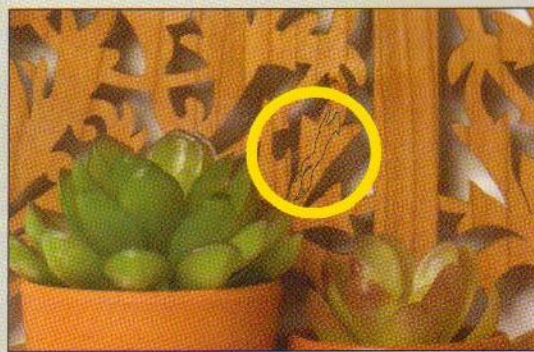
Woodworker-in-Training

My granddaughter wanted a workbench that was just like mine, so I made her a copy of my modified Ruobo 18th-century workbench. She is now four. Recently, we went to Home Depot to buy three fence slats to add to her playhouse, so she crawled into the woodbin to examine the slats more closely. One of the employees thought it was cute and asked her if she was helping Grandpa buy some wood. Her response was, "If you can call this crap wood!" I must be more careful about what I say when she is around.

Dave Van Ess
Chandler, Ariz.



Dave created a just-my-size workbench for his budding woodworker.



Fox Hunt

Henry Yoder of Tremonton, Utah, and Mary Beth Seguin of Wasilla, Alaska, were randomly drawn from the participants who located the fox in our last issue (Fall 2018, Issue 72). The fox was hiding in the middle of the Two-Shelf Wall Bracket photo on page 61.

Find the fox in this issue, and tell us the page number and location. Two readers randomly selected from all correct replies will receive a \$25 Fox Chapel Publishing gift certificate. Entries must be received by November 20, 2018, to be eligible. *NOTE: The contest fox is an outline drawing that would face left if his feet were on the "ground" (other foxes appearing in SSW&C don't count).*

Send your entry to SSW&C, Attn: Find the Fox, 1970 Broad St., East Petersburg, PA 17520, or enter online at scrollsawer.com.

SET IT STRAIGHT

The Special Sources section on page 27 of Issue #72 contained a pricing error. The glass bud vase insert for Sue Mey's Compound-Cut Fretwork Vase costs 79c + S&H, not \$5.50, at woodentedybearonline.com. We apologize for the error.

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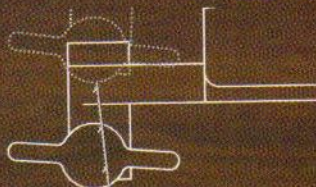
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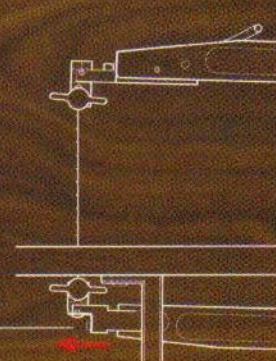
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Rich Parsons

Trenton, N.J.

A member of the U.S. Navy, Rich started scrolling in 2014 after a friend asked him to make a 'Head' sign for a bathroom door. He now uses the scroll saw to make personalized retirement and departure pieces for his current command. "I have three years remaining of military service before retirement and plan to start my own woodworking business when done," Rich said. He made this 23" (58.4cm) crest from oak and five stacked layers of 1/8" (3mm)-thick birch plywood.



Dave Kettunen *Weston, Wis.*

Eleven years ago, Dave inherited a Hegner V22 saw from his uncle and hasn't stopped scrolling since. He made several versions of the Wildwood *Dome Clock*; this one, standing at 65 percent of full size, is the smallest of the bunch. He cut it from red oak and created a stained-glass effect with filament tape on 1/8" (3mm)-thick Baltic birch plywood backing. Contact Dave at bikerider47@charter.net.



Anatoly Obelets *Odessa, Ukraine*

"The idea for this piece was standing on my table—fruits from our garden," Anatoly said. He cut *Still Life With Apricots (White Roses)* from Canadian pine. It stands at 19 1/4" by 24 3/4" (49cm by 63cm). Find more of Anatoly's work at facebook.com/anatoly.obelets.



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Jaime Costiglio and Ana White

Port Chester, N.Y.

Just in time for the holidays, Jaime and Ana made this milk-and-cookies play set using cookie cutters, 1/2" (1.3cm)-thick plywood, and scrap pine from around their workshop. They finished with acrylic paints and clear gloss spray polyurethane. See more of their clever DIY projects at ana-white.com and jaimecostiglio.com.



Myrna Taylor *Fillmore, Calif.*

Myrna made this piece as a gift for her longtime neighbor and best friend, Marie, using a pattern by Judy Gale Roberts. It includes black walnut, poplar, maple, and oak.



Alexey Morozov *Ishevsk, Russia*

Alexey used old Japanese engravings and a water stain to create figurals on the flip side of his Haruyo Morita puzzle triptych. It stands at 20" by 38" (51cm by 97cm). His preferred saw is the Delta. Find him on forum.scrollsawer.com, under username Leshko.



Share Your Latest Work!

Send a slide, professional print, or digital image (300 dpi minimum) with 100 words about you and your piece. Include your hometown, the name of the pattern maker, and a list of wood and materials used. Send to Reader Gallery, *Scroll Saw Woodworking & Crafts*, 1970 Broad Street, East Petersburg, PA 17520, or e-mail editors@scrollsawer.com.

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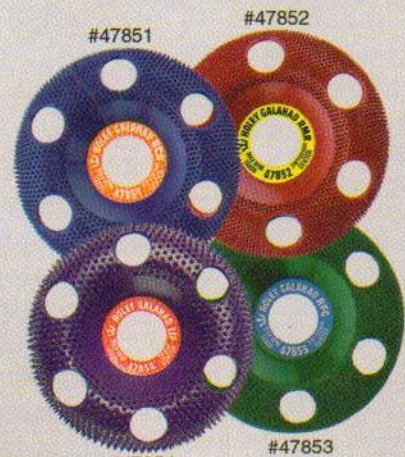
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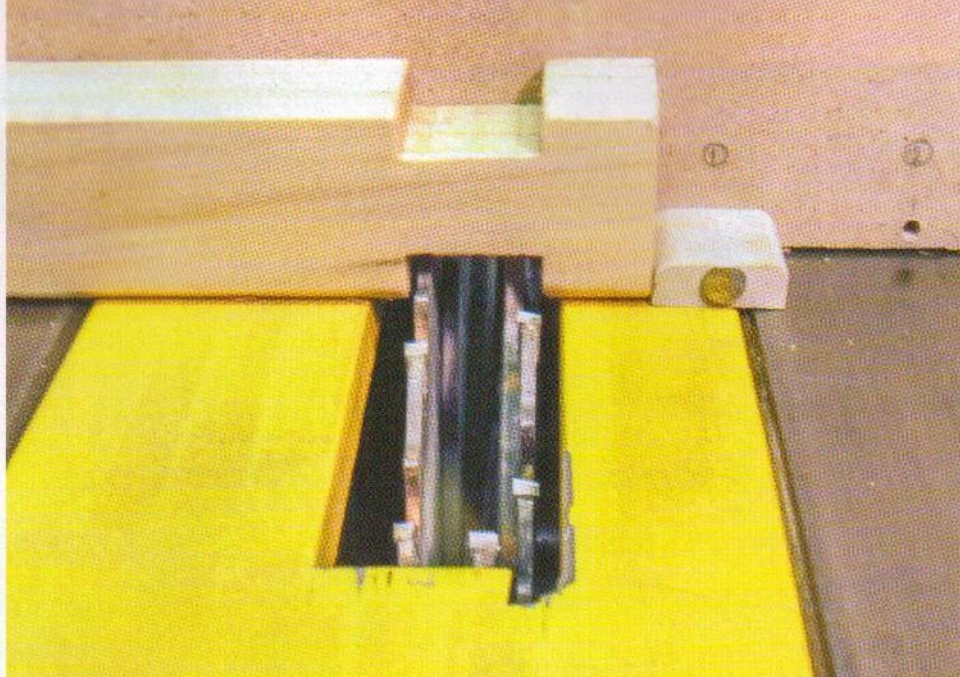
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Easy Box Joints

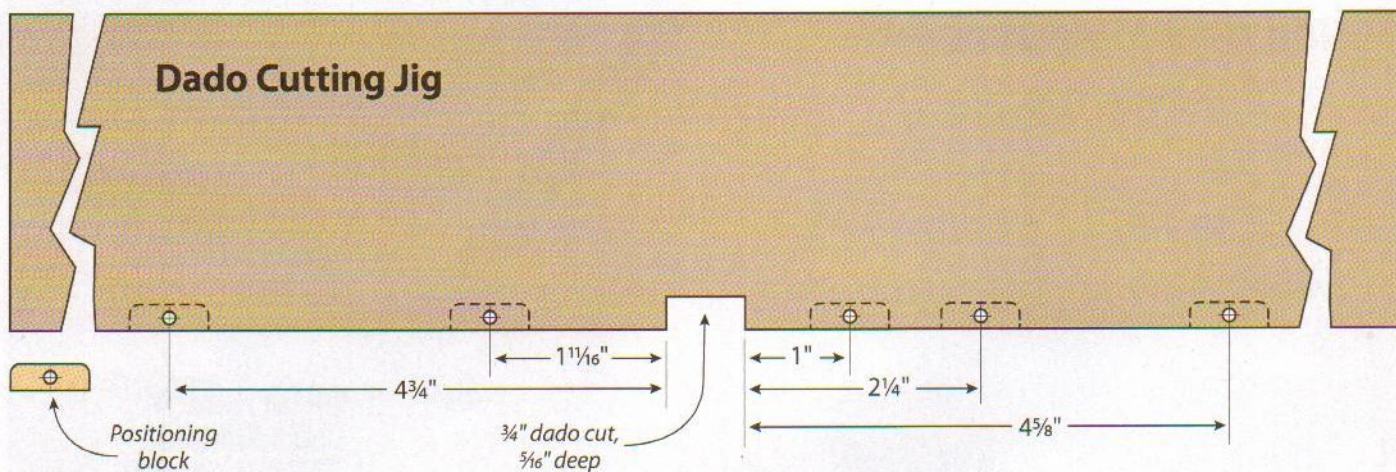


By Bruce Millward, Chardon, Ohio

I enjoyed making Dave Van Ess's Hamilton Log Set (Issue #69) and decided to make a change for my own version—but you can apply this technique to any box joint project. The thought of cutting 538 notches with the scroll saw seemed too daunting, so I made a fence to add to my miter gauge with a moveable stop to semi-automate the process. It can be used with either a dado blade (table saw) or router bit. I positioned the stop with a pin at precise locations to cut the notches at the spacing specified. I realize some readers don't have this option, but for me, it worked.



Rather than cut more than 500 notches on the scroll saw, Bruce designed a jig to do the job on his table saw.



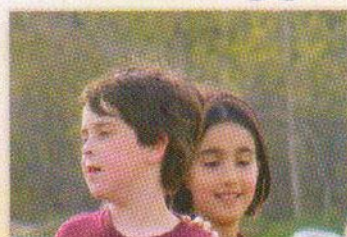
The Process

1. Select a piece of flat stock for the fence of the jig. I used $\frac{3}{4}$ " (1.9cm) MDF.
2. Attach this to your miter gauge and run it through your dado blade set to cut a notch. Before removing the jig from the miter gauge, be sure to mark the position of the jig relative to the gauge.
3. Remove the jig from the miter gauge and carefully drill the holes for the positioning block, using the edge of the dado as your reference point. Size the holes so that the pin will fit snugly in each.
4. Make the positioning block. Center the pin (4d nails work well). It's easiest if you leave the block oversized, so it won't split. Pre-drill the hole and drive the pin in. *Note: When in place, the positioning block should be flush to the table.*
5. Put the pin into the jig hole and trim the block to size. I make it slightly smaller than the dado so that the notch can fit over the block and sit flat on the saw table. Chamfer (bevel) or round the top edges of the block so that the notch doesn't bind when going over it.
6. Re-attach the jig to the miter gauge and cut the notches.

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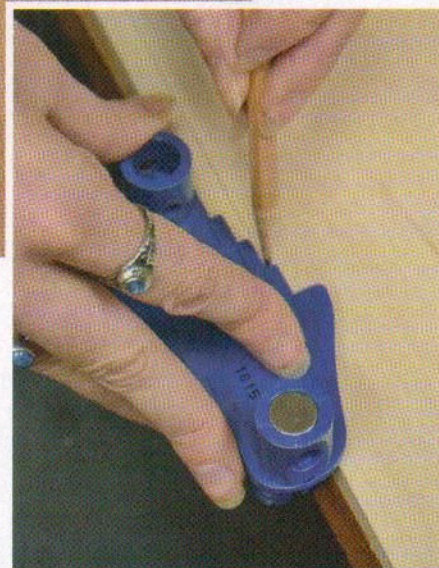
To draw lines or mark points a specific distance in from any edge, flip the tool over, place the protrusion flat against the edge of the board, and choose any of the marked distances, which range from $\frac{1}{16}$ " to $\frac{1}{2}$ " (imperial measurements only) in $\frac{1}{16}$ " increments. These measurements account for the average thickness of a sharpened pencil, so you don't need to factor that into your measurement.

Rockler sent us two of these tools. One lives on our band saw, thanks to the integrated magnet. It even has a hole to hold a pencil. This tool is so compact that I keep the other one in my shop apron.



The Rockler marking tool's pegs instantly align the pencil hole to draw perfect centerlines.

The tool's offset marking function is a real time-saver.



SandIts

\$6.99 (pack of 8) plus S&H
SandIt, sandits.com

Note the black residue that these sanding sticks leave behind.

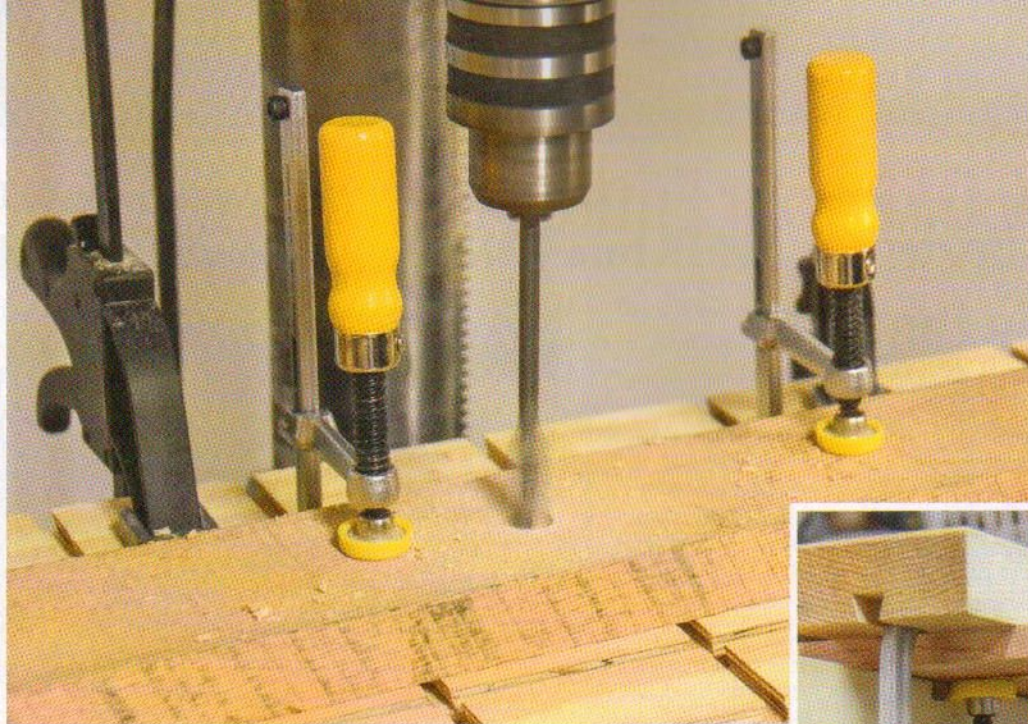
SandIts look like the offspring of cotton swabs and sandpaper. If you took long swabs and replaced the cotton with an abrasive, you'd get SandIts. And at first glance, I thought these would be great to sand in tight areas—but I was wrong.

These tools do sand, and with the shapes and sizes available, they do fit into relatively small areas. However, they were not small enough to fit into the frets and tight areas I sometimes need to sand.

Furthermore, the coarsest grits available (120/180) left a black residue behind that took quite a bit of sanding with ordinary sandpaper to remove. Then, they skip to 400/800 grit, which is too fine for most woodworking projects. Additionally, the plastic shafts were too flexible. To sand with any power, I had to grip right next to the abrasive head, since the shaft was slightly stiffer than a coffee stirrer.

For me, SandIts are a great idea—but one that could be better executed.





ON THE WEB See an online video of the MatchFit clamps in action.
scrollsawer.com

Using a simple dovetail slot, the MicroJig MatchFit offers endless clamping solutions for the woodworker.

MicroJig MatchFit Clamp

\$45 (2 pack) plus S&H
MicroJig, 855-747-7233, microjig.com

I use the MicroJig's MatchFit Clamp more than any other clamp in my shop. The only task this baby can't do better than other clamps is glue together large blocks. But every other task I use a clamp for—holding down a project, securing a jig, creating a fence for a circular saw or a router, or even securing wood so I can plane it—this MicroJig does better.

Basically, it's a DIY track system. You use a router and a $\frac{1}{2}$ " (12.7mm)-radius 14° dovetail bit to create slots in a workbench (or almost anything made out of wood) that the clamps slide into. This gives you the clamping ability of more expensive track systems along with the versatility of ordinary clamps—the best of both worlds.

While they are sold in packs of two, I'd suggest that quantity as a bare minimum. We immediately added slots to the top and sides of one of our workbenches to accommodate these tools. We added one to the bottom of a 1x4 that we use for circular saw or router fences. We added slots to a piece of plywood for ripping wavy boards or even as a mobile clamping station. Amazingly, everything we clamped to these pieces stayed in place.

You will keep finding uses for these clamps. The MicroJig website shows them being used to add a larger rip fence to a table saw, secure pieces to saw horses, and create custom clamping jigs. Pick up a pack. I promise you won't stop at just one!



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Think Inside the Box for Your Next Scroll Saw Project



NEW

Making beautiful jewelry boxes on the scroll saw is surprisingly easy... and fun! Carole Rothman, author of the best-selling book *Creative Wooden Boxes from the Scroll Saw*, shows how to use the versatility of the scroll saw to make extraordinary boxes in this exciting new project booklet. Carole provides five unique designs for boxes you'll love to make and love to use. With expert step-by-step instructions and clear how-to photos, each project features complete materials & tools lists, detailed patterns, and all the tips and techniques you need to guarantee box-making success.

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Bright, Fun Designs for Every Occasion
By Carole Rothman

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NEW



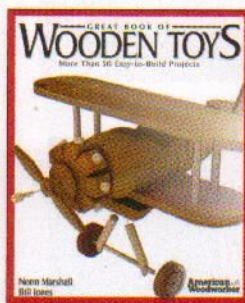
NEW

John Nelson Pattern Packs

These full-sized patterns by John Nelson will help you create beautiful crafts. Considered an expert among scroll saw enthusiasts, John is the author of *The Complete Guide to Making Wooden Clocks and Scroll Saw Workbook*.

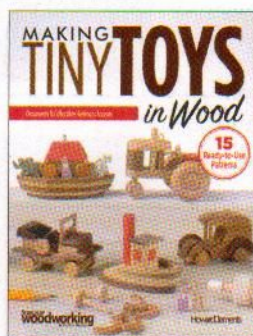
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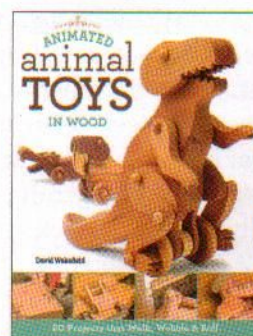
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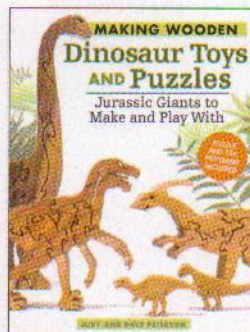
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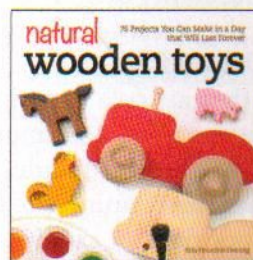
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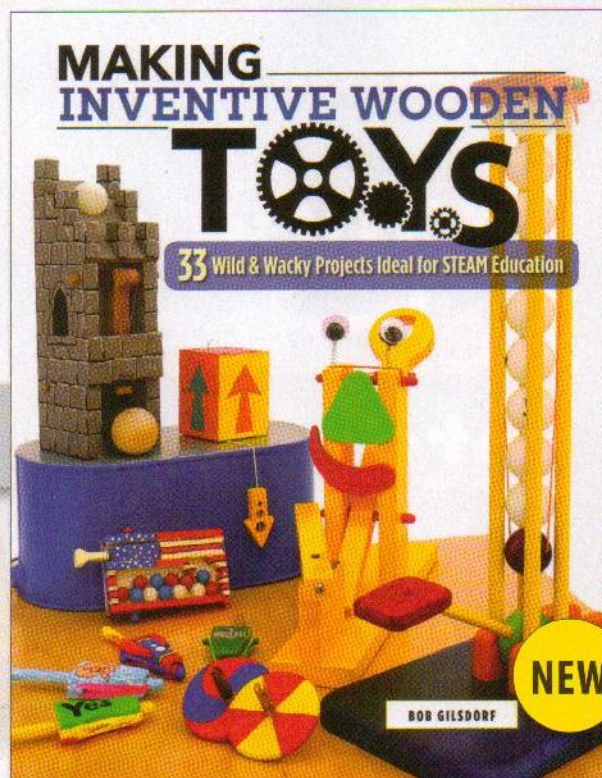


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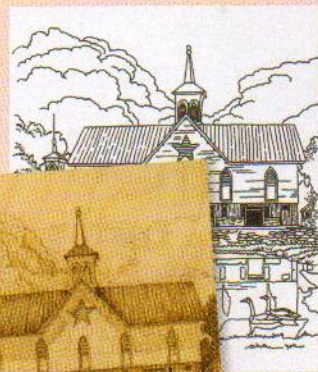
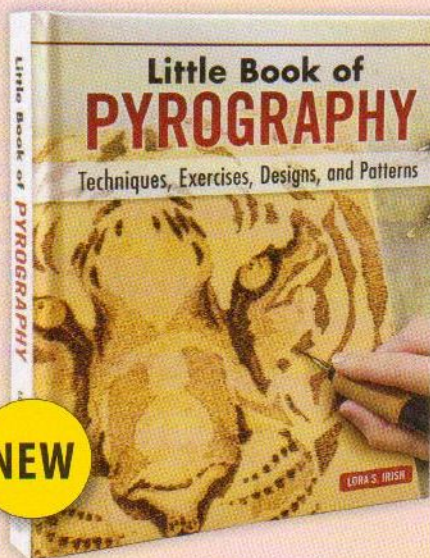


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Prancing Reindeer Intarsia

This flying marvel will have no trouble getting up onto the rooftop

By Judy Gale Roberts



Flying reindeer are as essential to the holidays as Santa himself; songs, classic cartoons, and even poems pay homage to these sprightly creatures. This intarsia design, caught at the moment of takeoff, is my addition to the mythos.

Making the Reindeer

For the most part, this is a simple design. Photocopy the patterns and cut the individual pattern pieces. If the grain direction and color are the same, like on the hind legs, cut the pattern to include both legs. When separating the legs, use a very small blade, such as a #0 or #1. Attach the pieces to the wood, and cut them out. Some will require intricate cutting, but most of the cuts are simple. To make the project even easier, before you cut the pieces for the eye and jingle bells, drill the holes marked on the pattern for the dowels.

Dry-assemble the pieces as you go to check the fit. Adjust as necessary; you might need to cut carefully along the line to remove any protrusions. Remove the patterns and number the bottom of each piece. Shape the pieces as desired. Drill a small hole in the upper part of the eye. Sharpen a small piece of white wood in a pencil sharpener, add a touch of glue to the hole in the eye, and insert the pointed wood into the hole. Cut off the excess and sand it smooth. Add the burned details with a woodburner. Hand-sand all of the pieces to remove any cross-grain scratches or pencil marks.

Apply a clear satin polyurethane finish, such as Old Masters®, according to the manufacturer's instructions. Let dry and repeat twice more at eight-hour intervals. Assemble the project on a piece of paper lightly dusted with spray adhesive. Trace around the assembly, use spray adhesive to attach the tracing to the backing material, and then cut inside the lines. Carefully glue the pieces to the backing board using Aleene's® tacky glue, starting with a few exterior parts to lock the project in place. Let the assembly dry, find the balance point, and attach a D-ring hanger to the back.



ON THE WEB Bonus flying reindeer pattern on our website.
scrollsawer.com

WANT MORE INTARSIA?

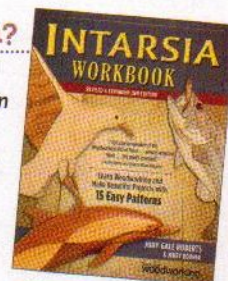
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By Judy Gale Roberts

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Materials & Tools

Materials

- White wood, such as aspen, white pine, or holly, 3/4" (1.9cm) thick: 3" (7.6cm) square
- Light wood, such as basswood, maple, or light western red cedar, 3/4" (1.9cm) thick: 2 1/2" (6.4cm) square
- Medium light wood, such as western red cedar or maple, 3/4" (1.9cm) thick: 6" (15.2cm) square
- Medium color wood, such as western red cedar, butternut, mahogany, or Spanish cedar, 3/4" (1.9cm) thick: 8" (20.3cm) square
- Medium dark or red wood, such as light walnut, western red cedar, redheart, or padauk, 3/4" (1.9cm) thick: 3" (7.6cm) square
- Dark wood, such as walnut or dark Western red cedar, 3/4" (1.9cm) thick: 3" (7.6cm) square
- Walnut dowel, 3/8" (1cm) dia.: eye, 3/4" (1.9cm) long
- Maple, dowel, 7/16" (1.1cm) dia.: 3" (7.6cm) long
- Tempered hardboard or Baltic birch plywood, 1/8" (3mm) thick: backing board, 12" x 16" (30.5cm x 40.6cm)
- Sandpaper
- Glue: wood, Aleene's® tacky
- Spray adhesive
- Paper
- Polyurethane finish, such as Old Masters® clear satin
- D-ring hanger

Tools

- Scroll saw blades: #0, #1, #2/0, #5 reverse-tooth
- Drill with bits: 1/16" (2mm), 3/8" (10mm), 7/16" (11mm)
- Sanders: flexible drum
- Woodburner with tip
- Paintbrushes

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.

Pattern for the **PRANCING REINDEER INTARSIA** is in the pattern pullout section.



Judy Gale Roberts, born in Houston, Texas, has long been recognized as the leading authority on intarsia. Judy was one of the first ten people to be inducted into the Woodworking Hall of Fame. For more of her work or information on classes held at her home studio in Seymour, Tenn., contact her at 800-316-9010, or visit intarsia.com. Judy's numerous intarsia books are available at foxchapelpublishing.com.

A pattern for a Santa to go along with your reindeer is also available at intarsia.com.

Timeless Ornaments

Stressing about gifts? These baubles are cute, economical, and a breeze to make

By Alison Tanner

Cut by Dennis Knappen

These ornaments are perfect for scrollers of any skill level. While some have many frets, others have just a few. Stack-cut up to four ¼" (6mm)-thick blanks to speed up your production and make one for everybody on your list.

Cutting

With ornaments like these, you can cut individual blanks and stack them together, but I prefer to use larger blanks and attach several patterns to cut. The larger blanks are more comfortable to hold and handle, and my fingers don't cramp up as much. Use reverse-tooth blades to reduce your sanding, and add a piece of thin cardboard or inexpensive plywood to the bottom of the stack to minimize fuzzies on the undersides of ornaments.

Finishing

I suggest dipping the ornaments in an oil finish and suspending them over the tray full of oil to allow the excess to drip off. Be sure to remove them before the oil dries and wipe off any stubborn drips; otherwise, the excess oil will dry and give you a rough finish. Allow the finish to dry for a few days, and then apply several light coats of spray lacquer, buffing lightly between coats with 0000 steel wool. Attach decorative string to the top to hang the ornaments.

Materials & Tools

Materials

- Hardwood of choice, ¼" (6mm) thick: assorted sizes based on ornaments
- Inexpensive plywood or thin cardboard
- Temporary bond adhesive

- Blue painter's tape, brads, or double-sided tape (to stack cut)
- Sandpaper
- Oil finish
- Lacquer: clear spray
- Steel wool: 0000
- Decorative string

Tools

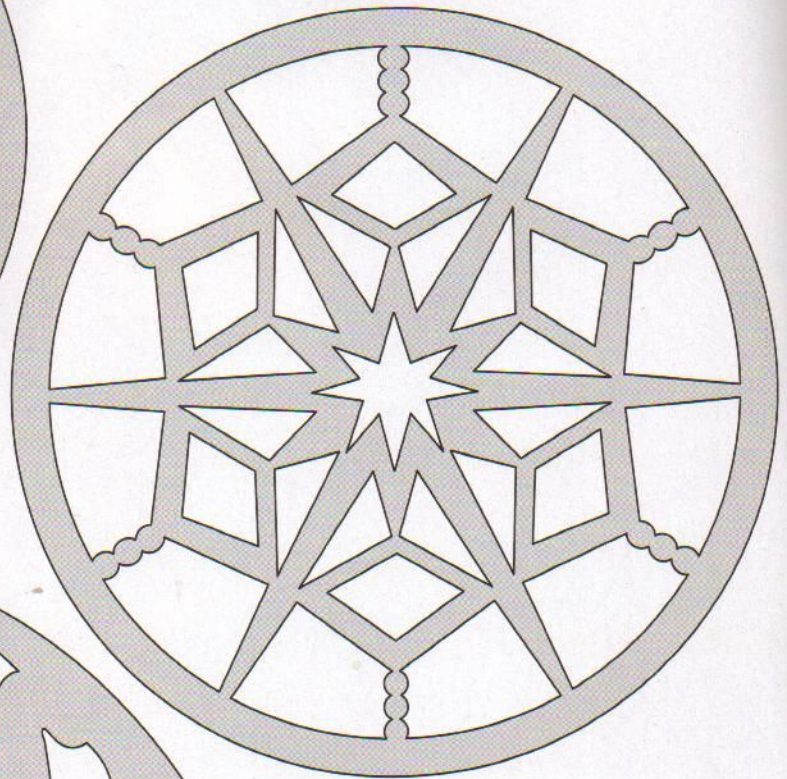
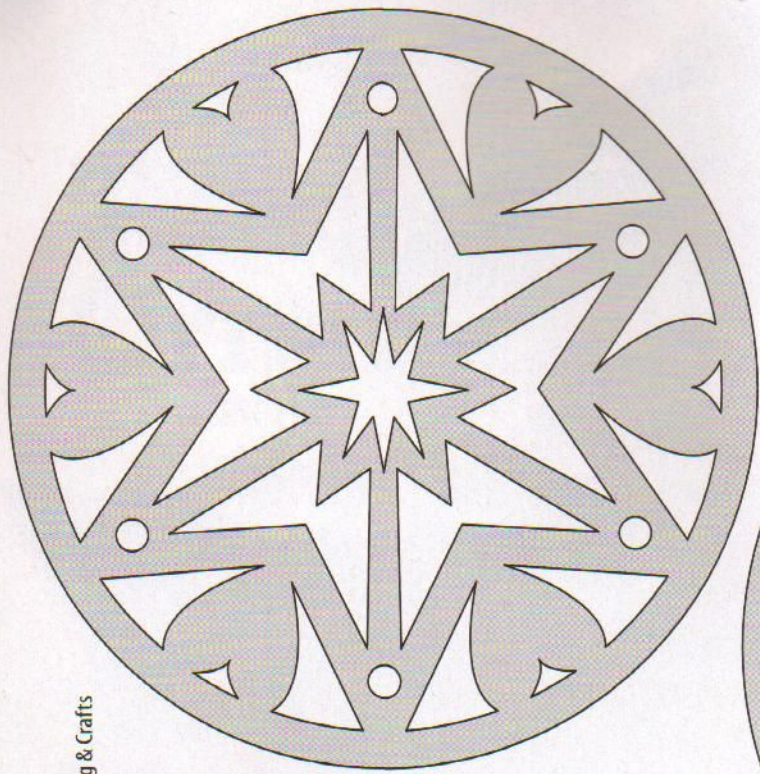
- Scroll saw blades: #3 reverse-tooth
- Drill with bits: assorted small

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.





Timeless Ornament Patterns



© 2018 Scroll Saw Woodworking & Crafts

Additional patterns for the
TIMELESS ORNAMENTS are
in the pullout section.



Alison Tanner began cutting paper at the age of 8, inspired by a visit to the home of fairy-tale writer Hans Christian Andersen in Denmark. She is the owner/creator of

Papercuttings by Alison, which carries a large variety of patterns and supplies for the scissorist. For more of her work, visit papercuttingsbyalison.com.

Freestanding Nativity



Cut and pose these beautiful designs on a table or mantle

By Gloria Cosgrove
Cut by John Nelson

Put your scrolling skills on display with these beautiful seasonal designs. Cut a whole set for yourself, or make multiples of one piece every Christmas for friends and family. Start with the nativity and work outward from there, so your loved ones can look forward to getting a different part of the scene each year.

While you can cut these from any wood, I chose cherry for the vibrant, majestic color and finished them with Danish oil and lacquer. If you're artistically inclined, cut them from light wood, such as maple or poplar, and paint them. If you're not confident in your ability to cut the fine grass and straw details, omit them or add with a woodburner.

Materials & Tools

Materials

- Cherry, $\frac{3}{4}$ " (1.9cm) thick: angels, 7" x 10½" (17.8cm x 26.7cm); animals, 8½" x 10" (21.6cm x 25.4cm); manger, 7" x 11" (17.8cm x 27.9cm); shepherds, 6" x 11" (15.2cm x 27.9cm); wise men, 7" x 11" (17.8cm x 27.9cm)
- Sandpaper
- Finish: Danish oil
- Lacquer: clear spray

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.

Tools

- Scroll saw blades: #3, #5 reverse-tooth

Patterns for the
FREESTANDING NATIVITY are
in the pattern pullout.



Art has always been a part of Gloria Cosgrove's life. She started sketching as a child and quilted and worked with pastels, watercolors, and oil paints before discovering scherenschnitte (paper cutting). With her daughter, Alison, she maintains a mail-order business selling original artwork and papercutting patterns. For more of her work, visit papercuttingsbyalison.com.



LAYERED Holiday Tree-Trimmers

Use basic bowl-making techniques to scroll a set of glossy “turned” trinkets

By Carole Rothman

This holiday season, why not use your stash of cutoffs to make festive ornaments for your table or tree? I created these ornaments from discs of different sizes, cut straight or at an angle, which were glued together and shaped with sanders. I laminated the stock for the angled pieces, but you can leave the wood plain if you prefer. Detailed instructions are given for a pear-shaped ornament with tapered ends, but I’ve shown how the same instructions can be used as templates for three variations.

Here are some tips for success:

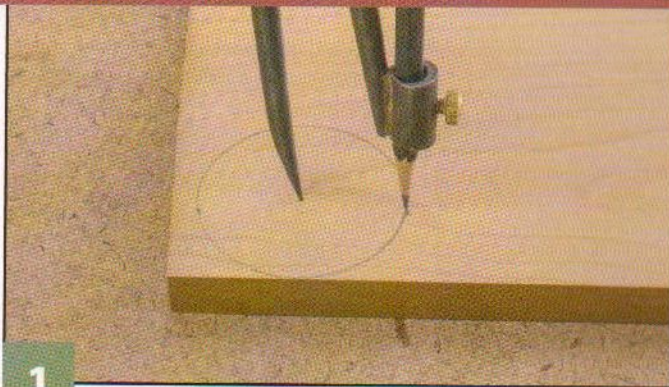
- Small pieces of wood can be used for single ornaments, but larger pieces are more economical if you are making multiples. It’s also easier to apply veneer to a single large piece than several smaller ones.
- Combine woods of similar hardness for ease in sanding; softer wood may sand away too quickly for accurate shaping.
- If you’re not sure how the wood will look when finished, preview its color with an application of mineral spirits. Allow the mineral spirits to evaporate before cutting, gluing, or sanding.
- If you’re new to projects of this type, make a practice piece to bring your skills up to speed.

Getting Started

Glue any veneer accents to the blanks now. For my ornament, I glued red veneer to a piece of purpleheart and a piece of maple. I did not glue any veneer to the cherry I used for the center.

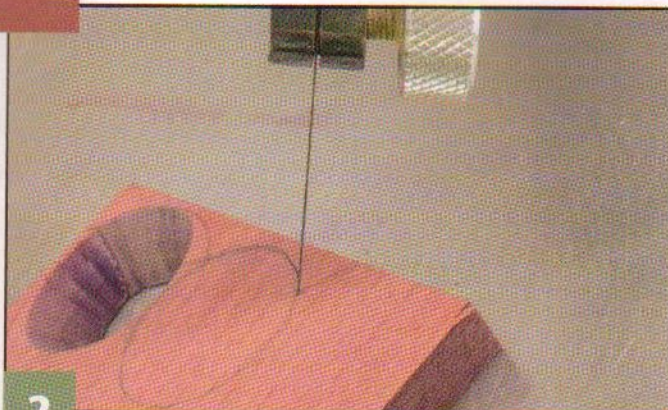
There are two methods to draw patterns onto the blanks. I find it easier to draw circles directly on the blanks rather than to attach numerous small patterns. Place the point of a compass on the center mark of the pattern and use the circles to set the compass to the desired diameters. Alternatively, if you prefer, you can make several photocopies of the template and attach individual circles to the appropriate blanks.

CUTTING AND SANDING THE DISCS



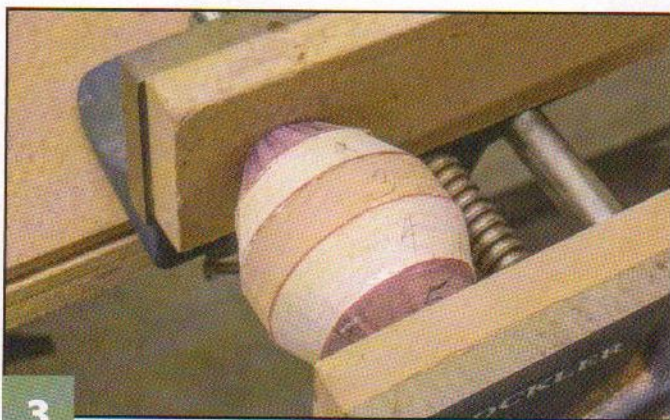
1

Draw a 2" (5.1cm)-diameter circle on the center (cherry) blank. Cut the circle with the saw table square with the blade. Draw two 2" (5.1cm)-diameter circles on the veneered side of the maple blank. Tilt the left side of the saw table down to 25° and cut the circles in a clockwise direction to create the first pair of angled discs.



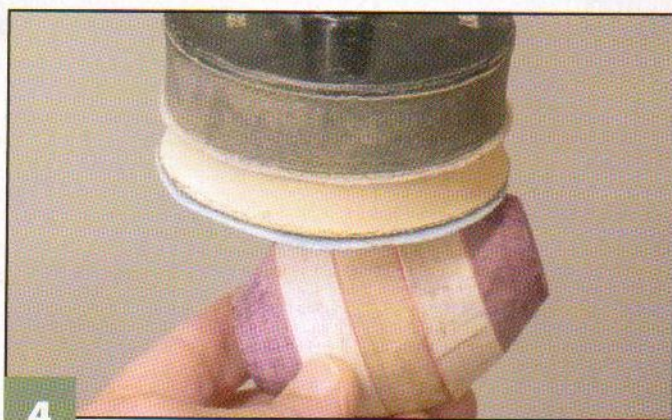
2

Draw two 1½" (3.8cm)-diameter circles on the veneered side of the purpleheart. Increase the table tilt to 35° and cut the circles in a clockwise direction to create the second pair of angled discs.



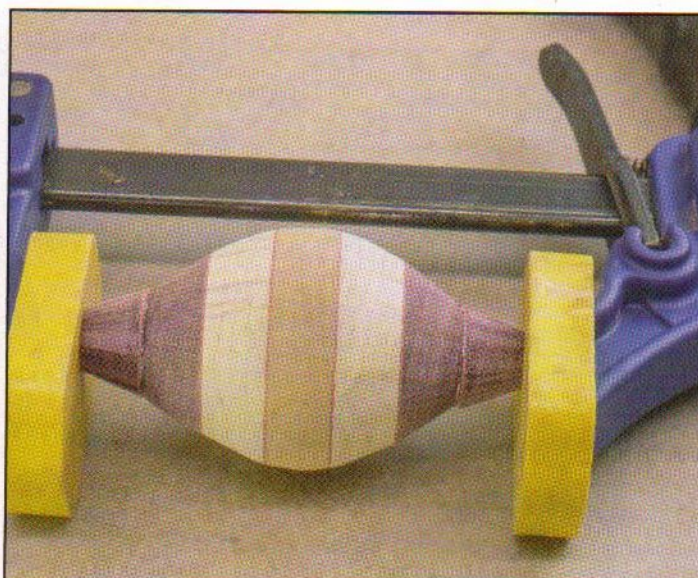
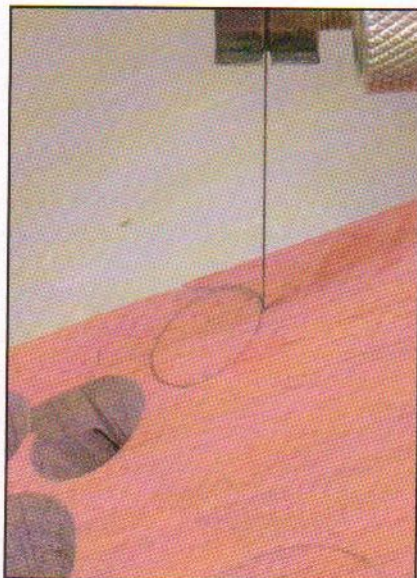
3

Stack the five pieces. Rotate them for the most attractive grain alignment and number them sequentially. Glue the first pair of angled discs to the center disc. Clamp the unit briefly to control slippage. Glue on the second pair of angled discs. Clamp the completed assembly and let it dry.



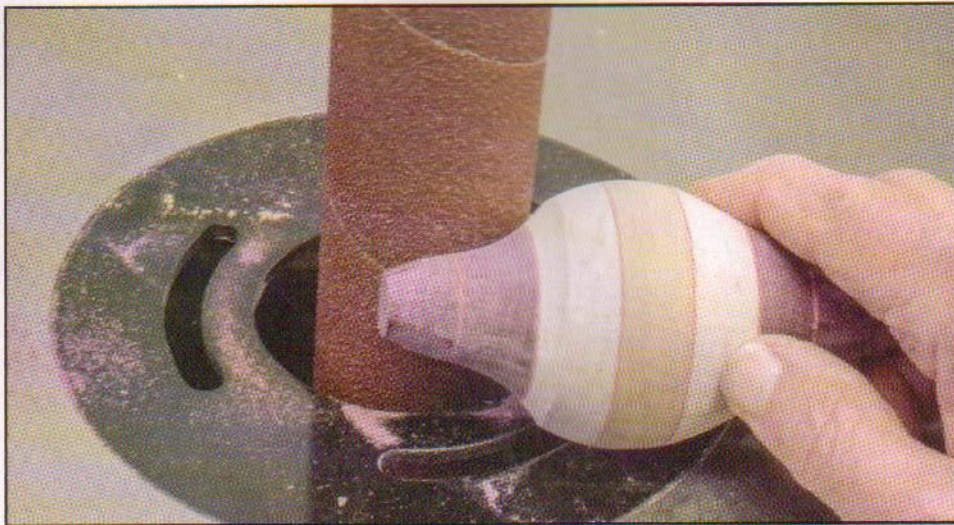
4

Sand the piece. Use a 2" or 3" (51mm or 76mm)-diameter pad sander. The 3" (76mm) pad removes wood faster, but the 2" (51mm) pad gives better control. Use an 80-grit disc to sand the workpiece until the center piece is rounded and the sides form a smooth curve. Do not sand the edges of the top and bottom circles.



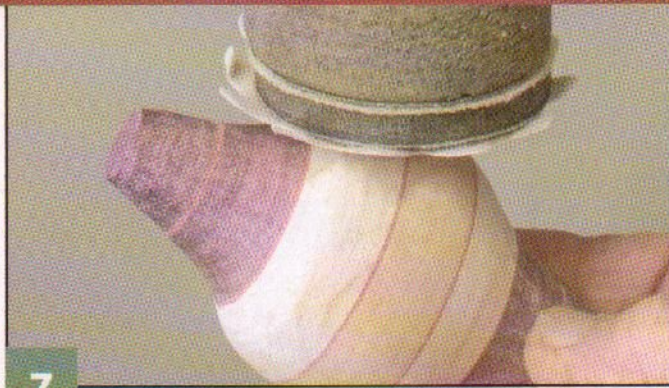
5

Draw two 1⅜" (2.1cm)-diameter circles on the veneered side of the purpleheart. Reduce the tilt on the left side of the saw table down to 20° and cut the circles in a clockwise direction. Glue and clamp these pieces to the ends of the ornament. Let the glue dry.

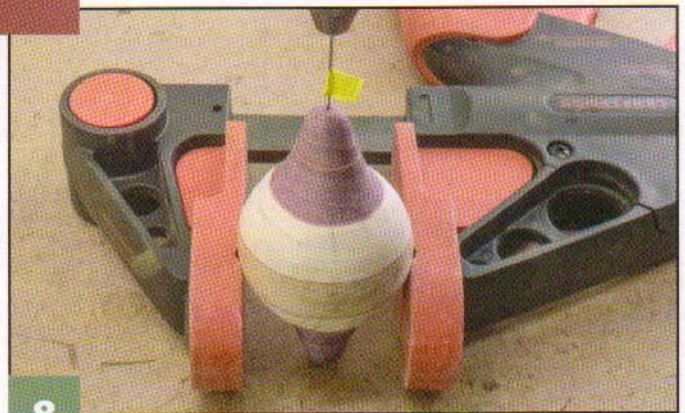


6 Sand a smooth curve where the maple and purpleheart discs meet. Use a spindle sander and 1½" (38mm)-diameter spindle. The spindle should protrude no more than ¼" (6mm) into the maple as you start shaping or you may remove too much wood. Rotate the ornament as you deepen and smooth the curve. Continue sanding toward the ends, making sure both sides have the same contours. Do not round over the top and bottom edges. This will be done with pneumatic sanders in Step 8.

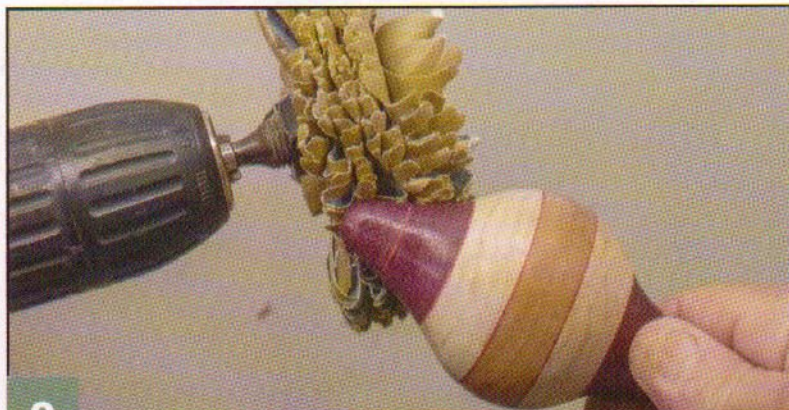
FINISHING THE ORNAMENTS



7 Mark the center of one end. Use an awl. This will be the drilling point for the hanger. Use a 2" (51mm)-diameter pad sander, a round inflatable sander, and a 1½" (38mm)-diameter pneumatic drum sander to complete the shaping of the body and extensions. Do not round over the upper and lower ends. Sand progressively through the grits up to 220.

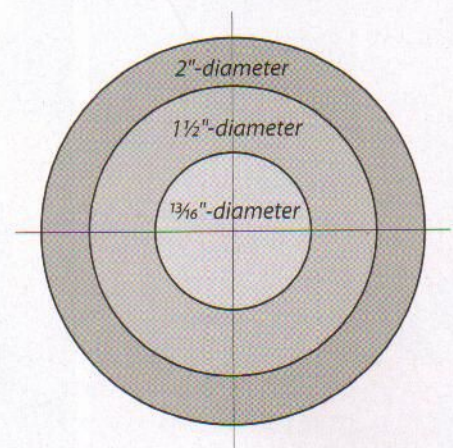


8 Clamp the ornament securely with the awl mark facing up. Measure the length of the screw portion of the hanger and mark this length on the #63 wire-size drill bit with tape. Drill a hole at the awl mark to this depth. Round the ends of the ornament with the small pneumatic drum sander. Finish by hand sanding.

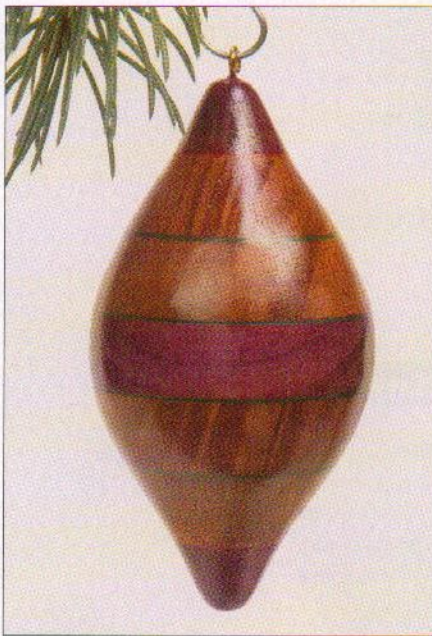


9 Suspend the ornament and apply a sealer coat of shellac. Sand the surface until smooth using 320-grit sandpaper or a 320-grit sanding mop. Apply additional coats of a finish of your choice, rubbing between coats with 0000 steel wool as needed.

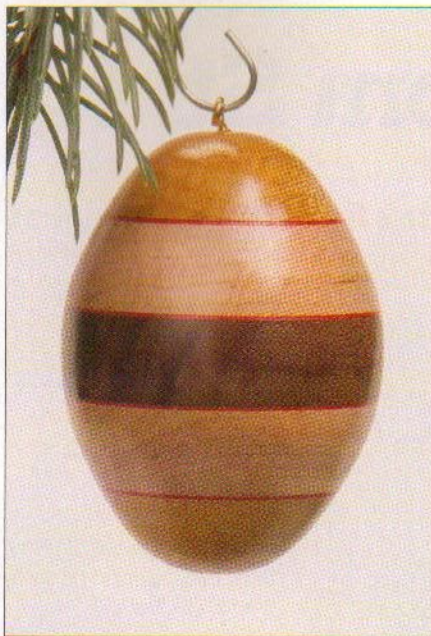
Ornament Template



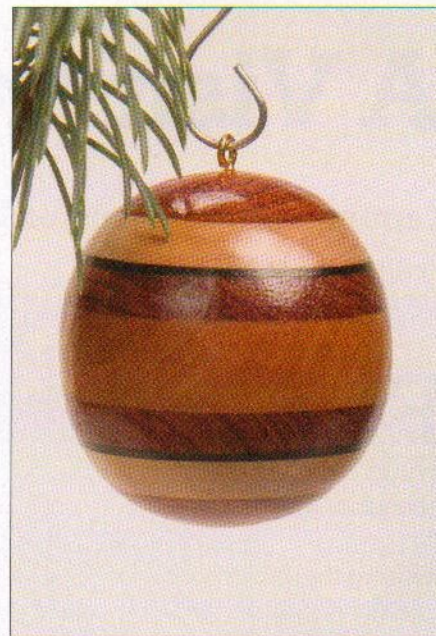
Variations



Icicle: Follow the instructions for the first ornament up through Step 4. Draw two $1\frac{3}{16}$ " (2.1cm)-diameter circles on a $\frac{1}{2}$ " (1.3cm)-thick piece of wood. Tilt the left side of the saw table down to 25° and cut the circles in a clockwise direction. Glue the resulting discs to the ends of the ornament. Use a 2" (5.1cm)-diameter pad sander with an 80-grit disc to shape the sides into a smooth curve, and then complete the ornament as in Steps 7 through 9.



Egg: Follow the instructions for the first ornament up through Step 4. Mark the centers of both ends with an awl to help guide the shaping and to locate the drilling point for the hanger. Starting with an 80-grit disc, use the 2" (5.1cm) pad sander to sand the piece into a smooth egg shape, rounding and softening the ends. Sand through the grits in gradual increments up to 220. Drill a hole for the hanger as in Step 8, and complete as in Step 9.



Ball: Follow the instructions through Step 1. To create the narrow stripe, make the blank for the first set of angled discs from black veneer sandwiched between two $\frac{1}{4}$ " (6mm)-thick pieces of contrasting wood. To make the second set of angled discs, use a compass to draw two $1\frac{1}{2}$ " (3.8cm)-diameter circles on $\frac{1}{4}$ " (6mm)-thick stock. Tilt the left side of the saw table down to 35° and cut the circles in a clockwise direction. Stack and glue the pieces as in Step 3. Mark the center of both ends with an awl to guide shaping and to locate the drilling point for the hanger. Work from the center using the 2" (5.1cm) pad sander with an 80-grit disc to sand the ornament into a smooth ball. Sand through the grits in gradual increments up to 220. Drill a hole for the hanger as in Step 8, and complete as in Step 9.

Materials & Tools

Materials

- Veneer, red dyed: 2 each $2\frac{1}{2}$ " x $4\frac{1}{2}$ " (6.4cm x 11.4cm)
- Purpleheart, $\frac{1}{2}$ " (1.3cm) thick: $2\frac{1}{2}$ " x $4\frac{1}{2}$ " (6.4cm x 11.4cm)
- Cherry, $\frac{1}{2}$ " (1.3cm) thick: $2\frac{1}{2}$ " x $2\frac{1}{2}$ " (6.4cm x 6.4cm)
- Maple, $\frac{1}{2}$ " (1.3cm) thick: $2\frac{1}{2}$ " x $4\frac{1}{2}$ " (6.4cm x 11.4cm)
- Wood glue: Weldbond preferred
- Sandpaper
- Pad sander discs, 2" (51mm)-dia: assorted grits
- Pad sander discs, 3" (76mm)-dia.: assorted grits

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.

- Inflatable sander sleeves: medium, fine grits
- Steel wool: 0000
- Screw eyes, gold colored: $\frac{3}{16}$ " (5mm)

Tools

- Drill with bit: #63 wire size
- Scroll saw blades: #5 skip tooth
- Sanders: 2" (51mm)-dia. pad, 3" (76mm)-dia. pad, round inflatable or 2" (51mm)-dia. inflatable drum, $\frac{3}{4}$ " (19mm)-dia. inflatable drum, spindle sander with $1\frac{1}{2}$ " (38mm)-dia. spindle
- Awl
- Pencil compass



Carole Rothman of Pawling, N.Y., is a retired psychologist and college professor. She is also an award-winning cake decorator. Visit Carole online at scrollsawbowls.blogspot.com. You'll find her books, Creative Wooden Boxes from the Scroll Saw and Wooden Bowls from the Scroll

Saw, at foxchapelpublishing.com.

A Visit from St. Nick

Capture the excitement of Santa's flight with this intricate silhouette design

By Alison Tanner
Cut by Joe Pascucci

From the topsy-turvy reindeer to the sleeping village below, this vivid scene brings the classic poem, "A Visit from St. Nicholas," to life.

Making the Project

Cut the frets first. When it comes time to cut the perimeter of the project, stack it with a piece of thin Baltic birch plywood and cut the outline of both. The thin plywood not only adds a contrasting background but it also supports the delicate fretwork.

For a different look, scale up the pattern and cut the piece from a thicker hardwood, such as walnut, to make a wall hanging.

Another option for advanced scrollers is to stack-cut several from thin— $\frac{1}{16}$ " (2mm) to $\frac{1}{8}$ " (3mm)-thick—plywood and frame the completed project.



Alison Tanner began cutting paper at the age of 8, inspired by a visit to the home of fairy-tale writer Hans Christian Andersen in Denmark. She is the owner/creator

of *Papercuttings by Alison*, which carries a large variety of patterns and supplies for the scissorist. For more of her work, visit papercuttingsbyalison.com.

Materials & Tools

Materials

- Cherry or Spanish cedar, $\frac{1}{2}$ " (1.3cm) thick: 9" x 12" (22.9cm x 30.5cm)
- Baltic birch plywood, $\frac{1}{8}$ " (3mm) thick: backing board (optional) 9" x 12" (22.9cm x 30.5cm)
- Temporary bond adhesive
- Sandpaper
- Finish, such as Danish oil
- Wood glue

Tools

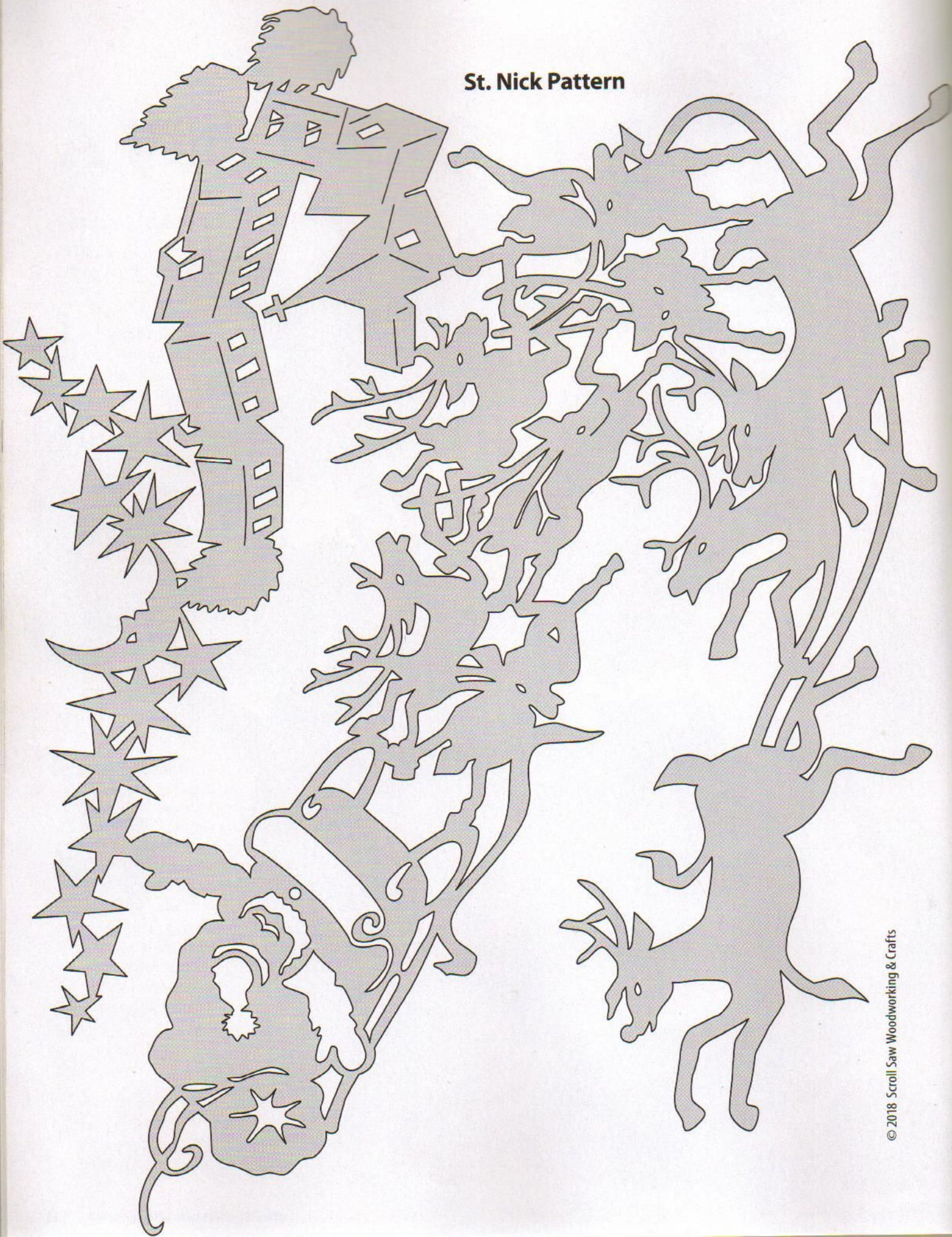
- Scroll saw blades: #3 reverse-tooth
- Drill with bits: assorted small
- Clamps

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.





St. Nick Pattern



Nostalgic Christmas Village



Illuminate these two-part houses with simple tealights

By Sue Mey

Cut by Kaylee Schofield

For me, it's not really Christmas until I'm arranging the village under my tree. Some years, I run my model train right through the town; other years, I forgo the train and use just the village, as it has character enough on its own. Cut the houses from fine-grained hardwood or spare ply, and personalize with your own flourishes.

Cutting and Assembling

Transfer the front patterns to the $\frac{1}{4}$ " (6mm)-thick wood and the side patterns to the thicker wood. I use $1\frac{1}{2}$ " (3.8cm)-thick wood, but you

can go thicker or thinner based on the materials you have and the thickness your saw can cut.

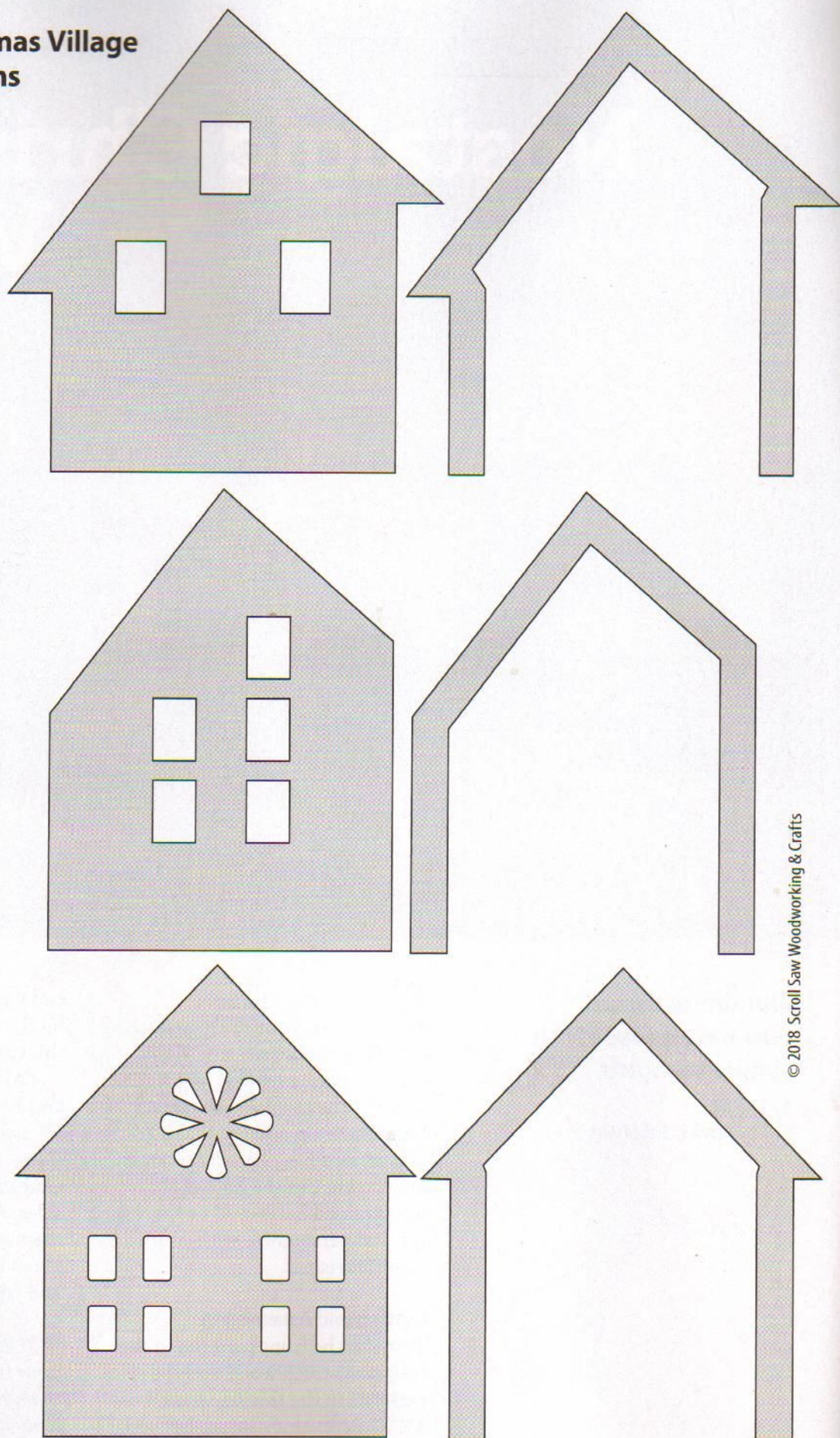
After cutting, sand the front and back of each house front and the inside of each house frame (the sides). Do not sand the outside yet. Glue and clamp the fronts to the sides. Allow the glue to dry, and then sand the perimeter of the glued-together parts until the sides and edges of the front are flush.

NOTE: In order to prevent danger from fire, the author recommends that ONLY battery-operated tealights be used for this project.

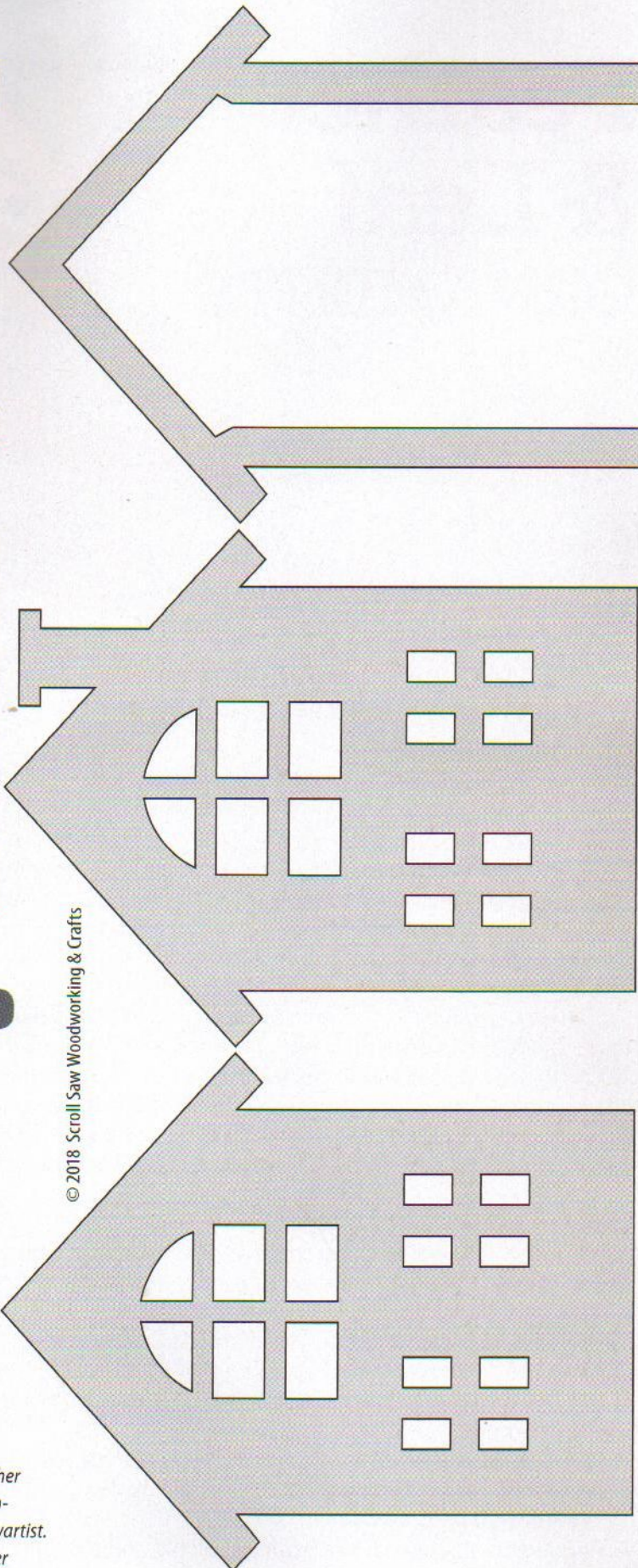
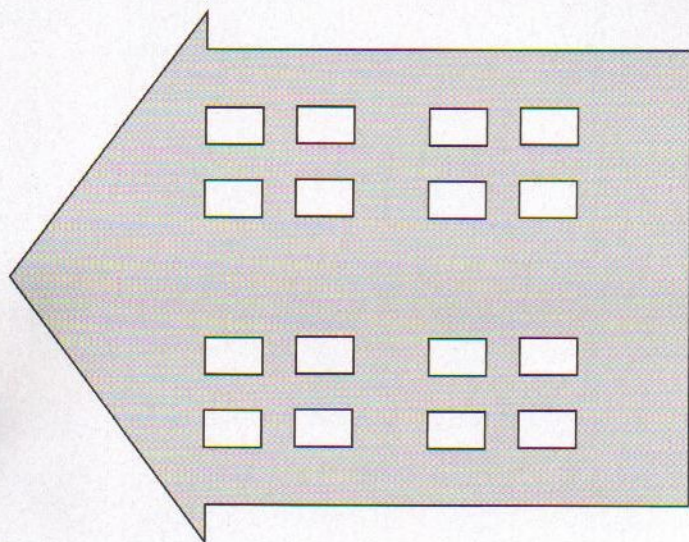
Christmas Village Patterns

Finishing and Displaying

If you chose an attractive hardwood, apply a clear finish. I suggest Danish oil, following the manufacturer's instructions, followed by clear semi-gloss lacquer. If you used plywood, pine, or a bland hardwood, I suggest painting the houses. Simple white houses look great, but if you're artistically inclined, give the houses a more realistic paint job. Seal the painted houses with a few light coats of semi-gloss spray lacquer. Fill each house with a battery-operated tealight.



Christmas Village Patterns



Materials & Tools

Materials

- Wood, such as holly, 1/4" (6mm) thick: per house, 3" x 3 3/4" (7.6cm x 9.5cm)
- Wood, 1 1/2" (3.8cm) thick: per house, 3" x 3 3/4" (7.6cm x 9.5cm)
- Spray adhesive
- Sandpaper
- Glue: wood
- Danish oil or acrylic paint
- Lacquer: clear, semi-gloss

Tools

- Scroll saw blades: #3, #5 reverse-tooth
- Drill with bits: assorted small
- Paintbrushes
- Clamps

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.

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Sue Mey lives in Pretoria, South Africa. To see more of her work, including a wide variety of patterns and pattern-making tutorials available for purchase, visit scrollsawartist.com. She can be contacted at suem@storage.co.za. Her pattern book, *Lighted Scroll Saw Projects*, is available from schifferbooks.com and other outlets.

Feather & Leaf ORNAMENTS

Indulge your inner free spirit with these whimsical compound-cut creations

By Sue Mey

Cut by Jon Deck, Bob Duncan, and Kaylee Schofield

These leaf and feather designs are inspired by some of my finest childhood memories of exploration through forests (and backyards) unknown—traipsing home at long last with pockets full of these small treasures. Where I live, the jacaranda trees even look like clusters of green feathers!

These compound-cut ornaments require a bit of concentration to make, but in the end, there's a huge payoff. Attractive hardwoods, like oak or cherry, lend themselves to the feather and leaf designs, but you could also cut them from a bland wood and finish with stain or acrylic paint. Remember when cutting the side-view pattern that you will be cutting wood about 2" (5.1cm) thick, so choose your wood accordingly.

Making the Ornaments

1. Photocopy the pattern and fold on the dotted line. Apply spray adhesive to the back of the pattern, align the fold with the corner of the blank, and press it into place.
2. Drill holes for each fret. Use a drill press.
3. Make the cuts on one face. Use a #3 skip-tooth blade. I start with the frets on the front of the feather or leaf and work outward. Then, cut the perimeter.
4. Remove the dust with a vacuum and tape the cut pieces back in place.
5. Rotate the blank 90°. Then, cut the remaining face. Use a #7 skip-tooth blade.
6. Remove the feather or leaf from the blank, and carefully sand away any blemishes or bumps. Finish with semi-gloss spray lacquer or Danish oil.

Materials & Tools

Materials

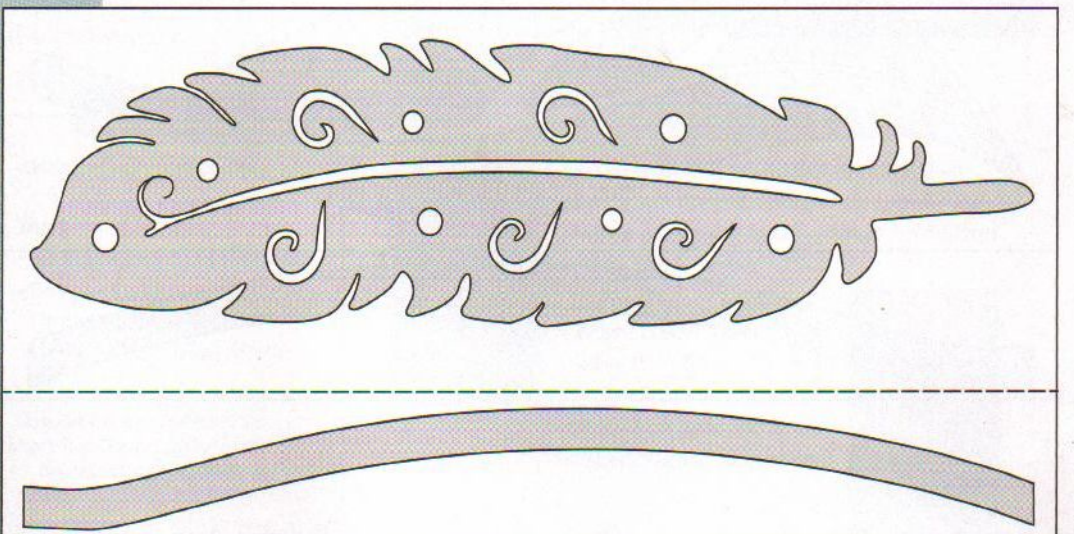
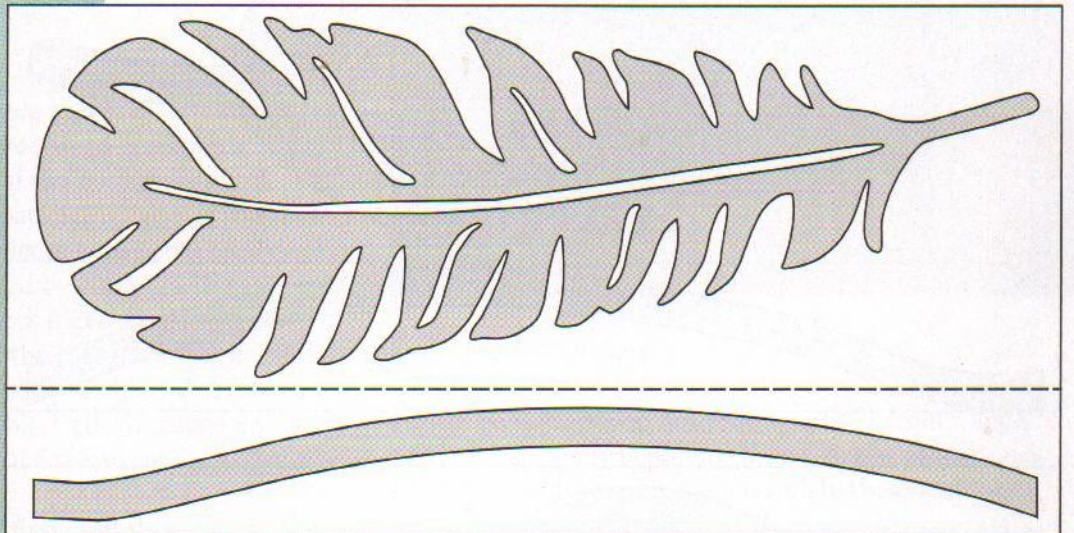
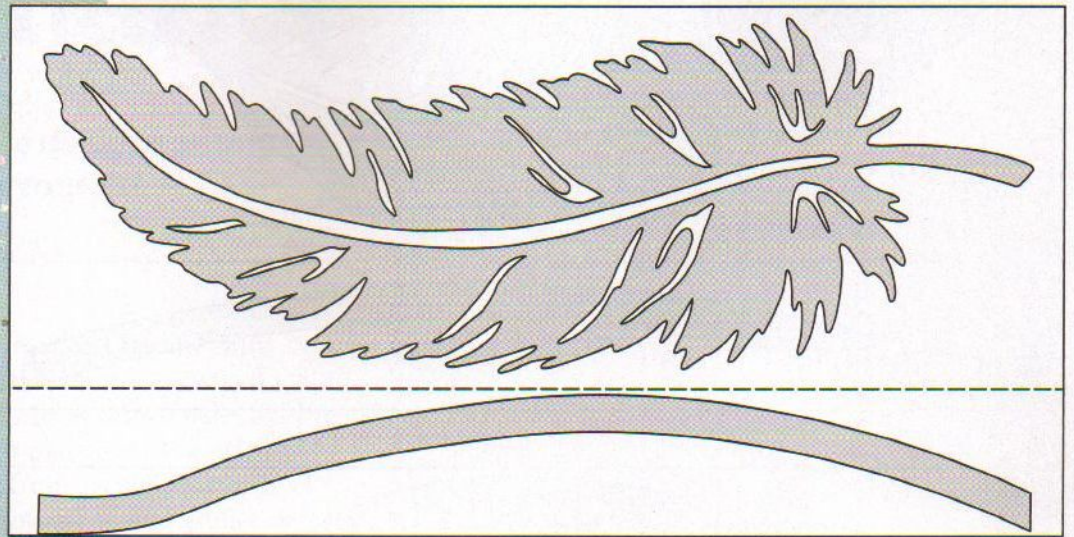
- Wood, such as cherry, lacewood, or oak, ¾" (1.9cm) thick: 2" x 5½" (5.1cm x 14cm)
- Spray adhesive
- Sandpaper
- Tape: clear packaging
- Finish, such as semi-gloss spray lacquer or Danish oil

Tools

- Scroll saw blades: #3, #7 skip-tooth
- Drill press with bits: assorted small
- Vacuum

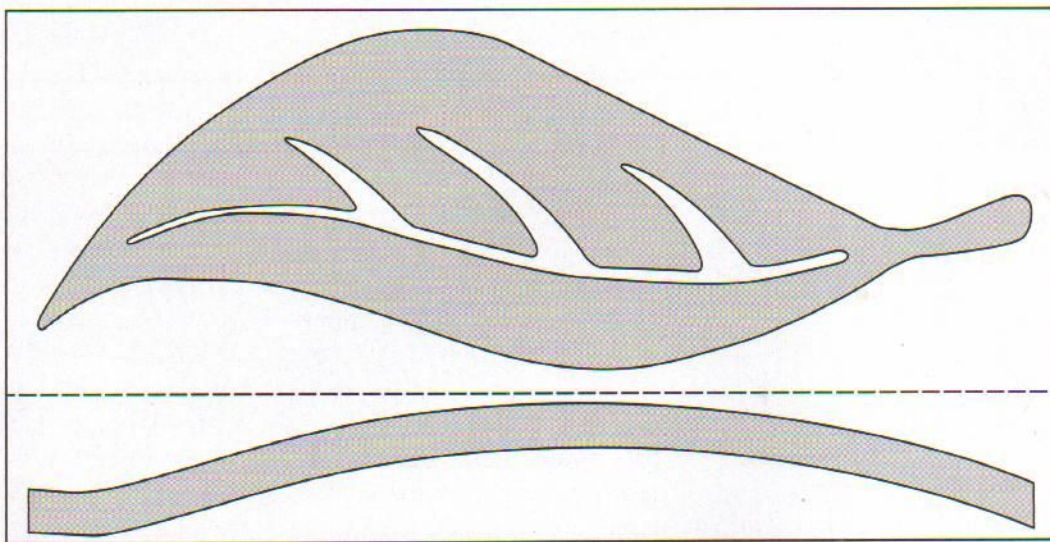
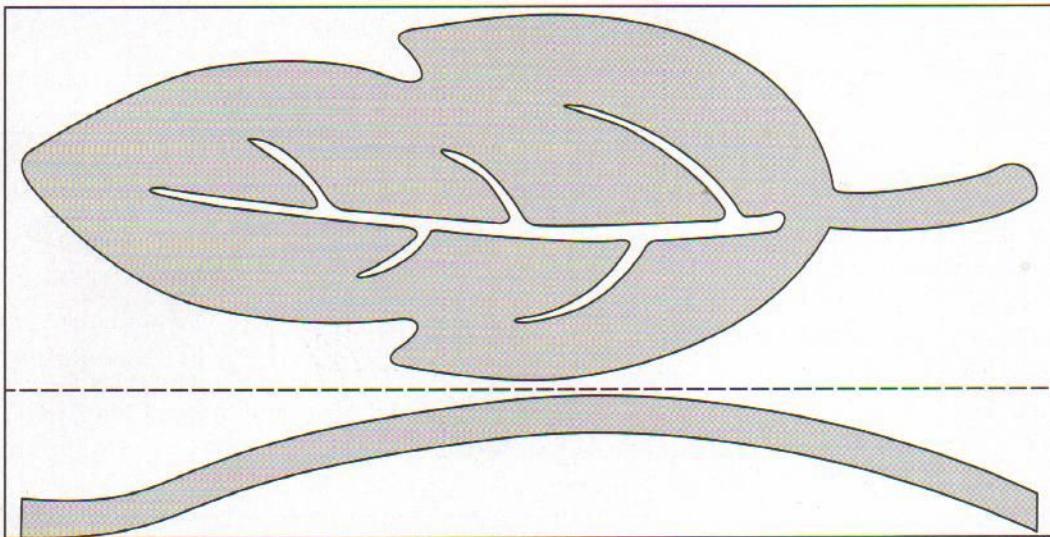
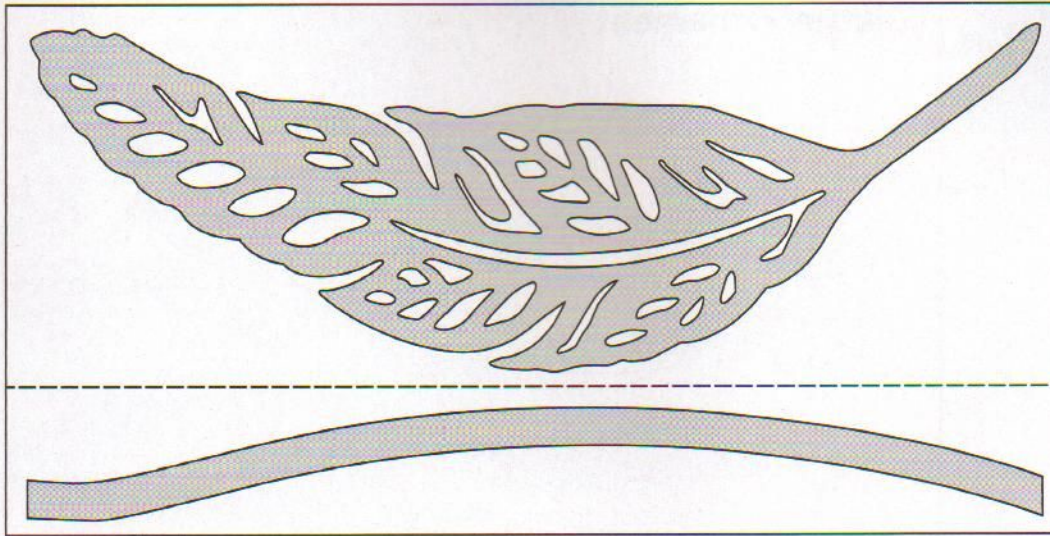
The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.

Feather Ornament Patterns



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Leaf Ornament Patterns



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Sue Mey lives in Pretoria, South Africa. To see more of her work, including a wide variety of patterns

*and pattern-making tutorials available for purchase, visit scrollsawartist.com. She can be contacted at suem@storage.co.za. Her pattern book, *Lighted Scroll Saw Projects*, is available from schifferbooks.com and other outlets.*

STOCKING-STUFFER Bookmarks

Stack-cut these simple designs as tiny gifts for everyone on your list

By Jacob and Wayne Fowler

You can cut these bookmarks from any thin, flexible material. I settled on paper-backed birdseye maple veneer for the ones shown here, but I've also made them from thicker plastic, such as Mylar or Dura-Lar (both available from art supply stores). Follow the pattern with a material of your choice or leave the flap uncut for reusable gift tags.

Stacking and Cutting

To safely cut thin materials, stack between five and 10 bookmark blanks between two pieces of $\frac{1}{8}$ " (3mm)-thick plywood. Cut the plywood and bookmark materials to the rough size of the bookmarks and secure the stack with clear packaging tape. If you plan to cut plastic, separate the pieces with scrap cardstock. Otherwise, the heat generated by cutting will melt the plastic and stick the pieces together. Attach a photocopy of the pattern to the top of the stack. Drill the blade-entry holes for the flap with a $\frac{1}{16}$ " (2mm) or $\frac{5}{64}$ " (2.4mm)-diameter drill bit. Drill the blade-entry hole for the fretwork with a $\frac{1}{32}$ " (1mm) or $\frac{3}{64}$ " (1.2mm)-diameter bit.

Cut the center fretwork first, and then cut the flap. Finally, cut around the perimeter of the bookmark. This frees the bookmarks from the stack. Discard the plywood top and bottom and scrap veneer.

Materials & Tools

Materials

- Thin material, such as paper-backed veneer, Mylar, or Dura-Lar: 2" x 4" (5.1cm x 10.2cm)
- Baltic birch plywood, $\frac{1}{8}$ " (3mm) thick: 2 each: 2" x 4" (5.1cm x 10.2cm)
- Spray adhesive: temporary bond
- Tape: clear packaging
- Finish: polyurethane

- Meat skewers (optional)

Tools

- Scroll saw blades: #1 skip-tooth
- Drill press with bits: $\frac{1}{32}$ " to $\frac{3}{64}$ " (1mm to 1.2mm)-dia.; $\frac{1}{16}$ " to $\frac{5}{64}$ " (2mm to 2.4mm)-dia.

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.



Finishing and Drying

Gently clean the bookmarks with a clean brush or rag. Plastic bookmarks do not require a finish, but I apply a film finish, such as polyurethane, to the veneer ones. DO NOT apply any kind of oil finish; the oil will seep into the paper and stain the pages of the book. I hang the bookmarks on meat skewers to dry.

Patterns for the **STOCKING-STUFFER BOOKMARKS** are in the pattern pullout section.



Jacob Fowler designed his first scroll saw project when he was five years old. He now spends most of his time designing fantasy and animal patterns with his father, Wayne.

Wayne Fowler has published nearly 150 articles since 1998. His work has won awards at a local craft guild and several science fiction conventions.



Winter Retreat

This classic forest scene takes fretwork to a whole new level

By Charles Hand

I have this daydream of walking through a forest of freshly fallen snow. I come upon a warm, cozy cabin nestled deep within the evergreens. No one seems to be around, so I knock twice and the front door opens wide, with no one in sight. I step inside and instantly feel the warmth of logs crackling in the fireplace.

This scene illustrates much of what I love about the season—a snug house to return to after a day of adventuring in the snow. Winter is all about contrasts. With this project, pay attention to how the sharp cabin beams play against the rounded tree boughs. With any luck, you'll start daydreaming, too.

Cutting

Sand the front and back of each blank thoroughly. Blow off the dust or remove it with a tack cloth. Attach removable Con-Tact® creative covering paper to the top of one blank. Apply spray adhesive to the back of the pattern. Let the adhesive set for a few minutes, and then press the pattern down onto the Con-Tact paper. Press out any air bubbles. Stack the portrait blanks with the pattern on top. Hold the wood flat and secure as you wrap blue painter's tape around the perimeter. Drill blade-entry holes and cut the frets.

Since I use spiral blades, I sand the bottom of the stack every 10 cuts to remove the fuzzies. Otherwise, the fuzzies lift the stack and skew the cuts.

Finishing

Remove the tape from the perimeter and peel off the Con-Tact paper. Sand the portraits carefully. For the large open areas, insert the cutout pieces before sanding to protect the delicate bridges. Use needle files to clean up the tight areas.

Remove sander dust with compressed air. Apply a clear spray finish if you don't plan to use a picture frame with glass. Remove the backing board and mat from the picture frame. Line up the portrait to the backside of the mat opening. Attach black felt to the back of the portrait with blue painter's tape. Add the backing board and secure the portrait in the frame.

Materials & Tools

Materials

- Baltic birch plywood, $\frac{1}{8}$ " (3mm) thick: 11" x 14" (27.9cm x 35.6cm)
- Sandpaper: 180 to 220 grit
- Tack cloth
- Tape: blue painter's
- White shelf paper, such as Con-Tact® removable adhesive creative covering
- Spray adhesive: Elmer or 3M Super 77
- Finish: clear spray lacquer (optional)
- Felt backing, black: 11" x 14" (27.9cm x 35.6cm)
- Photo frame, matted: standard 11" x 14"

(27.9cm x 35.6cm)

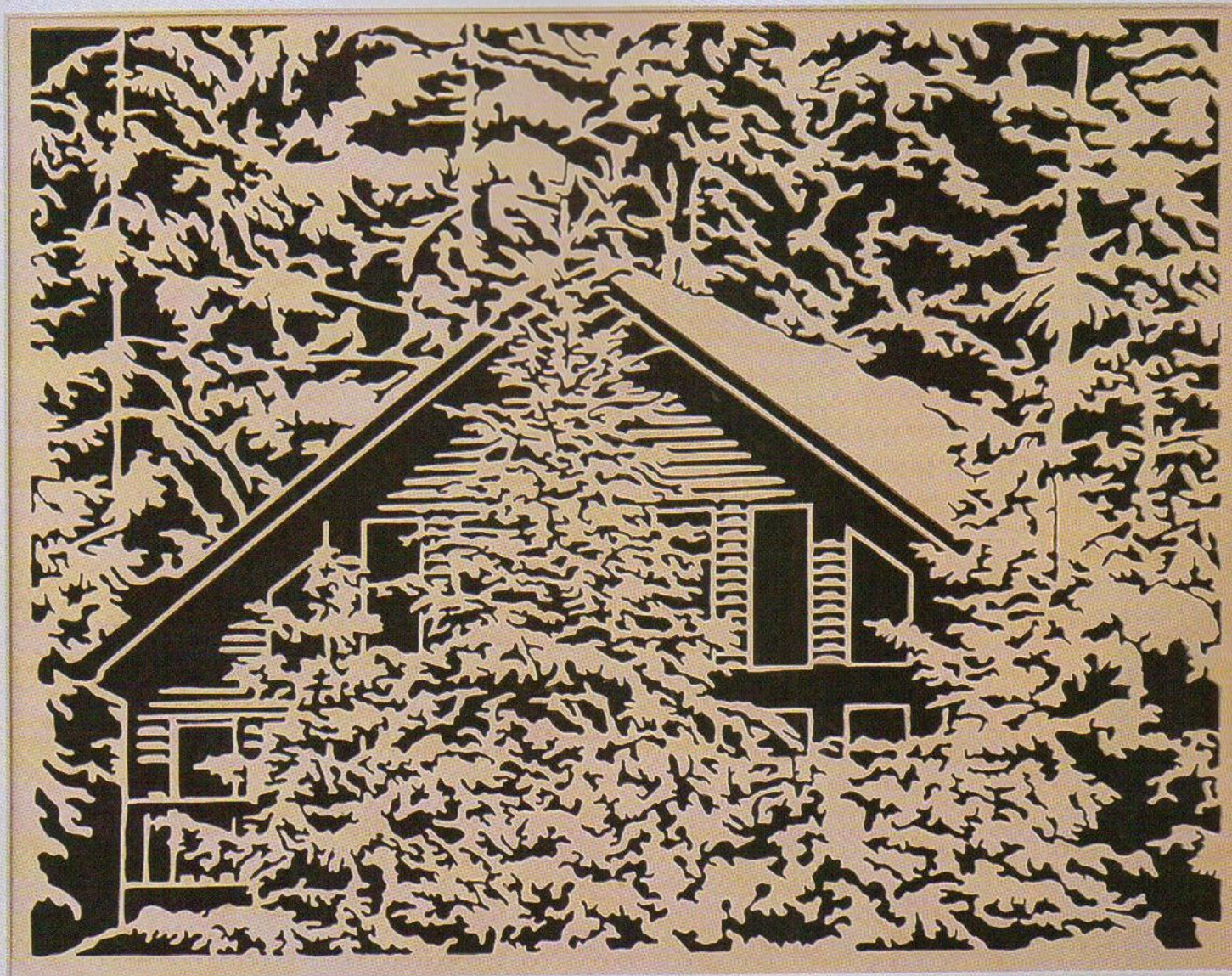
Tools

- Scroll saw blades, #0 or #1 flat-end spiral (interior cuts), #3 reverse-tooth flat blades (straight cuts)
- Drill press with bits: $\frac{3}{64}$ " (1.1mm) dia. or #56 wire size, $\frac{1}{16}$ " (2mm) dia. or #53 wire size
- Palm sander
- Needle files
- Air compressor (optional)

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.

Framing Notes

A standard 11" x 14" (27.9cm x 35.6cm) mat opening is normally $10\frac{1}{2}$ " x $13\frac{1}{2}$ " (26.7cm x 34.3cm), so I design my patterns to suit that size. Take a tape measure when shopping for a picture frame and make sure the mat opening is exactly $10\frac{1}{2}$ " x $13\frac{1}{2}$ " (26.7cm x 34.3cm).



Charles Hand is retired from a career in electrical/mechanical design, graphic arts, and senior project management. He enjoys intarsia, fretwork, segmentation, inlay, and just about everything there is to cut with a scroll saw. Charles has won Best of Show and several other awards for his work, and designs at local craft and woodworking shows. For more information and a tutorial on Charles' Con-Tact® paper method and framing technique, or for more of his patterns, visit scrollsawart4u.weebly.com.

Pattern for **WINTER
RETREAT** is in the pattern
pullout section.

FAIRYTALE Castle Play Set

Customize this storybook
palace design to suit the
fantasy-lover in your life

By Sue Mey

Cut by Bob Duncan

Painted by Kaylee Schofield



Make a fairytale castle with heart-shaped accents for the little princess in your life. Or, cut the other design for your knight-in-training. Mix and match elements to make a play set suitable for any child.

For this project, I painted with acrylic inks. Acrylic inks are similar to acrylic paint, but more fluid. While you can apply them straight to the wood, I thin them with water to make the colors lighter and more transparent.

Prepping and Cutting

Use a softer wood, such as basswood, for the castle backing. Softer woods cut easily without bowing the blade and are readily available in the required thicknesses. It's also easier to make small holes with an awl to mount the flags and pennants in softer wood.

Transfer the patterns to the background blanks and cut them out. Cutting thin wood accurately can be a challenge, so I use double-sided tape to secure the overlay and flag stock to thicker scrap wood to make it easier to stay on the line. To make it easy to remove the double-sided tape (which can be strong enough to pull away wood fibers), put blue painter's tape on the blanks where you plan to attach the double-sided tape. The painter's tape comes off the wood easily without tearing the fibers.

As an alternative to the wooden flags, make them from thin colored cardboard or even fabric. Glue them to toothpicks.

Materials & Tools

Materials

- Basswood, 2" (5.1cm) thick: large castle background
- Basswood, 1½" (3.8cm) thick: small castle background
- Baltic birch plywood, ⅛" (3mm) thick: overlays
- Assorted scrap wood
- Temporary bond adhesive
- Tape: blue painter's, double-sided
- Sandpaper
- Finish, such as stain, acrylic paint, or acrylic inks
- Glue: cyanoacrylate (CA), wood
- Lacquer: clear spray

Tools

- Scroll saw blades: #3, #9 reverse-tooth
- Drill or drill press with bits: ⅛" (1mm)-dia. twist
- Paintbrushes: Hard-bristle (to remove sawdust/sanding dust), small artist's
- Scalpel or craft knife (optional, to cut cardboard/cloth)
- Awl

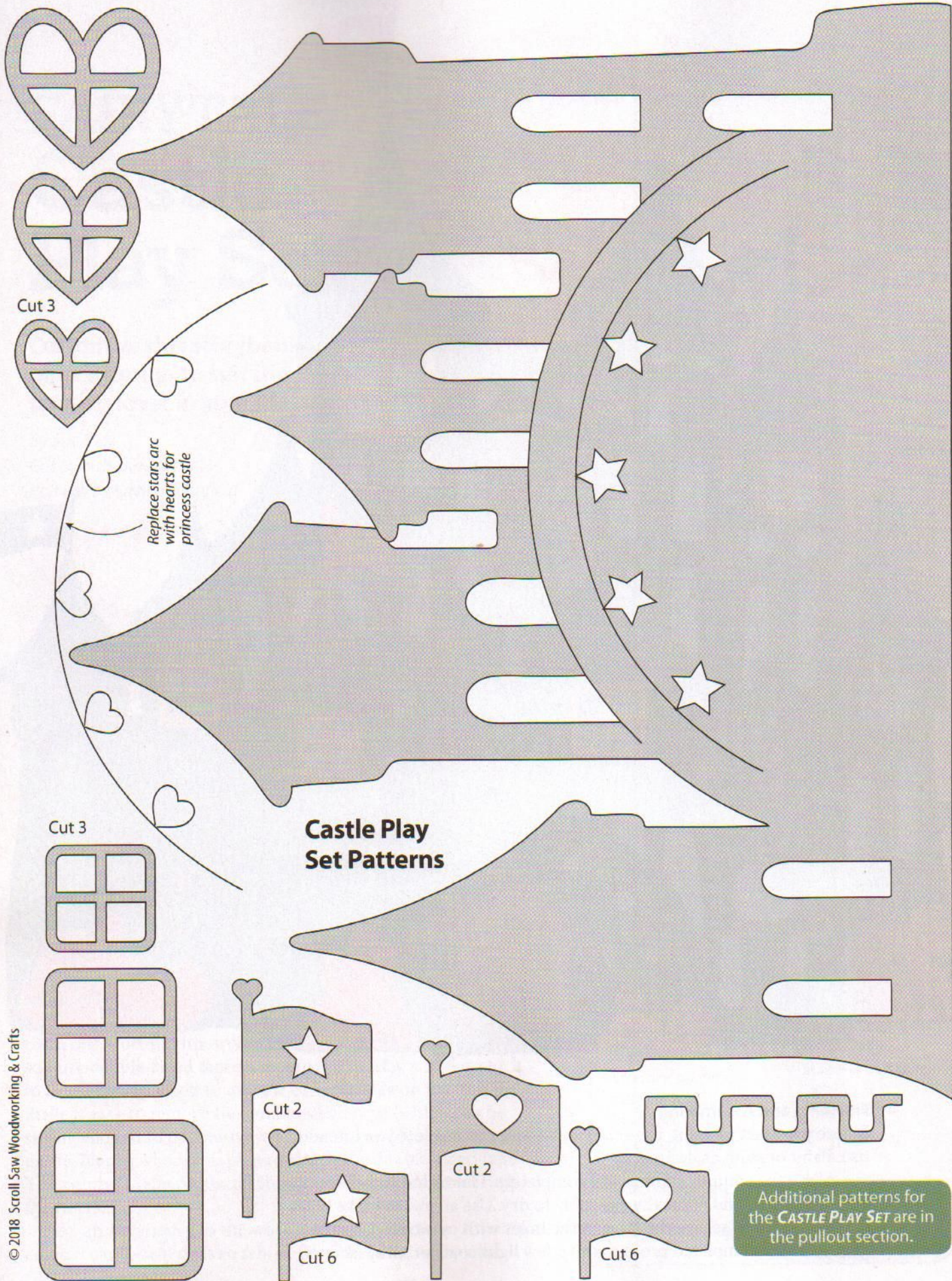
The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.

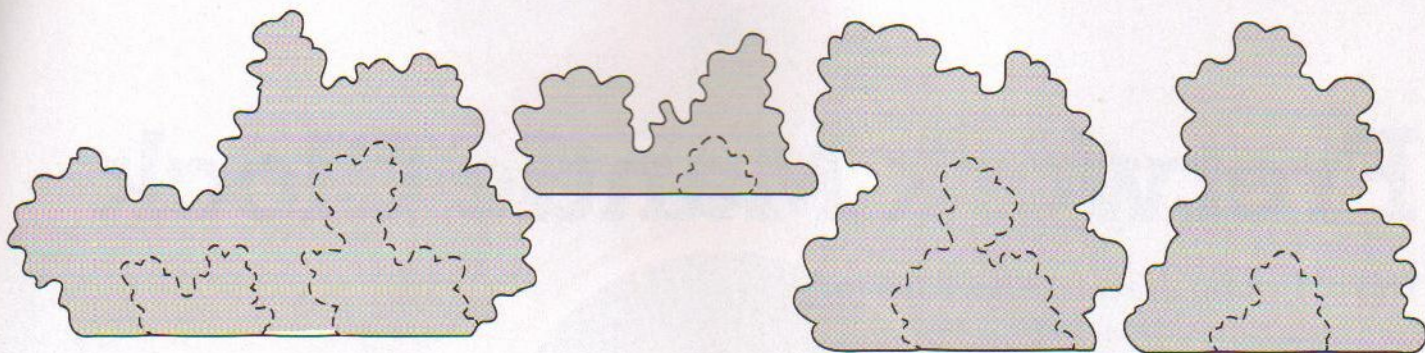


Finishing and Assembling

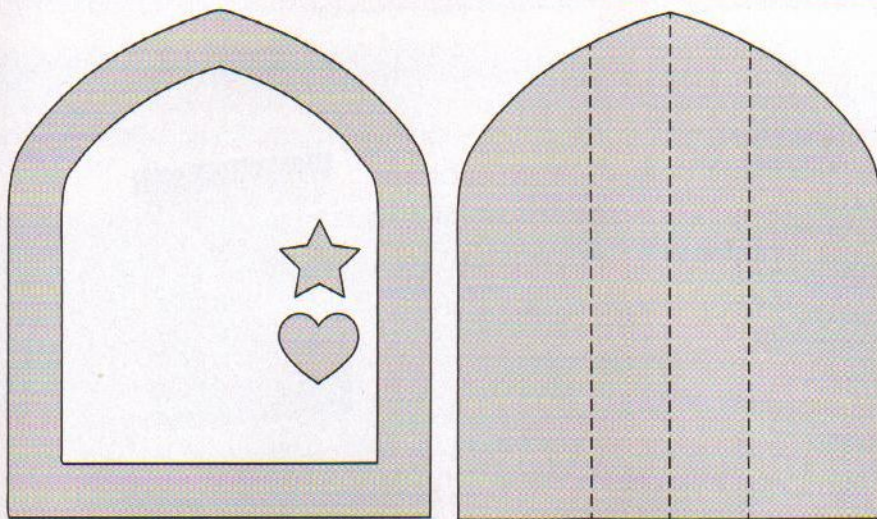
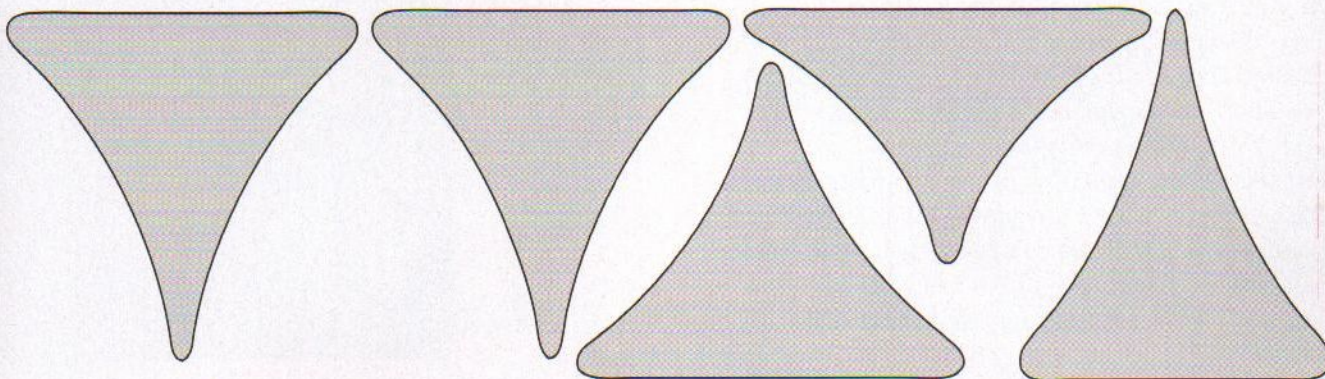
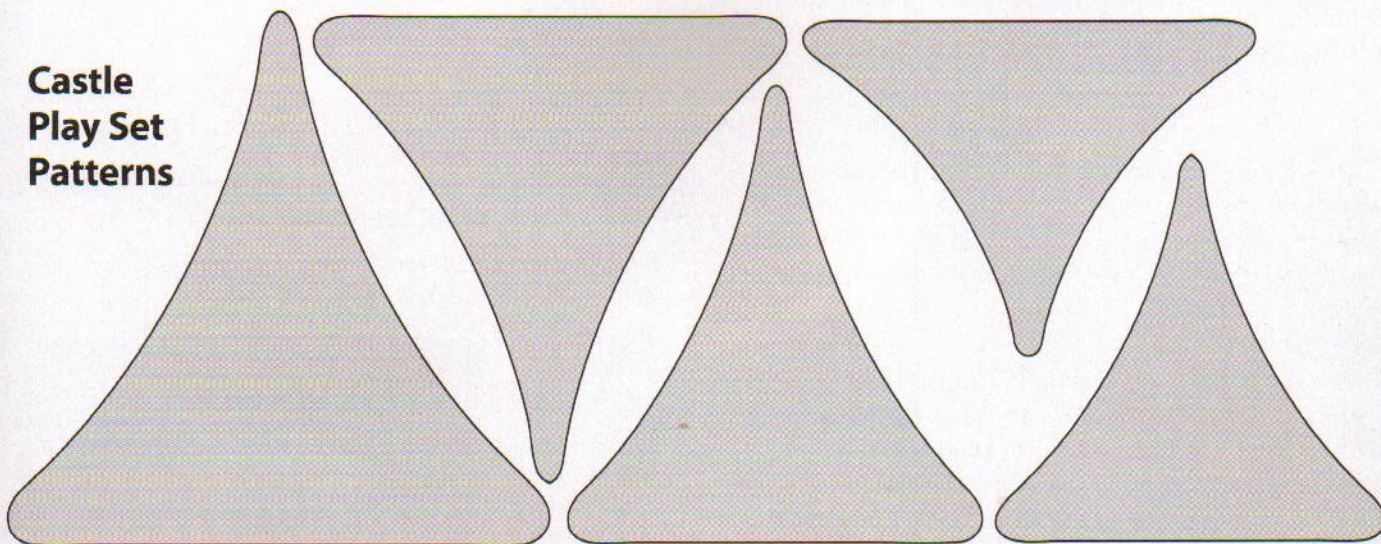
Before you start to paint, use scrap wood to test the colors you intend to use. Paint or stain as desired.

Allow the paint or stain to dry completely. Then, glue and clamp the pieces together and allow the assembly to dry. Use an awl to make holes for the flags, and secure the flags in the holes with cyanoacrylate (CA) glue. Seal the completed project with a few light coats of spray lacquer.





Castle Play Set Patterns



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Sue Mey lives in Pretoria, South Africa. To see more of her work, including a wide variety of patterns and pattern-making tutorials available for purchase, visit scrollsawartist.com. She can be contacted at suem@storage.co.za. Her pattern book, *Lighted Scroll Saw Projects*, is available from schifferbooks.com and other outlets.

Fretwork Mantle Clock

This old-world timepiece is tri-layered for three times the scrolling fun

*Designed by John A. Nelson
Cut by Rolf Beuttenmuller*

Large open frets, an interesting outline, and a unique insert make this mantle clock a terrific timepiece and conversation piece. Visitors will be even more impressed when they find out that you made it!

Cutting and Finishing

Transfer the patterns to the blanks and drill holes for the support dowels to make it easy to align the layers. Stack the front and back, and cut the lower frets, center frets, and perimeter. Separate the stack, and cut the remaining frets on the front, back, and center. Stack-cut the supports.

After cutting, dry-assemble the clock and make sure everything fits, especially the tabs and slots in the base and the area for the spacer. Sand everything smooth. Then, check the fit of the clock insert. Make sure everything else fits together correctly.

Next, round the top edges of the two parts of the base. I use a router with a roundover bit, but you could use sandpaper. Apply three coats of a clear satin finish, such as Minwax. I apply the finish before assembling so I can thoroughly coat the sides and inner edges of each piece.

Assembling

1. Place the front and back onto the spacer.
2. Add a few drops of glue to the slots in the base for the front and back. Carefully fit the front and back tabs into the base.
3. Place the center in position, adding glue to the joining slots. Then, slide the support dowels (and optional spacers) into position. Add the dowel pins to lock the dowels in place.
4. Add the clock insert, rotated slightly to the right. Twist it gently counterclockwise until the 12 is at the top. If you turn the bezel clockwise, it will unscrew.

TIP

ADDITIONAL SUPPORT

For reinforcement, I cut spacers from a ½" (1.3cm)-diameter cherry dowel. Drill a hole in the center to accommodate the support dowels. Cut the spacers to fit between the different layers for additional support.



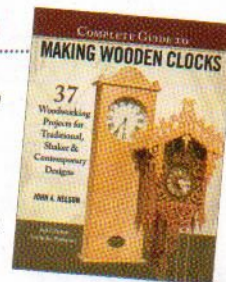
WANT MORE CLOCKS?

Complete Guide to Making Wooden Clocks, 3rd Edition

By John A. Nelson

Plans, parts lists, and instructions for 37 timepieces, including grandfather clocks, mantel clocks, and desk clocks. Also includes a bonus pattern pack with project templates.

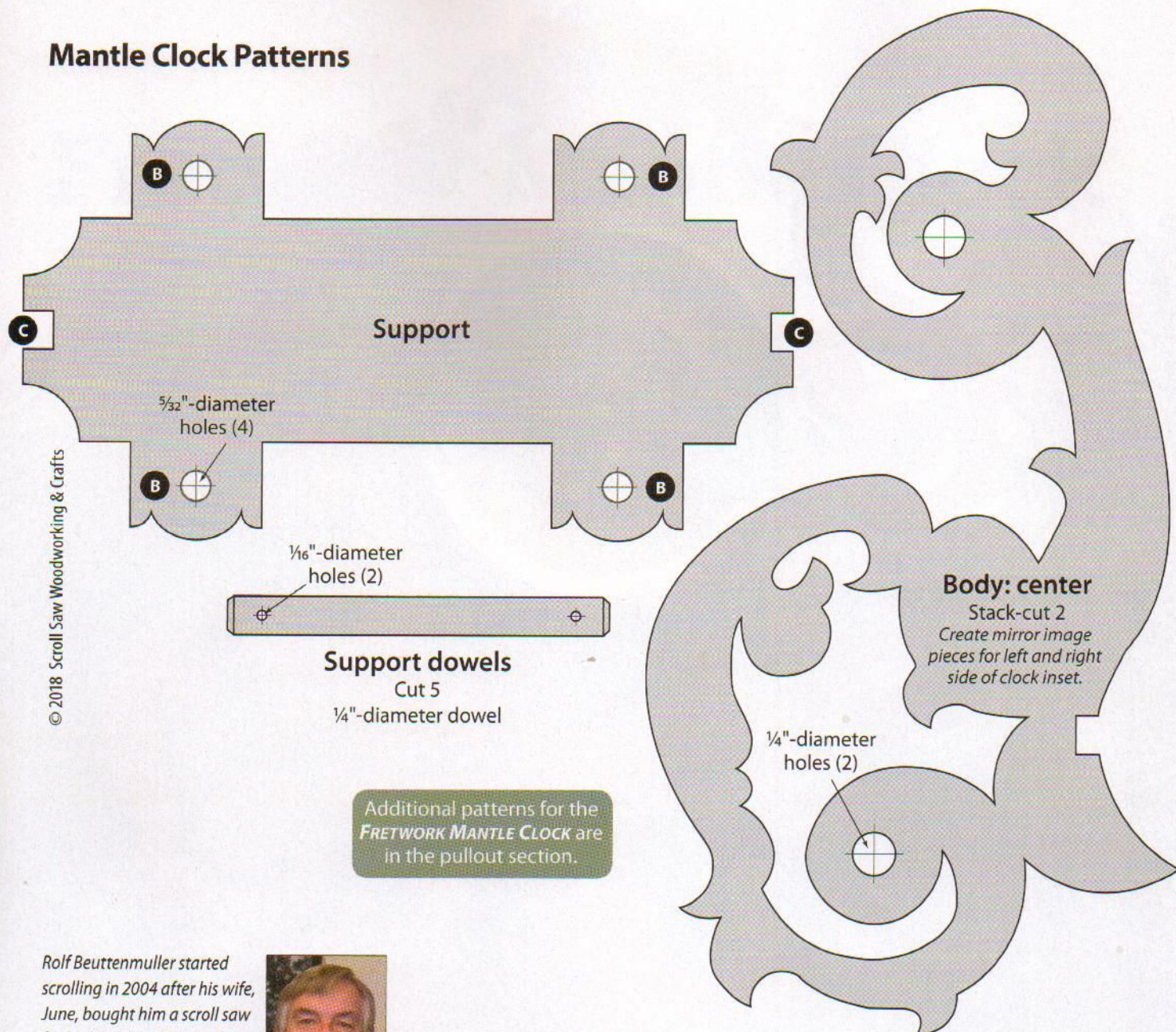
Item 9579C. Available for \$24.99 plus S&H (parcel post) from Fox Chapel Publishing, foxchapelpublishing.com, 800-457-9112, or your local retailer.



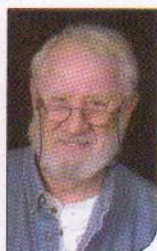


Nath

Mantle Clock Patterns



Rolf Beuttenmuller started scrolling in 2004 after his wife, June, bought him a scroll saw for his birthday. He joined a local club and enjoys new and challenging projects. His motto is, "I don't know that I can't, therefore I can." Rolf recently retired from Brookhaven National Lab after 34 years of designing and building special devices for high energy and photon science research. He lives in Bellport, N.Y.



John A. Nelson is the author of Fox Chapel's popular Scroll Saw Workbook, available at foxchapelpublishing.com.

Materials & Tools

Materials

- Cherry, $\frac{1}{4}$ " (6mm) thick: clock body, 3 each $10\frac{1}{2}$ " x 11" (26.7cm x 27.9cm); supports, 2 each $2\frac{3}{4}$ " x $5\frac{1}{4}$ " (7cm x 13.3cm); base top, $2\frac{3}{4}$ " x 8" (7cm x 20.3cm)
- Cherry, $\frac{1}{2}$ " (1.3cm) thick: base bottom, 3" x $8\frac{1}{2}$ " (7.6cm x 21.6cm)
- Dowels, $\frac{1}{4}$ " (6mm) dia.: support dowels, 5 each, $2\frac{1}{2}$ " (6.4cm) long
- Dowels, $\frac{1}{8}$ " (3mm) dia.: locking pins, 8 each $\frac{1}{2}$ " (1.3cm) long
- Dowels or wooden toothpicks, $\frac{1}{16}$ " (2mm) dia: support dowel locking pins, 10 each $\frac{1}{2}$ " (1.3cm) long
- Temporary bond adhesive
- Sandpaper
- Glue: wood
- Finish: clear spray
- Clock insert: $4\frac{1}{16}$ " (10.4cm)-dia. skeleton clock insert

Tools

- Scroll saw blades: #3 reverse-tooth
- Drill with bits: $\frac{1}{16}$ " (2mm), $\frac{5}{32}$ " (4mm), $\frac{1}{4}$ " (6mm)
- Router with roundover bit: $\frac{1}{8}$ " (3mm)-radius

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.

SPECIAL SOURCES

The gold skeleton clock insert, part number 15722, is available for \$24.99 from KlockIt, 262-729-4855, klockit.com.

Wooden Kazoos

ScrollSchool
Family Workshop Project



This popular toy is a great way to teach workshop basics to children

By Andreas Kullerkann

The kazoo is a crazy-sounding instrument, but is universally beloved by kids and is quick and easy to build with limited tools. Because they take only around 30 minutes to complete, you can make them in bulk and give them out as gifts.

A Kid's First Project

Due to the project's simplicity, it's also an excellent way to introduce children to scrolling and general workshop safety. Teach them how to prepare the pattern, cut and sand the pieces, and safely apply a finish. They'll love having a fun prize to take home at the end of their "workshop day," too.

Selecting the Wood and Finish

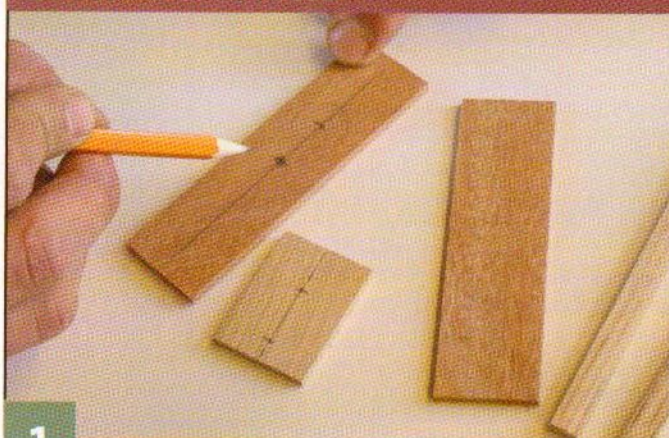
Because this project will come in contact with lips, be sure to choose a nontoxic hardwood, such as cherry or oak. Every commercial finish is food-safe when fully cured, but if you have any concerns, use beeswax, mineral oil, or a butcher-block finish.

Getting Started

Time to start cleaning your workshop in order to find all the scrap wood that has piled up over the years! I

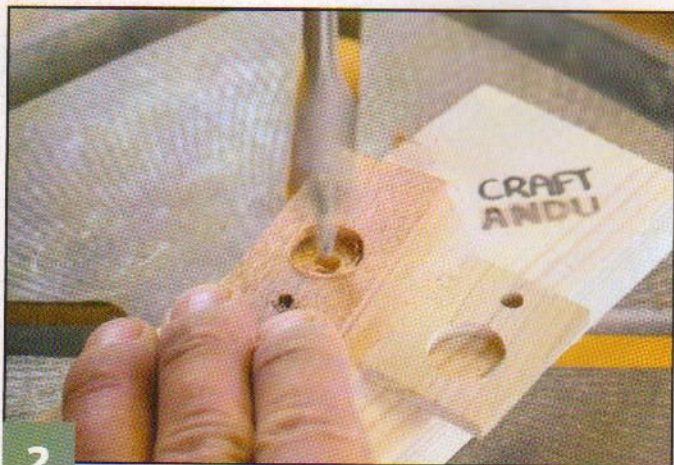
prefer attractive hardwoods. You can use one type of wood for the whole project, but I prefer to use two different kinds for color variation. Once you've chosen the wood, cut it to size. Photocopy the pattern and transfer it to the blank using spray adhesive.

CUTTING THE PIECES



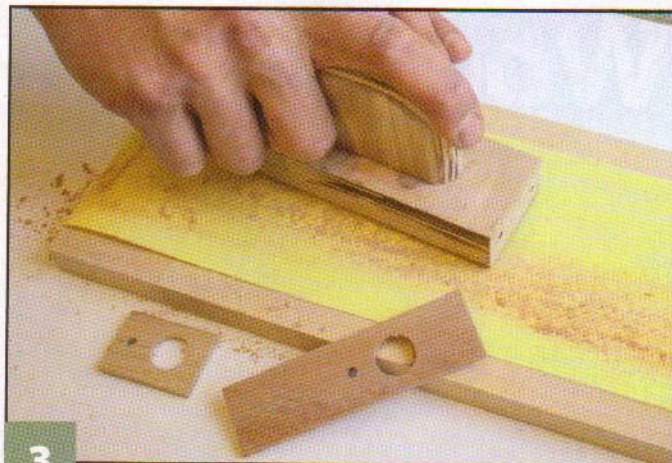
1

Mark the hole locations. Use an awl to mark the holes on the resonator cap and the top of the body.



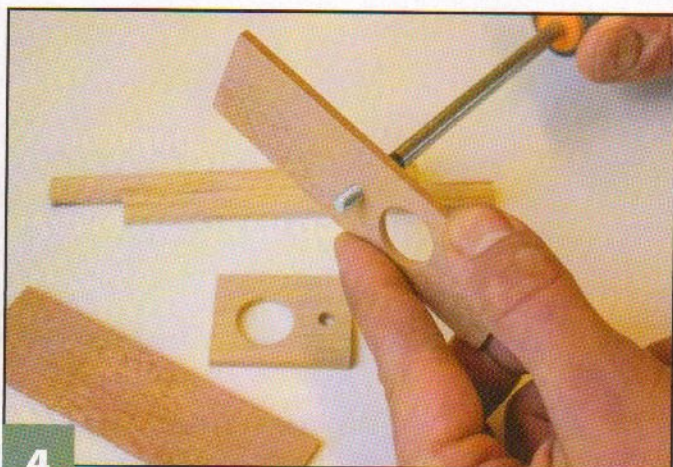
2

Drill the holes. Use a drill press or handheld drill and appropriately sized drill bit; the hole diameters are marked on the pattern.



3

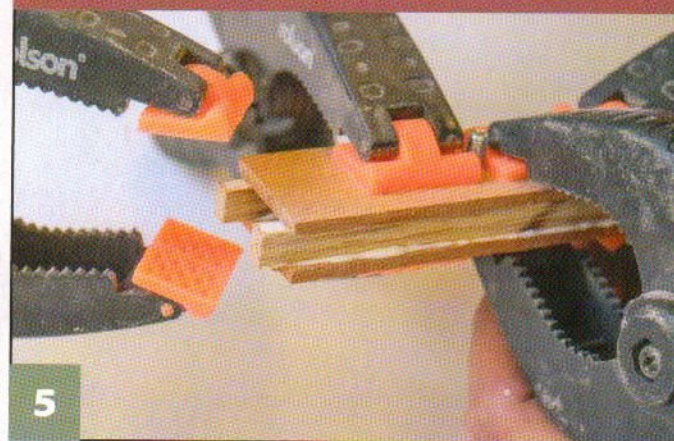
Cut the pieces to size. Sand with 120-grit sandpaper.



4

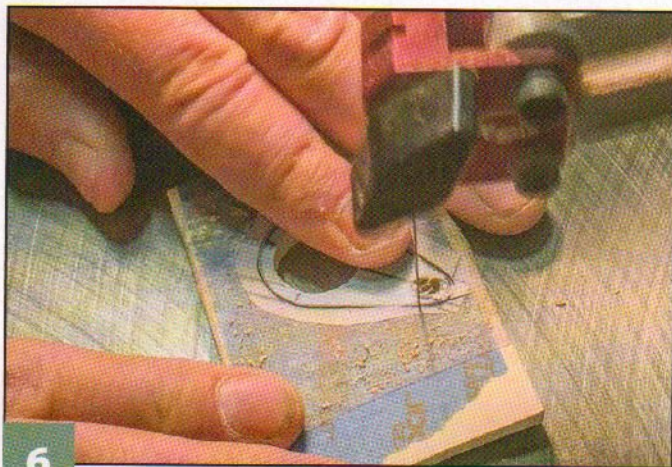
Screw the pan-head machine screw into the top of the body. The screw cuts its own threads into the wood, and you must do this now before the kazoo is glued together. The hole on the resonator cap should slightly oversized so it can be removed easily.

ASSEMBLING AND SANDING



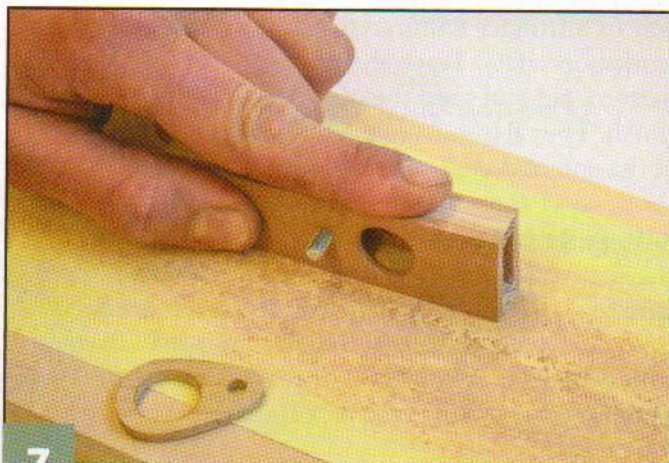
5

Glue the four pieces of the body together. Use wood glue. Make sure that the end of the machine screw faces out. Clamp it in place. I use four spring clamps to apply even pressure when gluing.



6

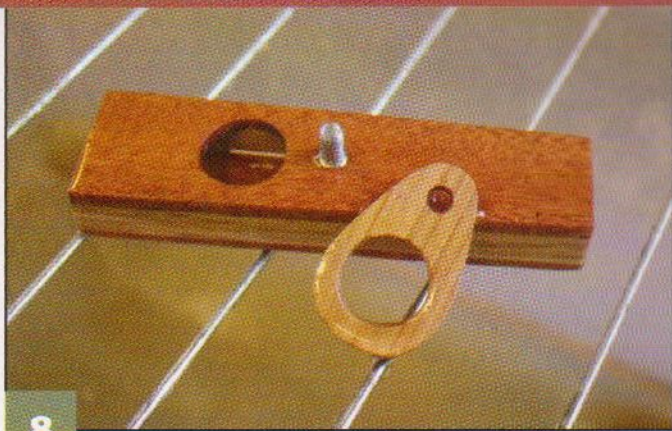
Transfer the pattern to the resonator cap blank. You could also draw a freehand shape. Cut it with the scroll saw and sand with a disc sander.



7

Square the ends of the body. Use the disc sander. Then, sand or hand plane the top and bottom flush with the sides. Smooth away any sharp edges using 240-grit sandpaper and a small file.

FINISHING THE PROJECT



8

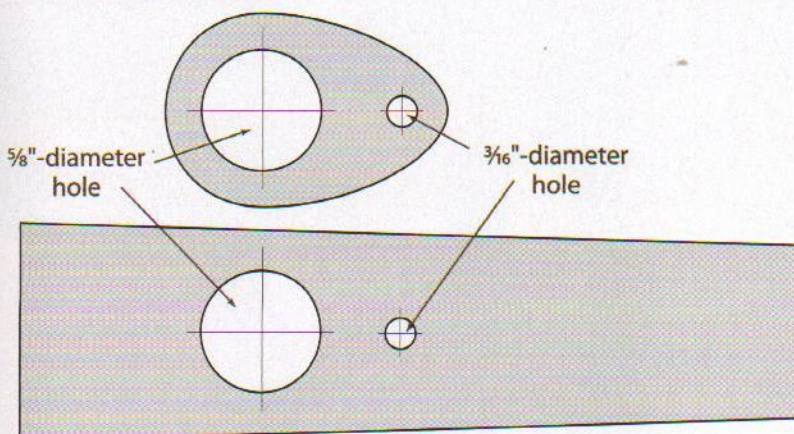
Apply a wood finish of your liking. Raw linseed oil brings forth the beauty of the wood. For best results, submerge the kazoo entirely in order to get the oil on the inside, too. Let the assembly dry.



9

Use the resonator cap to mark the shape on the resonator paper. Cut the cigarette paper slightly smaller so that it doesn't peep out from under the resonator cap. Place the paper over the resonator hole on the body. Then, add the resonator cap, a washer, and a wing nut.

Kazoo Patterns



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Why Use a Bolt and Wing Nut for the Resonator?

Why not just glue it down or use screws? The resonator-paper is fragile, and there is no way to change it if you glue the cap down. Screws work, but as the walls of the body are thin, the screw hole could easily become enlarged and then the screw would come loose.



Materials & Tools

Materials

- Assorted scrap wood, such as cherry, oak, or grey alder, $\frac{1}{4}$ " (6mm) thick: top and bottom, 2 each $1\frac{1}{8}$ " x $4\frac{1}{8}$ " (3.2cm x 10.5cm); sides, 2 each $\frac{3}{8}$ " x $4\frac{1}{8}$ " (1cm x 10.5cm); resonator, 1" x $1\frac{1}{8}$ " (2.5cm x 4.1cm)
- Spray adhesive
- Finish, such as raw linseed oil
- Resonator paper: cigarette rolling paper (available at most convenience stores)
- Machine screw, #10 pan-head: $\frac{3}{8}$ " (1cm)-long
- Wing nut and washer: #10

- Sandpaper: 120, 240 grits
- Glue: wood

Tools

- Scroll saw blades: #1 reverse-tooth
- Table saw with zero-clearance insert (optional, ripping scrap to size)
- Drill press with bits: $\frac{5}{8}$ " (16mm)-dia. spade or Forstner; $\frac{1}{16}$ " (4.5mm), $\frac{3}{16}$ " (5mm)-dia. twist
- Disc sander
- Clamps
- Hand plane: small (optional)
- File: small
- Awl

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.



Andreas Kullerkann is a 22-year-old artist from South Estonia. He mainly focuses on woodworking but is also interested in metalworking, sewing, and pretty much everything DIY. Currently studying ecology at the University of Tartu, he is keen on using natural materials in all of his projects to lessen the negative impact on nature.

Find Andreas on instructables.com as CraftAndu.



Useful Moose

A desk organizer with all the charm of Bullwinkle himself

By Harvey Helm

Cut by Bob Duncan

Painted by Kaylee Schofield

Put this moose on your desk or counter and collect your cards, mail, and notes in one place. He will look after them and keep them safe.

Getting Started

Cover the blanks with blue painter's tape and use spray adhesive to attach the patterns to the tape.



Parts List

	Part	Quantity	Materials	Dimensions	Presentation
A	Front	3	½" (1.3cm)-thick pine	½" x 1" x 5¼" (1.3cm x 2.5cm x 13.3cm)	Dimensions
B	Back	3	½" (1.3cm)-thick pine	½" x 1" x 4" (1.3cm x 2.5cm x 10.2cm)	Dimensions
C	Bottom	3	½" (1.3cm)-thick pine	½" x 1" x 7" (1.3cm x 2.5cm x 17.8cm)	Dimensions
D	Sides/Dividers	4	¼" (6mm)-thick pine	¼" x 6" x 8" (6mm x 15.2cm x 20.3cm)	Pattern
E	Front legs	2	½" (1.3cm)-thick pine	½" x 2" x 8" (1.3cm x 5.1cm x 20.3cm)	Pattern
F	Back legs	2	½" (1.3cm)-thick pine	½" x 1½" x 7½" (1.3cm x 3.8cm x 19.1cm)	Pattern
G	Shoulder top	1	½" (1.3cm)-thick pine	½" x 2" x 4½" (1.3cm x 5.1cm x 11.4cm)	Pattern
H	Head	1	¾" (1.9cm)-thick pine	¾" x 5½" x 6" (1.9cm x 14cm x 15.2cm)	Pattern
I	Rack/antlers	1	¾" (1.9cm)-thick pine	¾" x 3" x 8" (1.9cm x 7.6cm x 20.3cm)	Pattern
J	Neck	1	¾" (1.9cm)-thick pine	¾" x 3" x 8" (1.9cm x 7.6cm x 20.3cm)	Pattern
K	Tail	1	¾" (1.9cm)-thick pine	¾" x 1½" x 2½" (1.9cm x 3.8cm x 6.4cm)	Pattern



Step 1: Cut all of the pieces to size and set the torso pieces aside. Notch the head and antlers so that they interlock. Round the edges of all remaining pieces (everything but the torso) using a router with a ¼" (6mm)-radius roundover bit, and sand with 120 grit sandpaper, working up through the grits until you reach 220.

Step 2: Assemble the torso. Glue and clamp the dividers between the bottom strips, cut to length to match the front, back, and bottom of the sides.

Step 3: Glue and clamp the legs to the sides of the box. I find that a stand made of some scrap wood or a milk carton cut to 4½" (11.4cm) high makes this easy to get them all to even height on a flat surface.

Step 4: Glue and clamp the neck to the head, and then glue and clamp the assembly to the front of the torso. Glue the shoulder to the back of the neck, and the tail to the back of the torso.

Step 5: Finish as desired. For bland woods, I use acrylic paint or dark stain, such as Minwax dark walnut; for attractive hardwoods, I brush on an oil finish, such as dark walnut Danish oil.

TIP

PIN NAIL ASSEMBLY

I now use a pneumatic pin nail gun for a lot of my assembly, as opposed to clamping. The pins are so small they are just about invisible, and it makes everything go much faster.



Materials & Tools

Materials

- Pine or wood of choice, ¼" thick: 8" x 26" (20.3cm x 66cm)
- Pine or wood of choice, ½" thick: 6" x 32" (15.2cm x 81.3cm)
- Pine or wood of choice, ¾" thick: 8" x 18" (20.3cm x 45.7cm)
- Sandpaper: 120, 220 grit
- Spray adhesive
- Tape: blue painter's (optional)
- Glue: exterior wood, cyanoacrylate (CA)
- Finish, such as Minwax dark walnut

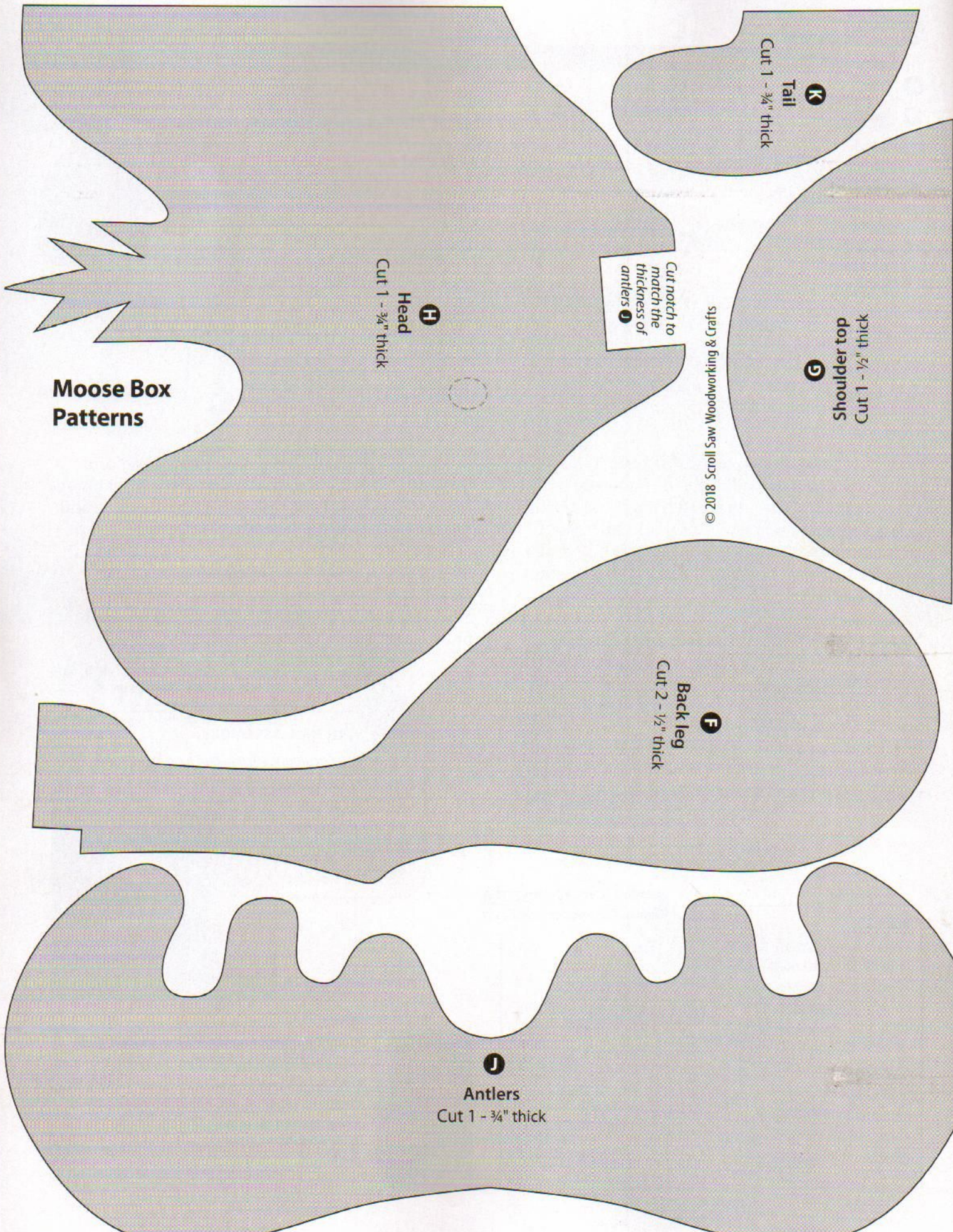
Tools

- Scroll saw blades, #5 reverse-tooth
- Router with ¼" (6mm) roundover bit
- Clamps: assorted
- Pin nailer (optional)

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.



*Harvey Helm taught woodworking in southern Conn. middle and high schools for 30 years. In 2005, he started a vocational school for underprivileged children in the Philippines. Most days, you'll find him creating things in his shop. He is the author of *Wooden Banks You Can Make*, available from Fox Chapel Publishing.*



**Moose Box
Patterns**

J
Antlers
Cut 1 - $\frac{3}{4}$ " thick

F
Back leg
Cut 2 - $\frac{1}{2}$ " thick

G
Shoulder top
Cut 1 - $\frac{1}{2}$ " thick

K
Tail
Cut 1 - $\frac{3}{4}$ " thick

H
Head
Cut 1 - $\frac{3}{4}$ " thick

Cut notch to
match the
thickness of
antlers **I**

E
Front leg
Cut 2 - 1/2" thick

D
Side/divider
Cut 4 - 1/4" thick

*Position of
front leg*

*Position of
back leg*

I
Neck
Cut 1 - 3/4" thick

*Position
of head*

Flip-Lid Pillbox

**Hardwood exterior
hides a simple but clever
locking mechanism**

By Niklas Oberfeld

Cut by Rolf Beuttenmuller



This pillbox fits in your pocket and features a locking mechanism to prevent it from opening by mistake. I built mine from five layers of $\frac{1}{8}$ " (3mm)-thick wood; the three inner layers are plywood and the two outer layers are hardwood. I chose two colors of hardwood (maple and walnut) to give it a minimalist yet distinctive appearance.

Selecting the Wood and Finish

Because you'll be carrying pills in this box, choose a nontoxic wood for the inner layers. Many common hardwoods—such as maple, cherry, oak, or ash—are fine, but some exotic tropical hardwoods can be dangerous. While the pills are unlikely to come into contact with the walnut accent strips, consider a different wood if you are making the pillbox for a person with nut allergies. Every commercial finish is food-safe when fully cured, but if you have any concerns, use shellac or a butcher-block finish.

Getting Started

Cut the pieces to size. Transfer the patterns to the blanks. Label the pieces to match the patterns.

TIP

NEEDLE-NOSE PLIERS

Keep a set of needle-nose pliers handy. Not only do the pliers themselves make it easy to pull a toothpick out of a hole—which you will occasionally have to do—but the cutter on the pliers makes it easy to cut the toothpicks to size.

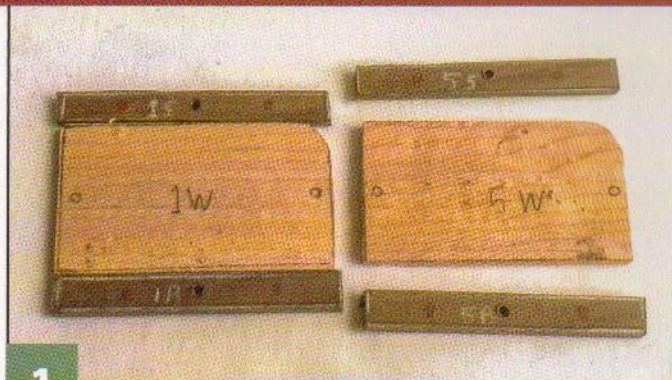


Toothpicks as Dowel Pins

According to PBS, the first industrial toothpick machine was a variation on an existing machine that made the dowels and pegs used to fasten soles to shoes. I use toothpicks as pins for projects like this because the two sharpened ends make it easier to insert them into drilled holes.

Most toothpicks will fit into a hole drilled with a $\frac{1}{32}$ " (1mm)-diameter bit, but double-check by drilling a hole in scrap wood and checking the fit. You might need to increase to a $\frac{3}{64}$ " (1.2mm)-diameter bit.

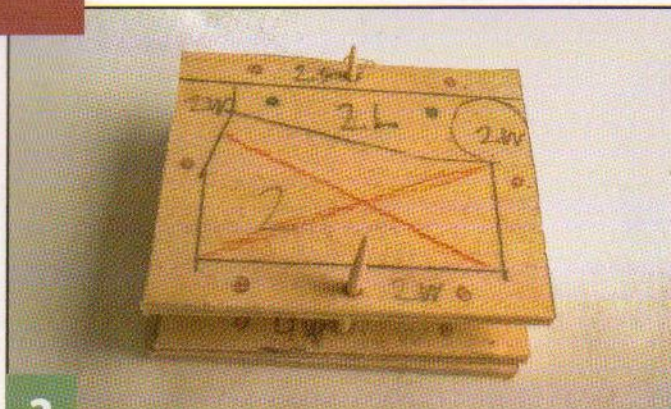
CUTTING AND DRILLING



1

Cut the perimeters of the six maple and walnut pieces.

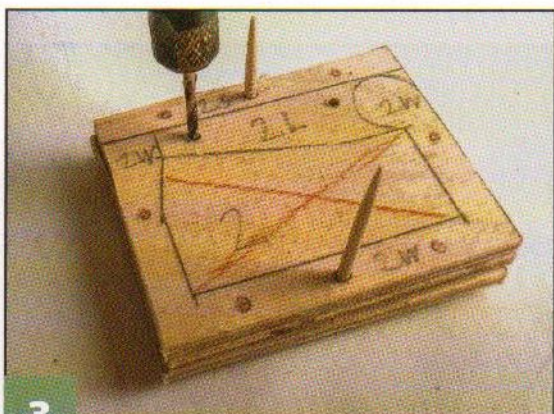
Leave extra wood around the edges so you can sand or file it to fit later. Drill the blue primary positioning holes in the middle of 1S, 1B, 5S, and 5B.



2

Drill the blue primary positioning holes in Layers 2, 3,

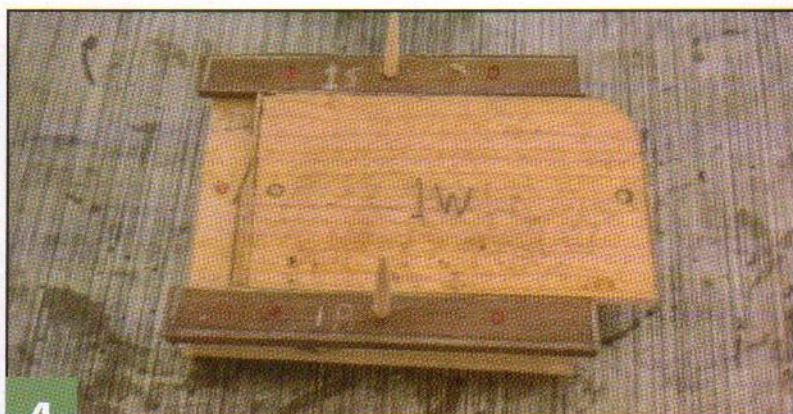
and 4. Drill each hole individually. Then, stack the three layers on top of each other so the holes overlap. Push a toothpick pin through each hole from the back.



3

Place the stack on a piece of scrap wood.

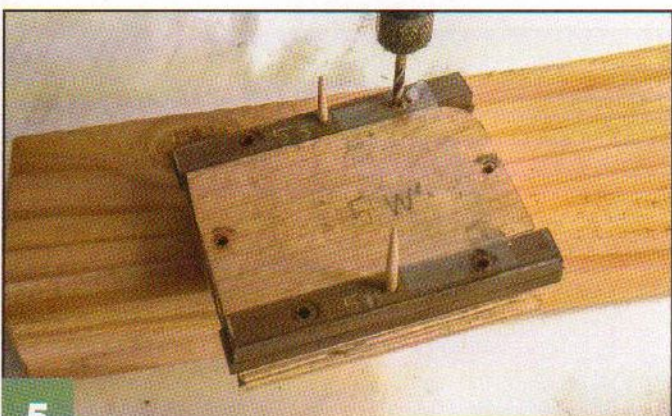
Drill the green holes for the slider mechanism through Layers 2, 3, and 4.



4

Sand the top of 1B to a straight line. Push it face down onto the stack.

Sand the bottom of 1S to a straight line and push it face down onto the stack. Sand the top and bottom of 1W until the piece fits perfectly into the space between 1B and 1S. Repeat this step with 5B, 5S, and 5W.

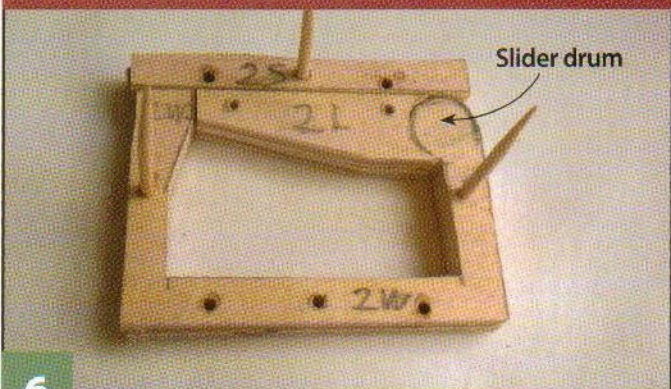


5

Wrap tape around the stack to hold 1W and 5W

in place. Use tape to hold 1S and 5S in place. Drill all of the remaining holes through the entire stack. The holes on Layers 2, 3, and 4 may be a bit off their marks, but it will be fine if they line up with the holes on the other layers. Separate the stack.

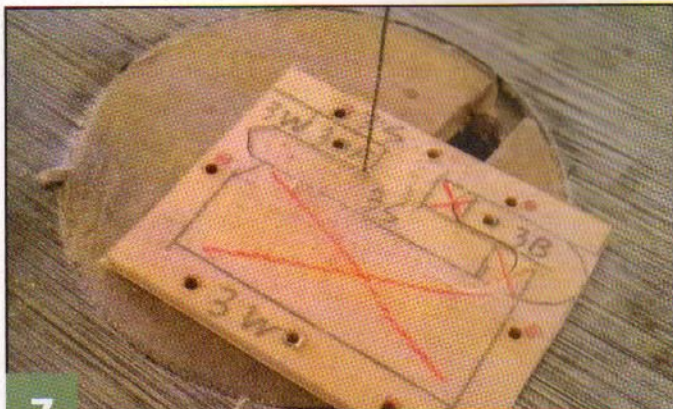
ASSEMBLING THE PROJECT



6

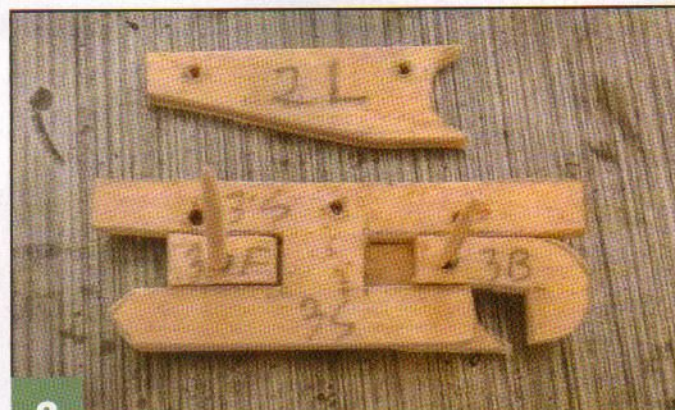
Stack together Layers 2 and 4. Secure them with

toothpick pins. Cut 2S/4S. Sand the cut until it's perfectly straight. Then, cut 2L/4L and the slider drums (a part of 2W/4W). Test to make sure 2L/2W rotate easily along the slider drum, and sand as needed. Cut the open space in the center of 2W/4W.



7

Carefully cut 3S from Layer 3. Make several cuts and use the empty squares as turning spaces so you can stay as close to the pattern lines as possible. Then, cut 3F and 3B. Cut the open space in the center of 3W.



8

Place 4L faceup on the bench. Push toothpick pins through the holes. Place 3S in position. Apply a dot of wood glue to the back sides of 3F and 3B, align them on the pins, and position them on 4L. Allow the glue to dry and test to make sure 3S slides easily. Sand any spots where 3S sticks.



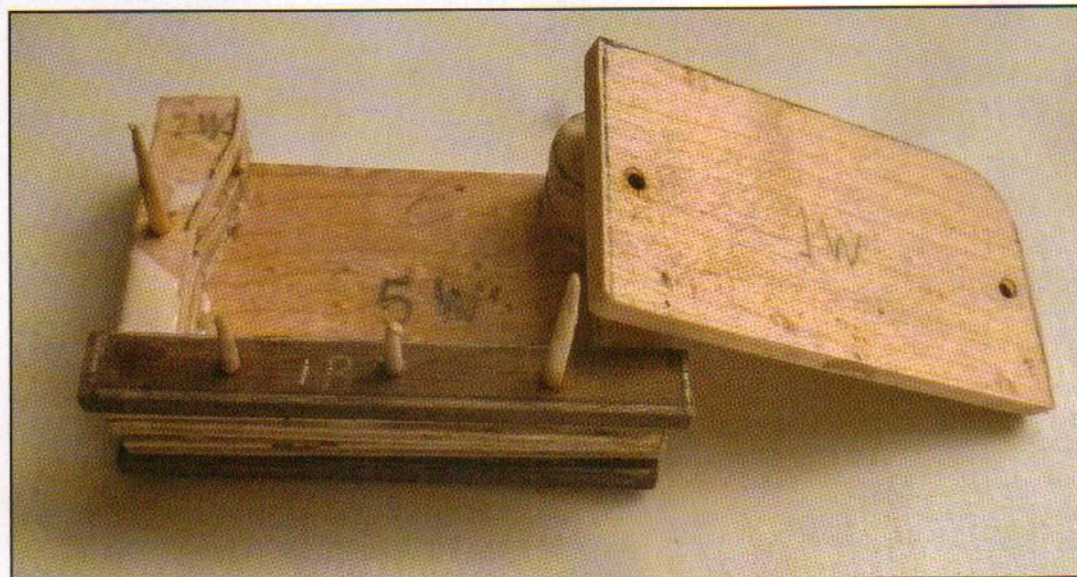
9

Add dots of glue to the tops of 3F and 3B. Place 2L on the pins and slide it into position. Move 3S back and forth regularly until the glue is dry to make sure it doesn't get glued in place.



10

Push toothpick pins through the three holes in 5S. Glue 4S on top of 5S. Glue the slider/lock assembly (from Steps 8 and 9) to the top of 4S. Glue 2S to the assembly, and 1S to 2S.

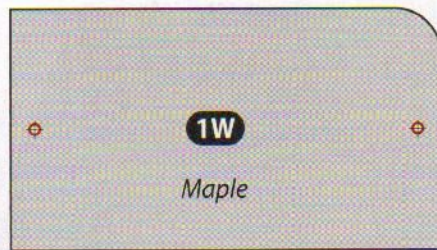
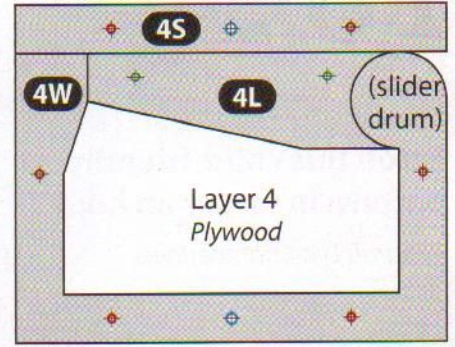
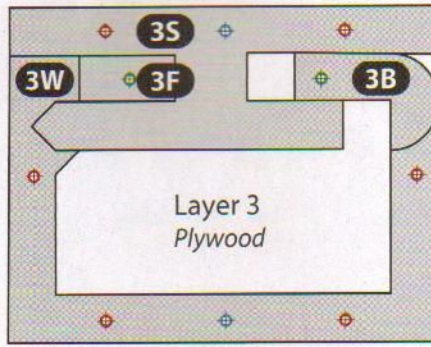
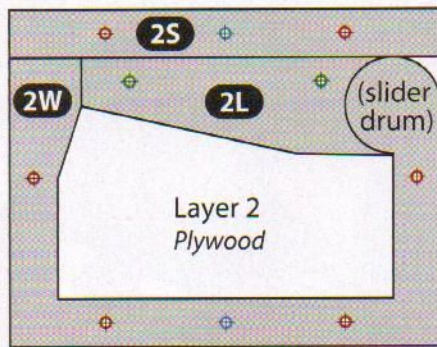


11

Insert toothpick pins in the holes in 5W and 5B.

Use the pins to align and glue 2W, 3W, and 4W in place. Finally, add 1W and 1B. Insert the flip top. Cut the toothpick pins with wire cutters and sand them flush with the walls. Sand the entire box and apply a coat of shellac.

Flip-Lid Pillbox Patterns



- ◆ Primary positioning holes
- ◆ Slider mechanism holes
- ◆ Auxilliary alignment holes

Note: All holes sized to your toothpick pins, (usually 1/32" diameter)

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Materials & Tools

Materials

- Maple, 1/8" (3mm) thick: 2 each 1 1/2" x 2 1/4" (3.8cm x 5.7cm)
- Walnut, 1/8" (3mm) thick: 2 pieces 3/4" x 2 1/4" (1.9cm x 5.7cm)
- Plywood, 1/8" (3mm) thick: 3 pieces of 1 3/4" by 2 1/4" (4.4cm x 5.7cm)
- Wooden toothpicks: 12 to 24 each
- Sandpaper
- Tape

- Wood glue
- Finish, such as shellac

Tools

- Scroll saw blades: #2 to #5 reverse-tooth
- Drill with bit: 1/32" (1mm) to 3/64" (1.2mm) dia.
- Needle-nose pliers with cutter
- Sanding block or belt sander

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.



Growing up in Belgium and Germany, Niklas Oberfeld started his woodworking by cutting out plywood figurines with a jeweler's saw, which was a popular kids' craft at the time, but very soon moved to building balsa wood model planes and other more "engineering" endeavors. He rediscovered scrolling after marrying,

moving to Houston, Texas, and adopting two cats, mostly because in this hobby no feline can chew up or drag off the finished pieces.

Puzzled Fox

Scroll this child-friendly pattern in under an hour

By Sarah Lyn Chamberlain



I found this little fox cub playing by the side of the road. He was so interested in the blinker on my car and the sound of my camera clicking that I was able to get close enough to take some pictures of him. I loved the photos so much I made them into my first original puzzle pattern.

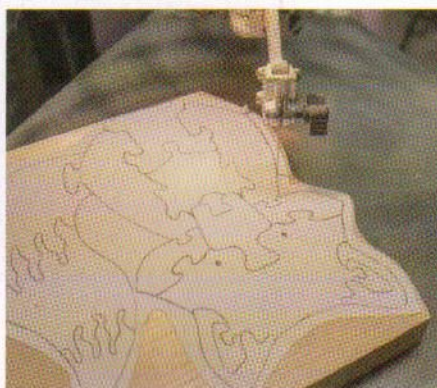
Getting Started

I prefer pine, but any wood will do. Print the patterns, and then use an adhesive spray to secure them on the wood. The grain should flow horizontally.

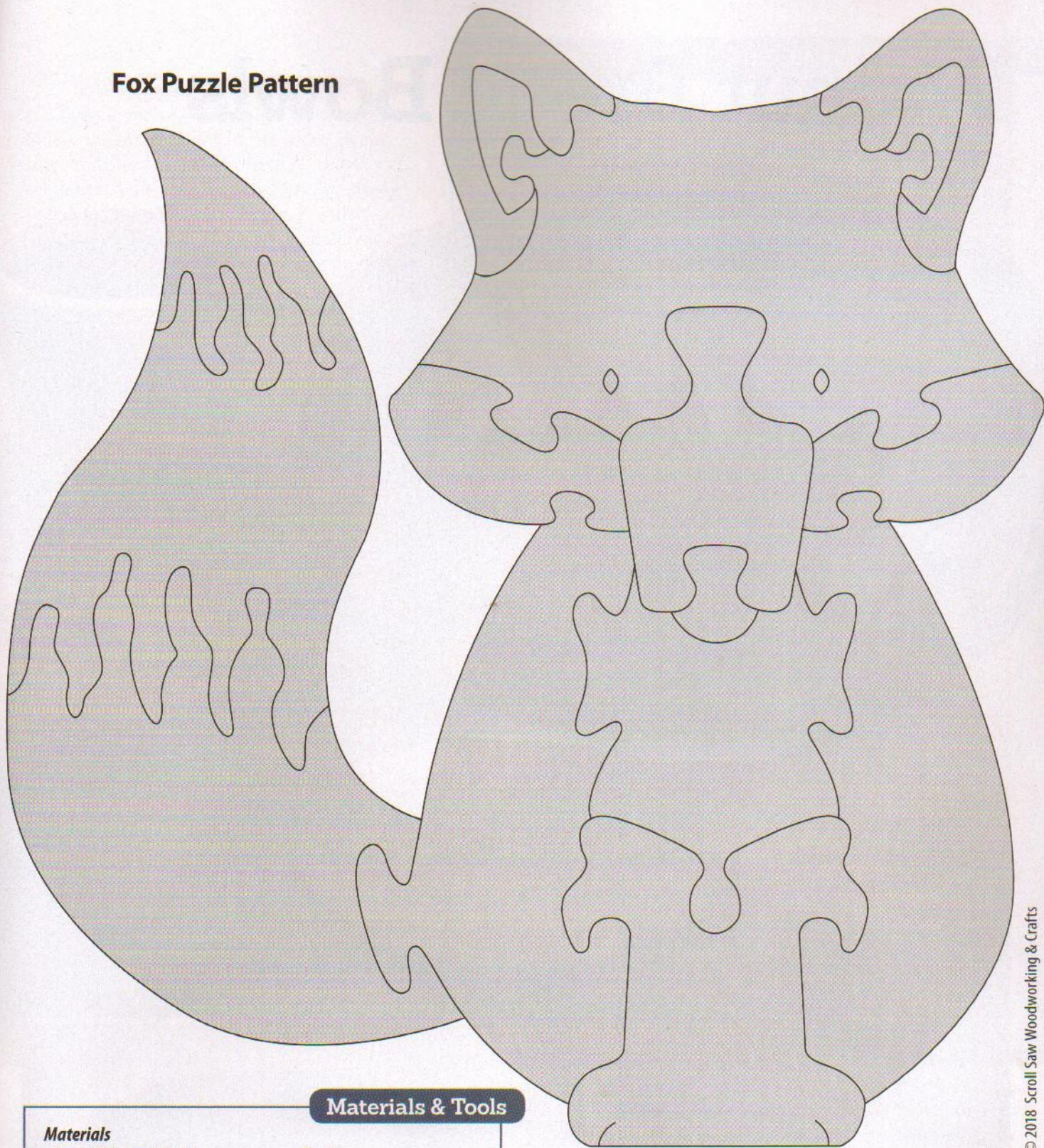


Making the Puzzle

Cut the shape of the fox; then, cut between the body and tail, and set the tail aside, making the body easier to handle. Cut out the insides of the ears, and work through the rest of the cuts. Drill holes for the eyes. After you've made all cuts, reassemble the project and use a random orbital sander on the back and front. Sand the edges by hand, and stain as desired. When all the pieces are dry, apply a clear gloss spray finish.



Fox Puzzle Pattern



Materials & Tools

Materials

- Pine, $\frac{3}{4}$ " (1.9cm) thick:
7 $\frac{1}{2}$ " x 8" (19.1cm x 20.3cm)
- Spray adhesive
- Sandpaper: 80, 150 grits
- Assorted stains, such as Minwax gunstock, dark walnut, red oak, English chestnut
- Finish: clear spray, such as Rust-Oleum 2X Gloss

Tools

- Scroll saw blades:
#7 reverse-tooth
- Sander: random orbital
- Drill with bits: small

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.



Sarah Lyn Chamberlain has loved woodworking since age five, but did not start scrolling until she purchased her first scroll saw as an adult. She taught herself how to use it and hasn't stopped since. Sarah enjoys intricate projects, but her favorite thing to create is playful puzzle designs. For more of Sarah's work, visit her website at creativestuff.ca.

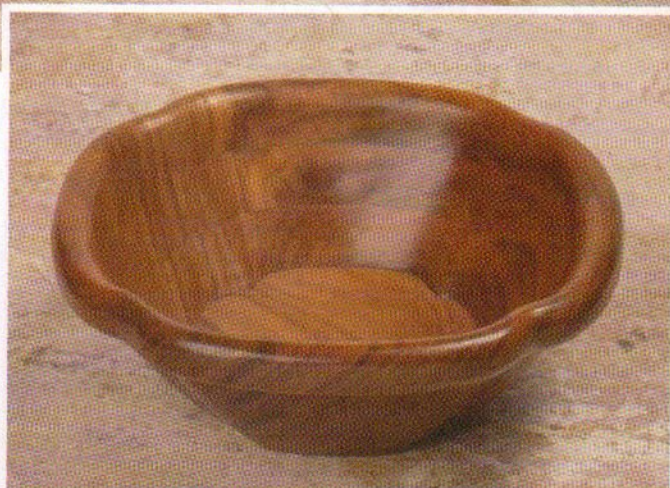
Walnut Bread Bowls



Striking grain and a few calculated cuts make for handsome (and useful!) servers

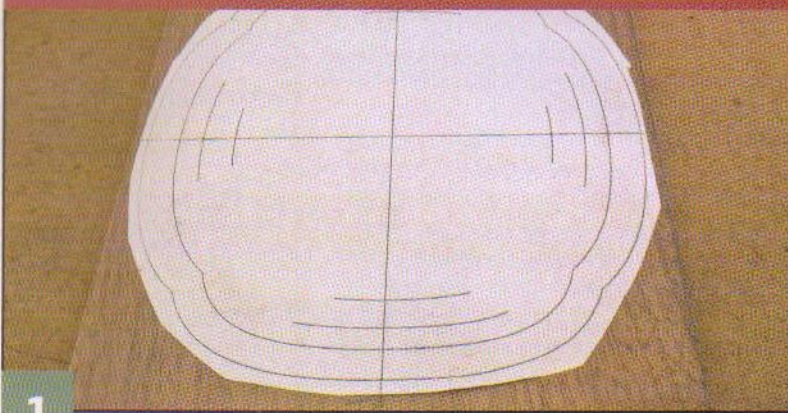
By Carole Rothman

If you enjoy creative shaping, you'll love this generously sized hardwood bread bowl. Its pattern is based on the single-ring method, in which each ring serves as the template for the one that follows. However, unlike typical single-ring patterns, it includes orienting marks to ensure correct placement of each ring. As the cutting angle increases, so does the ring width, which provides ample wood for gluing and sanding. I shaped the top ring aggressively and gently softened the bottom edge, but you can increase or decrease the contours to suit your preference.

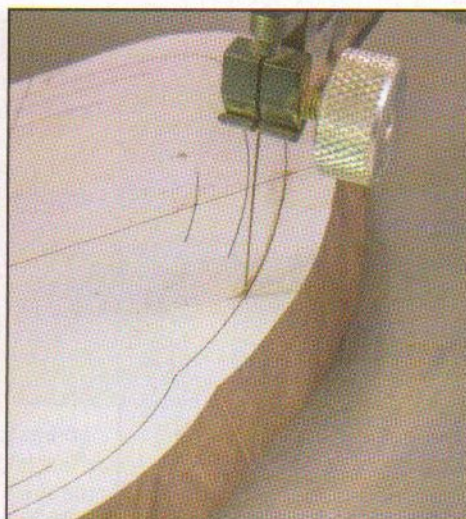
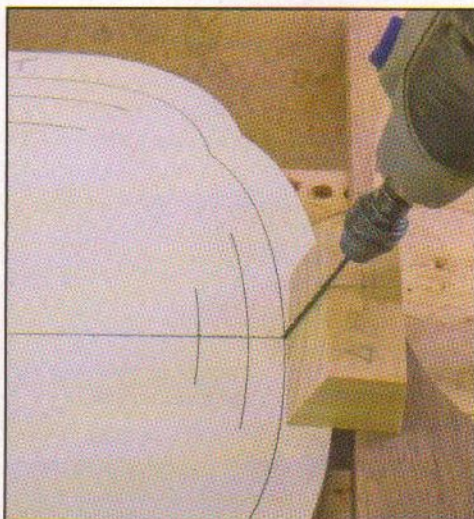


Even if you've made bowls before, please follow the instructions in the order given, since it differs slightly from the typical sequence. This was done to allow maximum access for shaping the top ring. I've also included techniques to help you drill better blade-entry holes, align rings more precisely, and avoid gluing pitfalls that can affect the attractiveness of your finished product.

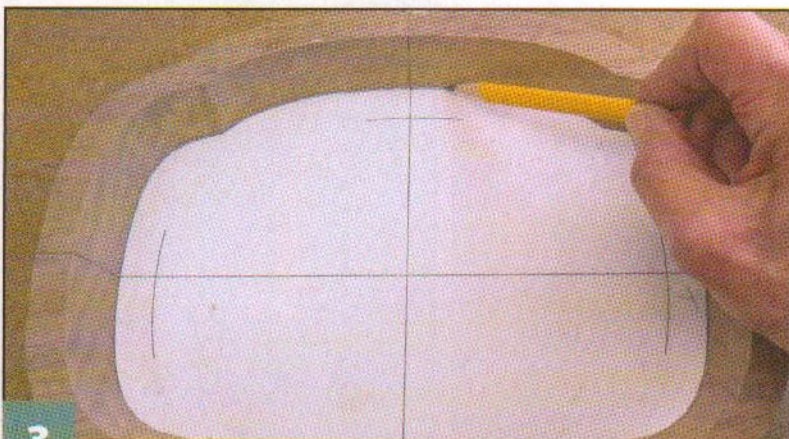
CUTTING AND SANDING THE CENTER RINGS



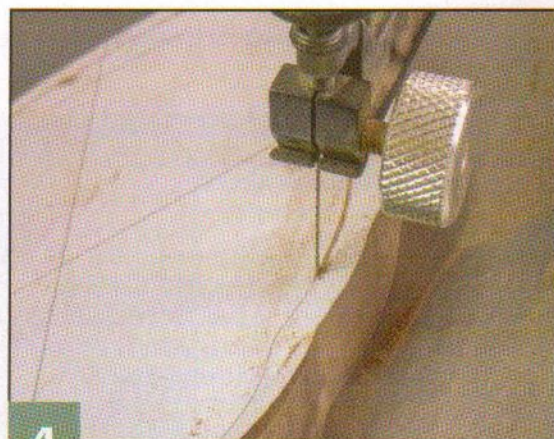
1 Draw intersecting registration lines across the center of the blank. Mark the tops of the pattern and the blank. Transfer these marks as you cut the rings to maintain their orientation. Attach the pattern with repositionable adhesive, matching the registration lines precisely.



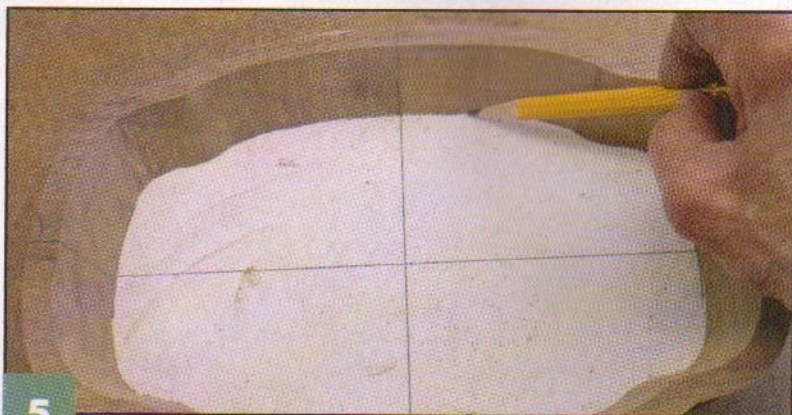
2 Cut the outer line with the saw table level. Using a shop-made angle guide, drill a blade-entry hole at a 27° angle where indicated on the next line. Angle the left side of the guide slightly so that it's parallel to the cut line when you drill the hole. This will help the blade more easily follow the curve as you begin the cut. The steeper the curve and the larger the drilling angle, the more important it is to do this. Tilt the left side of the table down 27°, insert the blade, and cut the line to complete the first ring.



3 Remove the pattern from the ring. Leave the pattern on the blank. Extend the registration lines down the inner face of the ring. Place the ring on the blank, keeping the same orientation. Match the registration lines of the two pieces to align the ring correctly. Use the outer set of curved segments on the pattern as an additional guide for placement of the ring's inner edge. Use a sharp pencil to trace the inside of the ring. This is the cutting line for the second ring.

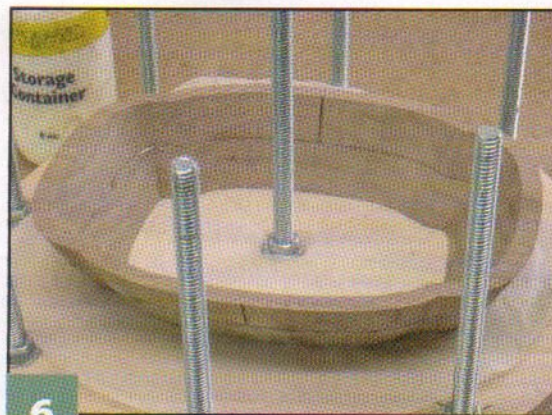


4 Drill a 35° blade-entry hole to cut the second line. Position the hole on the line drawn in Step 3, located directly opposite to where you drilled the hole in Step 2. This prevents back-to-back drill marks on the second ring. Increase the tilt of the saw table to 35°, insert the blade and cut the second ring.



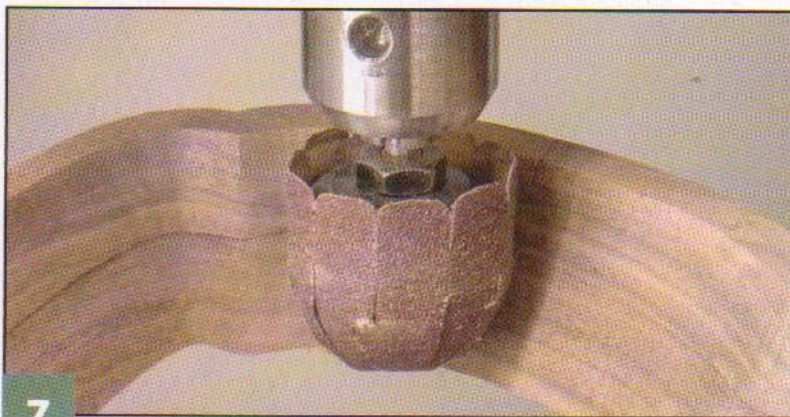
5

Remove the pattern from the second ring. Follow the procedures described in Step 3, and use the remaining set of curved segments to align the second ring. Trace the cutting line for the third ring. Drill a 40° blade-entry hole on the same side as the first hole to prevent back-to-back drill marks on the third ring. Increase the tilt of the saw table to 40° and cut the third ring. Extend the registration lines down the inner face of the ring. The remaining piece is the base. Remove all pattern pieces and any adhesive residue. Be sure that the tops of all pieces are marked.



6

Sand the glue surfaces of the second and third rings. Use a sheet of sandpaper attached to a flat tile. Erase the pencil marks and smooth the surfaces, removing any fuzzies. Stack the rings and check for spaces by trying to insert a strip of paper between them. To correct any spaces where the paper can enter, place the ring on the tile and move it back and forth, exerting downward pressure just on the high spots. Check frequently to see if the spaces have closed, because you usually only need to remove a small amount of wood. You may need to sand both gluing surfaces to close the gap. Glue the rings together, clamp, and let them dry. A small amount of squeeze-out is normal, and will be sanded away in later steps.



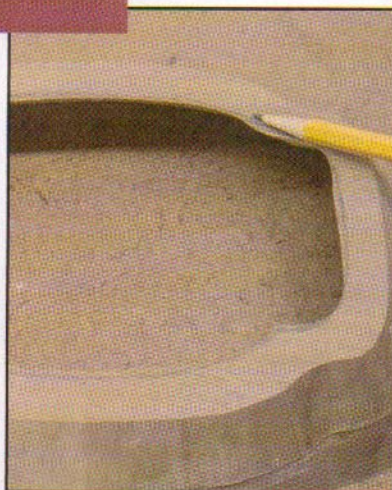
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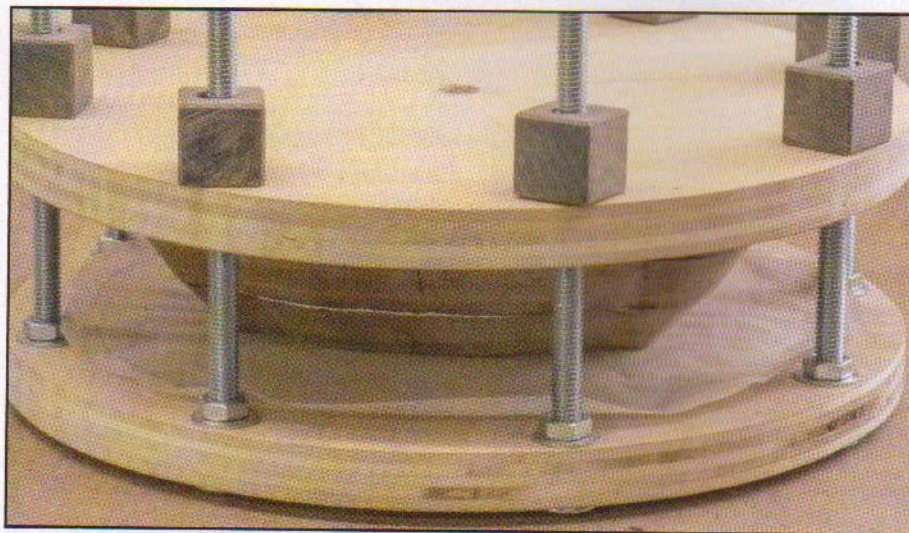
Sand the inside face of the ring assembly until smooth. Use the round inflatable sanders. Do not sand the top edge of the second ring; this area will be sanded in Step 14 after the first ring has been glued on. Use the coarse-grit sleeve for wood removal and the finer-grit sleeves for finishing. The large sander can reach most areas, but the small one is needed to shape the tight curves.

ADDING THE BOTTOM

8

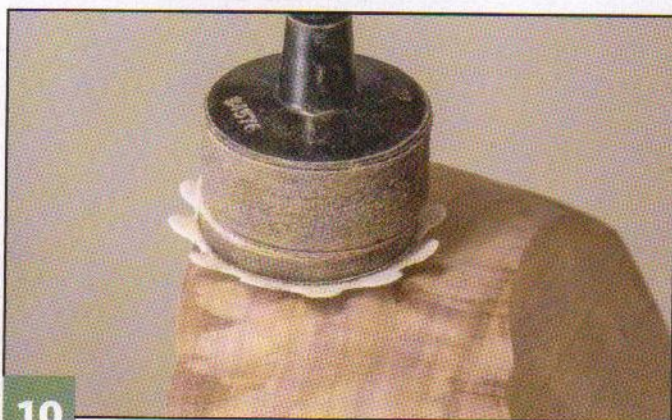
Adjust the inner edge of the third ring. The inner edge of this ring will be highly visible once the rings are glued to the base, so shape it carefully. To guide your sanding, invert the rings and draw the outline of the desired profile on the underside. Keep the rings inverted as you sand to the line, using the small sander for access at the ends and the large one for wider areas. Keep the sander angled so the edge will be sharp when it meets the base. Once the shape is established, flip the rings right-side up and complete the sanding. Place the rings on the base, tops aligned, and use the registration lines on the base to check the lower edge for symmetry.





9

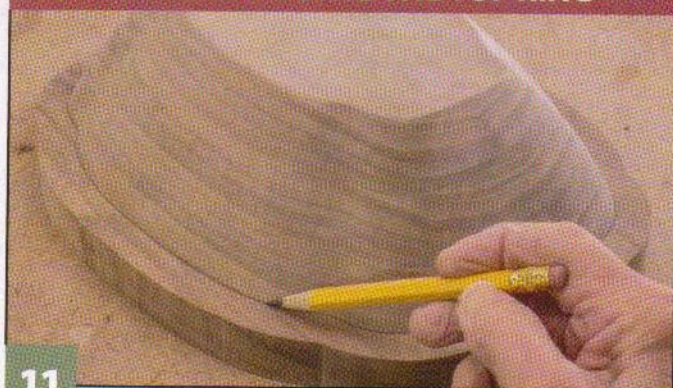
Erase the registration lines from the upper face of the base. Sand it with progressively finer grits of sandpaper up to 220 grit. Sand the underside of the ring assembly lightly on the tile, and then place it on the base. Check for spaces with a strip of paper and remove any with the sanding tile. Glue on the base, keeping glue away from the inner edge of the bottom ring to minimize squeeze-out. Clamp the assembly in a press, let it set for five minutes, and then open the press to clean away squeeze-out on the base. Re-clamp and let the assembly dry.



10

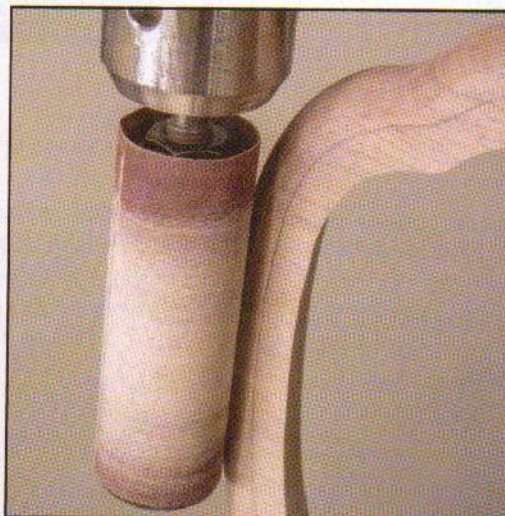
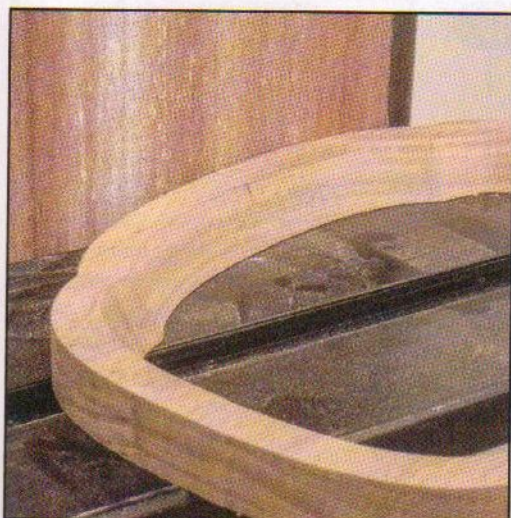
Sand and shape the outside face of the glued-up assembly. Use a 2" (51mm)-diameter pad sander for the flatter areas. Start with a coarse-grit disc. Work through the grits up to 220, removing any swirl marks left by the coarser discs. Use the small round inflatable sander to define and even out the indentations. Shape the upper outside edge of the second ring to a smooth profile with no irregularities. This area cannot be shaped once the first ring is glued on in Step 13.

CUTTING AND ADDING THE TOP RING



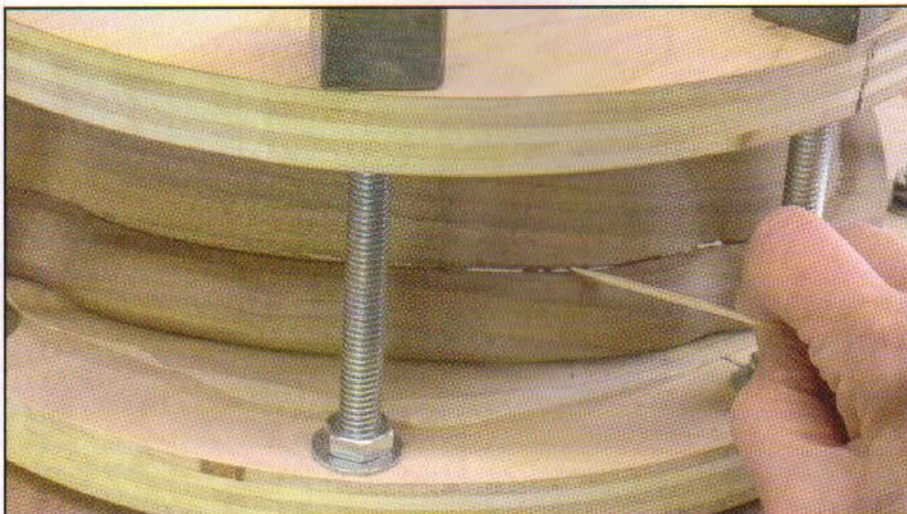
11

Place the top ring on the assembly. Align the inner edges of the top and second rings. Carefully invert the assembly. The rings should be centered on the overhang. Trace the outline with a pencil to define the gluing area. This area must not be sanded.



12

Smooth the convex outer areas of the top ring. Use a belt sander. Use the 3/4" (19mm)-diameter inflatable drum to enlarge and curve the outside indentations and the 1" (25mm)-diameter drum to shape the upper and lower outside edges. Start with coarser grits, and then switch to medium and fine sleeves to smooth and refine the shape. The outer part of the ring should be completely shaped. The inner part will be shaped after the top ring is glued into place.



13

Check the fit of the top ring on the second ring. Position the first ring on the assembly, aligning the inside faces. The overhang should be equal all around. Use the techniques explained in Step 6 to remove any gaps. Apply glue to the top face of the second ring, keeping the outer edge as glue-free as possible. Place the first ring carefully into position, aligning the inner edges, and press down to secure the bond. Invert the assembly and clamp it in this position so you can easily detect and remove squeeze-out.

SANDING AND FINISHING



14

Finish sanding and shaping the inside of the bowl. Use the large round inflatable sander to shape the newly joined inner area and complete the shaping of the first ring. With a sanding pad, hand-sand the edges of the base and rim. Remove any flat spots on the rim with the sanding pad.



15

Apply mineral spirits to all surfaces. Any glue marks will show up as shiny areas, and sanding irregularities will also become more visible. Mark with a white pencil the areas needing additional work, and sand them once the mineral spirits have evaporated. Apply a sealer coat of shellac, and smooth the surface with 320-grit sandpaper, a well-worn 320-grit sanding mop, or 0000 steel wool. Check for and remove any glue spots that appear after you apply the shellac. Apply additional clear coats of finish as desired.

Materials

- Walnut, $\frac{3}{4}$ " (1.9cm) thick: $8\frac{1}{2}$ " x $10\frac{1}{2}$ " (21.6cm x 26.7cm)
- Repositionable adhesive
- Wood glue, Weldbond preferred
- Sanding tile (150-grit sandpaper attached to a flat tile)
- Sandpaper
- Steel wool: 0000 (optional)
- Shellac sealer (two-pound cut)
- Clear finish of choice

Tools

- Scroll saw blades: #7 scroll saw blade
- Shop-made angle guides: 27°, 35°, 40°
- Large bowl press or boards and clamps for gluing
- Belt sander
- Sanding mop: 320 grit
- Round inflatable sanders with assorted sleeves: regular and small size
- Inflatable sanding drums with assorted sleeves: $\frac{3}{4}$ " (19mm) and 1" (25mm) diameter
- Pad sander with assorted discs: 2" (51mm)-diameter
- Drill with bit: #54 wire size or smaller drill bit

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.

Materials & Tools

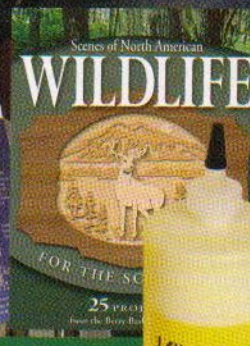
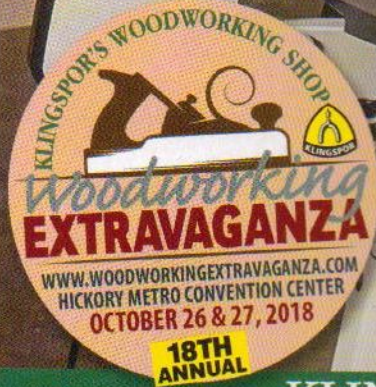


Carole Rothman of Pawling, N.Y., is a retired psychologist and college professor. She is also an award-winning cake decorator. Visit Carole online at scrollsawbowls.blogspot.com. You'll find her books,

Creative Wooden Boxes from the Scroll Saw and Wooden Bowls from the Scroll Saw, at foxchapelpublishing.com.

(Continued on page 66)

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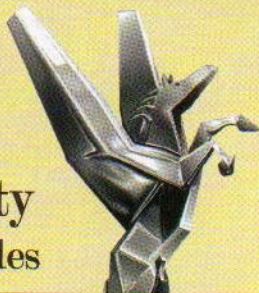
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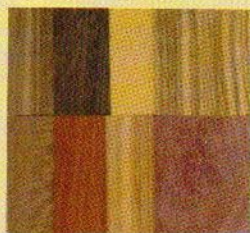
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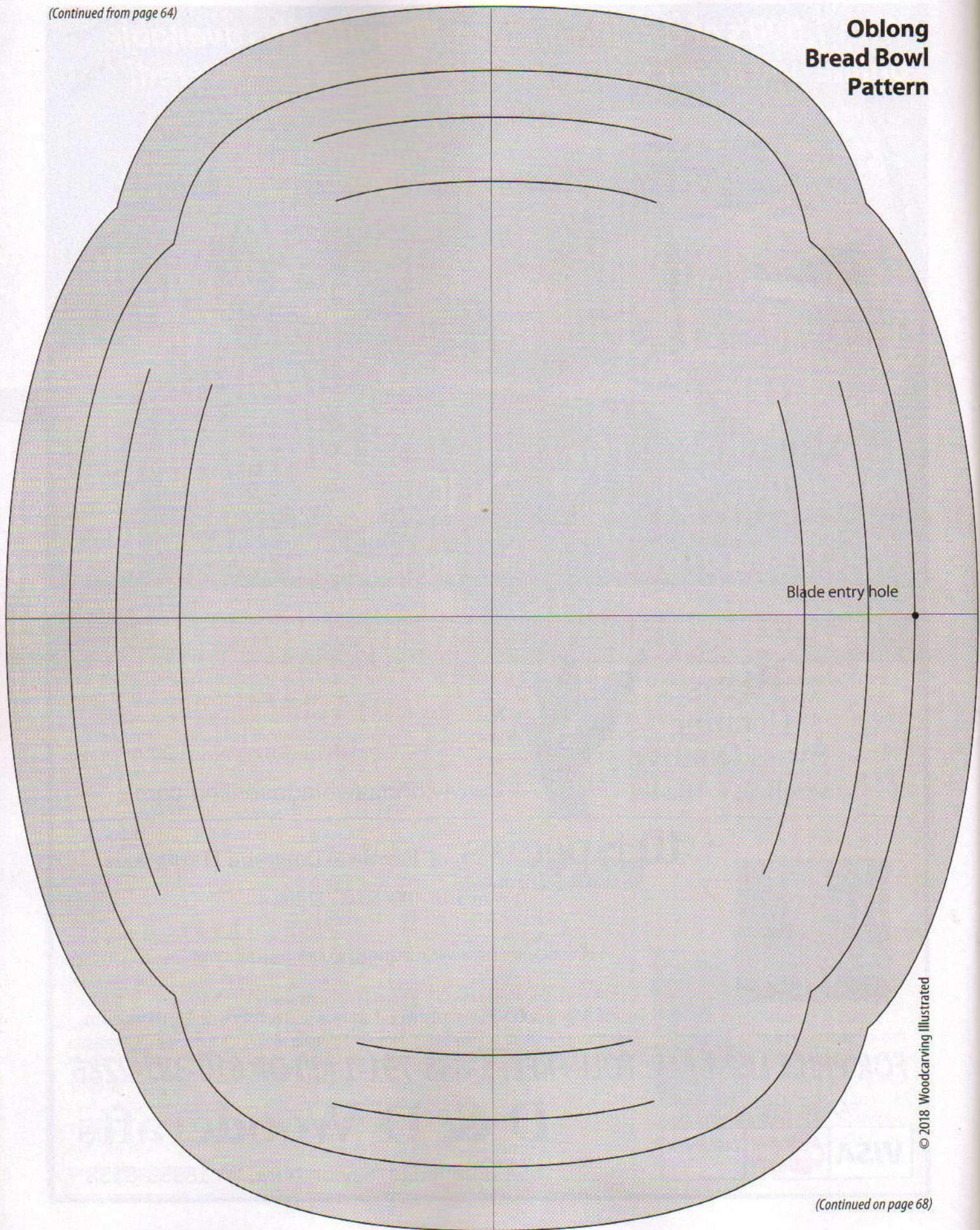


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(Continued from page 64)

Oblong Bread Bowl Pattern



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(Continued on page 68)

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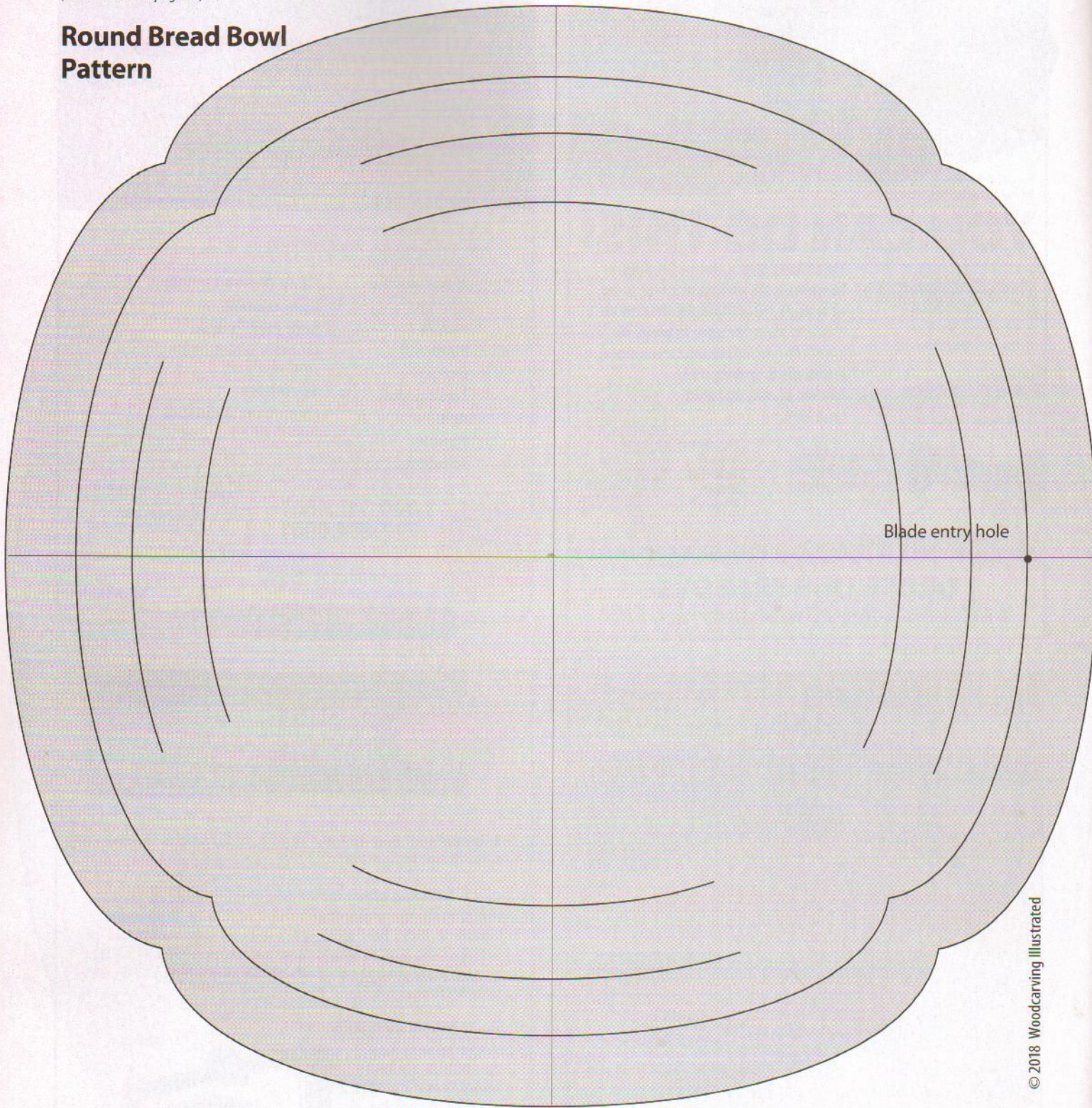
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Round Bread Bowl Pattern



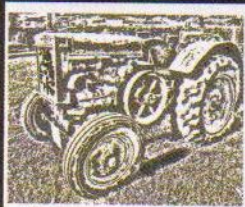
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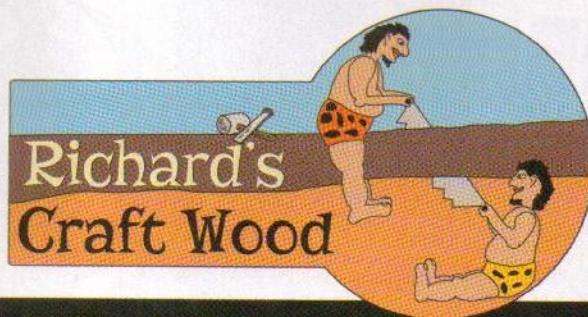
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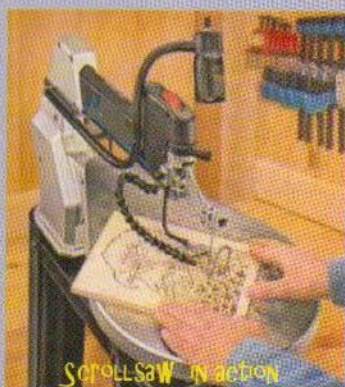
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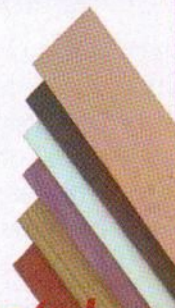


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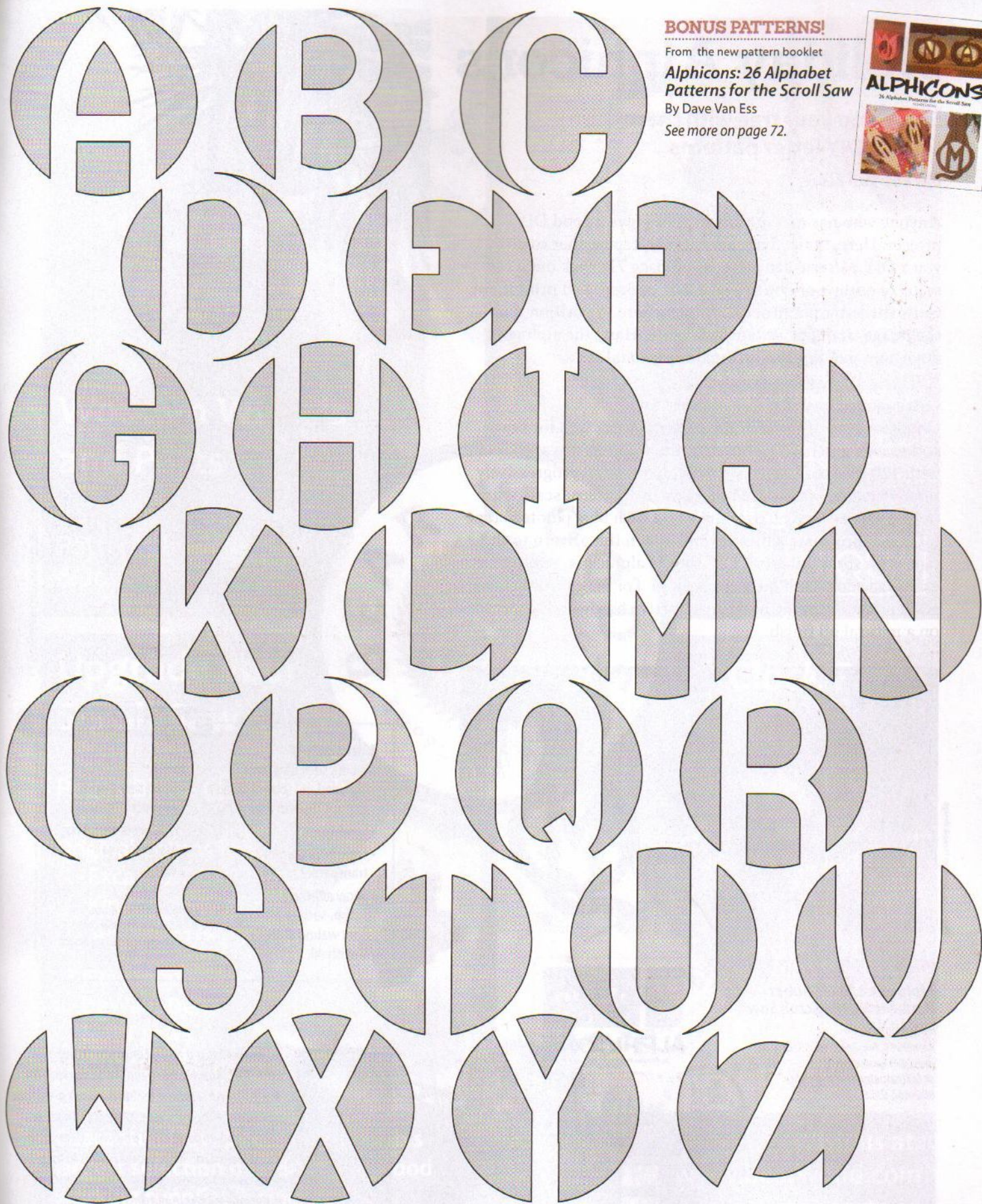
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BONUS PATTERNS!

From the new pattern booklet

Alphicons: 26 Alphabet Patterns for the Scroll Saw

By Dave Van Ess

See more on page 72.



Holiday Alphicons

Spruce up your tree with these unique DIY letter patterns

By Dave Van Ess

Anyone who has met me knows that I love a good DIY project. Here, I take that concept one step further to give you a DIY pattern (see patterns on page 71). Pick out a suitable outline or clip art, size it as desired, and print it out. Copy the letter pattern, determine where to position it on the image, and glue or tape it in place. Hang the alphicons anywhere that needs a little extra personality.

Cutting and Finishing

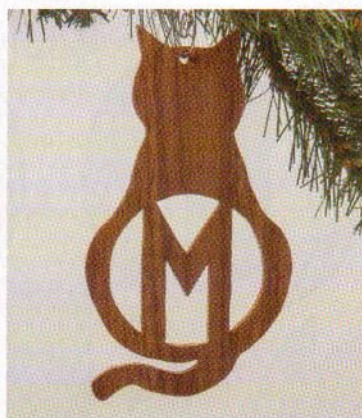
Choose a kind of wood; these patterns work well for both soft woods and hard woods. Cut the wood to size and sand with 120-grit sandpaper, working up through progressively finer grits until smooth. Photocopy the pattern (scale it up or down as needed). Cover the wood with blue painter's tape (or any appropriate adhesive) and attach the pattern to the tape with spray adhesive. Cut out the alphicons, remove any excess sawdust, and finish as desired. For bland wood, I use stain or acrylic paint, and for attractive hardwoods, I brush on a natural oil finish.



Pattern created from Freepik design



Pattern created from Freepik design

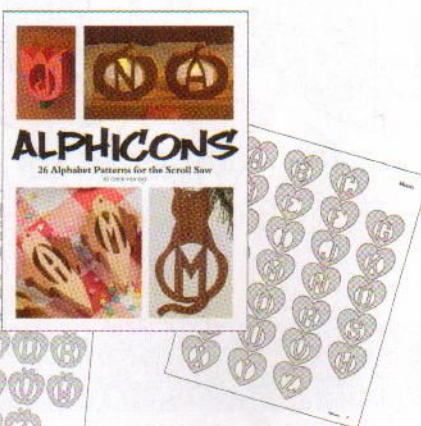


WANT MORE ALPHABETS?

Alphicons: 26 Alphabet Patterns for the Scroll Saw

By Dave Van Ess

Item 9944. Available for \$9.99 plus S&H (parcel post) at foxchapelpublishing.com, 800-457-9112.



Materials & Tools

Materials

- Wood, such as walnut plywood, 1/4" (6mm) thick: 2 1/2" x 4" (6.4cm x 10.2cm)
- Sandpaper
- Tape: blue painter's, transparent
- Spray adhesive
- Finish, such as Minwax dark walnut stain or Danish oil

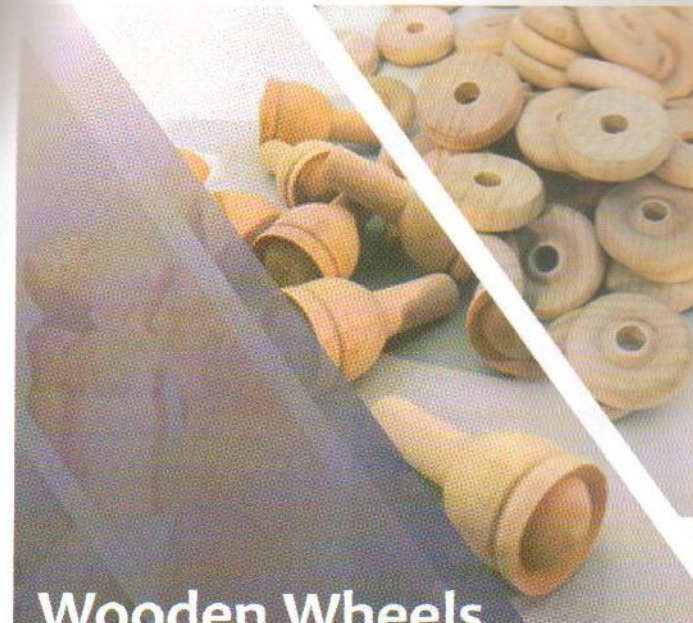
Tools

- Scroll saw blades: #3 reverse-tooth
- Drill press with bits: assorted small
- Vacuum

The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.



Dave Van Ess is a retired engineer living in Chandler, Ariz. He has been woodworking for 40 years and scrolling for 30. He is the president of Arizona Woodworkers (a greater Phoenix area woodworking club) and volunteers one day a week teaching woodworking to four-year-olds at a local daycare. Contact him at davevaness21@gmail.com.



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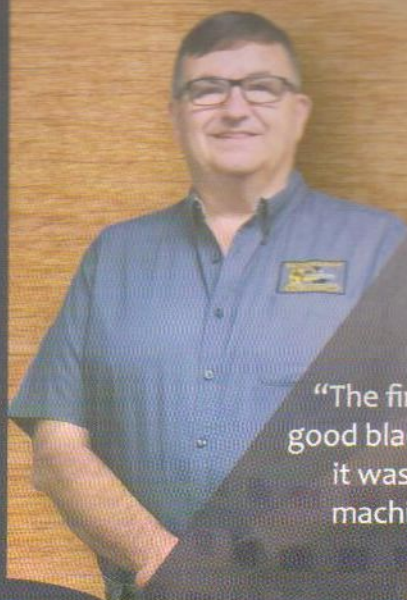
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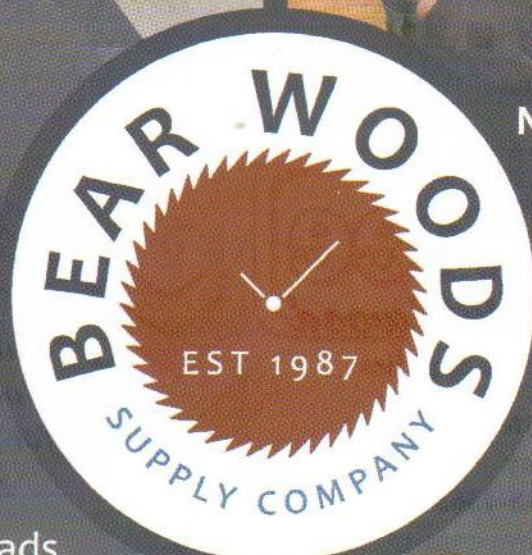
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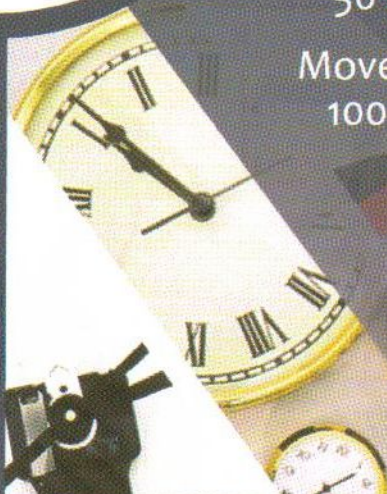
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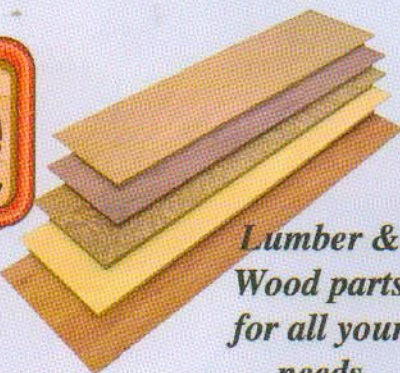
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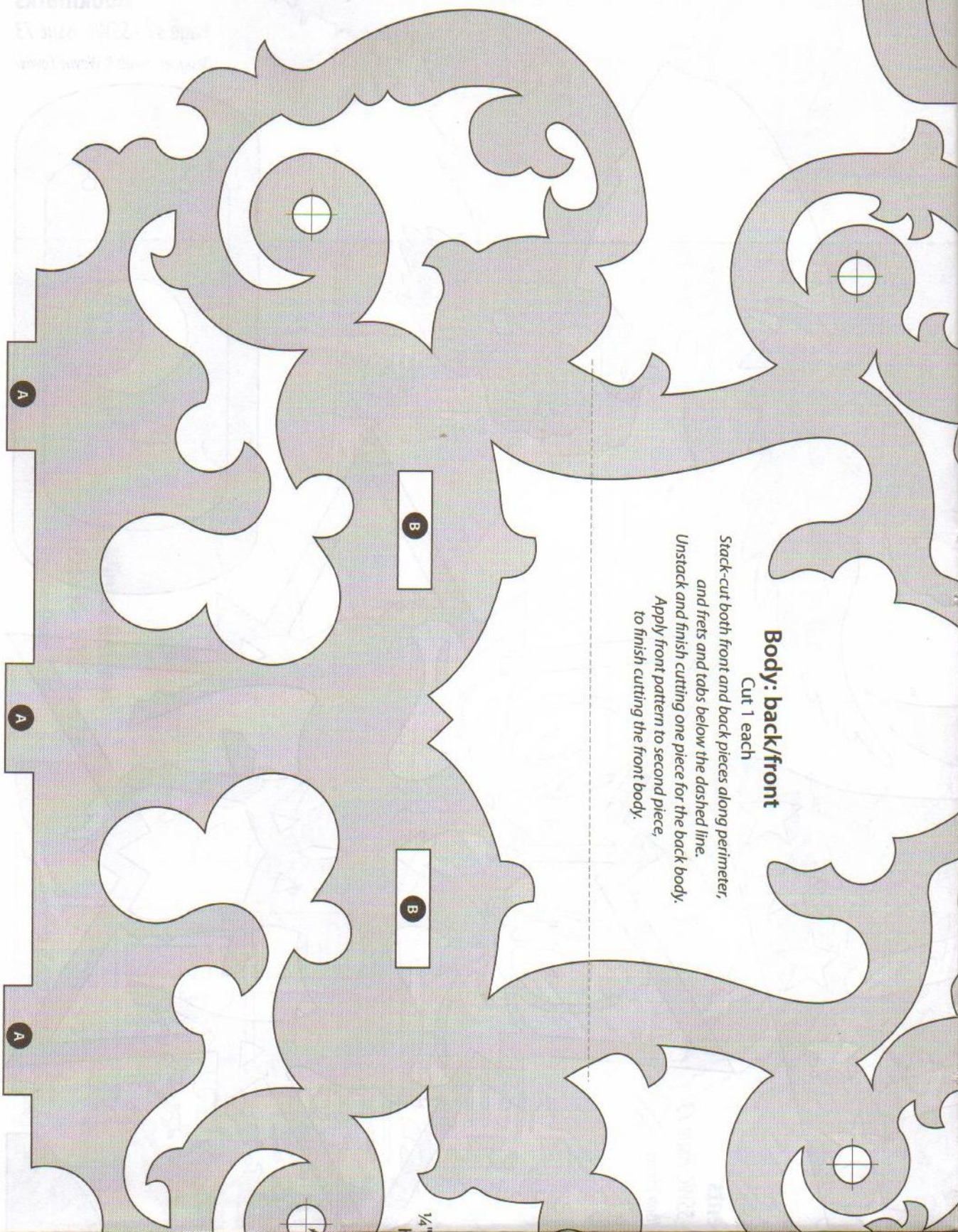
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AI

Stocking-Stuffer Bookmarks

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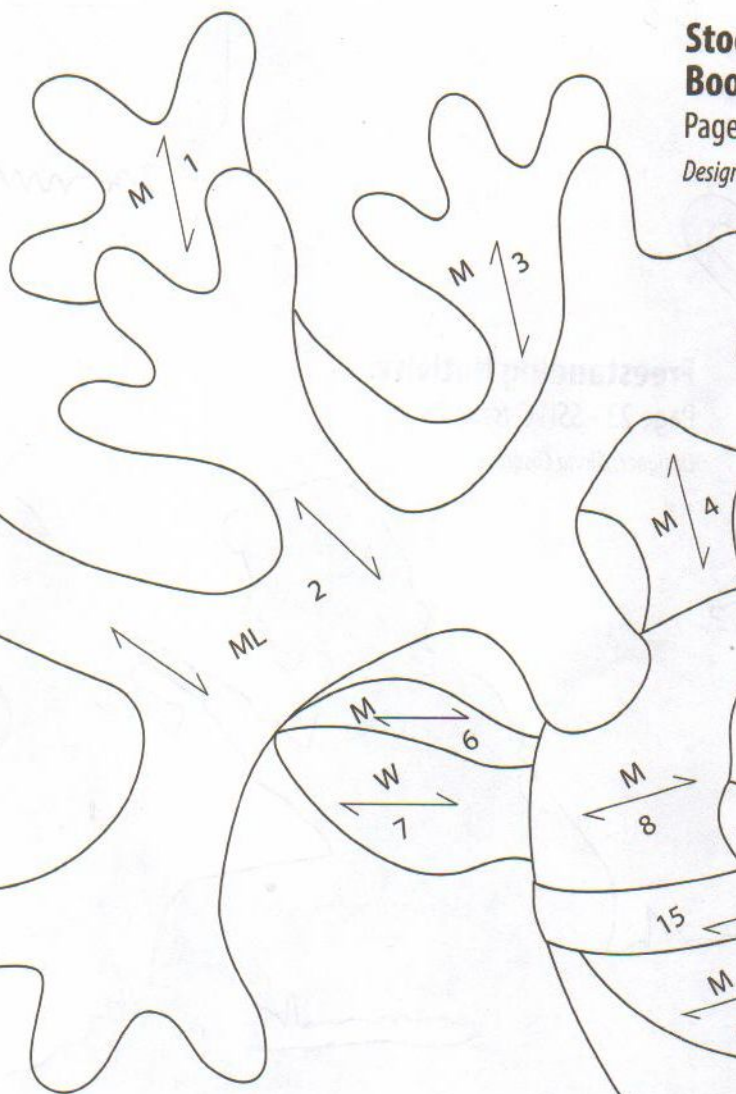
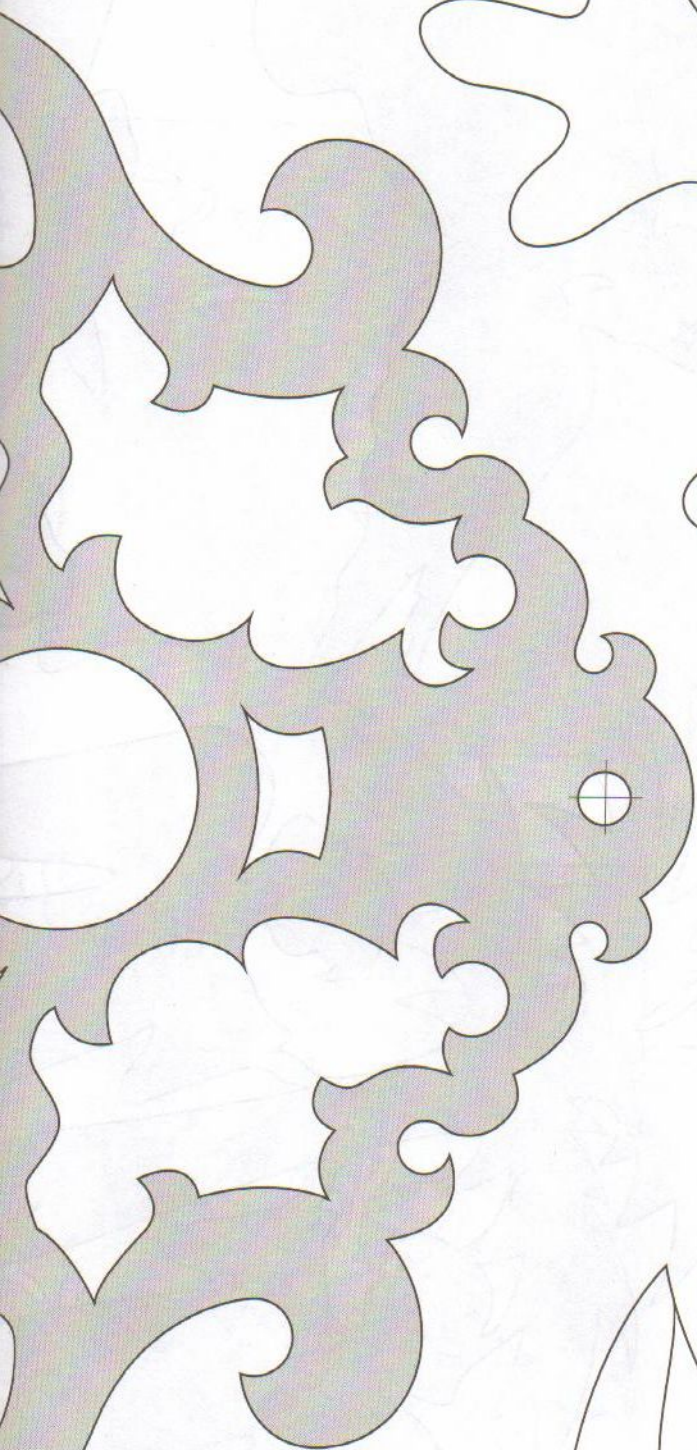
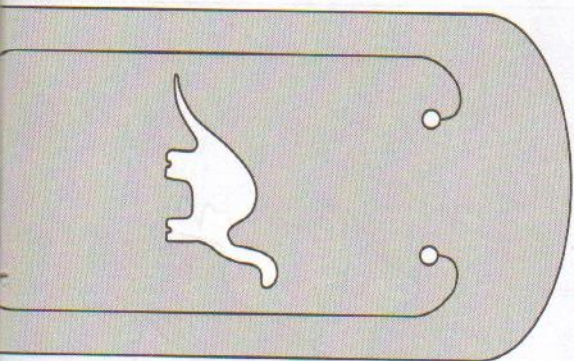
Designer: Jacob & Wayne Fowler



Body: back/front

Cut 1 each

Stack-cut both front and back pieces along perimeter, and frets and tabs below the dashed line. Unstack and finish cutting one piece for the back body. Apply front pattern to second piece, to finish cutting the front body.



Legend

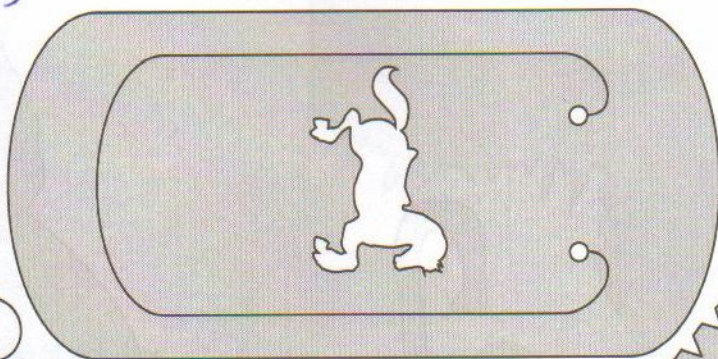
- D..... Grain direction
 MD..... Dark shade of wood (walnut, WRC).
 M..... Medium dark (WRC, lighter walnut) or red shade of wood (padauk, redheart, bloodwood)
 ML..... Medium shade of wood (WRC, buckeye, mahogany, Spanish cedar)
 LT..... Medium light shade of Wood (WRC, maple)
 W..... Light shade of wood (basswood, maple, WRC).
 You will need $\frac{3}{8}$ " dowels for the eyes and $\frac{7}{16}$ " dowels for the collar.

ing-Stuffer marks

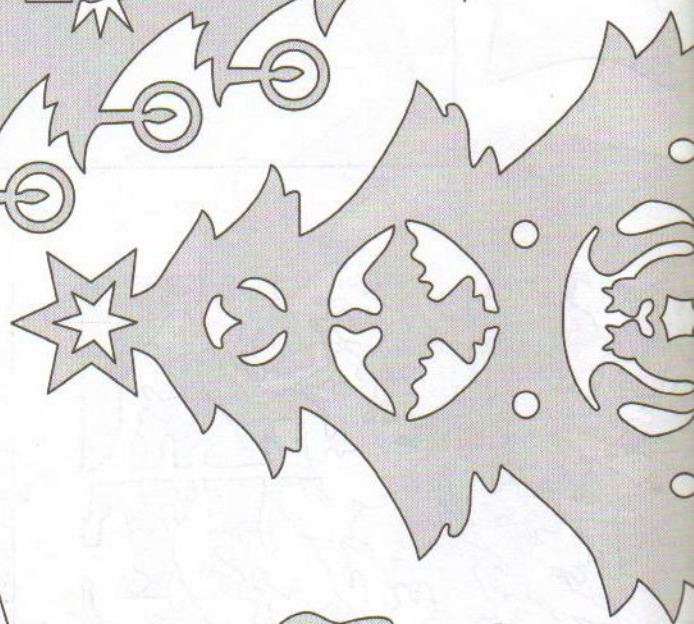
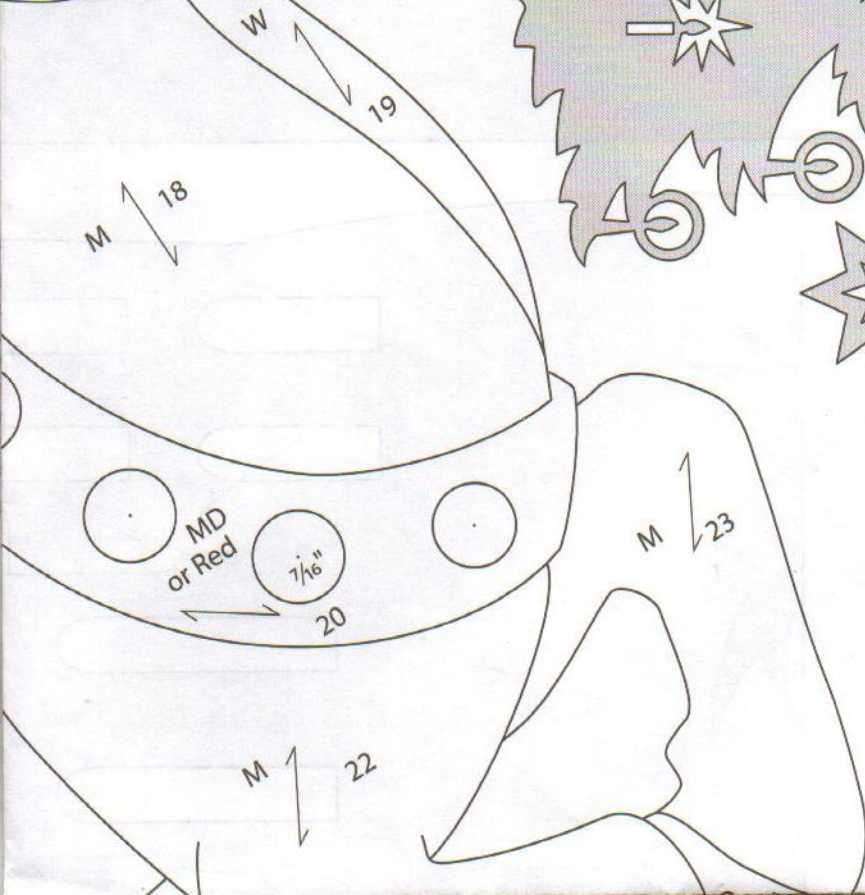
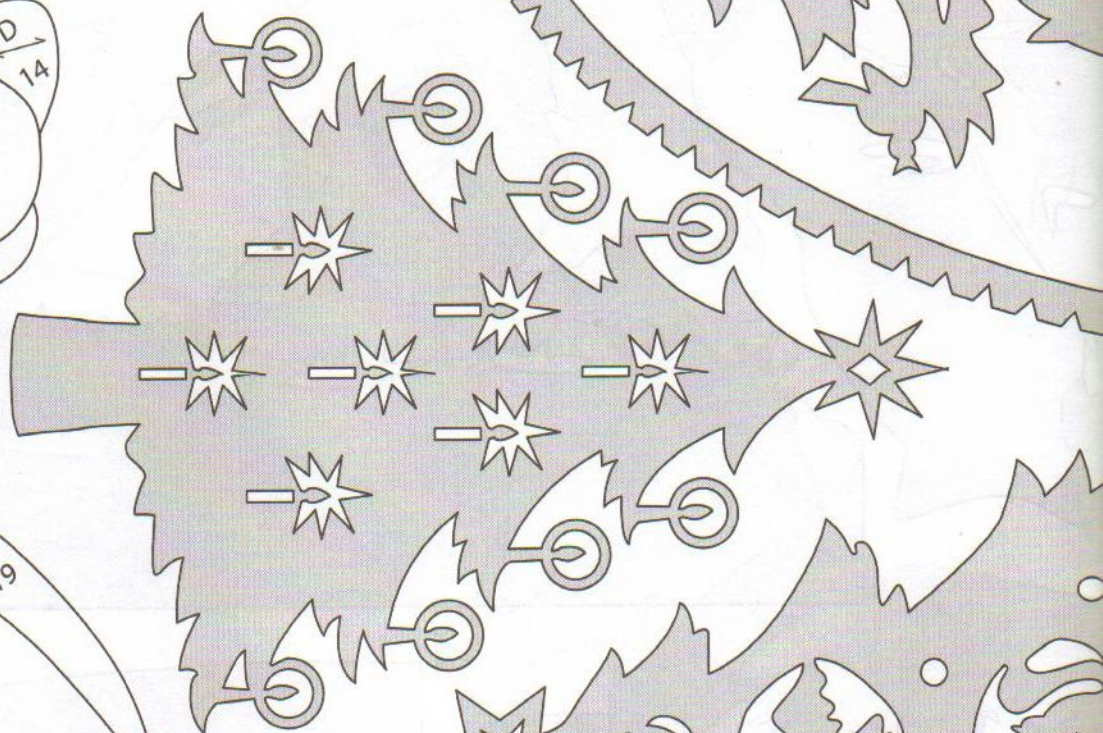
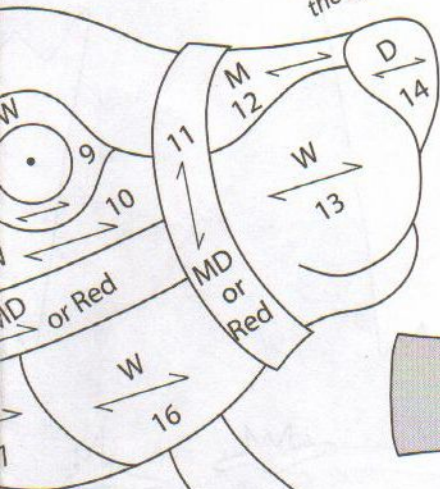
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Jacob & Wayne Fowler

A3



$\frac{3}{8}$ " eyes
drill before
cutting
the eye

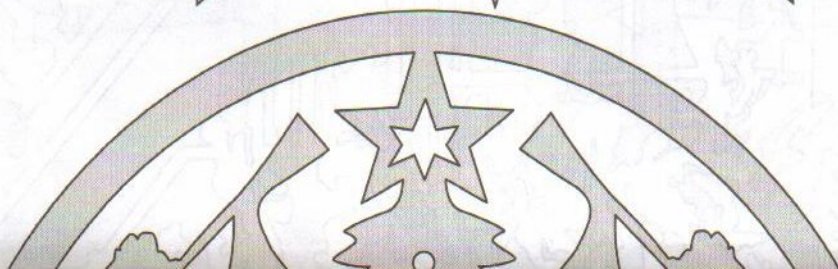


All patterns to be copied at 100% unless otherwise indicated.

All patterns on this pullout section: © 2018 Scroll Saw Woodworking & Crafts

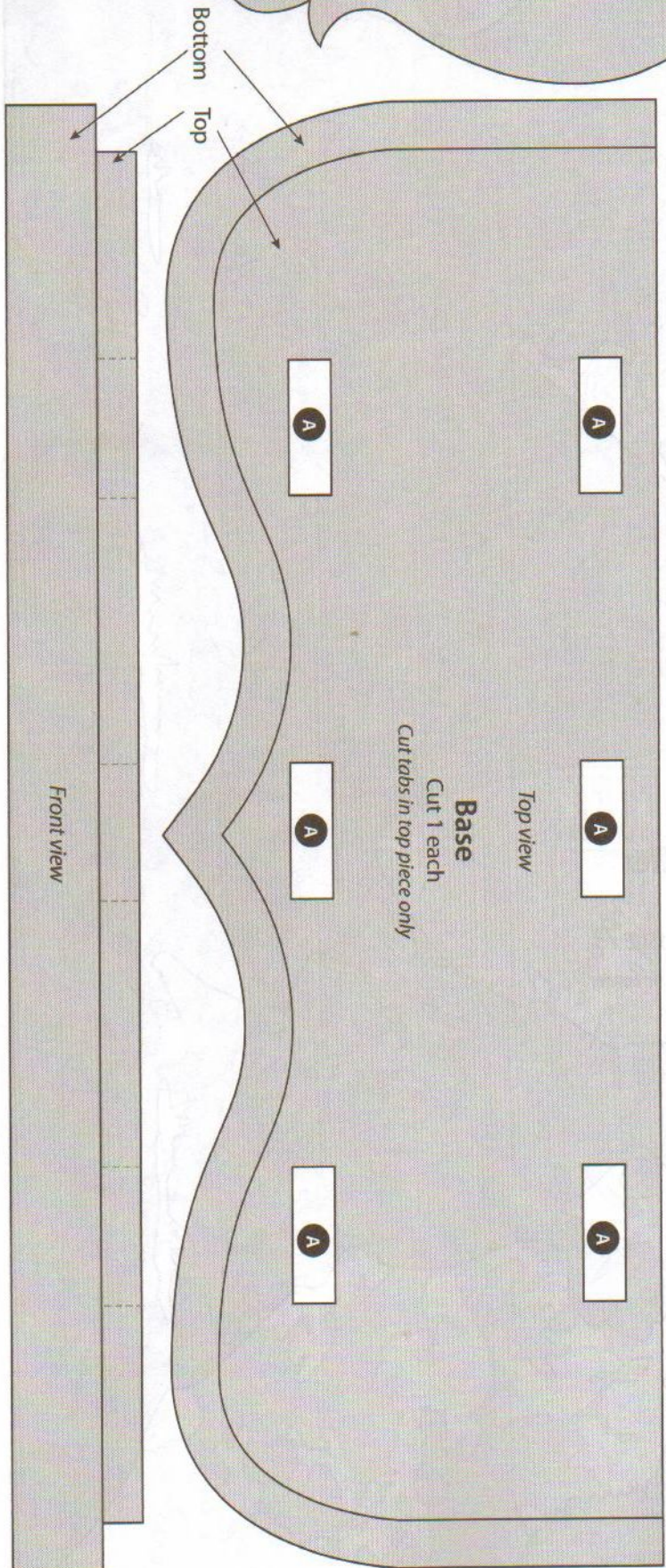
Prancing Reindeer Intarsia	18	Winter Retreat	38
Timeless Ornaments.....	20	Fairytale Castle Play Set	40
Freestanding Nativity	23	Fretwork Mantle Clock	44
Stocking-Stuffer Bookmarks	37		

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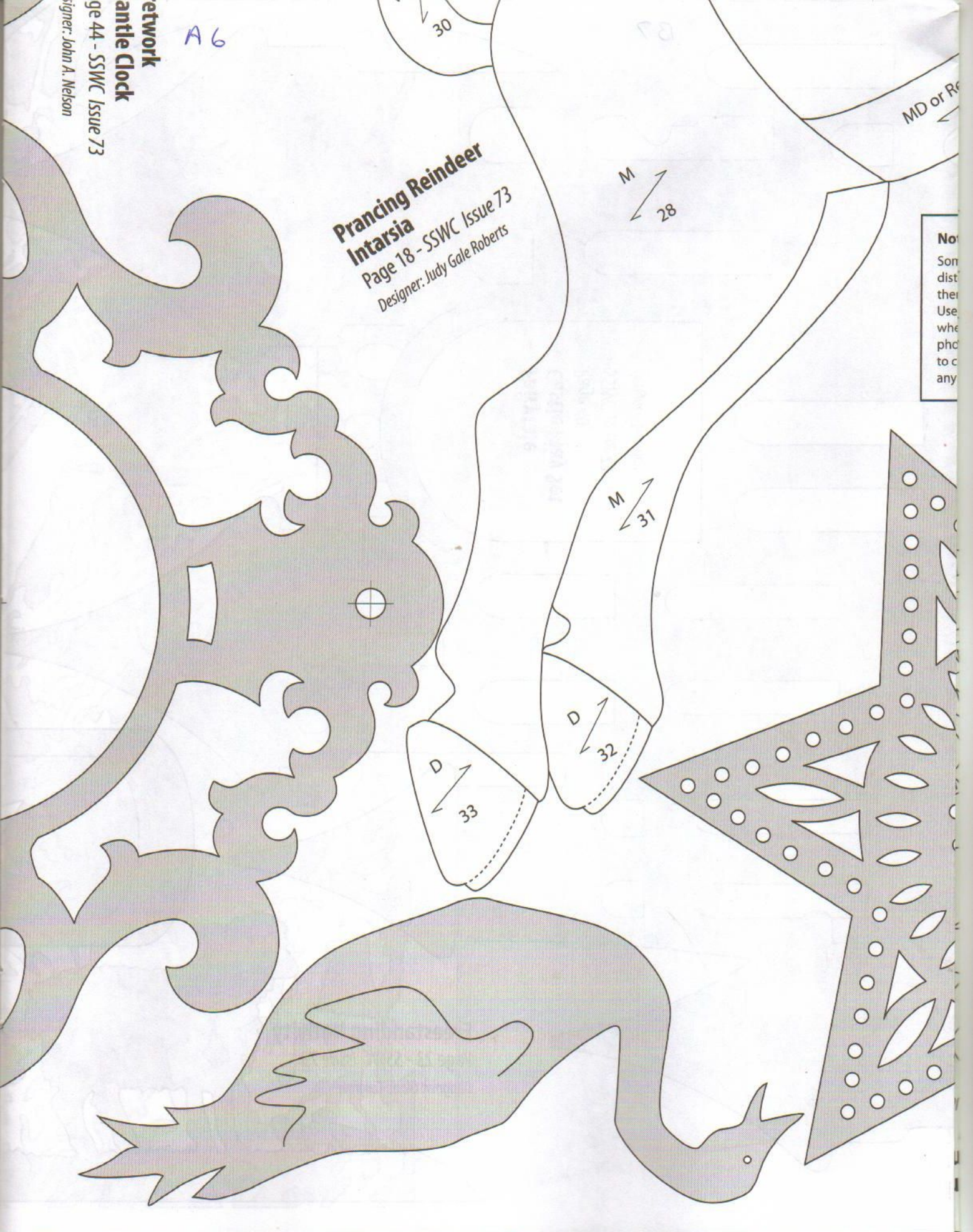
diameter
holes (5)

Body: front
Apply this pattern to second stack-cut piece,
above the dashed line.



A6

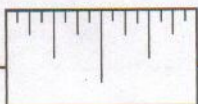
Prancing Reindeer
Intarsia
Page 18 - SSWC Issue 73
Designer: Judy Gale Roberts



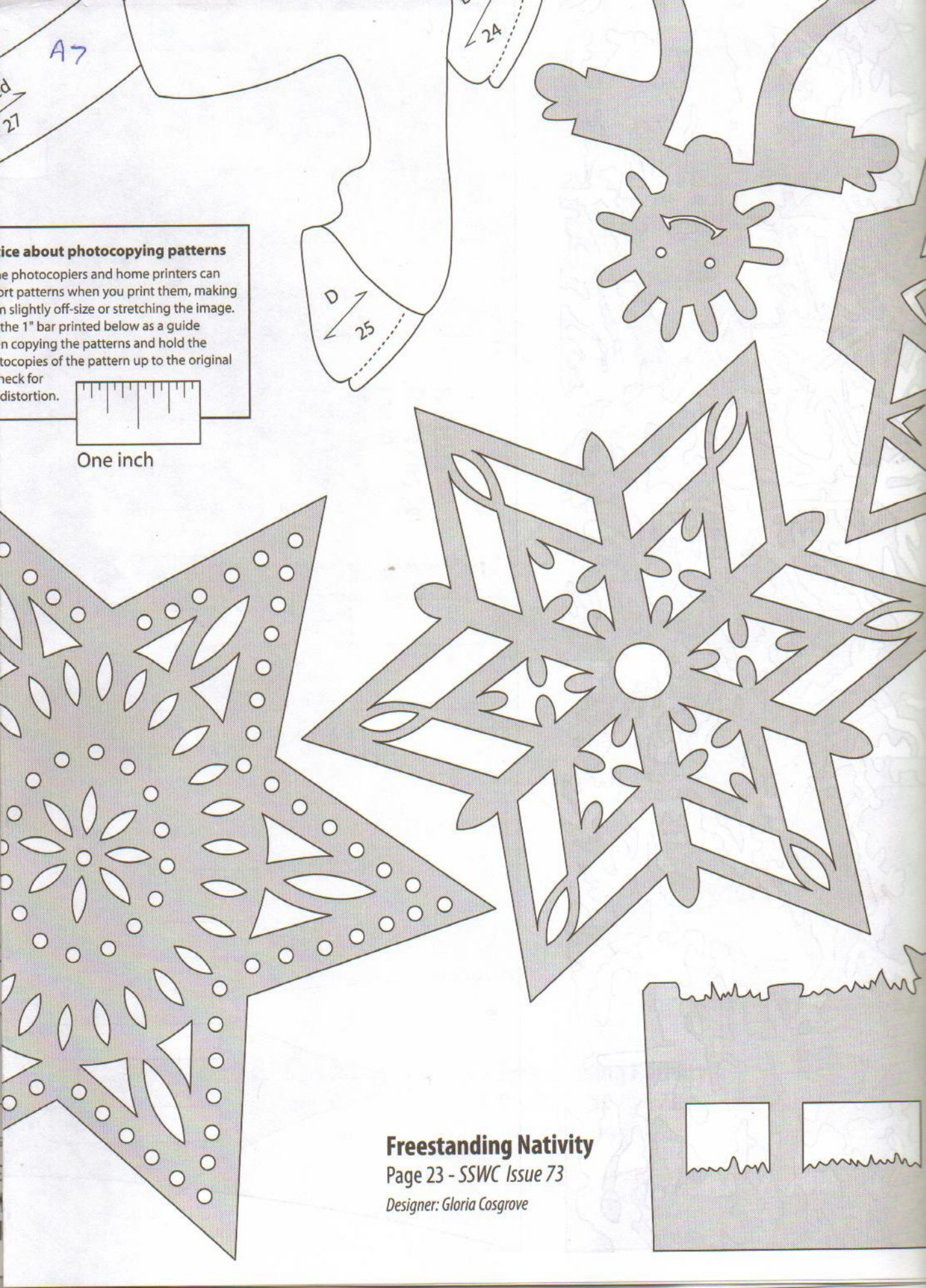
No...
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Advice about photocopying patterns

Photocopiers and home printers can distort patterns when you print them, making them slightly off-size or stretching the image. Use the 1" bar printed below as a guide when copying the patterns and hold the photocopies of the pattern up to the original to check for distortion.



One inch



Freestanding Nativity

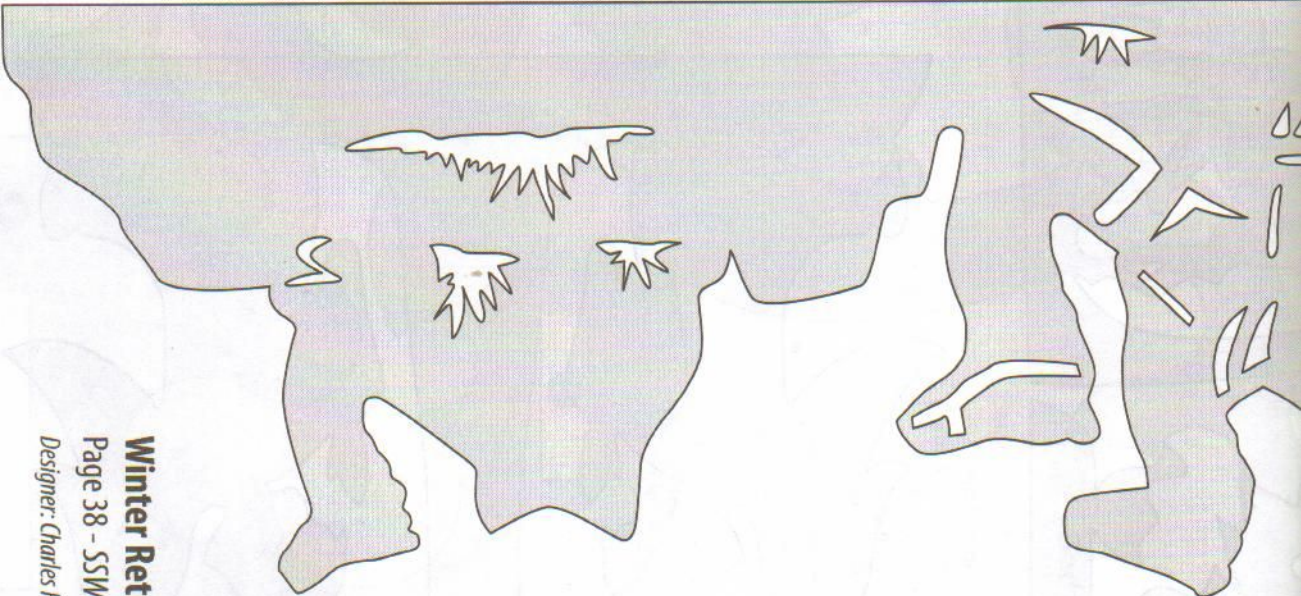
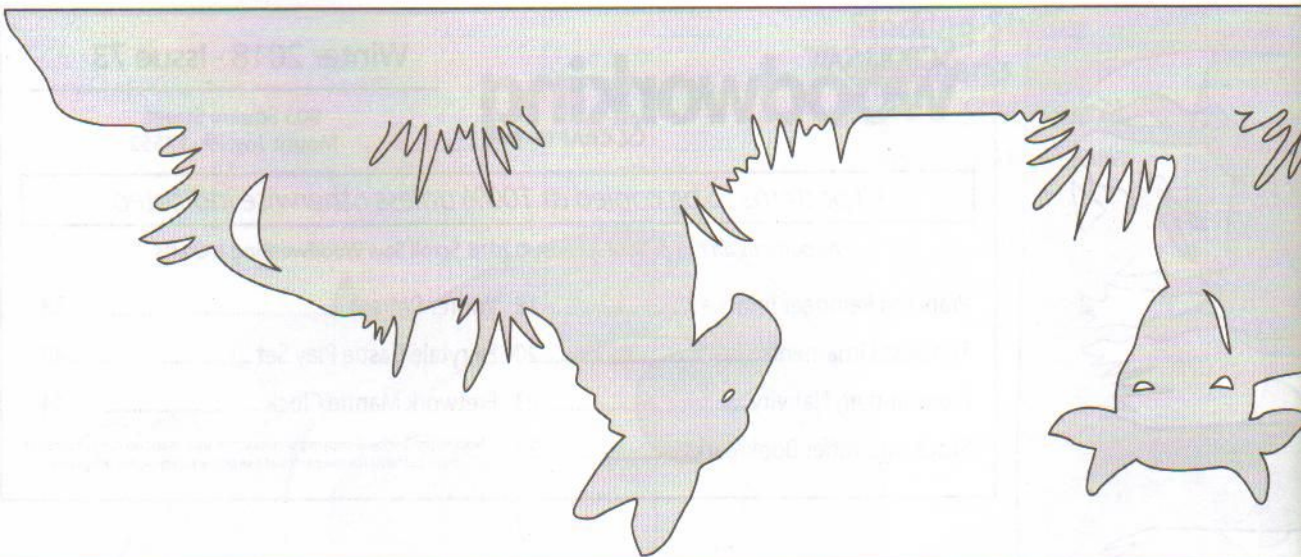
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Designer: Gloria Cosgrove

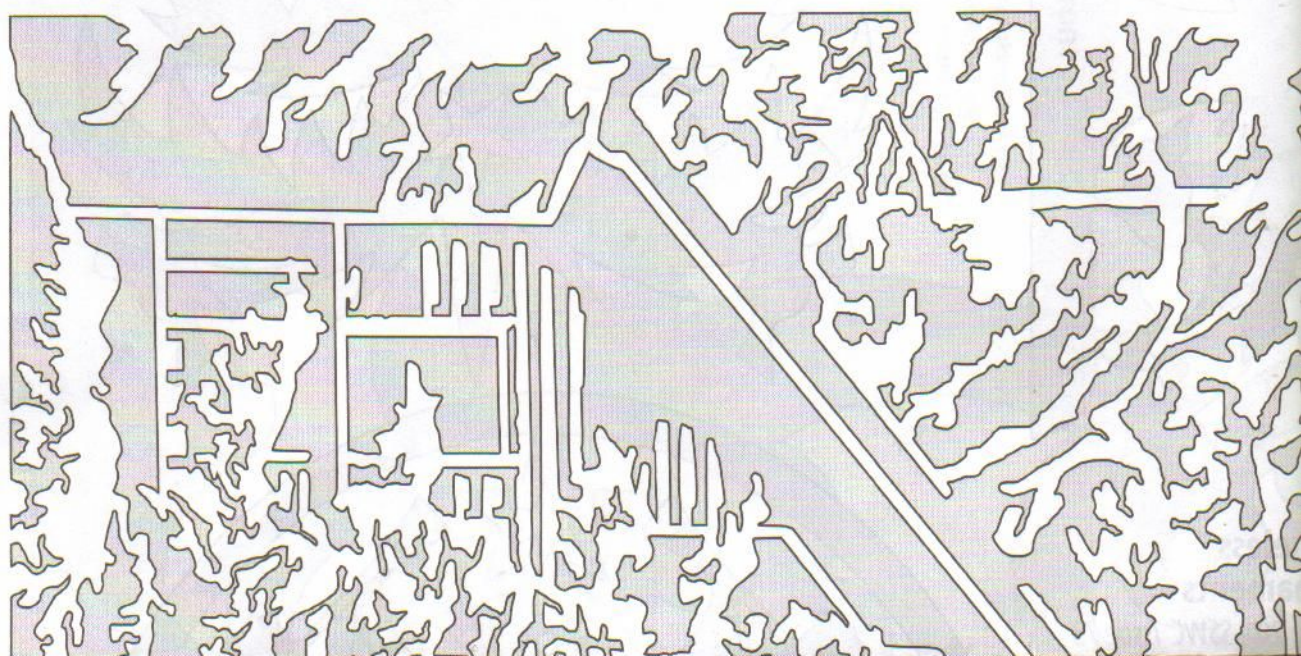
A8

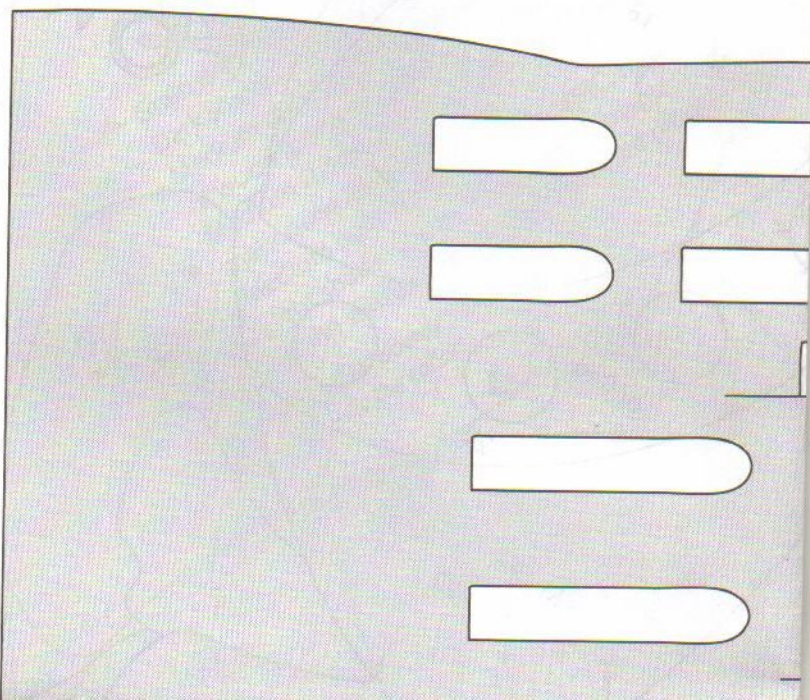
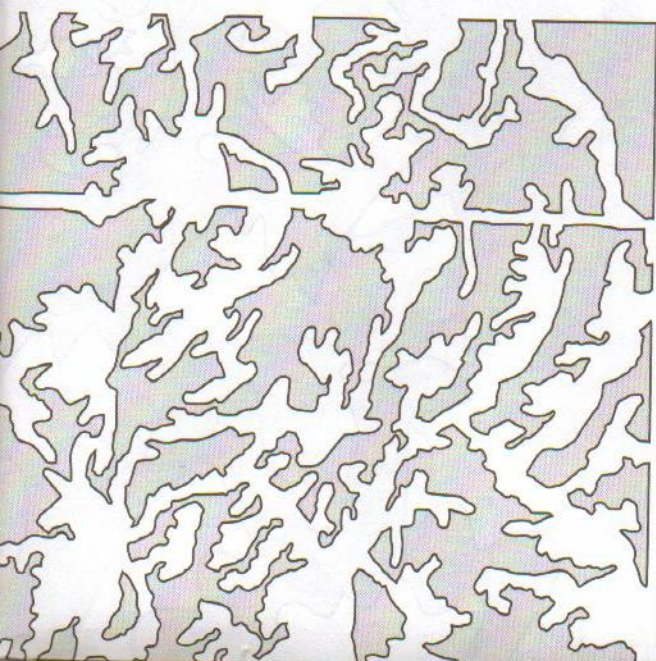
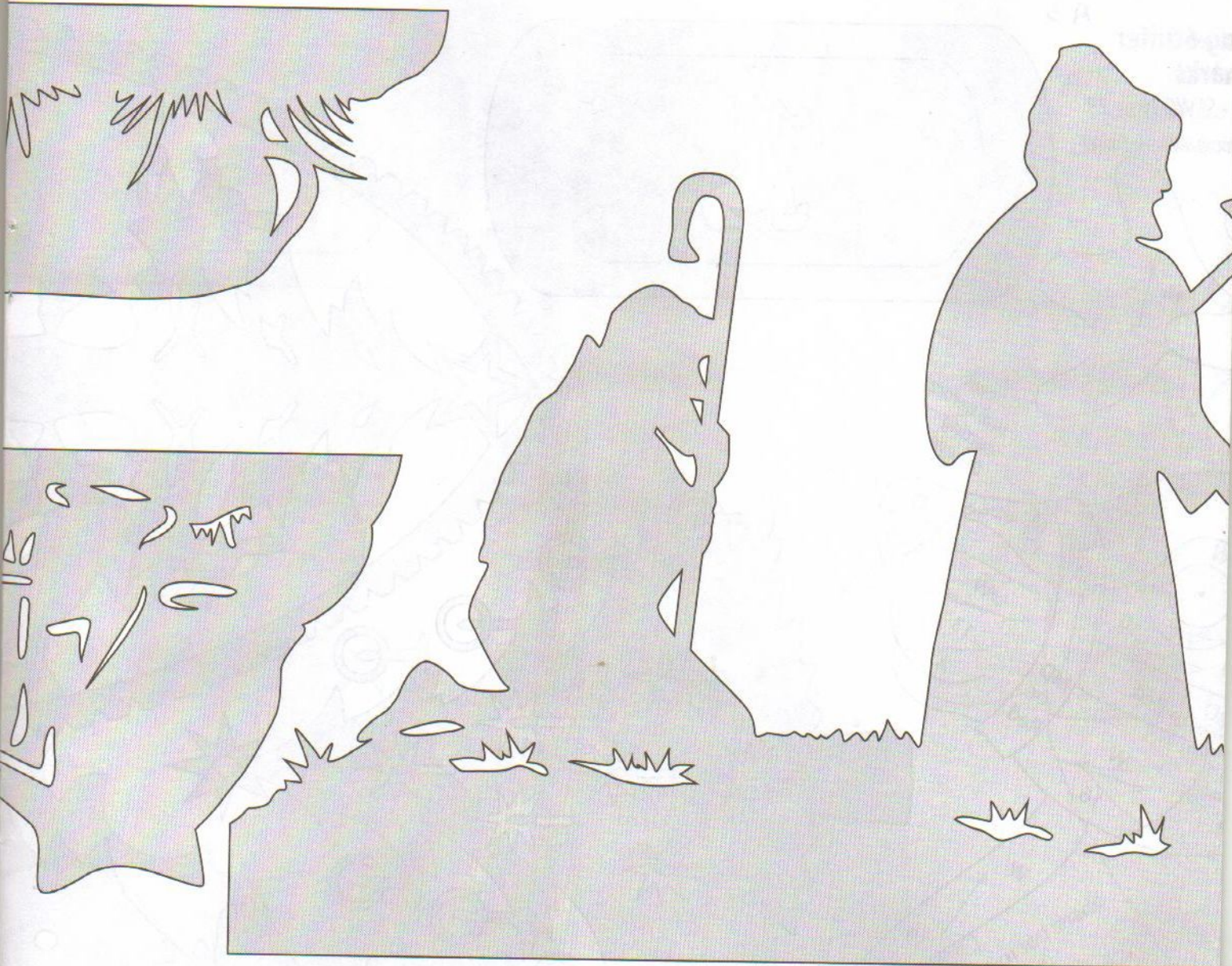


B1



Winter Retreat
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Designer: Charles Hand

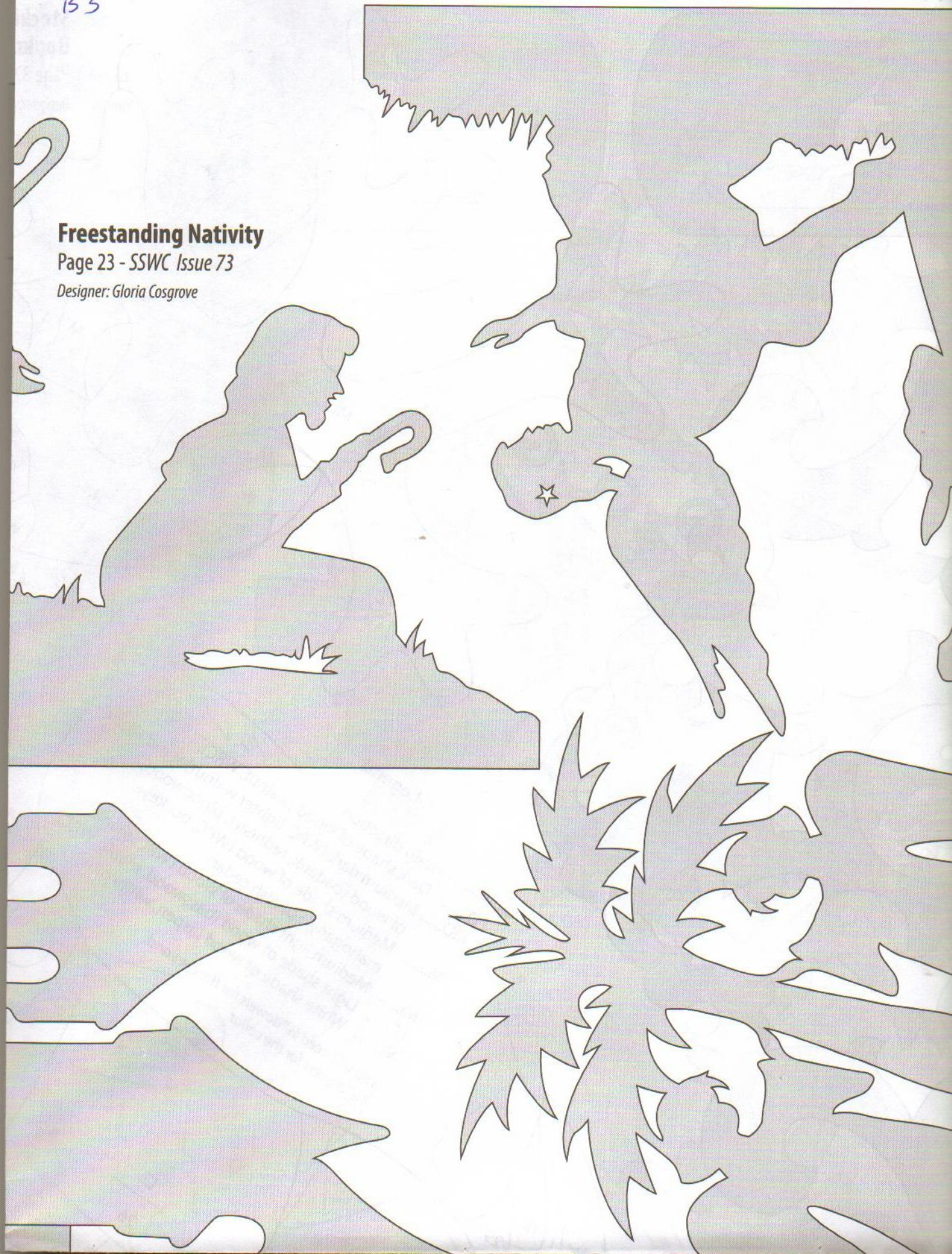




Freestanding Nativity

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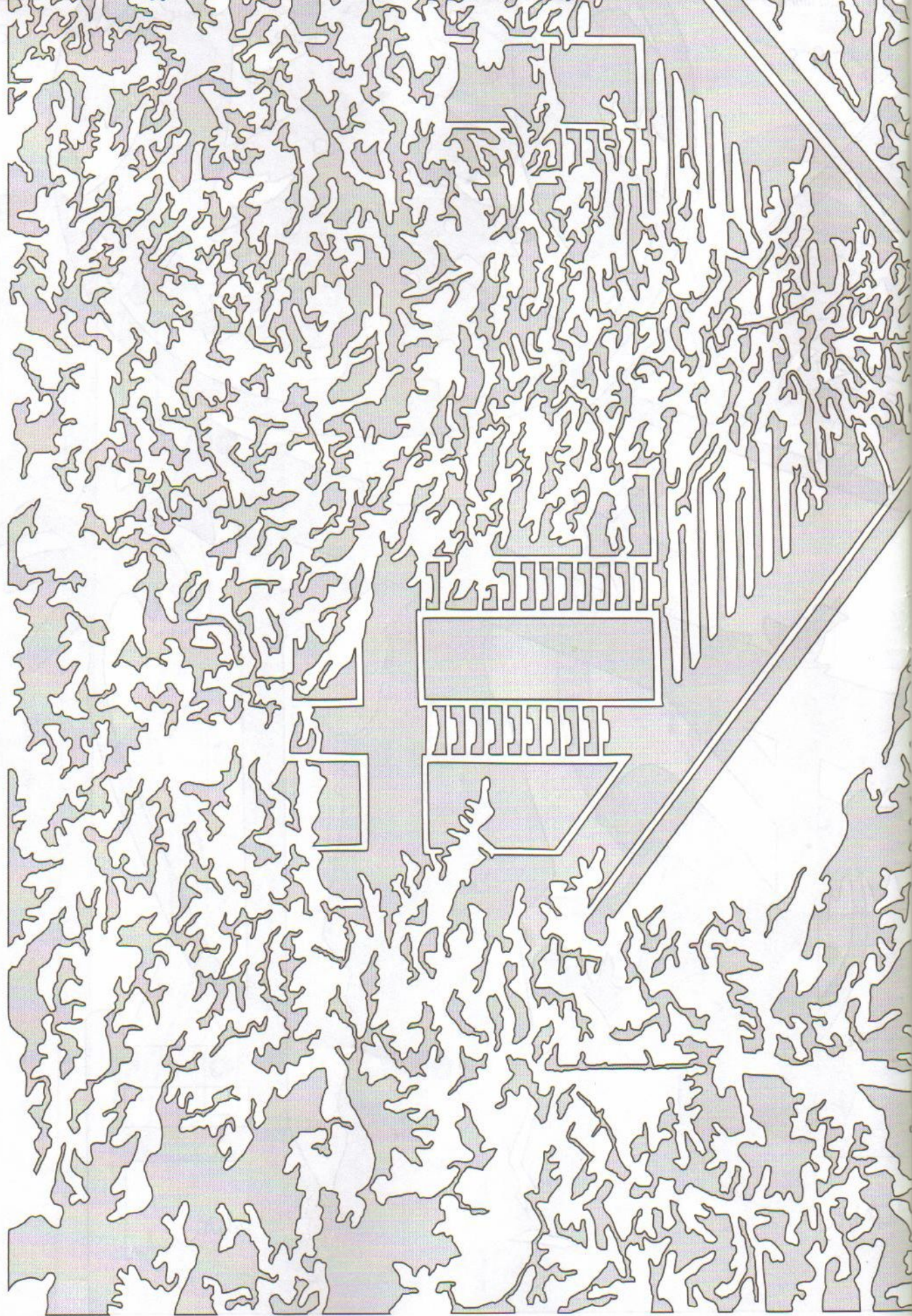
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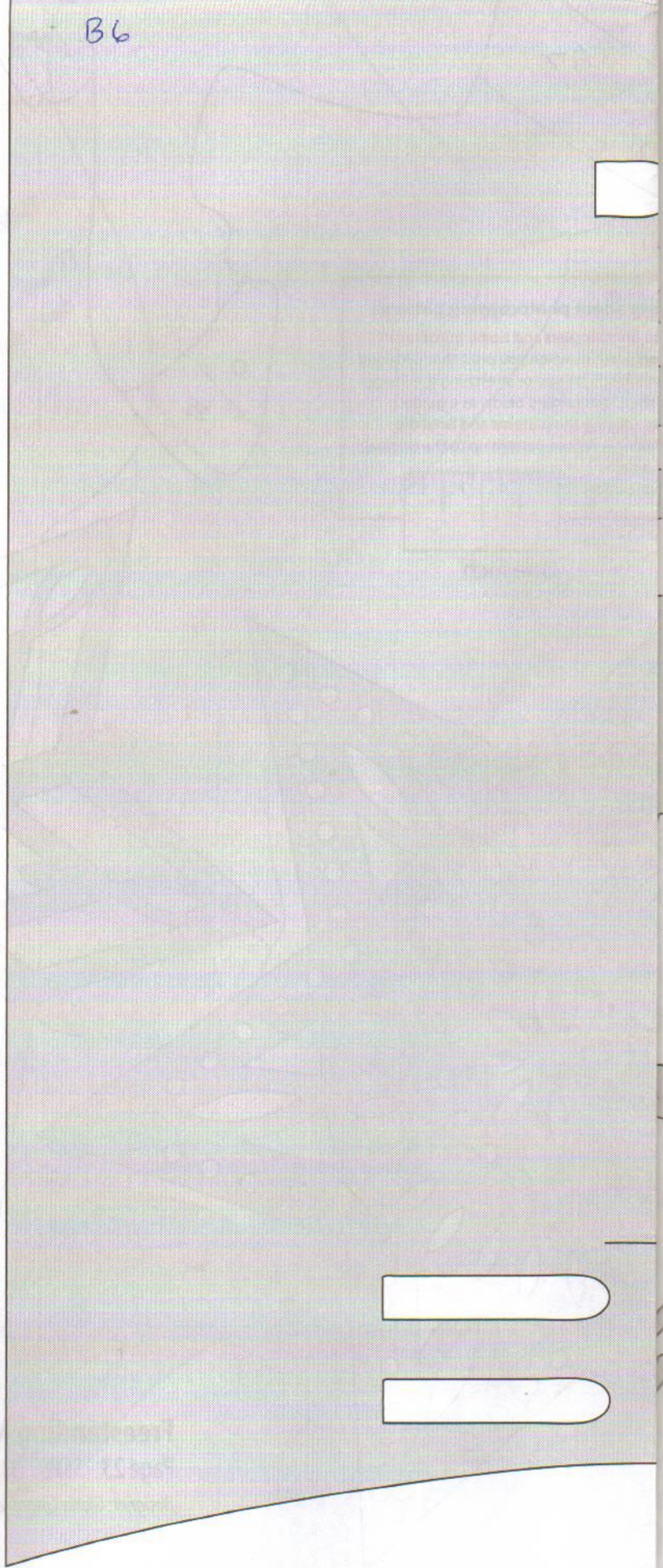
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B6



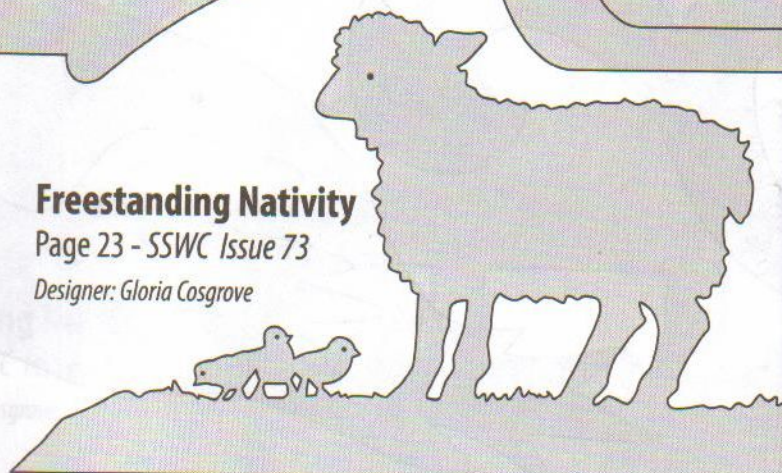
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**Fairytale
Castle Play Set**
Page 40
SSWC Issue 73
Designer: Sue Mey

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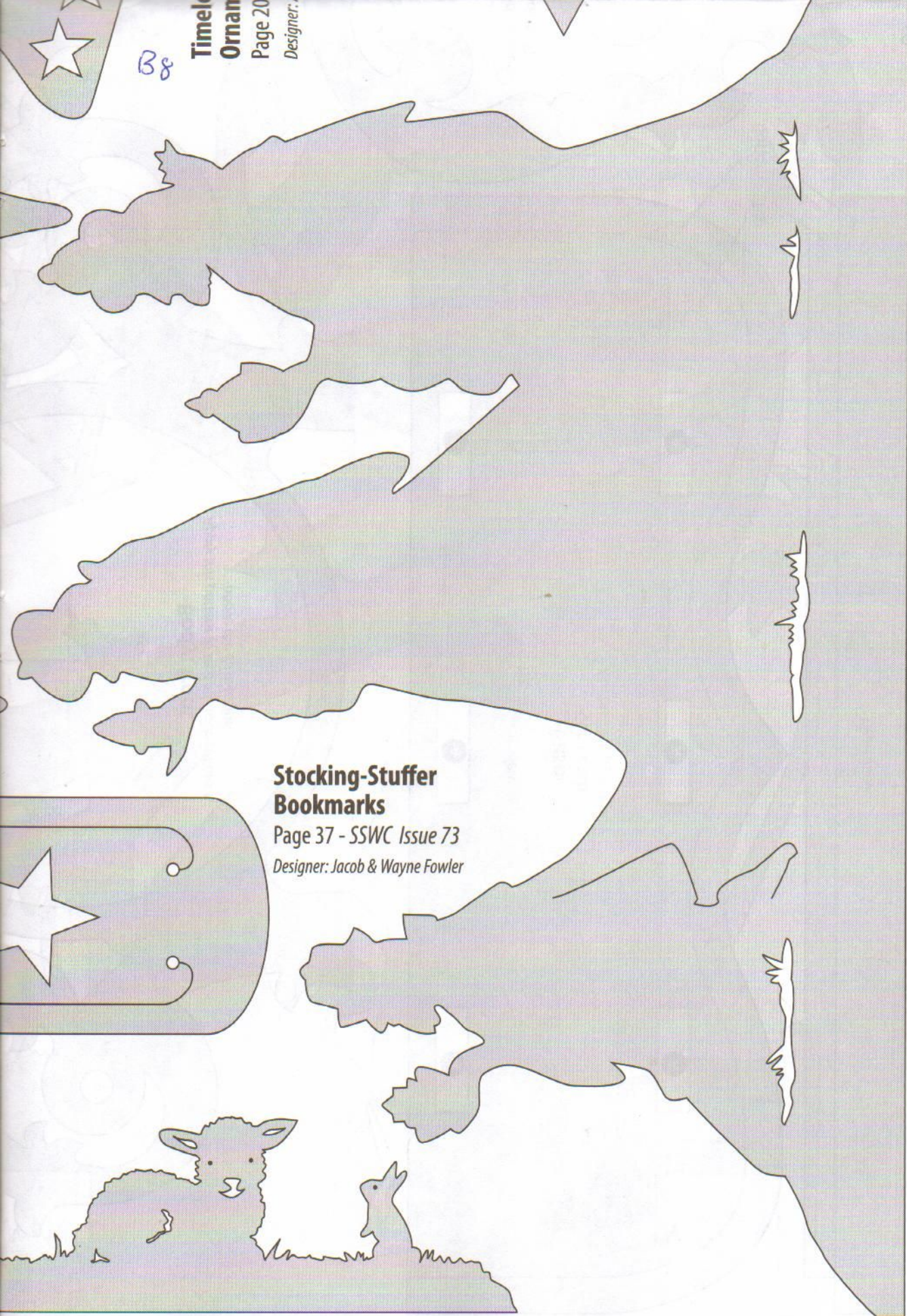
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B8



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