

Hacks to Keep Your Saw in Tip-Top Shape



SCROLLSAW woodworking

CRAFTS

WINTER 2021 ■ ISSUE 85

FOX CHAPEL
PUBLICATION

**35 Cozy
Projects
to make & gift**

**Family of
Charming Puffins**

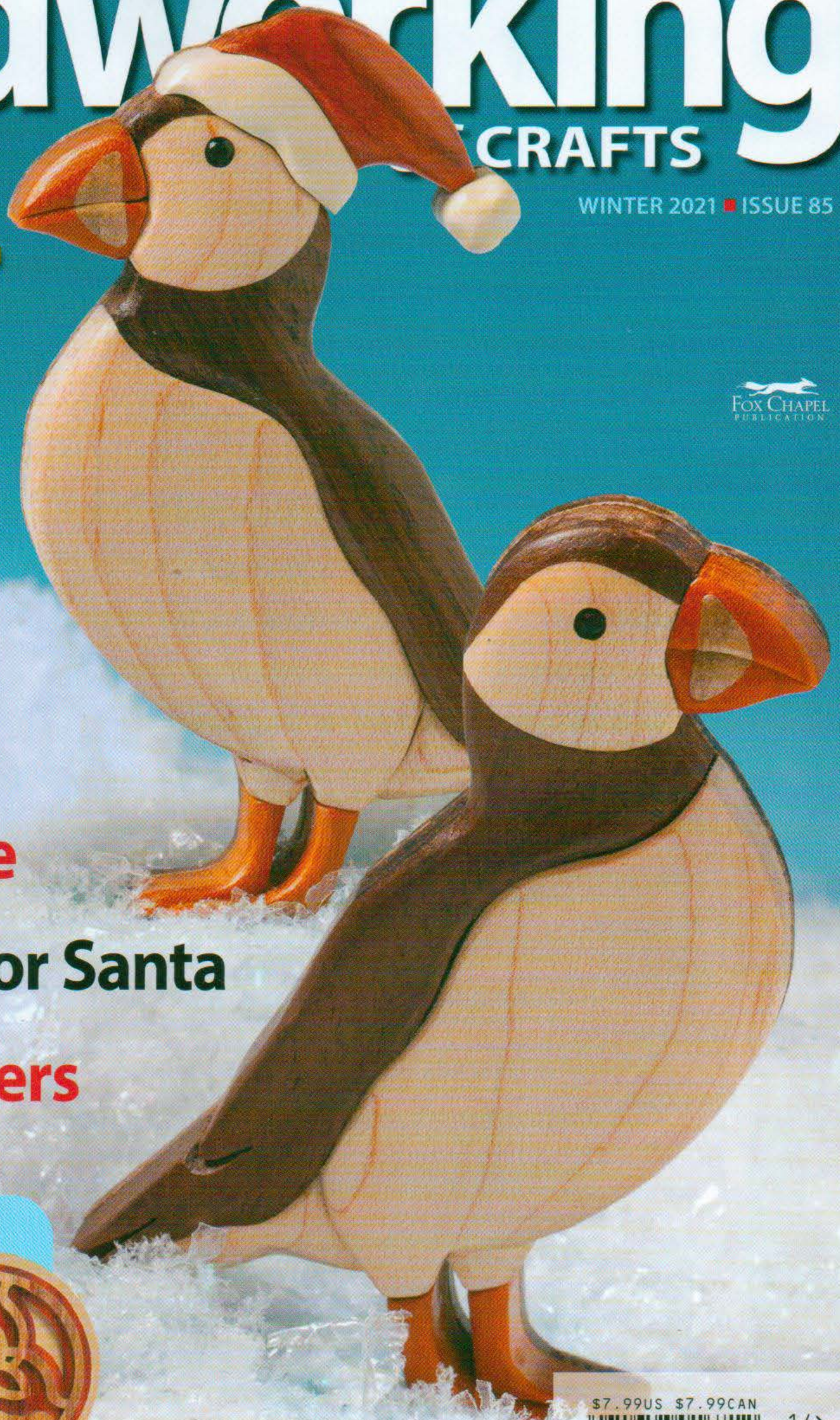
Jingle Bells Puzzle

Intarsia Cookies for Santa

A+ Stocking Stuffers

PLUS

**Ornaments
Galore!**



\$7.99US \$7.99CAN



DISPLAY UNTIL JANUARY 3, 2022

THE WOODEN TEDDY BEAR

Patterns, Plans, & Supplies
for the Woodworker



Peel & Stick Paper

Great for adhering your pattern to your wood for cutting. Peels off clean after done! Can be used in copiers and printers. 8 1/2" x 11" sheets.

5pcs - \$2.50	100pcs - \$30.00
25pcs - \$10.00	250pcs - \$65.00
50pcs - \$18.00	500pcs - \$120.00
75pcs - \$25.00	

1 7/16" Photo Frame Inserts

Glass lens, metal back, and spring clips.



1-4 - \$2.95 ea
5-9 - \$2.75 ea
10-19 - \$2.55 ea
20-49 - \$2.35 ea
50-99 - \$2.15 ea
100+ - \$1.95 ea

2" also available!

Stick & Release Tape

Product works double duty - adheres paper patterns to wood and keeps scroll saw blades lubricated. Peels off clean after done! Roll is 8 1/2" wide.

5ft roll - \$11.99
20ft roll - \$24.99

Baltic Birch & Hardwood Plywood

Baltic Birch

1/8" 12x12 - \$5.00-\$8.00 for 5 pcs
1/8" 12x24 - \$10.00-\$16.50 for 5 pcs
1/4" 12x12 - \$2.00-\$4.00 ea
1/4" 12x24 - \$4.00-\$8.00 ea

Hardwood Plywood

Red Oak - 1/4" 12x12 - \$5.50 ea	12x24 - \$12.00 ea
Cherry - 1/4" 12x12 - \$7.00 ea	12x24 - \$15.00 ea
Maple - 1/4" 12x12 - \$5.00 ea	12x24 - \$11.00 ea
Walnut - 1/4" 12x12 - \$7.25 ea	12x24 - \$15.50 ea



1 7/16" Clock Inserts

Glass lens, metal back, and spring clips.

Mix & Match for quantity.

1-4 - \$5.00 ea
5-9 - \$4.75 ea
10-19 - \$4.50 ea
20-49 - \$4.25 ea
50-99 - \$4.00 ea
100+ - \$3.75 ea

2" Economy available with spring clips also!

Flying Dutchman Blades

Ultra Reverse

2/0, 1, 3, 5, 7, 9

\$3.50 per Doz - \$33.60 per Gross

Scroll Reverse

2/0, 1, 3, 5, 7, 9, 12

\$3.30 per Doz - \$32.40 per Gross

New Spiral

3/0, 2/0, 1, 3, 5

\$3.80 per Doz - \$37.92 per Gross

Polar (Skip Tooth)

2/0, 1, 3, 5, 7, 9

\$3.20 per Doz - \$31.20 per Gross

Penguin Silver (Double Tooth)

2/0, 1, 3, 5, 7, 9

\$2.95 per Doz - \$29.40 per Gross

Penguin Silver Reverse

(Double Reverse)

2/0, 1, 3, 5, 7, 9

\$3.00 per Doz - \$31.20 per Gross

And Many More!!

See our website to
place an order!



www.woodentaddybear.com

1-888-762-9149

The Ultimate Scroll Sawing experience

Seyco's ST-21 Swing Tilt Head Scroll Saw.

FEATURING:

- Performance Proven link Drive system
- Finger Operated Blade Clamps
- Constant Power DC Variable Speed
- 21" Throat Depth
- 16 1/4" X 28" Table
- 8 3/8" in front of Blade
- **FREE** - 2 Year **REPAIR** or **REPLACE** Warranty
- 30 Day Satisfaction Guarantee



"SEYCO provides the only customer support system in the world backed by 35 years experience with the parallel link drive scroll saws".



FOLLOW US ON FACEBOOK FOR LAST MINUTE SPECIALS, UPDATES, SPECIAL ANNOUNCEMENTS, EVENTS AND ITEMS OF INTEREST TO SCROLLERS.

SEYCO SCROLLERS DRILL



Drill precise 90 degree, or other desired angles, accurately without the THROAT DEPTH RESTRICTIONS experienced when using a common drill press! Heavy Duty DC power supply, chuck key and 1 ten pack of our most popular bits smaller than 1/16"

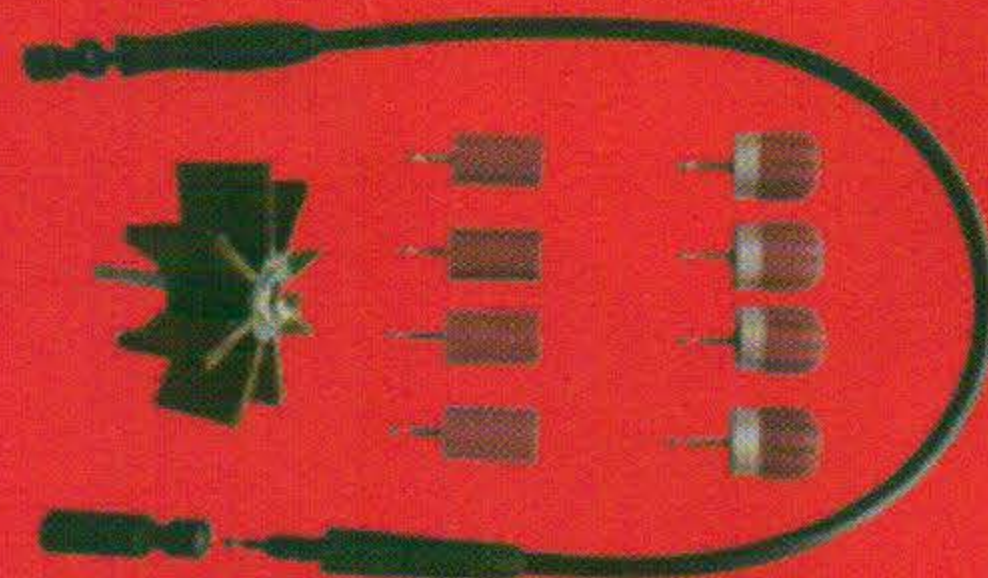
Seyco
The Scroll Saw Specialists, INC.
<http://www.seyco.com>

Visit seyco.com or call
800-462-3353

The Ultimate Sanding experience



RIS-20 - 1/2HP Dual Flex Drum Sander



RIS-AC Small Accessory Kit

VISIT SEYCO'S WEBSITE - www.seyco.com or call **1-800-462-3353** for current specials.



IN THIS ISSUE

FEATURES

12 *Tips for Easy Saw Maintenance*

Heed these simple instructions to keep your saw in working order

By Charles Hand, with Rolf Beuttenmuller

16 *Bit by Bit*

Engineer turned puzzle maker pieces together the project of a lifetime

By Hannah Carroll

44 *Student in Training*

Jimmy DiResta talks shop tips, machine hoarding, and problem-solving as a way of life

By Kaylee Schofield

TECHNIQUES

39 *Wine Bottle Holder*

Give your favorite vintage the royal treatment with this elegant and sturdy design

By Carole Rothman

66 *Gazing Tiger Intarsia*

This fierce feline is a welcome escape to the tropics

By Kathy Wise

PATTERNS

20 *Intarsia Puffins*

This small, accessible beginner project lets you ease your way into shaping
By Brad and Hazel Eklund

23 *Fawn Fretwork*

Get lost in the frets with this serene scene from nature
By Wayne Fowler

26 *Filigree Holiday Ornaments*

These lacy fretwork designs make great stocking stuffers
By Keith Fenton

32 *Jingle Bells Puzzle*

Hit a high note with this familiar shape
By Sarah Lyn Chamberlain

33 *Compound-Cut Present Ornament*

Scroll the shape and peel off the waste to reveal a gift that keeps on giving
By Clayton Meyers

35 *Dinosaur Ramp Walker Toys*

Enjoy endless entertainment with these prehistoric racers—no wheels required
By Paul Fellay

37 *Red-Nosed Reindeer Ornament*

This elegant take on a Christmas classic is sure to become a mainstay on the family tree
By Rich Hesketh

47 *Musical Stocking Stuffers*

You've seen kazoos—you've seen ukuleles—but this humorous hybrid leaves them all in the dust
By Daryl Webb

50 *Winter Luminary*

Light the way this season with a simple fretwork design
By Beatrix Brockman

23



56 *Multilayered Fretwork Ornaments*

No need for massive light displays this year—these baubles bring the color all on their own
By Dan Wilckens

58 *Forest Fretwork Scene*

Challenge your symmetry skills with a striking, frosty portrait
By Daria Alyoshkina

60 *Christmas Ornament Puzzles*

Get the ball rolling on winter with these easy-cut designs
By Sarah Lyn Chamberlain

66



PROJECTS

28 *Christmas Tree Puzzle Box*

This no-fuss evergreen is one you'll want to have up all year round
By Rita Cels

52 *Intarsia Gingerbread Ornaments*

Immortalize a beloved cookie in wood for a one-of-a-kind decoration
By Janette Square

62 *Winter Cardinal Scene*

Tranquil scene evokes a post-snowfall stroll
By Anatoly Obelets

Find these free extras at

SCROLLSAWER.COM

- **Bonus Project** – Want more ornaments? Visit our website and snag 26 patterns for personalized monogram pieces by Bill Miller.
- **Free Patterns** – Find more projects and patterns to scroll in the How To section on our website.
- **Bonus Video** – See a video on our website of Paul Fellay's jurassic ramp walkers (page 35) racing for the gold!



Search for Scroll Saw Woodworking & Crafts on Facebook, Pinterest, Instagram, and TikTok

DEPTS.

- 4 Editor's Note
- 6 Letters
- 7 Coming Features
- 8 Artists To Watch
- 10 Stay Connected
- 16 News & Notes
- 71 Ad Directory
- 72 Sawdust

COVER

- Hacks to Keep Your Saw in Shape...12
- Family of Charming Puffins...20
- A+ Stocking Stuffers...28, 37, 47
- Intarsia Cookies...52
- Ornaments Galore...20, 26, 33, 37, 50, 52, 56



The Power of Play

Most of us reach a point in life where it's tempting to cast off the blanket cape, put away the funny voices, and stop running through the sprinkler like a fool. For adults, especially around the holidays, it can feel easy to facilitate fun for everyone else—forgetting in the shuffle that there is no age restriction on play. After all, creative play, where the point is enjoyment rather than perfection, can stretch the brain, calm us down, and equip us for unexpected challenges, like invisible armor against the daily grind.

The best way to succeed at this is to dive right in, every day, even if that means looking silly.

This is where the scroll saw comes in. With it, you can test your ideas (however unconventional) and see where they lead. To get started, why not make Daryl Webb's quirky kazoo-ukulele hybrid on page 47? Cross intarsia techniques with a favorite cookie in Janette Square's tasty-looking family of gingerbread ornaments (page 52). Or, give two classically scary dinos a rewrite with Paul Fellay's hilarious racer toy project (page 35), built for play no matter your age (take it from a team who races them regularly).

If timeless classics are more your speed, we've got a few fun twists you'll love. Try a winter cardinal scene by Anatoly Obelets that's part fretwork, part segmentation, and 100% cozy (page 62); go wild with color in a set of chic multilayered ornaments by Dan Wilckens (page 56); or make the Christmas tree the main attraction in Rita Cels' nostalgic puzzle box project (page 28). Change up the stain, add glitter, or texture it your way, however off-the-wall; the more you play, the more you'll learn in the process.

As you dog-ear different pages in this issue to prep for winter festivities, we hope these designs prime you to stay playful in the shop, so that next time a sloth in pajamas shows up in your daydream, you don't dismiss it—you use it.

Happy scrolling!



Kaylee Schofield, Editor
schofield@foxchapelpublishing.com

Let the fun projects in this issue
inspire you to experiment
in new ways!



Scroll Saw Woodworking & Crafts Magazine
903 Square Street, Mount Joy, PA 17552
Phone: 717-560-4703
editors@scrollsawer.com

Our Mission

To promote scrolling as an artform and an enjoyable
pastime—for all ages and all skill levels.

Publisher/CEO Alan Giagnocavo
Editor Kaylee Schofield
Assistant Editor Hannah Carroll
Editorial Assistant Kelly Umenhofer
Art Director Jon Deck
Editorial Intern Lauren Novosat
Social Media Manager Stephanie Jordan
Contributing Photographer Mike Mihalo
Technical Illustrators Jon Deck, Linda Eberly

President/COO David Miller
Vice President, Sales Michele Sensenig
Vice President, IT Operations Paul Metzger

Customer Service for Subscribers

Visit scrollsawer.com, call 888-840-8590,
e-mail customerservice@foxchapelpublishing.com,
or write *Scroll Saw Woodworking & Crafts*,
903 Square Street, Mount Joy, PA 17552.

Newsstand Distribution: Comag Marketing Group
Circulation Consultant: National Publisher Services
Printed by Fry Communications

©2021 by Fox Chapel Publishing Co. Inc.
All Rights Reserved. Printed in USA

Subscription Rates in US Dollars

One year \$29.99
Two years \$59.98

Canada

One year \$34.99
Two years \$69.98

International

One year \$39.99
Two years \$79.98

Display Advertising/Classifieds

For rates and/or a media kit, call Erin Gosik at 800-457-9112 x119,
or e-mail advertising@foxchapelpublishing.com

Wholesale/Distribution

Scroll Saw Woodworking & Crafts is available to retailers for resale on
advantageous terms. Contact Fox Chapel Publishing Sales at
sales@foxchapelpublishing.com or 800-457-9112 opt. #2

Identification Statement: Scroll Saw Woodworking & Crafts, vol. 22, no. 4
(WINTER 2021) (ISSN#1532-5091) is published quarterly by Fox Chapel
Publishing Co. Inc., 903 Square Street, Mount Joy, PA 17552.
Periodicals Postage paid at Lancaster, PA and additional mailing offices.
POSTMASTER: Send address changes to Scroll Saw Woodworking & Crafts,
903 Square Street, Mount Joy, PA 17552.

Publication Mail Agreement #40649125
Return Undeliverable Canadian Addresses to:
Station A, PO Box 54, Windsor, ON N9A 6J5
shannon@foxchapelpublishing.com

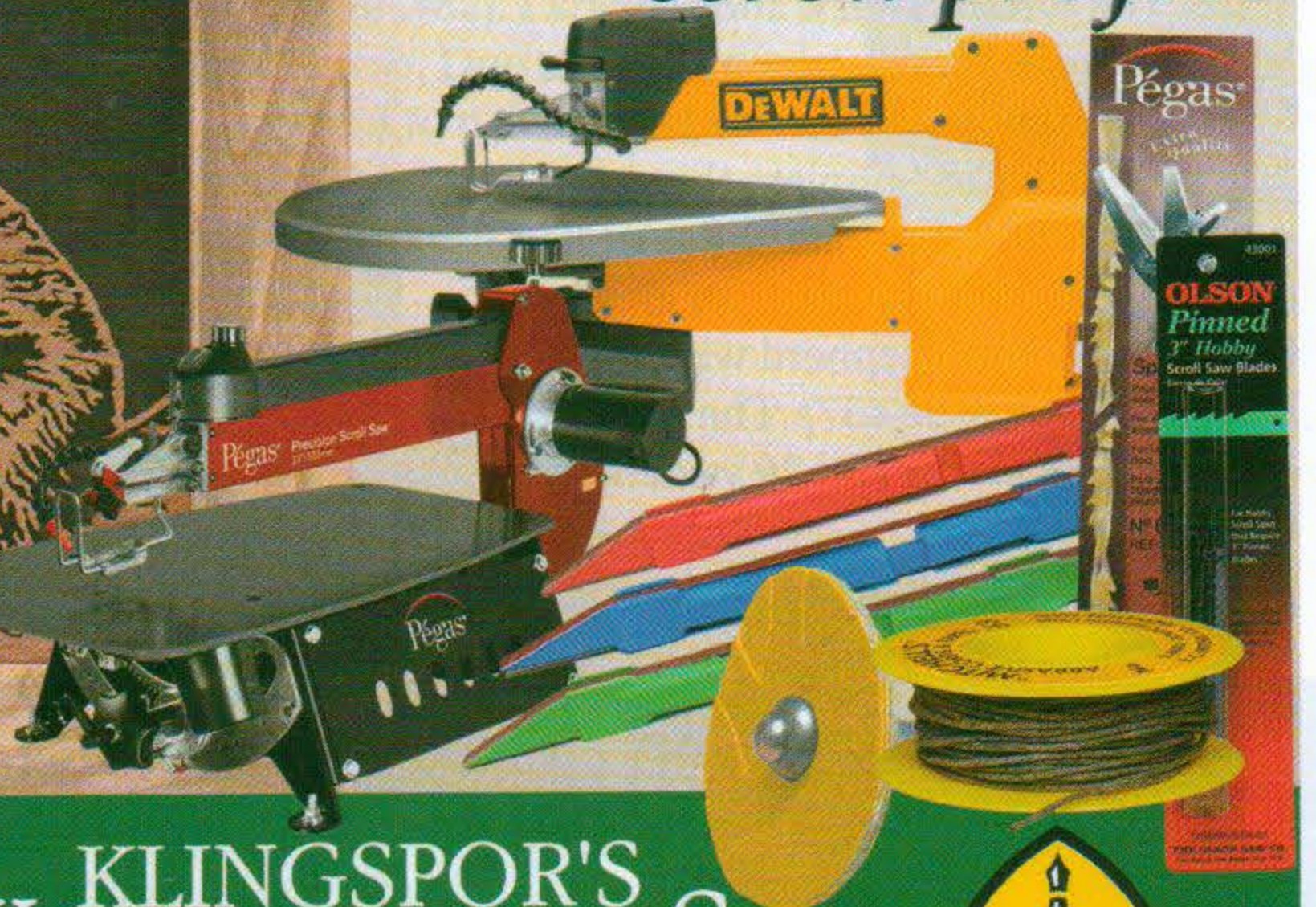
Scrolling and the use of associated equipment can potentially result in health hazards and injuries. While we cannot
impose safety standards in every article, we do ask that you make safety your number one priority. Protect your respi-
ratory system, hearing, vision, and the rest of your body with the proper safety equipment and prudent precautions.
Read manuals supplied with your tools. Be aware most accidents occur when you are tired or distracted. And when in
doubt, seek advice from professionals on how to maintain your tools.

**Note to Professional Copy Services: The publisher grants you
permission to make up to ten copies for any purchaser of this
magazine who states the copies are for personal use.**

We have what you
need to finish your
scroll project



Scroll work by
Sterling Davis - NC



Four Locations in
North Carolina:
Asheville, Hickory, Cary
and Winston-Salem



KLINGSPOR'S
WOODWORKING SHOP

"Quality Tools and Supplies for the Woodworker"



800-228-0000 • www.woodworkingshop.com

WudPal has a FREE \$5.00 off coupon* for you

WudPal.com
is a website
dedicated to
woodworking
plans—free and
for purchase—
from vendors
who are fellow
artisans like
yourself.



WudPal has **over 15
different categories**
of projects to make.



WudPal has **over 200
project plans** available
with more to come.

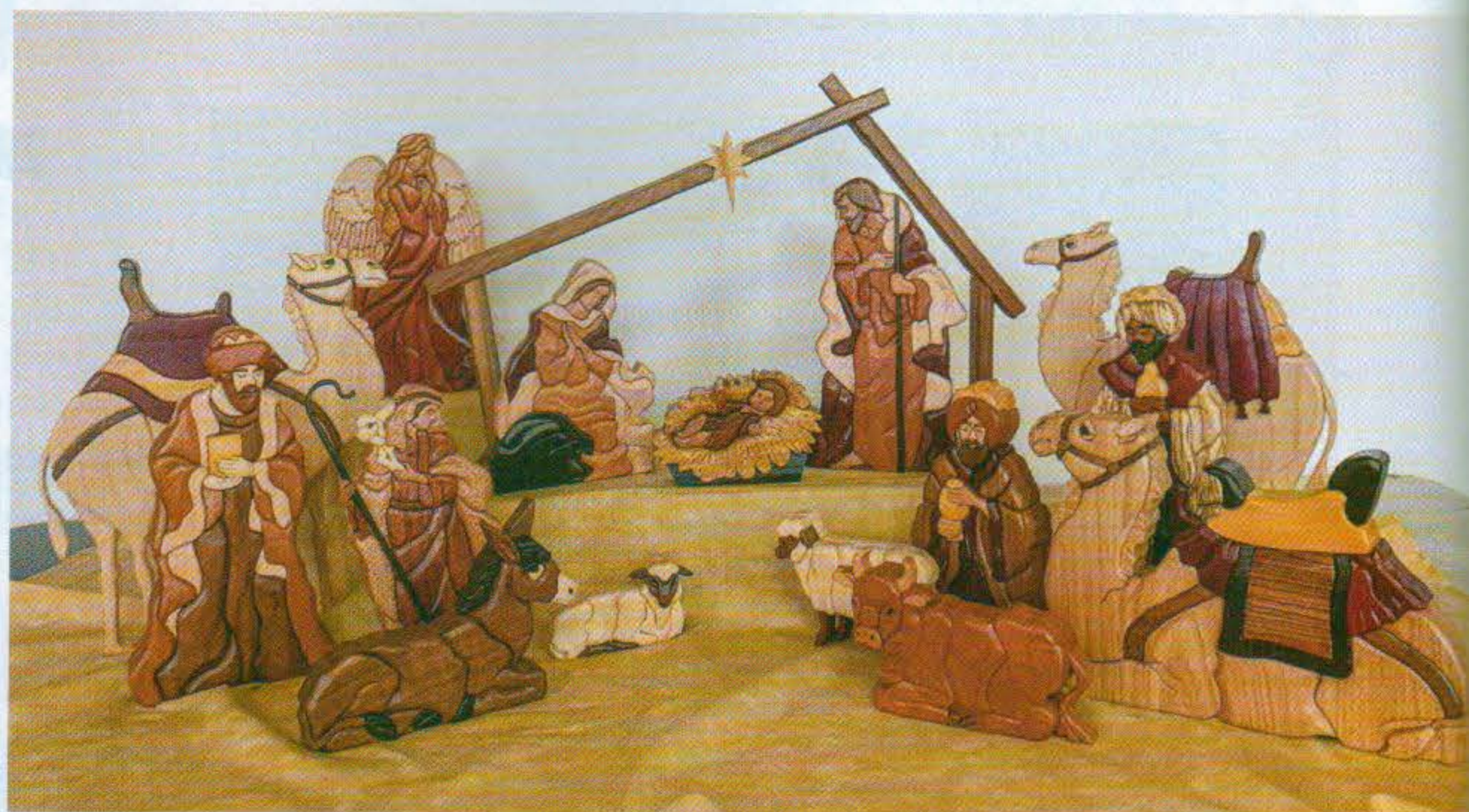
WUDPAL

* Visit wudpal.com and see what's there. If you want to
purchase any plan, use the Coupon Code **WudPal2022**
at checkout and get \$5.00 off the price of that plan.
Coupon expires 12/31/2022.

Away In a Manger ▶

Although it looks like a complete set, this nativity scene was made by combining separate patterns by Kathy Wise. The Joseph, Mary, and Baby Jesus are from her "Heirloom Intarsia Nativity" from issue #49. I added other designs of hers to complete the scene, such as a camel and donkey (issue #69), three wise men (issue #65), an angel (issue #61), and a shepherd with his herd of sheep (issue #57). The project contains 833 pieces and 29 varieties of wood!

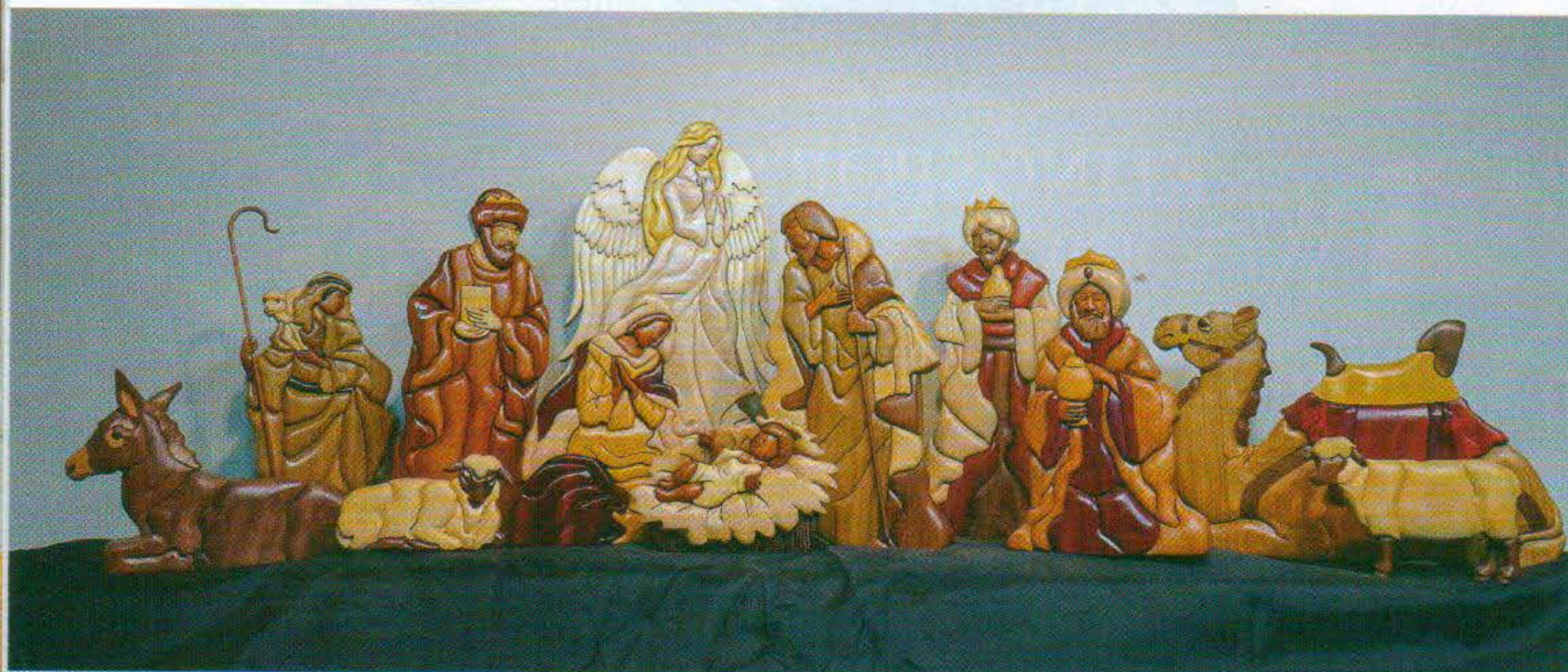
Elsa Apetz *Johnstown, Pa.*



Holy Night ▶

I began working on this piece, which was inspired by Kathy Wise's nativity scene from issue #49, back in 2018 and finished at the end of 2020. I included her three wise men (issue #65) and her angel intarsia (issue #61). I used mahogany, cherry, and yellowheart, and other varieties of wood, and applied a clear semigloss spray finish.

Chuck Miller
Lancaster, Pa.



Time-Honored Tradition ▶

This tree (issue #57) is one of the first projects I ever made on the scroll saw, and it always comes out at Christmastime.

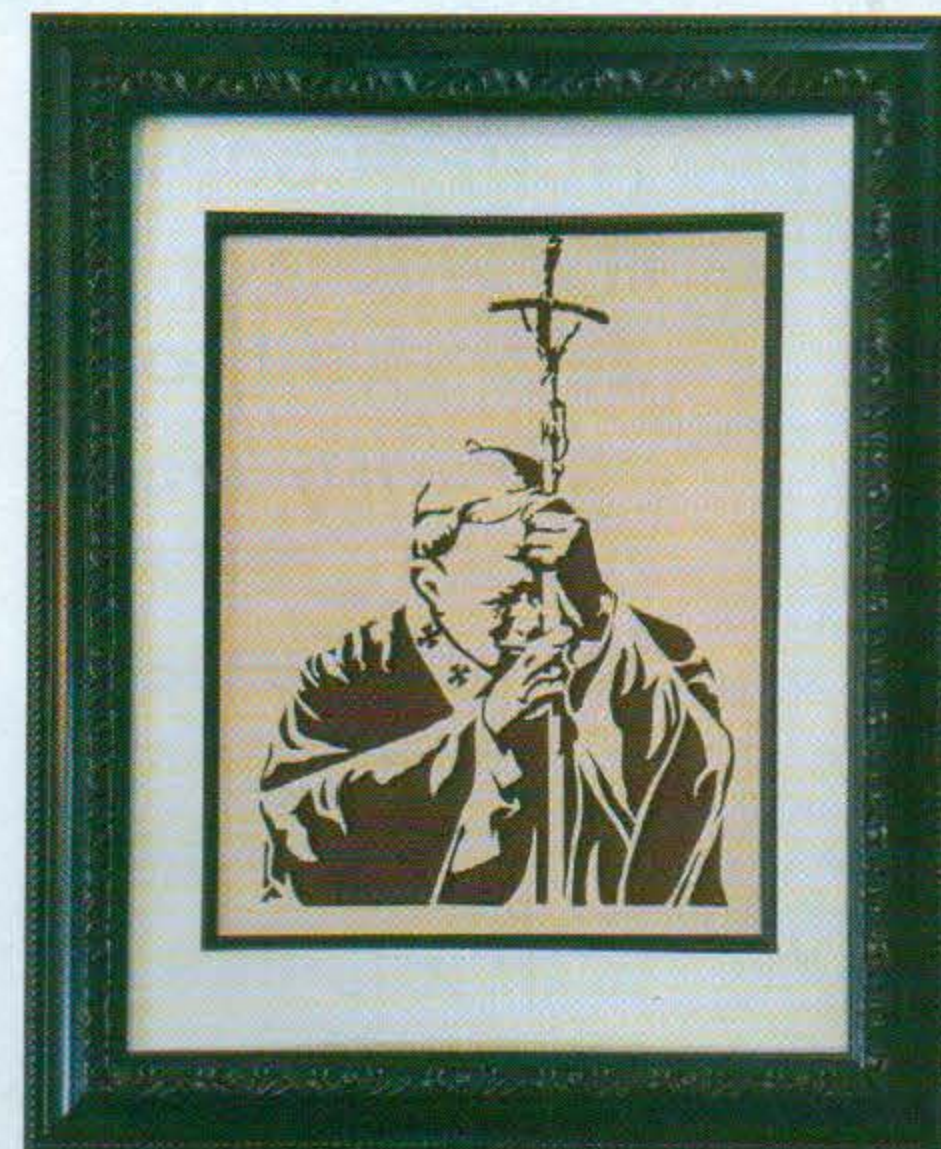
Kristian Bischoff
Dodow, Germany



Divine Work ▶

I am a longtime subscriber to your magazine. I enjoy cutting religious pictures to gift to friends. For each project, I stack-cut three pieces of 1/8" (3mm)-thick Baltic birch plywood. I sand the portraits but do not add stain, as I prefer a more natural look.

Howard Lampa
Ponte Vedra, Fla.



Write to Us! Tell us 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, 903 Square Street, Mount Joy, PA 17552 or e-mail editors@scrollsawer.com. You can also send us your letters and photos via Instagram! Tag us @scrollsawwoodworking.



Fretwork with a Twist

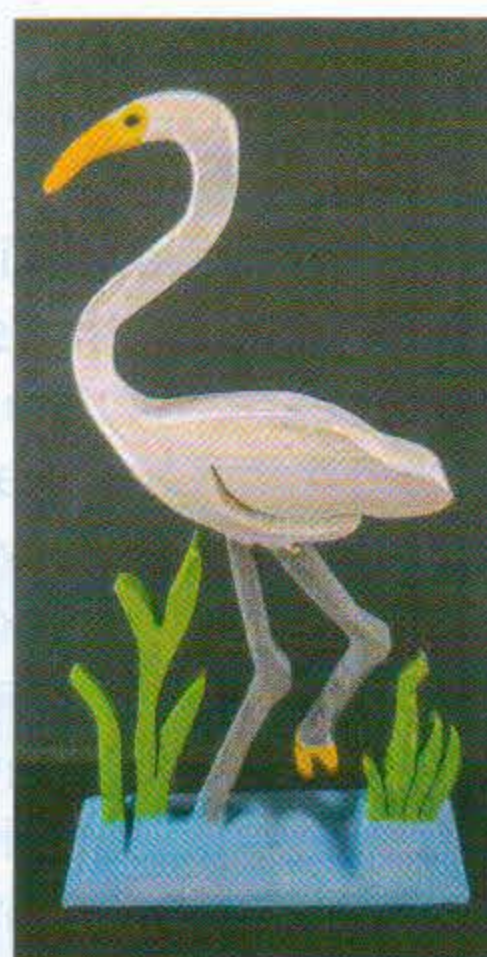
After reading about epoxy resin in the summer issue (#83), I wanted to incorporate it into my own interpretation of Fiona Kingdon's "Bread and Cheese" from issue #81. I used reclaimed wood, and then filled in the fretwork with colored epoxy. I mounted the piece onto a chunk of fallen cherry. Thank you for all the ideas!

Andy Lake *Lanark, Scotland*

Egrets, No Regrets

I am a fan of SSW&C contributor Diana Thompson and have completed many of her projects. However, I never got around to scrolling her egret. Once I saw it in the spring issue (#82), I knew the time had finally come. Due to the bird's fragility, I was afraid to paint it—but it turned out great!

Barbara-Lynn Smith *Brooklet, Ga.*



CA for the Win

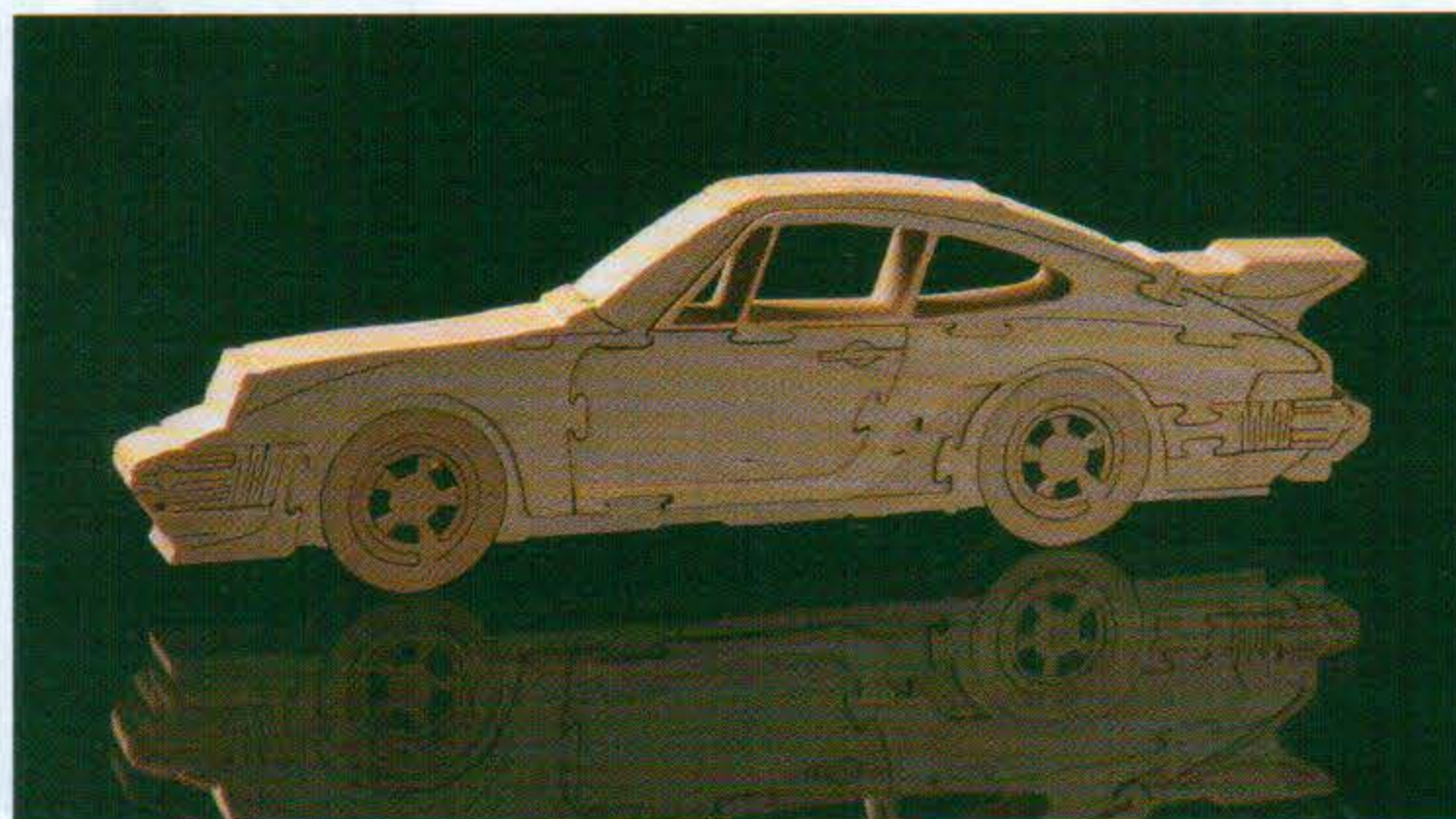
I cut Diana Thompson's "Compound-Cut Water Bird" in the spring issue (#82) from a maple scrap. Once cut, I soaked the piece in thin cyanoacrylate (CA) glue to give the delicate parts some added strength.

Rolf Beuttenmuller
Bellport, N.Y.

COMING FEATURES

Look for these projects in an upcoming issue!

Send your blade on a wild ride to create this sleek Porsche® puzzle.



Find the Fox Hunt Winners on Page 71!



Treat yourself with sweet macaron-shaped mini boxes.



Greet guests with this country-chic sign.



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 Artists to Watch, *Scroll Saw Woodworking & Crafts*, 903 Square Street, Mount Joy, PA 17552 or e-mail editors@scrollsawer.com.

Lawrence Killingsworth *Spokane, Wash.*

Lawrence Killingsworth has had a passion for woodworking since he was a young boy hanging around his father and grandfather's workshop. He considers himself an avid student of all types of woodworking—especially scrolling—and has made projects ranging from Christmas ornaments and decorative boxes to furniture. His most recent project, a wooden robot he named IGOR (Idea-Generating Operational Robot), is made from basswood and Baltic birch plywood. Lawrence hand carved the robot's head and body, and then cut out its arms and legs on the scroll saw. "I have IGOR set to generating 'WOW!' ideas so he can help me figure out what I am going to make next," he said. To see more of Lawrence's work, visit fb.com/lawrencekillingsworth.



Brian Murray *Batavia, Ohio*

Brian Murray took to the scroll saw after discovering the level of detail he could achieve with it on wood. "I can't draw or paint, but the scroll saw levels the playing field," he said. "It allows me to picture something in my head and then reproduce it." Brian enjoys creating 3D sculptures and abstract portraits of animals that look like they are made of stained glass. To see more of Brian's work, visit @OhioMurb on Instagram or Etsy.



Photo by Rob Feber Fotografie

Corinne Abbekerk

Apeldoorn, Netherlands

Corinne Abbekerk began woodworking three years ago when she discovered pyrography. Driven by her passion for burning portraits, Corinne wanted to take it to the next level and bought a scroll saw. "I love a challenge," she said. Corinne mostly works with cherry wood because of its rich color. Recently, she discovered that she could use gears to add an extra element to her work. "When I saw the gear parts, my imagination took it over and an owl was born," she said. To see more of Corinne's work, visit fb.com/corinneabbekerk.



Ricky Saetta

Greenport, N.Y.

Ricky Saetta began his woodworking journey as a carpenter. Pretty soon, however, renovations on Brooklyn brownstones were not enough to satisfy his creative itch—so he picked up a scroll saw and began to try his hand at more delicate work. "Most of my pieces have a retro vibe," he said. "I draw inspiration from nostalgia." Ricky is currently working on larger installations in New York and hopes to one day own a roadside attraction, hotel, or museum filled with immersive experiences to showcase his creations. To see more of Ricky's work, visit @ricky.teevee on Instagram.



Bobby Riggs

Dallas, Texas

Bobby Riggs has been scrolling for 21 years. "The ways to create with this tool are unlimited," he said. Bobby scrolls a slew of projects, but refrigerator magnets are his favorite. He enjoys brainstorming new ways to put his own spin on traditional patterns by experimenting with different shapes, sizes, colors, and wood varieties. To see more of Bobby's work, visit fb.com/bobbyriggs or fb.com/scrollriffs scrollsawpatterns.

Stay Connected

Looking for ways to engage and connect with fellow scrollers outside of your workshop? Check out these online resources to stay up-to-date with the world of scrolling and keep in touch with those in the community.

Facebook Groups to Join:

- **Scroll Saw International Group.** Where scrollers from all over the world can post their patterns, tips, techniques, and in-progress and finished projects.
- **Girls with Scroll Saws.** Where women scrollers share their scroll saw knowledge, pattern making tips, and general woodworking know-hows.
- **Intarsia Crafters.** A place where scrollers can showcase their intarsia work, exchange ideas, and promote the art of intarsia.
- **Scroll Saw Woodworking Group.** A place for scroll saw enthusiasts and woodworkers to ask questions, share ideas, and stay connected with others.
- **Scroll Saw & Woodworking Enthusiasts.** The perfect place for woodworking and scroll saw enthusiasts to share their projects, patterns, tips, and ideas.

YouTube Channels to Subscribe to:

- **Scroll Saw Village.** Travis Cook uploads projects, patterns, quick tips, and techniques for scroll saw enthusiasts. Travis also offers tutorials for designing your own original patterns. Visit his profile at Scroll Saw Village.
- **Cy's Corner.** A woodworking hobbyist, Cynthia "Cy", uploads projects and patterns for the scroll saw, including intarsia pieces and personalized wall signs. Cy also dabbles in furniture making—when she's not out exploring with her dogs. Visit her profile at Cy's Corner.
- **Artisan Pirate.** Tyler Dalton, nicknamed the Artisan Pirate, regularly posts instructional videos on scroll sawn projects and patterns for the woodworking community. He's even been known to wear an eye patch or two! Visit his profile at Artisan Pirate.

Online Forums to Check Out:

- **Scroll Saw Woodworking & Crafts Message Board.** A message board where scrollers can interact with each other and share information relating to magazine projects, patterns, and other scroll saw-related topics. Visit forum.scrollsawer.com to learn more.
- **Lumberjocks.** A corner of the internet dedicated to discussion on woodworking tips, tricks, projects, patterns, and tool maintenance. Visit lumberjocks.com/forums/16 for more information.

Blogs to Follow:

- **Woodwork Hubby.** Derek, a woodworker for over 30 years, created this blog to share his passion and woodworking knowledge. Derek posts tips and recommendations for a variety of topics related to saws, tools, sanding, staining, types of wood, and more. Visit woodworkhubby.com to learn more.
- **Jaime Costiglio.** Jaime Costiglio, a woodworking hobbyist, enjoys DIY projects involving wood, fabric, and paint. Jaime uploads instructional videos and links to her site weekly. She collaborates with other scrollers and woodworkers to offer her followers fun and valuable projects. Visit jaimecostiglio.com for more information.

Mike's Workshop

Your source for

Flying Dutchman®



Assortment Pack

Contains 1 doz. each of UR5, SR5, PS5, P5, and NS3 - \$18.50



Heavy Duty Assortment Pack

Contains 1 doz. each of UR9, SR12, PSR9, XL12, and HD \$21.50

Drill Bits

available sizes #47 - #71



Ultra Reverse

available in sizes 2/0, 1, 3, 5, 7, 9 \$3.50 / doz.

\$19.50 / 6 doz.

\$33.60 / 12 doz.

Mix and match in same style of blade for quantity discount.

New Spiral

available in sizes 3/0, 2/0, 1, 3, 5 \$3.80 / doz.

\$21.90 / 6 doz.

\$37.92 / 12 doz.

Also available: Spring Hand Drill and Mini Drill Chuck with Collets.

Mike's Workshop * www.mikesworkshop.com * 503-760-1614

HAWK Precision Scroll Saws

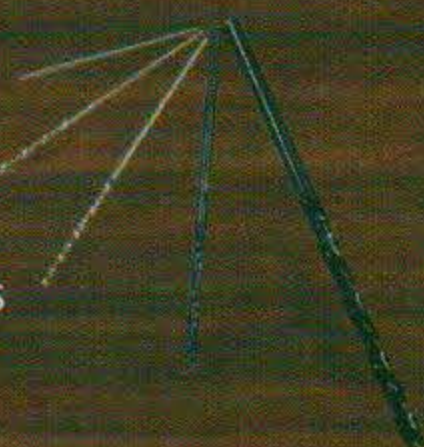
Since 1929
Still made in the USA



Mini chuck & drill bits



Abrasive cord for precision sanding



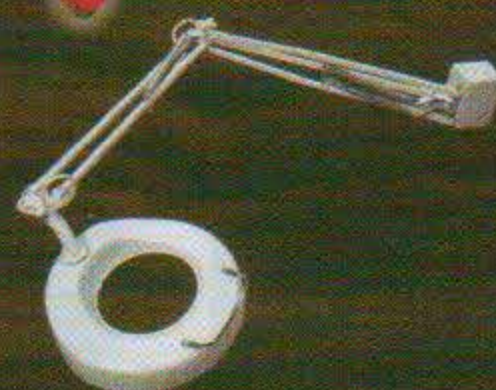
Footswitch



Accessory table



Machinist's square



Mag light



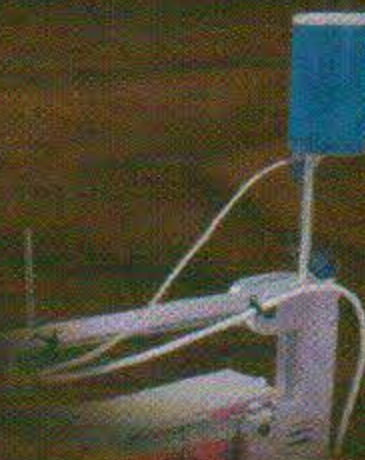
Accessories & Gift Ideas



Bishop Clamp System



Chair legs



Drip tank

Call in or
shop online

Bushton Manufacturing, LLC

P.O. Box 127, 319 S Main St. Bushton, KS 67427
620-562-3557 www.hawkwoodworkingtools.com

Tips for Easy Saw Maintenance

Heed these simple instructions to keep your saw in working order

By Charles Hand, with Rolf Beuttenmuller

This may be hard to believe, but in over 15 years of scrolling, I have never replaced a clamp or thumb screw. I've been able to keep my various machines—my oldest saw is a 1998 model—running like new by following a simple maintenance routine. I've laid it out here, as well as a few tips I've picked up along the way. Taking care of your scroll saw doesn't have to be daunting, but it should be an investment you take seriously. Not only will your saw thank you for it, but your wallet will, too!

Safety Tips For Scrolling

Prepare your workspace so that your scrolling experience is safe and enjoyable. Work in a well-ventilated space and surround your setup with good, even lighting. Always wear a dust mask and safety goggles, tie up long hair, and secure loose clothing before beginning a project in your shop. Employ a benchtop dust collector to help keep your work area clean and protect your lungs to ensure that you can scroll without difficulty for years to come. It is also important to read your tool's instruction manual, and follow the recommended guidelines for proper setup and maintenance.

Routine Maintenance

Don't just walk away after you've finished scrolling. Clean up after each session. Vacuum up sawdust on and around the machine and blow out the clamps. Release the blade tension when the saw is not in use. Sand down any burrs or sharp metal edges on the table, and then lubricate it with WD-40® (Rolf prefers high-quality, furniture-grade paste wax). This will make workpieces slide more easily on the table and help to prevent the machine from rusting. Store spare blades and drill bits in their proper place. Remember that the best offense is a good defense. A clean, organized work environment will also reduce the chance for personal injury or possible damage to your saw from neglect.

Proper Blade Tension

Every saw has a different method to tension, but it all comes down to finding the right tightness for your chosen blade (see Blade Selection below). When inserting a blade, clamp it to the upper and lower armatures. Once it's tight, set the tension with the change knob. (Some saws, such as the one pictured below, have multiple lever positions. Always make sure that your tensioning lever is correctly positioned before turning on the saw.) If the blade is too tight and pressed too hard when sawing, it will break. However, if the blade is too loose and catches the wood, it's also likely to break. Some scrollers test the tension by plucking the blade with a fingernail. An appropriately tensioned blade will sound like a high C note.



Incorrect tension.



Correct tension.

Blade Selection

Choosing the right blade can significantly increase a project's likelihood of success. The thickness of the wood will affect the type of blade you'll need. When cutting thicker wood, you want a blade with fewer teeth per inch (TPI). The opposite will be true with thinner wood. As a rule of thumb, you want to have at least four teeth in the wood at any given moment. This is because if you have too many teeth, the sawdust has no way of clearing out, which causes the blade to heat up and the wood to burn. Having too many teeth in the wood will cause the teeth to catch onto the wood, causing the user to lose control of the scrolled piece.

Just **FLOCK IT!** with Spray-on Fibers

Line Box and Gourd Interiors in just minutes.
Create soft, fuzzy effects on your wood crafts such as:

Santas	Clouds
Dolls	Angels
Toy Furniture	Flower Petals
Jewelry	Model Car Seats
Decoys	Tree Ornaments
Tool Handles	Fretwork Backgrounds

....the possibilities are endless!
Available in over 20 colors.

Call for brochure & color chart **815-986-1097**

Flock It!

1515 Elmwood Rd, Rockford, IL 61103

www.flockit.com

Build Your Own Outdoor Fun!



Build these popular pieces
from our plans! We carry the hardware,
blades, and general finishes to make your
projects the best they can be.

CherryTree
Wildwood

Woodworking Plans, Kits & Supplies

www.CherryTreeToys.com



A FEW OF OUR
MANY BRANDS!



Over 18,000 woodworking and scrolling items to choose from

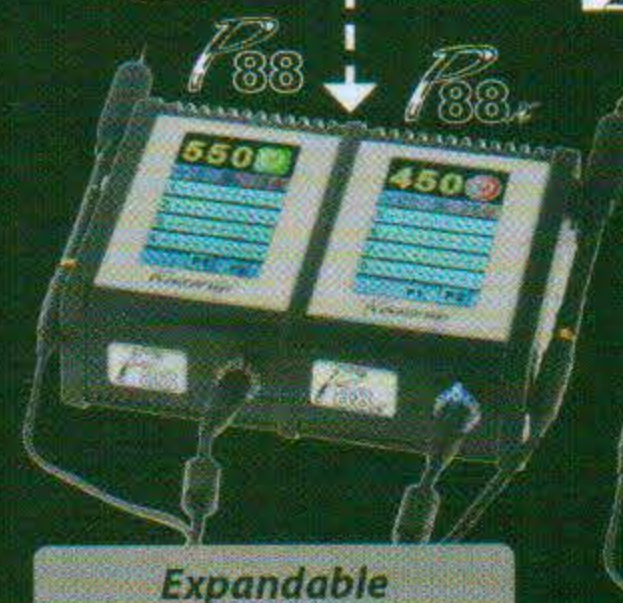
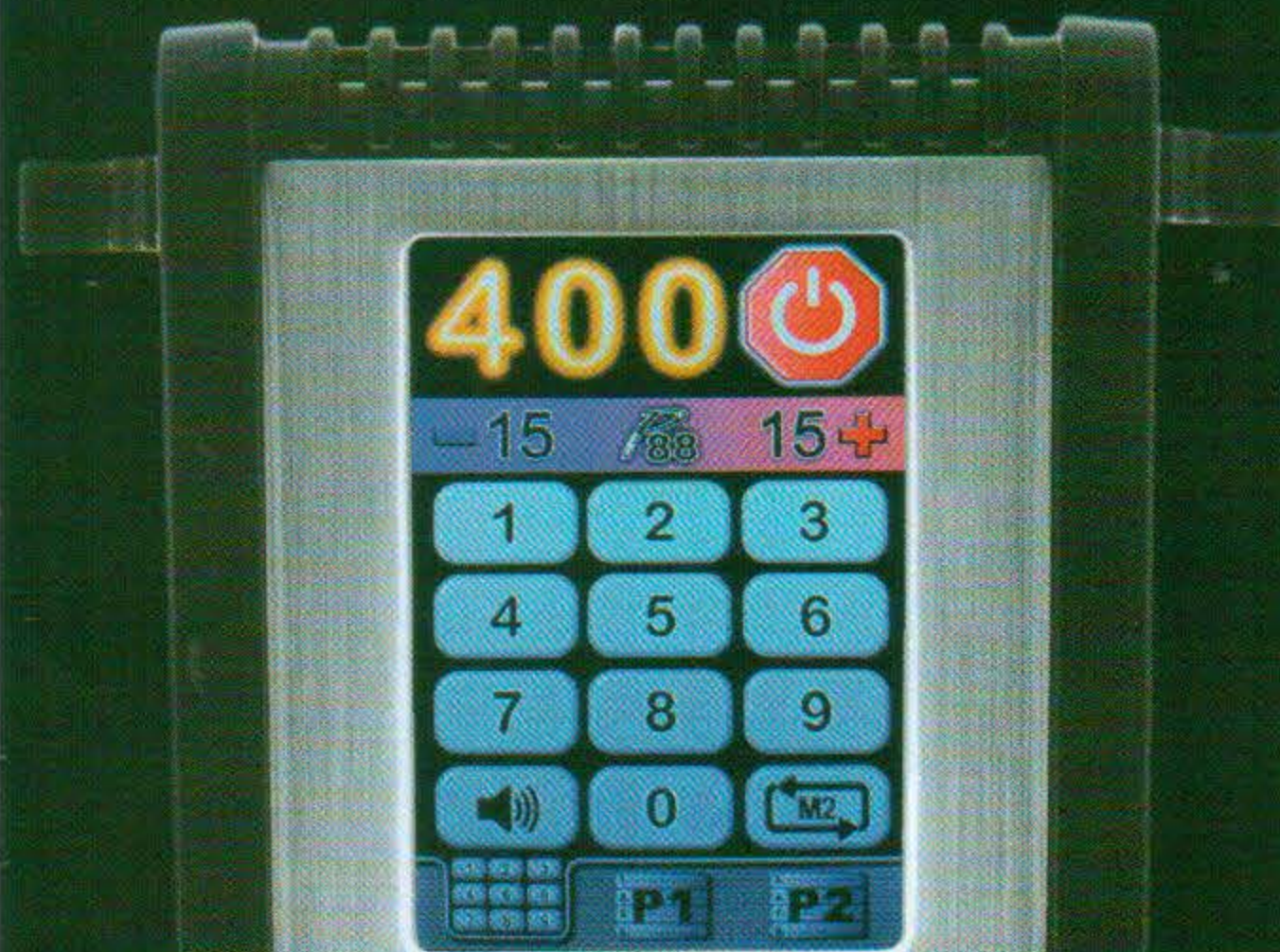
CALL TODAY! 1-800-848-4363 Catalogs Available

Razertip[®]
LEAVE YOUR MARK[™]

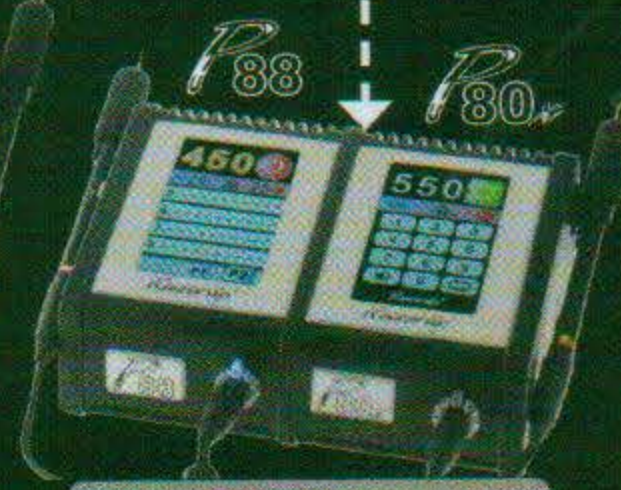


Eskimo Curlew
by Cam Merkle
Oil on Tupelo and Brass

NEW
P88 & P88X



Expandable



Compatible

Features:

- 8 fully customizable memory channels with name and heat settings
- Additional 3 channel quick memory function
- User programmable nudge increment
- Unaffected by input voltage fluctuations
- Works with all original Razertip[®] pens and accessories
- Universal power input works anywhere in the world
- Expand to a double or triple system with any "R touch" component (P80, P80X, P88 & P88X)

Razertip Industries Inc.

PO Box 910, 301- 9th Street North, Martensville, SK Canada S0K 2T0

Phone 306-931-0889

Toll-free (Canada/U.S.A.) 1-877-729-3787

info@razertip.com
razertip.com

Follow us



TROUBLESHOOTING COMMON SAW PROBLEMS

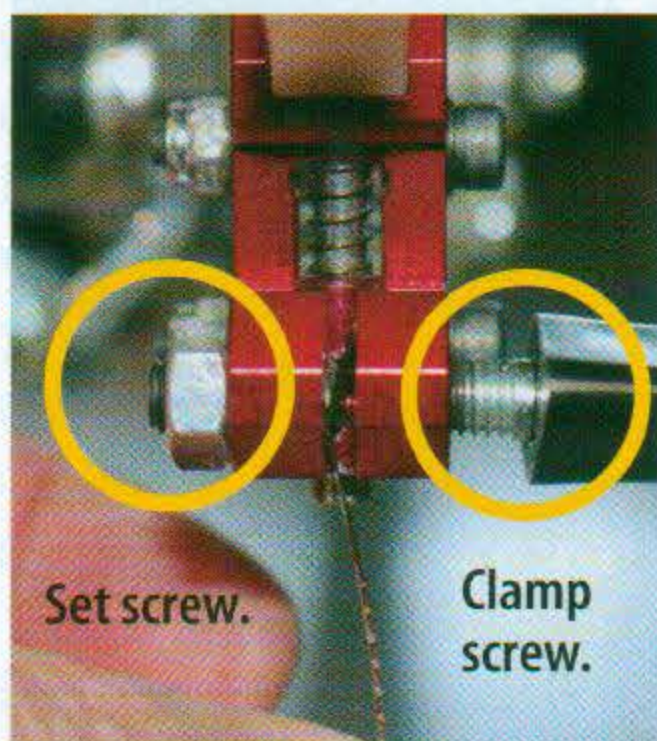
The Problem: The clamps won't hold the blade.

The Fix: Most scrollers tend to overtighten the clamps and, if a blade slips, tighten the clamps even more. On popular scroll saws, over-tensioning the clamp screw will spread the jaws to a point where they must be replaced. Generally, using just an index finger and thumb is enough to sufficiently tighten the thumb screw against the blade. Too much blade tension can also cause the blade to slip or break prematurely.

TIP

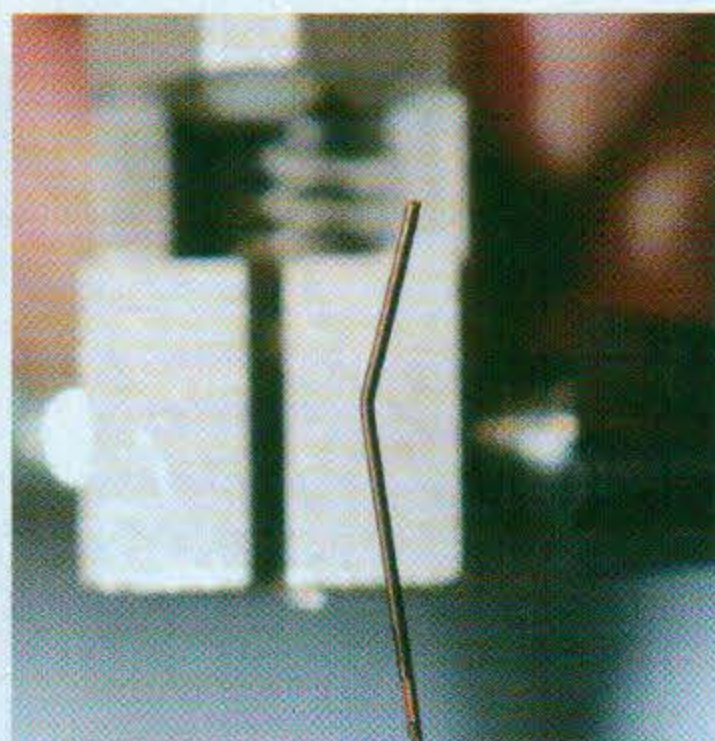
CLAMP SCREW MAINTENANCE

Remove the thumb screw. Gently rub the end back and forth a few times over medium-to-coarse sandpaper. Reinstall the thumb screw back into the clamp. Insert the blade and start cutting. If the blade continues to slip, repeat the process. You may need to repeat the process for both top and bottom clamps. If the blade still slips, check the clamp for spreading on the metal head. If this is damaged, the method will not work, and the clamp assembly will need to be replaced.



Set screw.

Clamp screw.



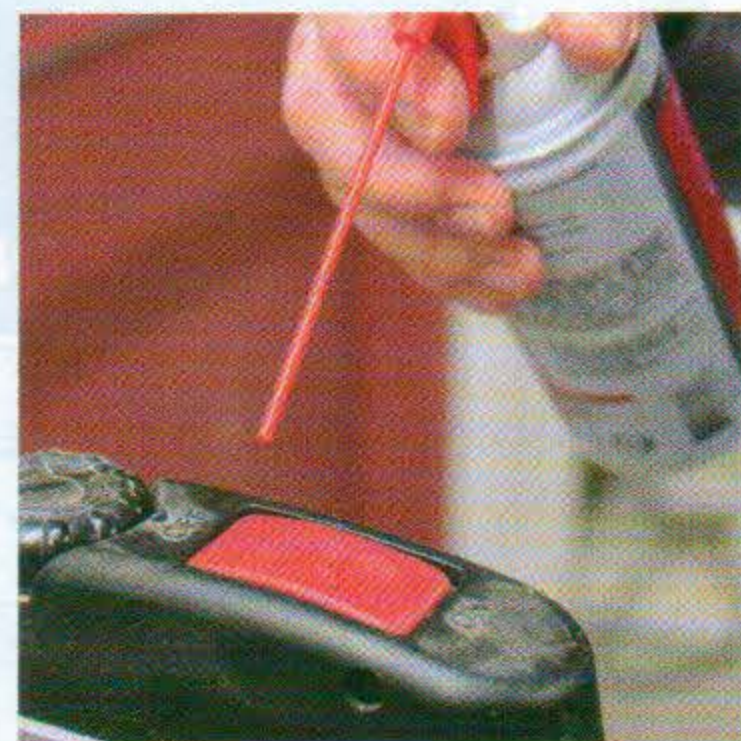
The Problem: My blade keeps bending.

The Fix: A bent blade—or, as I call it, the hockey stick effect—is normally caused by the set screw sitting too deeply in the clamp body and, therefore, not touching the blade. Repositioning the set screw and clamp screw so they fall at the exact middle of the clamp will eliminate this problem. If the set screw is not positioned properly to hold the blade against the clamp screw, the blade will bend and most likely slip out of the clamp.

The Problem: My saw won't start.

The Fix: Saws are notorious for collecting sawdust in the power switch which causes them to not turn on. Blow the switches out with a can of compressed air. If that doesn't

work, try plugging the machine into a different outlet. Check to see if the fuse has blown. If the fuse blows a second time, the saw should be serviced.



The Problem: My saw runs rough and/or knocks.

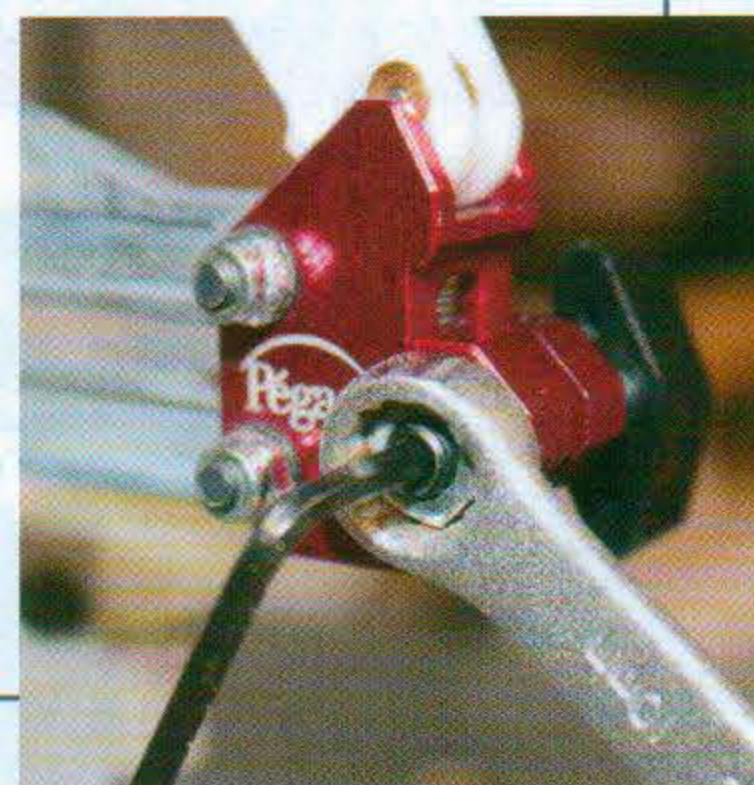
The Fix: It is important to secure your saw firmly in place. Screw it down to a bench or mount it on a stand. If there is still too much vibration, the culprit is often wear in the arm pivots, rather than incorrect blade tension. Take the blade out, and then see how easily the arm moves left to right. If there is a lot of blade movement, check your manual. Failing that, ask your supplier whether there is a way to adjust this or if a part must be replaced.

Use a can of compressed air to clear dust out of the switch.

TIP

ADJUSTING THE SET SCREW

Use a 3/8" (10mm) wrench to loosen the set screw nut. Then use an Allen key to adjust the set screw to a desired length. Retighten the nut to hold the set screw in place.



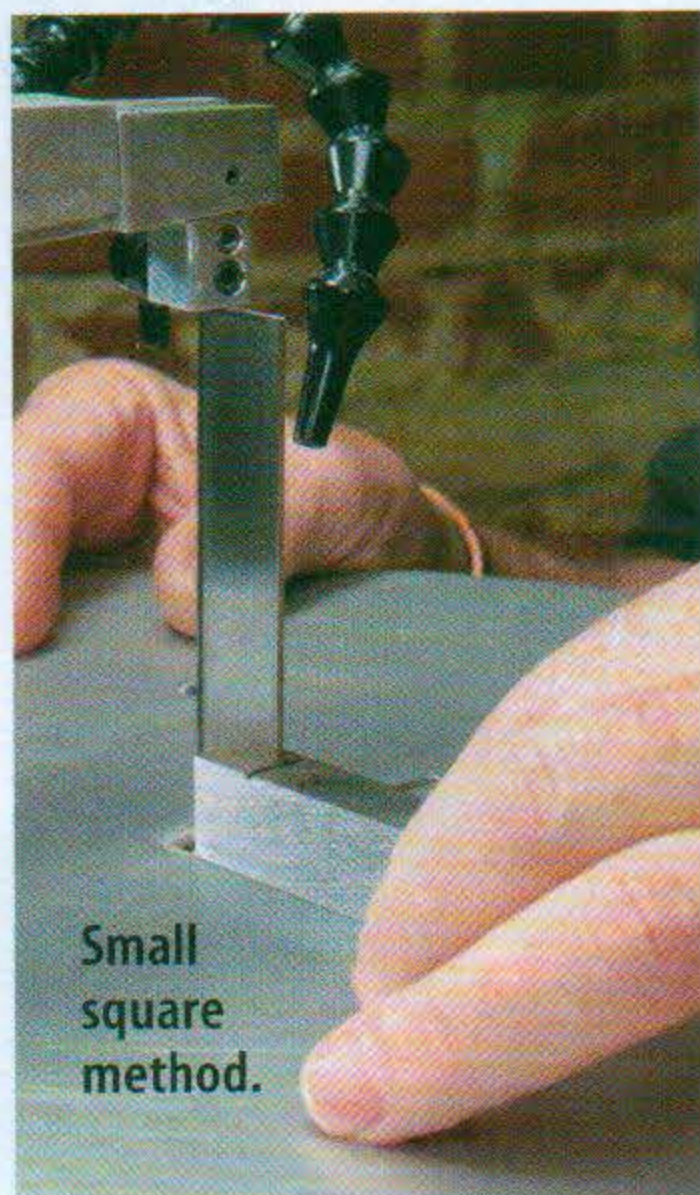
The Problem: My set screw is always loose.

The Fix: A dab of Loctite® Blue works well to hold a set screw in place, yet still allow you to adjust or remove it, if needed. *Note: Do not use Loctite Red for this application, as it will permanently hold the screw in place.* Many have had success securing a set screw by using a dab of nail polish, wood glue, or a drop of lacquer. Experiment to see what best works for you, but do not use anything with a permanent hold.



A small dab of Loctite Blue will seat the set screw securely.





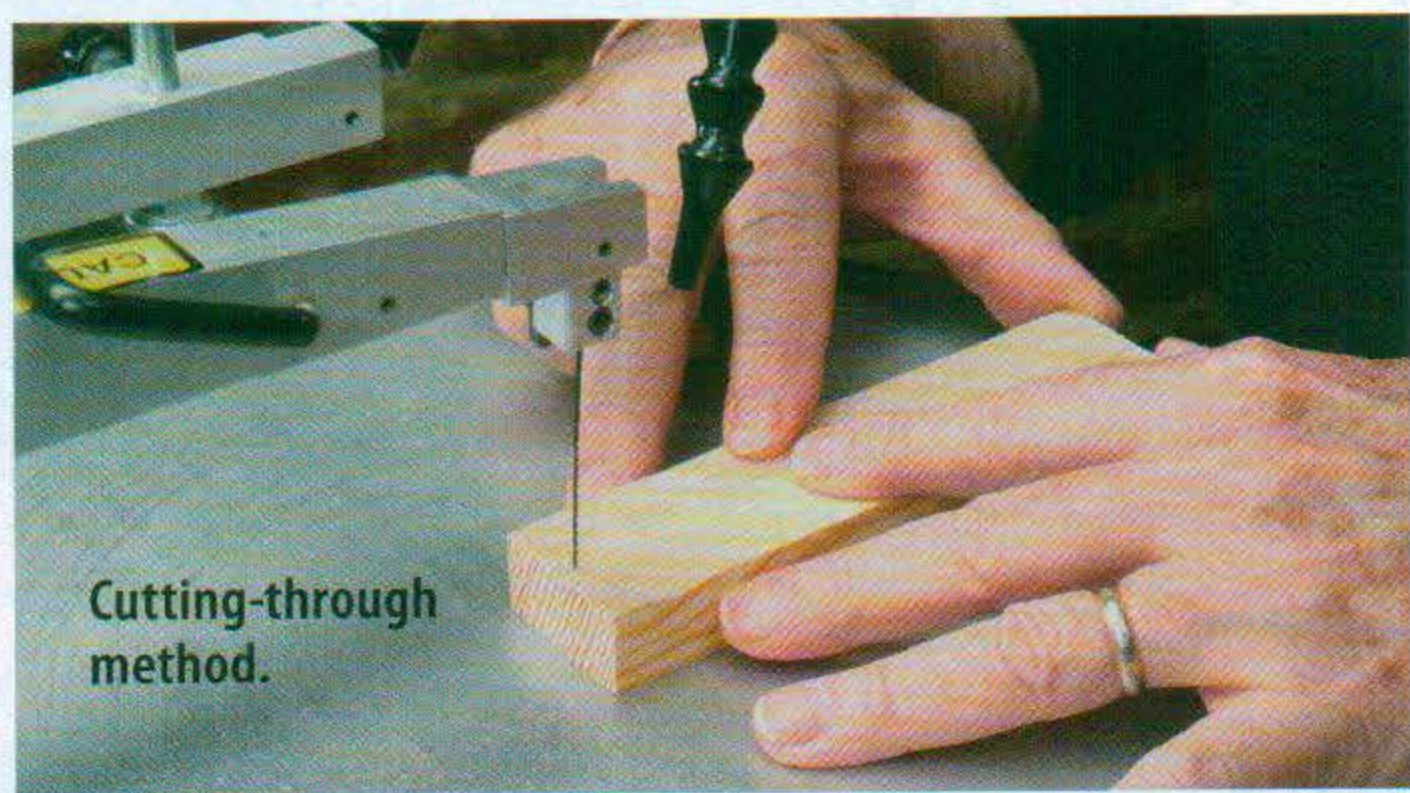
Small square method.

The Problem: I don't know how to square the table.

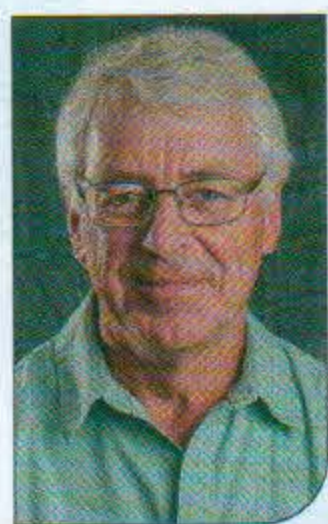
The Fix: Most scroll saws have an adjustable table that allows you to make cuts at different angles. There are times when you want your saw set at an angle, but most cutting is done with the blade perpendicular to the table. If the table is even slightly off-square, your cuts will be angled. This interferes with puzzle pieces, intarsia, segmentation, and many other scrolling projects.

The most common method for squaring your table is the small square method. Set the square flat on the saw table against a blade that has been inserted and tensioned. Adjust the table to form a 90° angle to the blade.

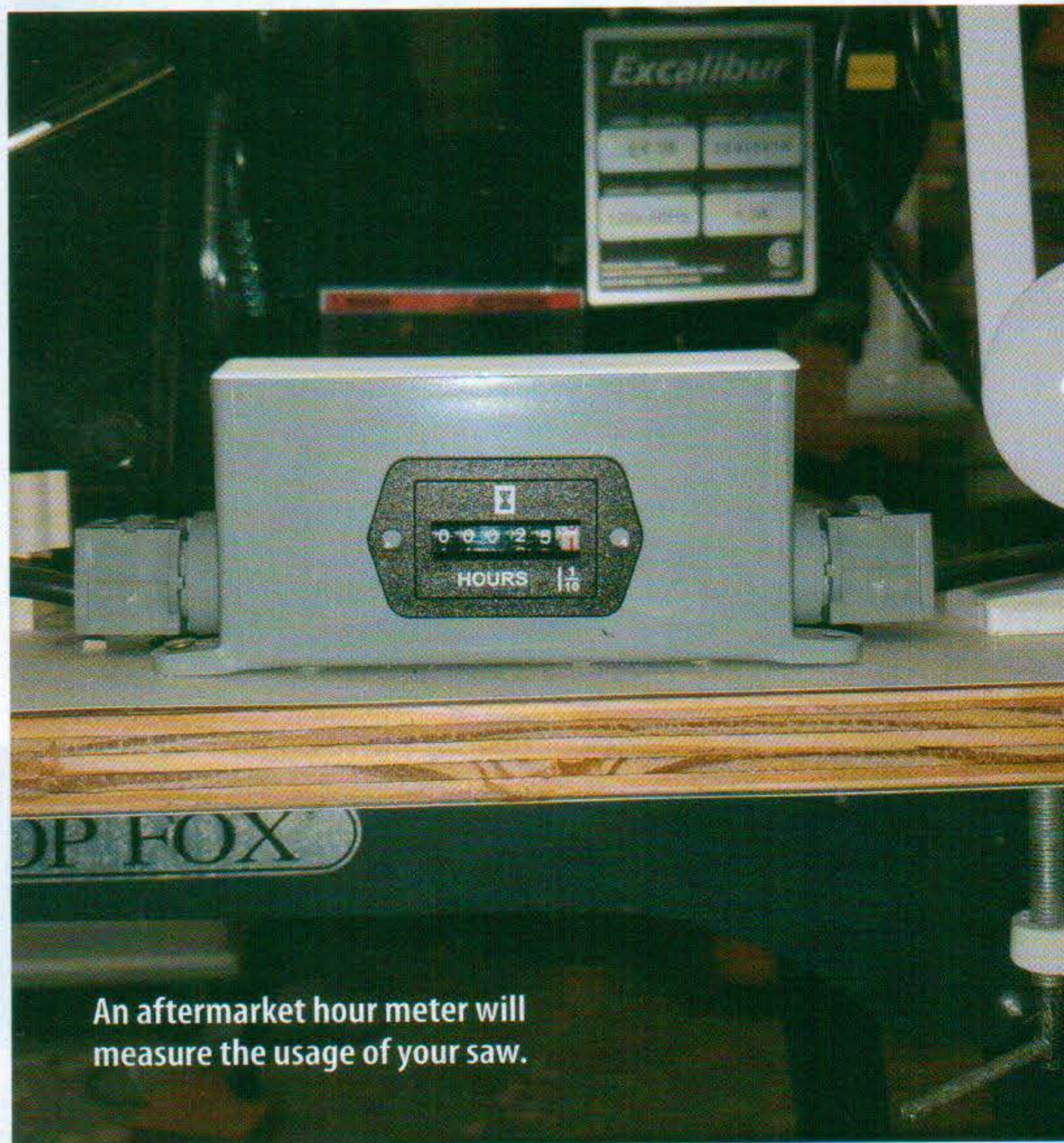
The cutting-through method is also popular. Saw through a piece of scrap wood at least 3/4" (1.9cm) thick, and then check the angle of the cut using a square. Adjust the table until you get a perfectly square cut. You can also use the kerf-test method. Take a 1 3/4" (4.4cm)-thick piece of scrap and cut about 1/16" (2mm) into it. Stop the saw, and then spin the wood around to the back of the blade. If the blade slips easily into the kerf (the groove you just cut), the table is square. If it doesn't slide into the kerf, adjust the table and perform the test again until the blade slips.



Cutting-through method.



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' pattern application method and framing technique, or for more of his patterns, visit scrollsawart4u.weebly.com.



An aftermarket hour meter will measure the usage of your saw.

Monitor Your Machine

Keep track of the hours that you put on your saw. Some saws require certain maintenance after a certain number of hours. For example, the Hawk® G426 calls for fresh application of WD-40® every 50 hours of use; the Hegner calls for lubrication every 10 hours. Check your saw's manual for where to apply.

If you are upgrading to a new saw, do not assume it will work like your old one. They all cut differently. Get to know your saw and listen to it. If it starts making new noises—stop and investigate. Sometimes the problem will be simple enough to fix on your own; other times, you'll need to have the machine serviced.

Remember, the scroll saw is the star of your arsenal, and it deserves the star treatment! If a part isn't working perfectly, there's usually a simple solution—but small, regular maintenance tasks help keep those instances few and far between.



research. He lives in Bellport, N.Y.

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 retired from Brookhaven National Lab after 34 years of designing and building special devices for high energy and photon science

Bit by Bit

Engineer turned puzzle maker pieces together the project of a lifetime

By Hannah Carroll

If you think putting puzzles together is tough, then the ones designed by Jill Walterbach would rattle your brain. Her latest includes 101,010 pieces!

The colorful puzzle—titled *Magnum Opus*, meaning an artist's greatest work—is 72 feet long. Its interlocking design bends and moves, allowing for the puzzle to roll up like a giant spool of lively fabric. It sits on display atop a lazy Susan; its resting construction is about two feet wide. *Magnum Opus* is hand-painted and weighs 71 pounds. The puzzle took two years to complete—although Jill has been developing it for nearly a decade.

"I've wanted to make this puzzle for a long time," Jill said.

Jill, who is 74 years old, spent most of her life working as a fabrication engineer. Unable to find another engineering job when the plant she worked for moved overseas in 2001, Jill set her sights on a new line of precision work: making wooden jigsaw puzzles. She created her own company, The Wooden Wizard, and began selling scroll sawn art and toys. Her early puzzle prototypes were simple, but she preferred continual abstract designs to the more classic subjects like animals and scenic landscapes. As the sawdust piled up, her puzzles became more detailed and complex. Jill's desire to make each one bigger and better than the last fueled her creative spirit. She completed a 26,000-piece puzzle in 2012 and a 50,000-piece puzzle two years later. (You might recall our past feature article on Jill's 50,000-piece puzzle in issue #62.)

"I thought about the things I didn't like from the other big projects, and set out to improve upon them," she said. "It was a big undertaking. But once I got a routine down, things moved along. Just like with anything, the more you do it, the better you get."

But creating a 101,010-piece puzzle requires forethought and discernment. Jill took it one piece at a time. She began by purchasing 12" by 12" (30.5cm by 30.5cm) panels of MDF. She used a protractor and ruler to draw flowing patterns on the wood. She added vibrant color with acrylic paints and outlined the design with black ink, resulting in a startling kaleidoscope of geometric shapes and forms.

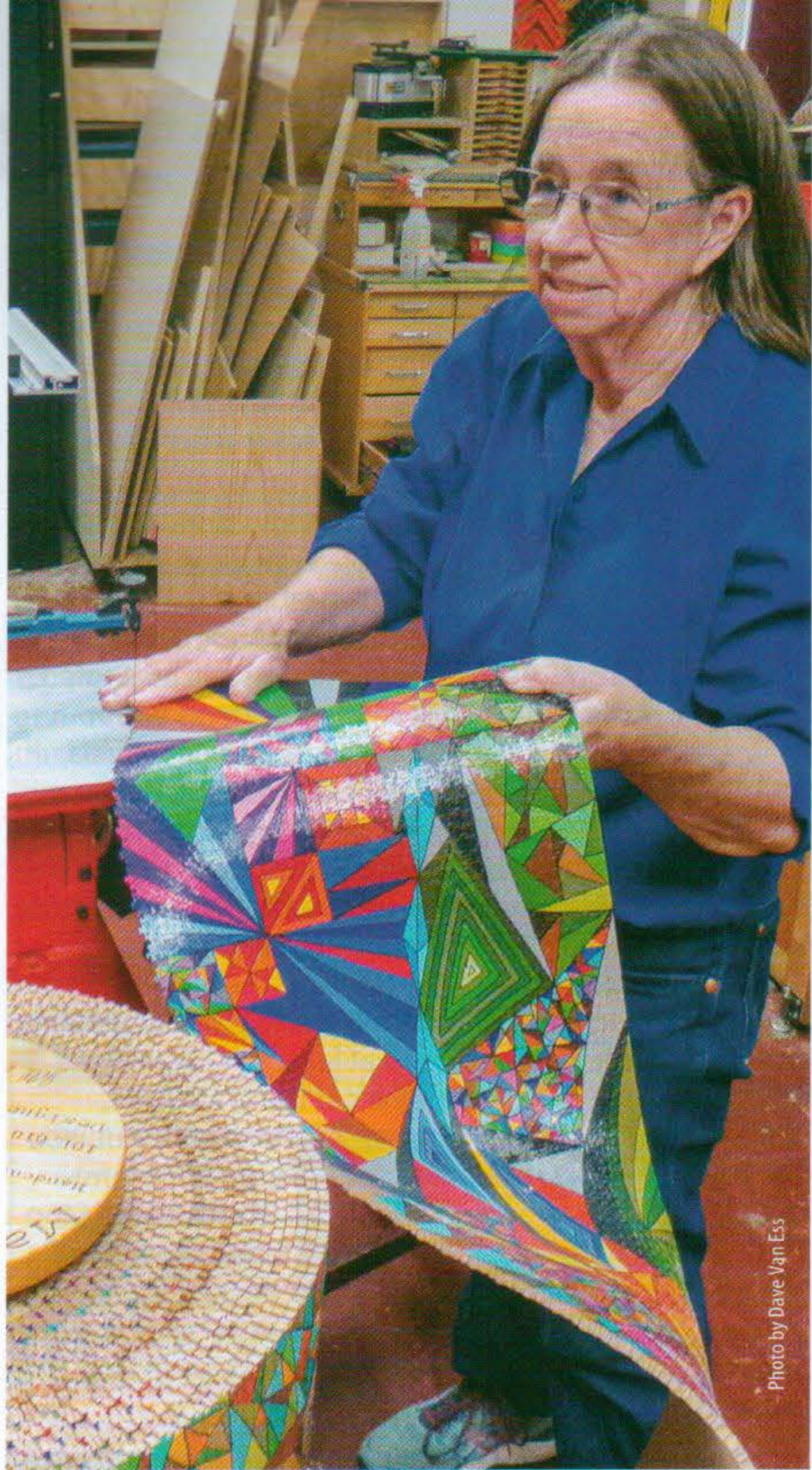


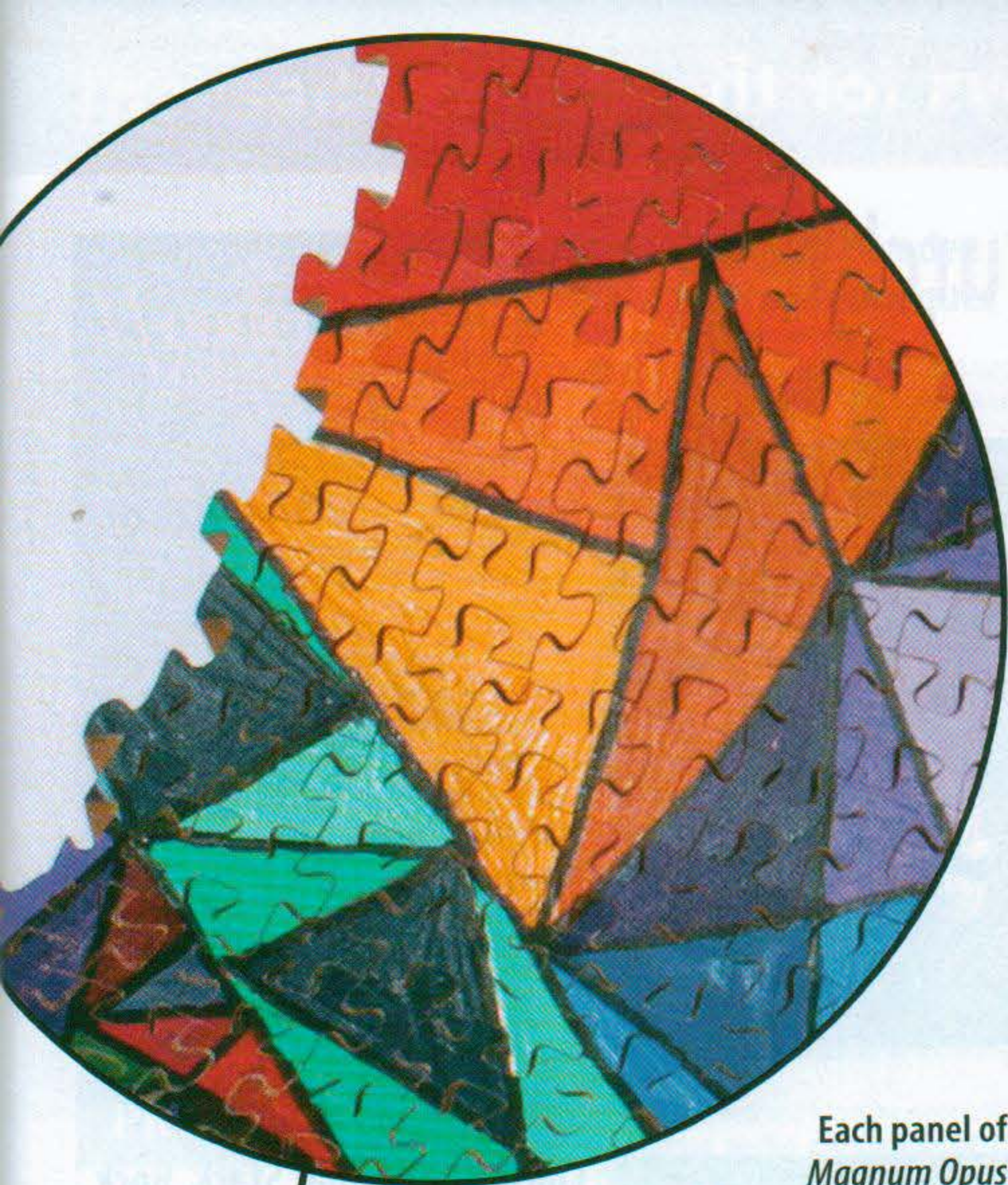
Photo by Dave Van Ess

Jill holds yards of her colossal puzzle, *Magnum Opus*.

Once dry, Jill applied a cutting grid onto the panel. Using a Seyco® scroll saw, each panel was cut into 1,406 puzzle pieces. How many blades are needed for a project of this magnitude? Jill used 74 dozen Sharktooth® #3/0s. Once the cutting phase was complete, she reassembled the panel. It received a generous coat of polyurethane spray and one layer of paper tape on the back to prevent any accidental un-puzzling. Jill painted the next panel to mate with the last, and the process continued.

"I wanted to quit every time I made an error that required me to redo a section," she said. "But I am a patient and persistent person. If I set my mind to something, I see it through."

To purchase the puzzle or to see more of Jill's work, e-mail woodenwizard@yahoo.com.



Each panel of *Magnum Opus* was cut into 1,406 pieces. Each piece is approx. $\frac{5}{16}$ " (8mm) square.



PS WOOD MACHINES

Super Sharps™

SCROLL SAW BLADES

Precision Ground Teeth

IMPROVE YOUR SAW'S PERFORMANCE

PS Wood scroll saw blades cut faster, easier, and will not burn the wood.

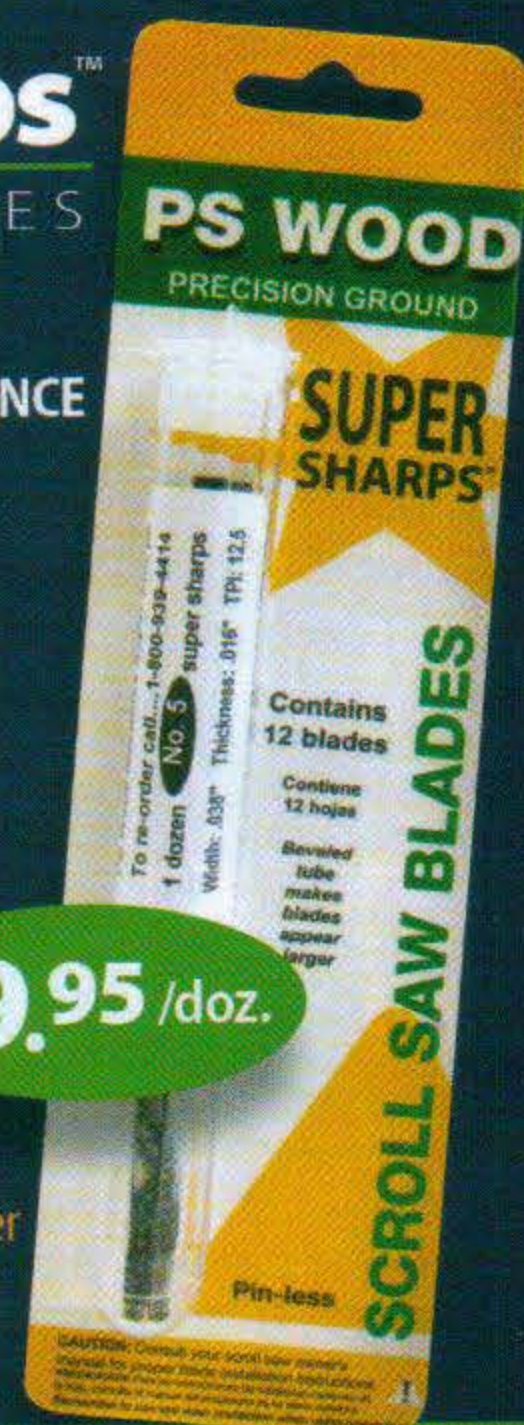
EXCLUSIVE TOOTH-AND-GULLET DESIGN

Once you try Super Sharps, you'll be hooked forever! Experience smooth, trouble-free cutting through even the thickest hardwoods.

\$9.95 /doz.

NO DRIFTING

The Super Sharps difference is we set our teeth both ways, and insert a raker tooth to ensure perfect tracking and clean cuts—every time!



To see blade sizes and our other fine scrolling supplies, visit:
www.pswood.com • 800-939-4414

PROXXON
MICROMOT
System

PRECISION POWER TOOLS FOR YOUR INTRICATE PROJECTS

2-Speed Scroll Saw DS 460. For smooth operations and clean cuts. Throat 460mm (18")!

Cuts wood up to 65mm (2 1/2"), non-ferrous metals up to 15mm (5/8"), Plexiglas, glass fiber reinforced plastic, foam, rubber, leather or cork. Saw table 400 x 250mm (16" x 10") can be unlocked and pushed back for easy saw blade replacement. Table angle adjustment from -5° to 50°. Stroke length 19mm (3/4"), 800 or 1,700 strokes/min.

The PROXXON MICROMOT system features more than 50 high-quality power tools and a huge selection of matching accessories.



Please contact us for a free catalog.

PROXXON

www.proxxon.com/us

PROXXON Inc. – Hickory, NC/USA – Email: sales.us@proxxon.com

Scroll Saw Amazing Gifts and Toys for the Holiday Season!

20% OFF Your Entire Purchase!

Use coupon code SSW20 when ordering
Offer expires 9/30/2021

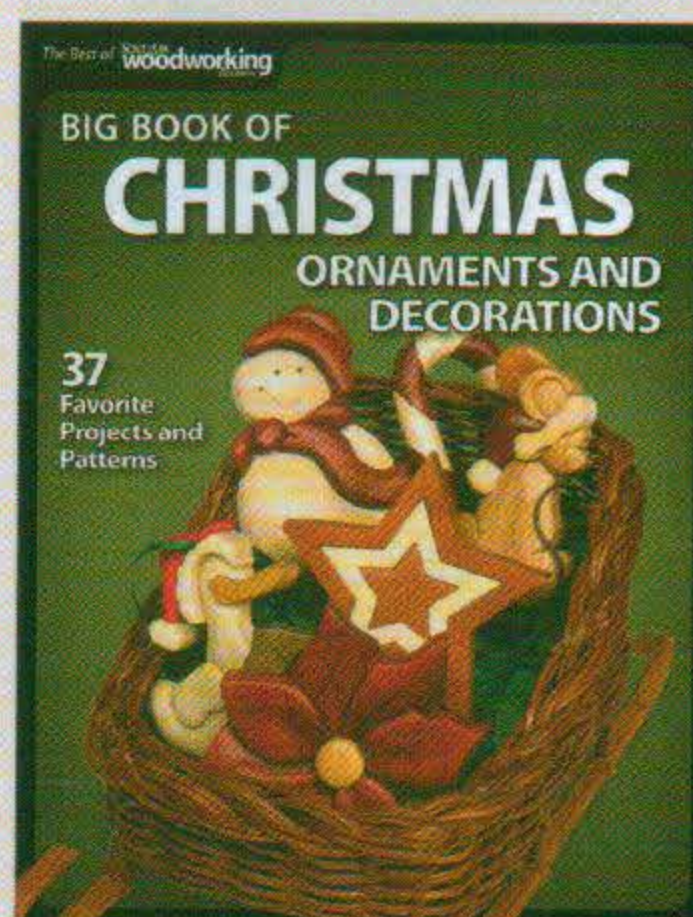


21 Compound-Cut Christmas Ornaments

By Sue Mey

- A complete project guide to making 21 compound-cut Christmas ornaments in various styles, including feather, leaf, icicle, geometric, and 3D
- Feature step-by-step instructions, coordinating photography, full-size patterns, tools and materials lists, and expert tips
- Also includes inspirational alternative ideas to add your own personal touches
- Perfect for beginners and experienced scroll sawyers to improve and build their skills

Paperback
16 pages • 8.5" x 11"
Code: 01029 • \$7.99

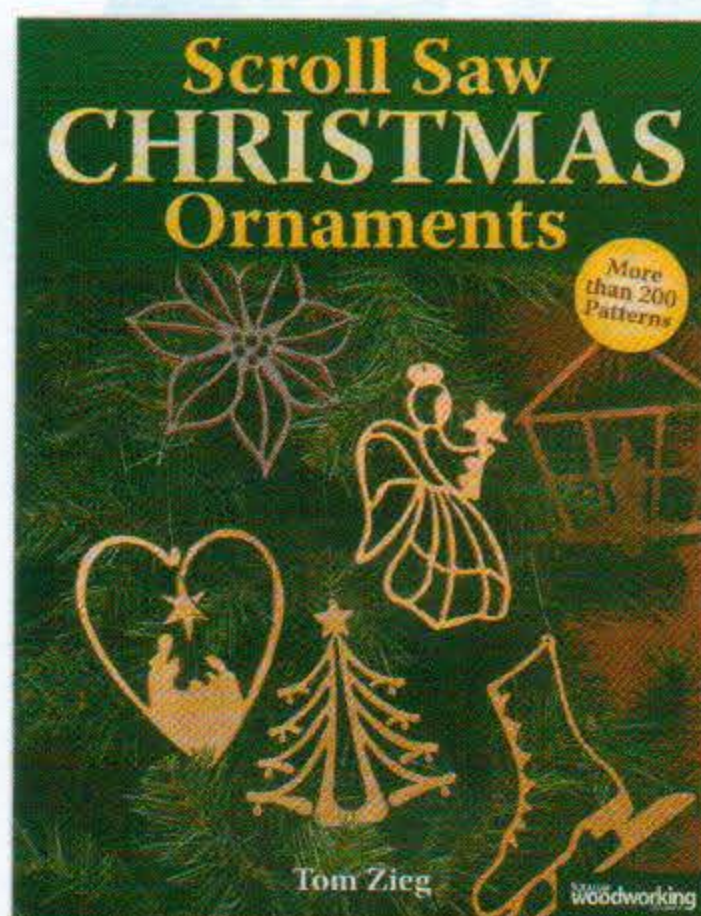


Big Book of Christmas Ornaments and Decorations

By Editors of Scroll Saw Woodworking & Crafts

- A collection of 37 favorite scroll saw projects for making Christmas ornaments and decorations
- Includes step-by-step instructions, coordinating photography, and helpful tips from today's leading scroll saw artists
- Projects are organized by skill level, from easy to more advanced
- Full-size, easy-to-use scroll saw patterns included

Paperback
160 pages • 8.5" x 11"
Code: 6066 • \$19.95

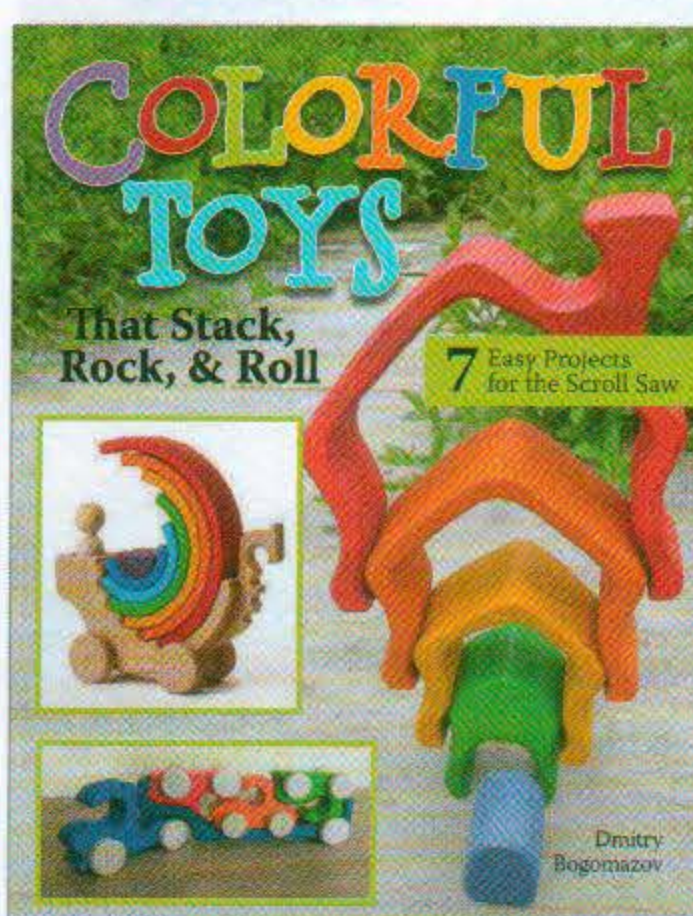


Scroll Saw Christmas Ornaments

By Tom Zieg

- A charming scroll saw pattern book to create a collection of Christmas ornaments
- Features more than 200 scroll saw patterns, from traditional to whimsical
- Designs include angels, snowmen, Santas, intricate fretwork, ornate words, wildlife, and more
- Also included are basic instructions on cutting out the patterns

Paperback
64 pages • 8.5" x 11"
Code: 1236 • \$9.95

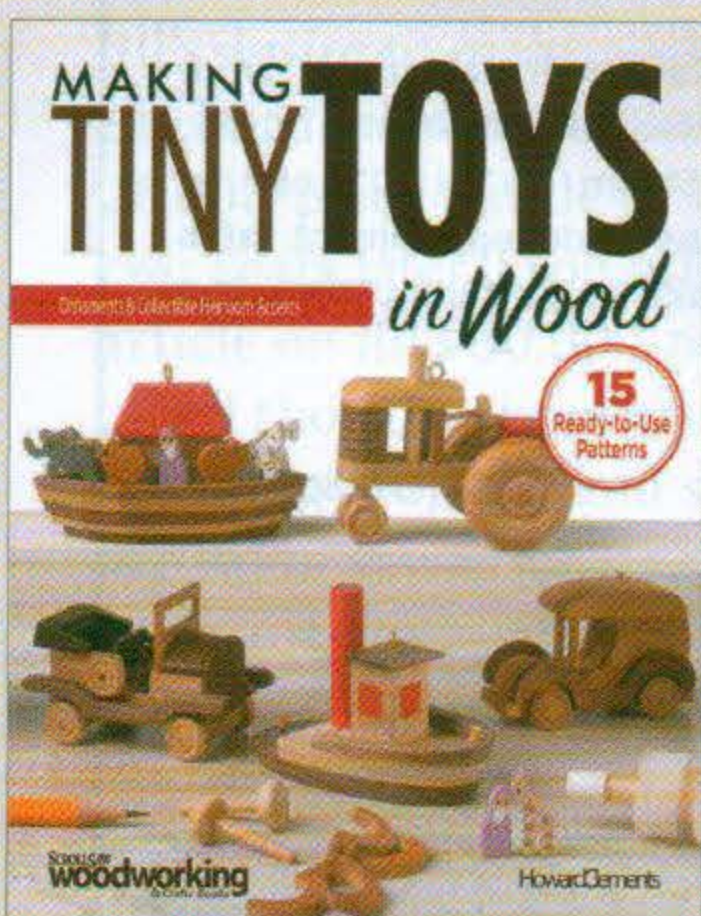


Colorful Toys That Stack, Rock, & Roll

By Dmitry Bogomazov

- An exciting guide to making interactive, stackable, and colorful wooden toys for kids with your scroll saw
- Includes instructions and plans for 7 different toys, from a rainbow house to a rolling hippo
- Features guidance on how to prepare materials, cut, and apply colors and finishes
- Projects range from beginner-level to intermediate

Paperback
28 pages • 8.5" x 11"
Code: 01920 • \$7.99

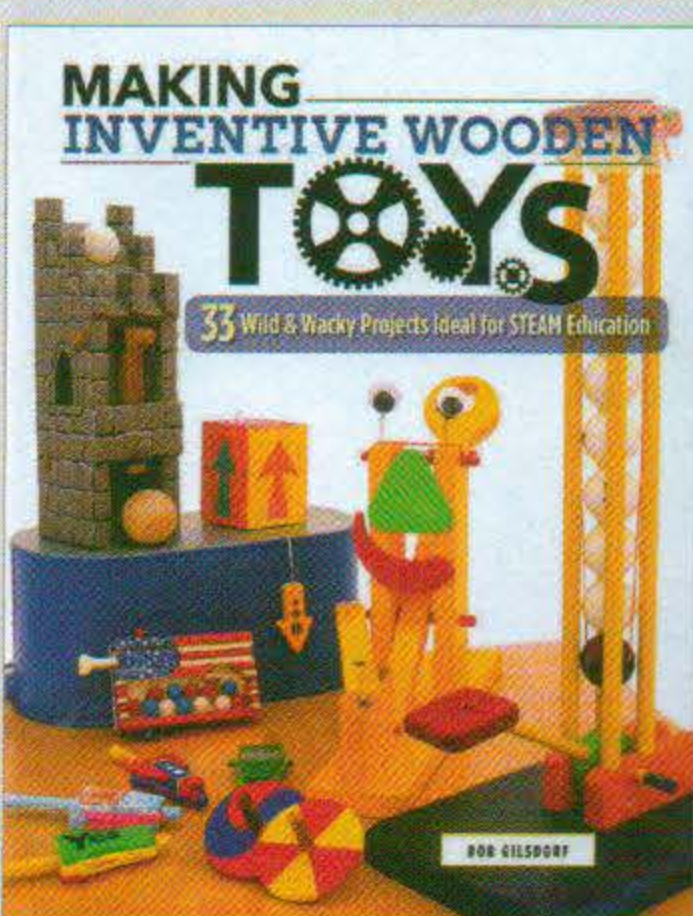


Making Tiny Toys in Wood

By Howard Clements

- A complete project to create charming wooden decorations that double as small toys
- Includes 15 full-size patterns and step-by-step instructions
- Charming mini toys that move or "work" (wheels roll, carousel turns, windmill rotates)
- Make your own Christmas ornaments, toys for older children, or keepsake gifts for family and friends

Paperback
48 pages • 8.5" x 11"
Code: 9159 • \$12.99



Making Inventive Wooden Toys

By Bob Gilsdorf

- A complete project guide to making 21 compound-cut Christmas ornaments in various styles, including feather, leaf, icicle, geometric, and 3D
- Feature step-by-step instructions, coordinating photography, full-size patterns, tools and materials lists, and expert tips
- Also includes inspirational alternative ideas to add your own personal touches
- Perfect for beginners and experienced scroll sawyers to improve and build their skills

Paperback
184 pages • 7" x 9"
Code: 9487 • \$19.99

100% SATISFACTION GUARANTEE

If, for any reason, at any time, you are less than satisfied with any Fox Chapel Publishing product, simply return it and we will gladly exchange it or refund the full purchase amount, whichever you prefer.

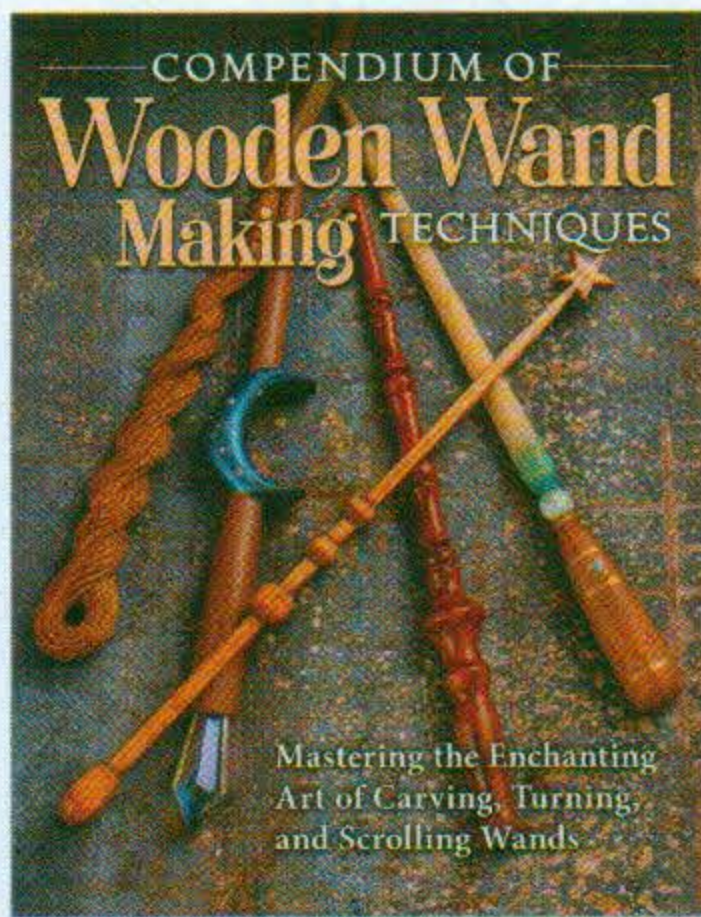
ORDER TODAY!

800-457-9112 • FoxChapelPublishing.com

Visit us on



Gift-Worthy Titles, Projects, Journals, and More!



Compendium of Wooden Wand Making Techniques

By Editors of Fox Chapel Publishing

- Master the art of carving, turning, and scrolling 20 enchanting wands inspired by fiction and fantasy
- Contains a gallery of infamous *Harry Potter* and *Lord of the Rings* characters wielding their iconic wands and staffs, plus a sketchbook section to design your own wands
- Includes 5 step-by-step wand projects for each woodworking technique: hand carving, power carving, scroll sawing, and woodturning
- Also includes an overview on the history of wands and a guide to woods and their inherent magical properties for additional wizardly knowledge

Paperback

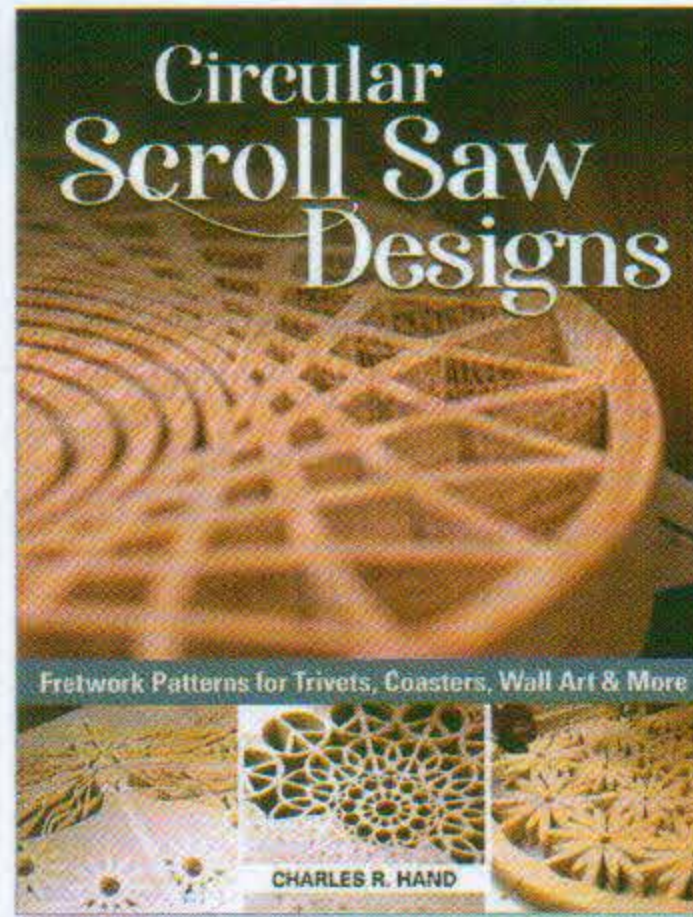
192 pages • 8.5" x 11"

Code: 01692 • \$19.99

Hardcover

192 pages • 8.5" x 11"

Code: 02828 • \$29.99



Circular Scroll Saw Designs

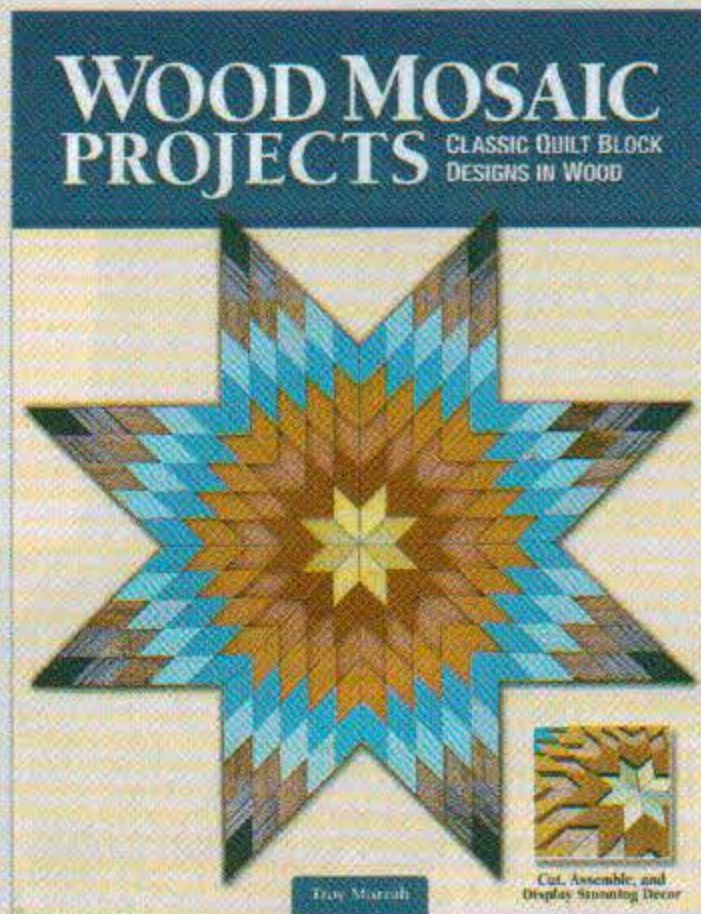
By Charles R. Hand

- A complete, how-to guide on making stunning trivets, coasters, and wall plaques while offering a fresh and modern twist on traditional fretwork
- Features 3 step-by-step projects and 27 contemporary designs of peace signs, butterflies, flowers, mandalas, and other intricate scroll saw patterns
- Also included is insightful information on wood selection and size, blank preparation, blade selection, expert tips, and a gallery of completed designs
- Author Charles Hand is a talented designer and award-winning scroller, and a regular and well-received contributor for *Scroll Saw Woodworking & Crafts* magazine

Paperback

112 pages • 8.5" x 11"

Code: 01500 • \$17.99



Wood Mosaic Projects

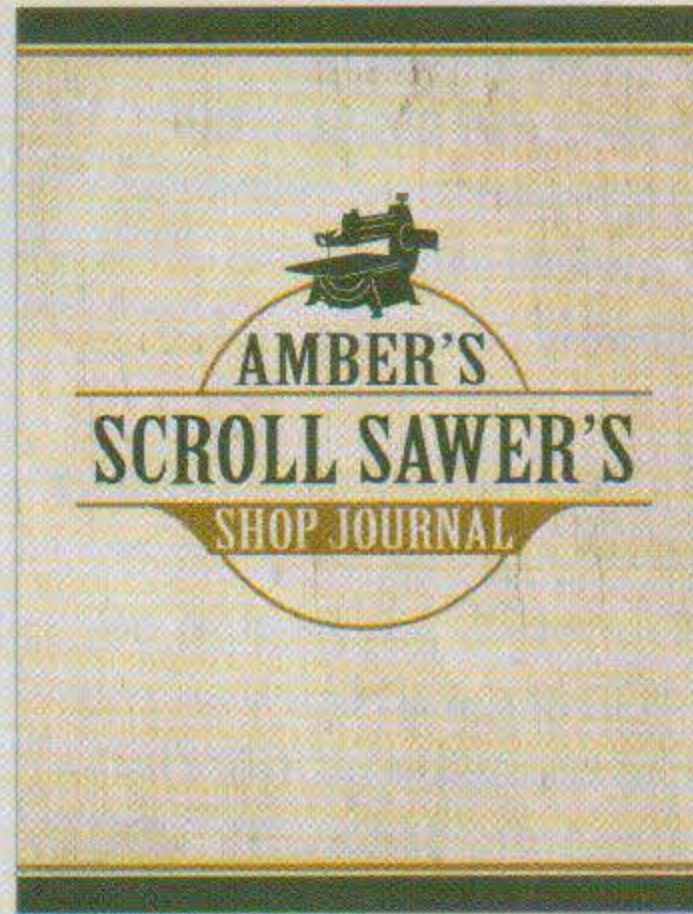
By Troy Murrah

- Learn a new and inventive woodcraft of cutting, piecing, and painting quilt blocks from wood
- Make elaborate yet easy and accessible wall hangings, tabletops, and more
- Features tips on selecting patterns, cutting pieces to fit snugly, adding color, and putting it all together
- Artist and author Troy Murrah is a passionate carpenter that created this unique artform to pay homage to his late mother, Judy Murrah, a renowned quilter as the VP of Education and Administration of Quilts Inc.

Paperback

144 pages • 8.5" x 11"

Code: 01425 • \$15.99



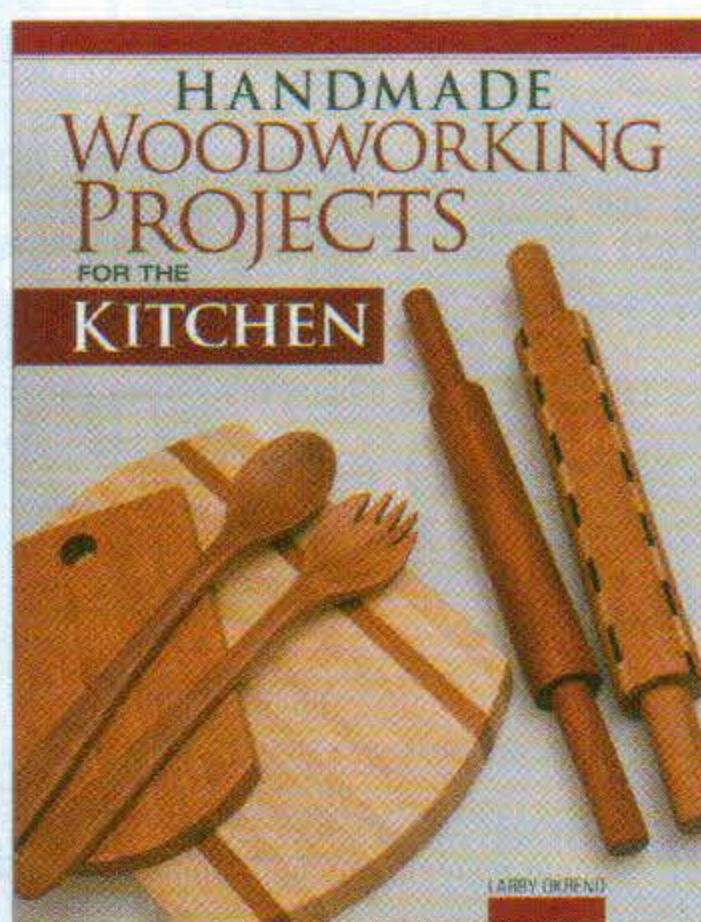
Personalized Workshop Journal

- A personalized scroll saw shop journal that features the recipient's name on the front cover, as well as a special message from you or an inspirational quote on the inside dedication page
- A handy way for scrollers to keep a record of valuable information for all of their projects, including materials, methods, tools, sketches, lessons, and more
- Offers numbered project pages with gridlines and a blank table of contents
- Contains tool checklists, quick-reference tables on dust collection needs, lumber grades, grit comparison, and more

Paperback

56 pages • 8.5" x 11"

Code: 1107 • \$9.99



Handmade Woodworking Projects for the Kitchen

By Larry Okrend

- A complete guide for both beginner and intermediate woodworkers on how to create beautiful handmade kitchen essentials
- Features a complete overview on basic tools, materials, and techniques, plus 17 custom woodworking projects that range in complexity
- Projects including cutting boards, pizza peels, a knife block, lazy Susan, bread box, wine rack, tea box, serving tray, herb plant box, and more
- Contains step-by-step instructions, coordinating photography, complete plan drawings, and expert tips throughout

Paperback

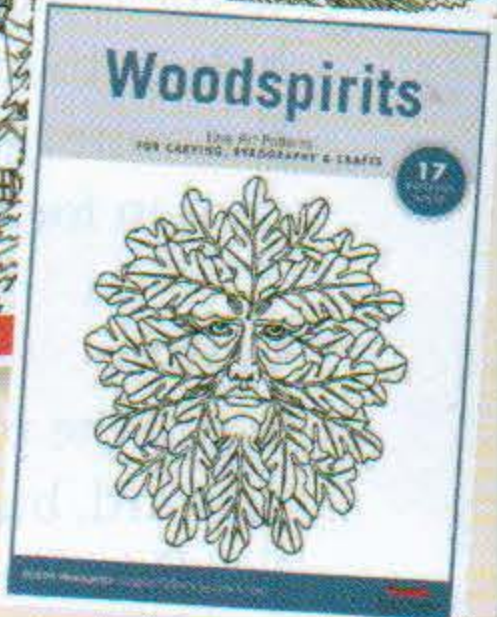
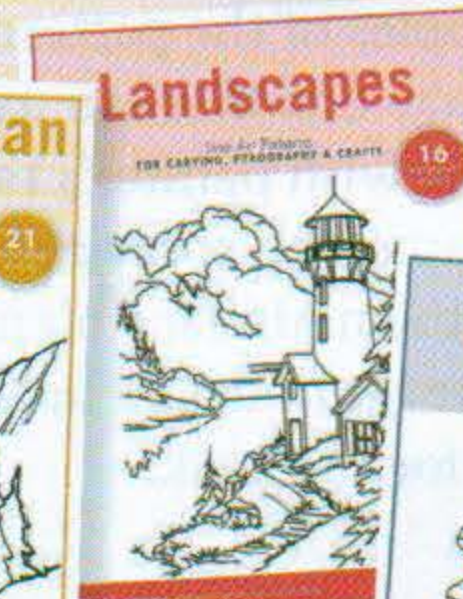
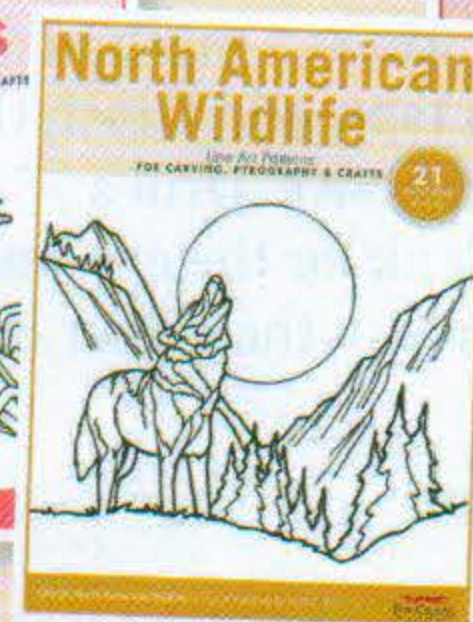
136 pages • 8.5" x 11"

Code: 01449 • \$21.99

Give the Gift of Inspiration with Best-Selling Lora Irish Pattern Packs!

Each pack contains over a dozen original line art patterns!

Only \$12.99



Paperback • 8.5 x 11

Christmas Classics #00275

Landscapes #00213

Woodspirits #00206

Simple Flowers #00268

North American Wildlife #00220



ORDER TODAY! 800-457-9112
FoxChapelPublishing.com

By Phone: 800-457-9112 • Direct: 717-560-4703
Email: customerservice@foxchapelpublishing.com
Online at: FoxChapelPublishing.com
By Mail: Send Check or Money Order to
Fox Chapel Publishing
903 Square Street
Mount Joy, PA 17552

# Item	Shipping Rate
1 Item	\$3.99
Each Additional	.99

Canadian & International Orders - please email
info@foxchapelpublishing.com or
visit our website for actual shipping costs.



Intarsia Puffins

This small, accessible beginner project lets you ease your way into shaping

By Brad and Hazel Eklund

The state of Maine will always have a special place in our hearts. One of the draws is its unique wildlife—and the joker of the lot is the Atlantic puffin (or, as it has come to be known, the “Clown of the Sea”). People from all over the world flock to the Maine coast in the spring and summer to visit its many remote islands in hopes of spotting these striking birds.

Once you’ve seen them in person, you may wonder if it’s possible to make such a cute animal even cuter. We solved that problem for you—stick a hat on it, of course! This pattern includes a Santa hat, but you can modify it depending on your preference and the time of year. This puffin can rock a beanie, baseball cap, top hat, or whatever else you choose.

Getting Started

Select your wood varieties. Most segments are small, except for the colors that will constitute the main body. Grain direction is important for the maple and walnut pieces; these should flow vertically. Make photocopies of the pattern for each kind of wood, and then make one more to use as a master copy. Cover the wood with painter’s tape, and attach the patterns to the tape with spray adhesive. Drill a 1/8" (3mm)-dia. hole in the main face blank for the eye, and then use the same bit to drill a hole in the center of the wood chosen for the beak.

Cutting

Scroll the pieces. Cutting this project is straightforward, but the beak inlay adds a layer of difficulty. For this area, cut the interior of the chakte viga out, but hold off on cutting the exterior lines. *Note: Since this is a simple inlay, you’ll make all cuts at a 90° angle to the table.* Then cut the gray inlay piece and test fit it in the center of the beak. Make any adjustments for



fit, and then finish cutting out the exterior lines for the beak. Glue the inlay in place and let dry, then cut the beak in half. Remove the patterns.

Shaping and Finishing

Pre-glue the two walnut segments and the maple face and let dry. Rough shape the three segments as a single piece, using a 12" (30.5cm) disc sander with an 80-grit disc. Start shaping each piece from the center of the body outward, leaving the legs and the hat’s pom-pom for last. Round over the beak elements individually, making sure to taper the inner edge slightly for some added separation. Round the chest into the wing so the wing appears to overlap it slightly. Remove some height from the maple underside of the tail, and then round over this section so the two adjacent sections appear closer. Sand progressively through the grits to 220, once all of the shaping is done.

Add texture. Using a 1/2" (13mm) drum sander in a rotary tool, add indents to the hat trim to give it a fluffy look. Use a sharp carving knife to establish shallow grooves for the feathers at the bottom of the tail. Wipe off excess dust with a tack cloth. Glue all of the project segments together. Round over the tip of a dowel with sandpaper, burn it with a woodburner, cut

Display these adorable birds on
your tree or as magnets.



it to size, and insert it into the eye hole with a dab of glue.

Prepare the backer. Place the piece on tempered hardboard, trace the perimeter with a pencil, and then cut the backer with the scroll saw, staying just inside the line. Remove excess dust with a tack cloth, and then glue and clamp the puffin to the backer. Once dry, apply several coats of satin lacquer to the surface, sanding between coats. Display as desired; we like to attach a screw eye to the top, or glue a magnet to the back.

Materials

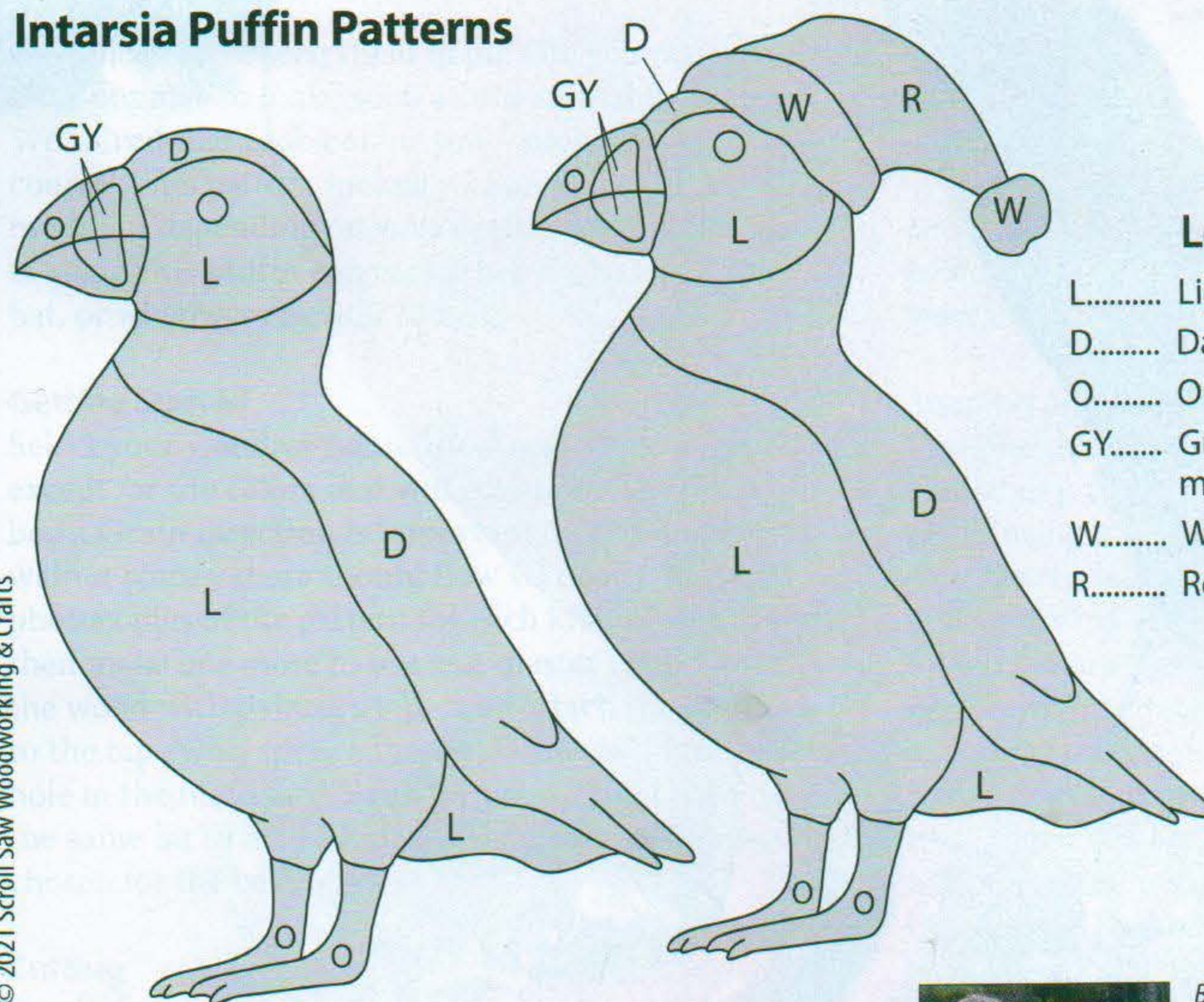
- Light wood, such as maple, ½" (1.3cm) thick: belly, tail underside, and face, 3" x 4" (7.6cm x 10.2cm)
- Dark wood, such as walnut, ½" (1.3cm) thick: upper coat and forehead, 3" x 4" (7.6cm x 10.2cm)
- Orange wood, such as chakte viga, ½" (1.3cm) thick: beak and feet, 1" (2.5cm) square
- Gray wood, such as cypress, ambrosia maple, or blue stain pine, ½" (1.3cm) thick: beak accents, 1" (2.5cm) square
- White wood, such as holly, ½" (1.3cm) thick: hat trim, 1" x 2" (2.5cm x 5.1cm)
- Red wood, such as redheart, ½" (1.3cm) thick: hat, 1" x 2" (2.5cm x 5.1cm)
- Wood dowel, ⅛" (3mm)-dia.: eye, 1" (2.5cm) long
- Backing material, such as tempered hardboard, ⅛" (3mm) thick: 4" (10.2cm) square
- Pencil
- Painter's tape
- Spray adhesive
- Wood glue, such as Titebond®
- Sandpaper: assorted grits
- Tack cloth
- Finish: clear satin spray
- Screw eye or magnet
- Decorative ribbon or string (optional)

Tools

- Scroll saw with blades: #5 reverse-tooth
- Drill with bit: ⅛" (3mm)-dia.
- Carving knife
- Rotary tool with bit: ½" (13mm) drum sander
- Disc sander: 12" (30.5cm)-dia., 80-grit disc
- Spring clamps: small
- Woodburner with nib: shading

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

Intarsia Puffin Patterns



Legend

- L..... Light wood (maple)
- D..... Dark wood (walnut)
- O..... Orange wood (chakte viga)
- GY..... Gray wood (cypress, ambrosia maple, or blue stain pine)
- W..... White wood (holly)
- R..... Red wood (redheart)

© 2021 Scroll Saw Woodworking & Crafts



Brad and Hazel Eklund have been creating scroll saw art for nearly 10 years. They have always been fascinated by the beauty and intricacies of wildlife and nature in general. Brad has a degree in horticulture, while Hazel has a degree in wildlife. They live and work next to a nature preserve in coastal North Carolina. Find more of their work on Etsy at EntwoodDesigns.



Fawn Fretwork

Get lost in the frets with this serene scene from nature

By Wayne Fowler

Design by Jacob Fowler

Lush vegetation and wildlife abound near my home in Canada. The deer at the edge of the clearing behind our cottage move with such elegance and grace, cutting through the brush without making a sound. This piece celebrates my appreciation for these inspiring creatures. The project is simple enough that it can be completed by someone new to scrolling, but beware—there are some tricky parts!

Getting Started

Choose a variety of wood. The deer pattern works well with lighter shades of brown hardwoods. I used butternut because of its interesting grain.

Make a copy of the pattern and trim it to just past the outside edge of the oval. Apply clear packaging tape to the surface of the wood, and then attach the pattern to the surface of the tape with spray adhesive. Drill the blade-entry holes, taking care to stay within the waste areas.

Cutting

Cut the project. Given the shape of the design, I found it easier to cut the outer oval first using a #3 reverse-tooth blade. Then I moved onto the profiles of the fawn and the grass. Switch to a #1 reverse-tooth for the details in fur and the patch of grass.

Make the backing board. I used a ¼" (6mm)-thick piece of spalted beech, with the grain running horizontally to mimic a tranquil sky. Use the pencil to mark the outer oval of the finished fawn project, and then cut the backer. You could use a more dramatic, contrasting piece of wood to make the fretwork pop, if desired. Blue pine and holly also work well.

Sanding and Finishing

Remove the tape and patterns. Face sand the back of the piece and the front of the backing board; I used an 8" (20.3cm)-dia. disc sander with 220-grit sandpaper, but you can hand-sand with a sanding block, if preferred. My disc sander spins to the right when I am facing it, so I sand right-to-left across the disc, firmly holding the scrolled piece with both hands. Then I turn the piece around with the same side facing the disc, and sand it again. This is very important for creating an even surface. Flip the piece over and repeat the process on the other side.

Clean out any sawdust residue using a can of compressed air. Apply wood glue to the back of the piece, avoiding the open areas, and position it on the backing board, edge-to-edge. Clamp and let the glue dry. *Note: When clamping, be careful to keep the edges of both layers even, as wet glue can cause the pieces to slide.*

Sand the rest of the piece. Face sand the front and back of the assembled piece with the same disc sander, and then smooth the outside of the oval. Then switch to hand-sanding; I used a folded piece of 400-grit sandpaper to slightly round all the edges on the front of the piece. Clean the surface with a clean, soft brush, and apply a natural finish of your choice. Then, if desired, use a buffing wheel in a drill press to apply a thin layer of carnauba wax after the oil has dried. This gives the work a low luster and a smooth feel. Then sign the back of the piece in permanent ink.

Materials & Tools

Materials

- Wood, such as butternut, ½" (1.3cm) thick: fretwork, 7⅞" x 10" (20cm x 25.4cm)
- Wood, such as spalted beech, ¼" (6mm) thick: backer, 7⅞" x 10" (20cm x 25.4cm)
- Pencil
- Tape: clear packaging
- Spray adhesive
- Sandpaper: assorted grits to 400
- Wood glue
- Pen or marker
- Natural oil finish, such as Danish oil
- Finishing wax, such as carnauba (optional)
- Sanding block (optional)

Tools

- Scroll saw with blades: #1, #3 reverse-tooth
- Drill with bits: assorted small
- Buffing wheel (optional)
- Sander: disc
- Can of compressed air
- Spring clamps
- Clean, soft brush

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

FURTHER READING

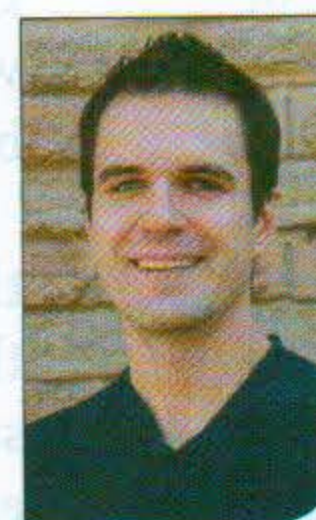
Woodworker's Pattern Book

By Wayne and Jacob Fowler

Item 9029. Available for \$16.99 plus S&H (parcel post) from Fox Chapel Publishing, FoxChapelPublishing.com, 800-457-9112, or your local retailer.

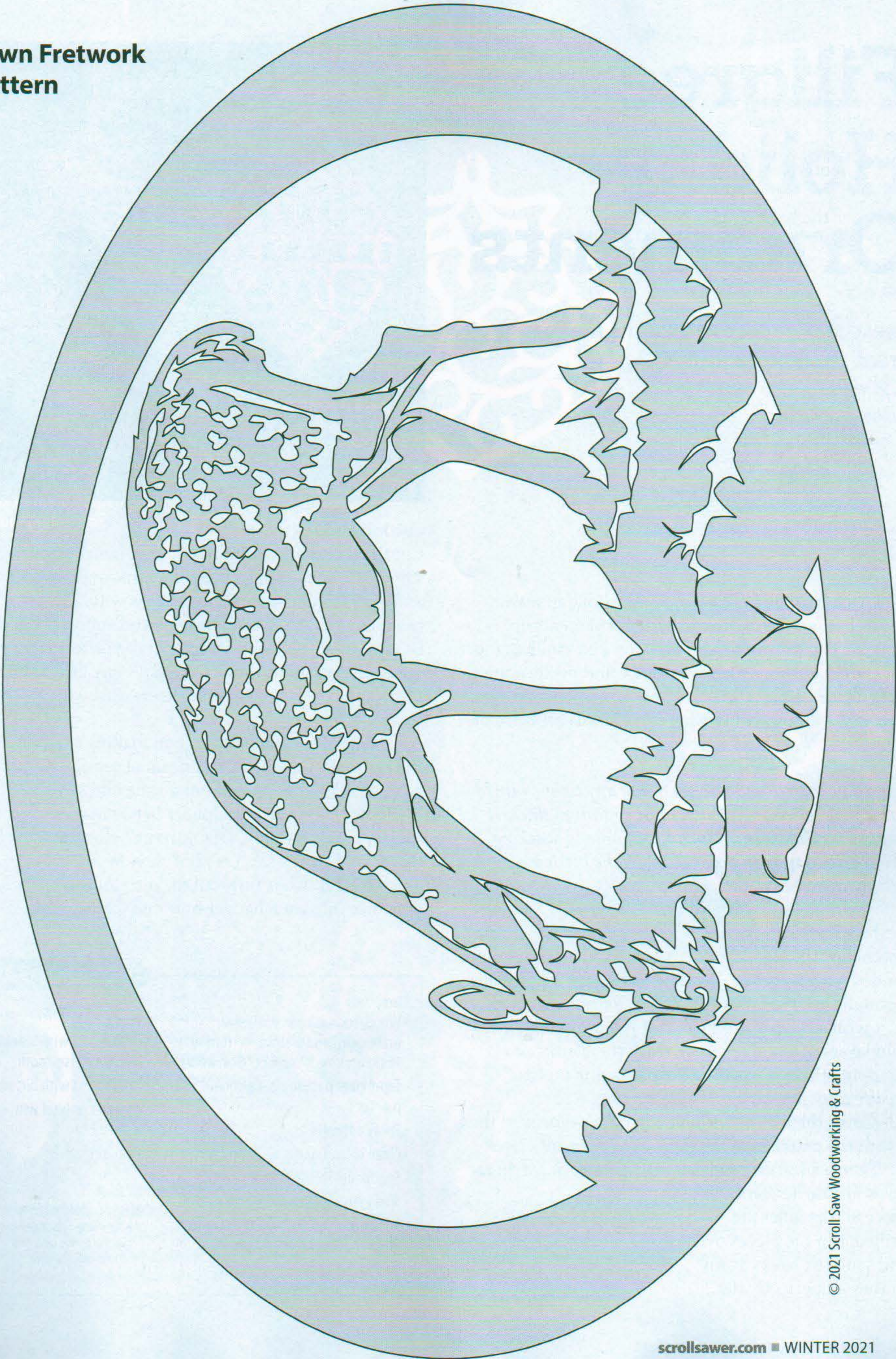


Wayne Fowler has been scrolling for over 30 years and published his first magazine article in 1998. His son, Jacob, a talented artist, has drawn over 1,000 scroll saw patterns. Together, Jacob and Wayne have published over 160 magazine articles as well as the Woodworker's Pattern Book: 78 Realistic Fretwork Patterns, available through Fox Chapel Publishing. They live in Canada, north of Toronto.



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 for his father, Wayne. Jacob and Wayne often take pictures of wildlife at local zoos and preserves and turn the images into fretwork patterns. Jacob has published over 200 of his 1,000 designs in partnership with his father.

Fawn Fretwork
Pattern



© 2021 Scroll Saw Woodworking & Crafts

Filigree Holiday Ornaments

These lacy fretwork designs make great stocking stuffers

By Keith Fenton
Cut by Joe Pascucci

As a scroller, I always enjoy the holiday season because the possibilities for ornaments are endless. The frets might prove to be a bit challenging, but they're nothing a bit of patience and perseverance can't handle. Hang these fretwork ornaments on your tree, in a window, or anywhere that needs an extra bit of cheer.

Note: You can cut this project out of any tight-grained hardwood between 1/8" (3mm) and 1/4" (6mm) thick. If you use 1/8" (3mm) or thinner, I recommend stacking at least two layers in order to make the intricate cutting easier.

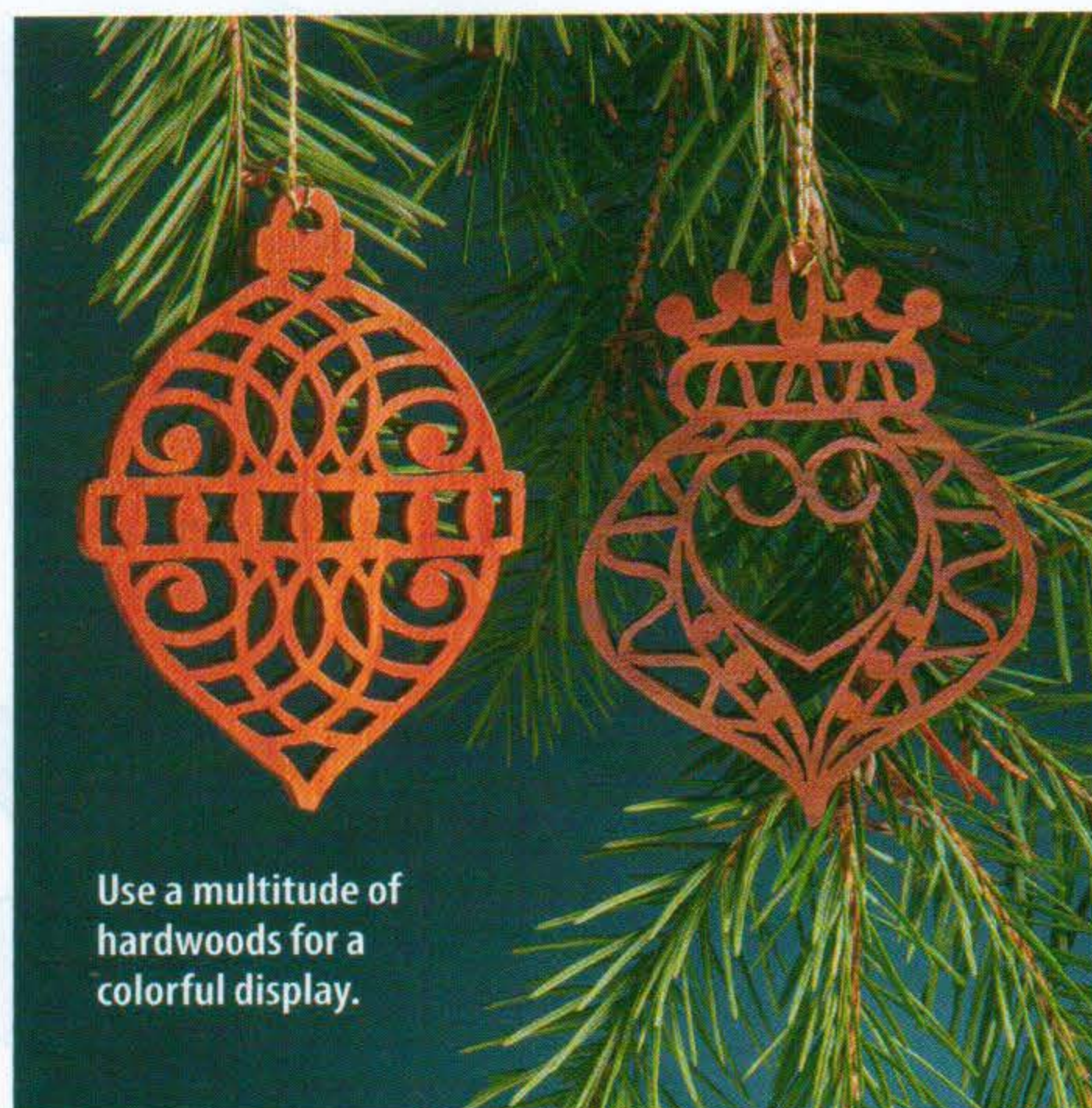
Getting Started

Photocopy the patterns and prepare the blanks. I pre-sanded with an orbital sander, moving up progressively through the grits from 100 to 220. Remove all excess dust with a clean cotton cloth. If you are stack-cutting thin layers of wood together, stack the blanks now, wrapping the edges with clear packaging tape to ensure they stay aligned while cutting.

Cover the blanks with blue painter's tape, and then attach the patterns to the tape with spray adhesive. Drill the blade-entry holes for the frets. Then drill the holes for the hangers.

Once all the holes are drilled, flip the pieces over and sand the backs again so they sit perfectly flat.

Patterns for the **FILIGREE HOLIDAY ORNAMENTS** are in the pullout section.



Use a multitude of hardwoods for a colorful display.

Cutting and Finishing

Cut the designs, beginning with the interior frets. Then cut the perimeters. Gently remove the patterns and hand-sand the fronts and backs with 220-grit sandpaper to remove any fuzzies and soften the edges. Be careful not to catch an edge in the delicate fretwork areas. Use a sanding stick to remove any burrs and fuzzies that remain. Remove excess dust with a clean cloth.

Finish the ornaments. When making samples, the test-cutter applied a few coats of semigloss spray lacquer, allowing ample drying time and sanding lightly with 400-grit sandpaper between coats. He then applied Krylon® COLORmaxx™ gloss crystal clear finish, and then a satin crystal clear for the final coats. Once your finish is fully cured, you can thread a cord of choice into each hanger hole and display.

Materials & Tools

Materials

- Wood, such as cherry, maple, mahogany, and walnut, 1/4" (6mm) thick: approx. 3" x 3 1/2" (7.6cm x 8.9cm)
- Tape: clear packaging (optional), blue painter's
- Spray adhesive
- Clean cotton cloths
- Sandpaper: assorted grits to 400
- Spray lacquer: semigloss
- Finish, such as Krylon® COLORmaxx™: gloss and satin crystal clear
- Small cord or hanger (for display)

Tools

- Scroll saw with blades: #2/0 reverse-tooth
- Drill press with bit: small
- Sander: orbital with grits up to 220
- Sanding sticks

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

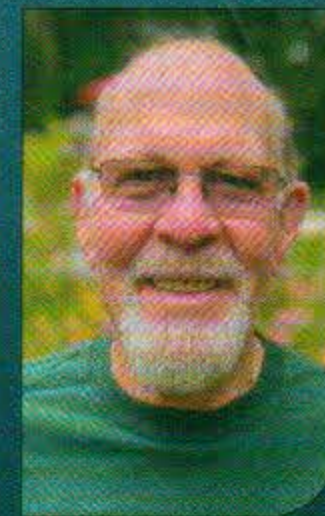


Orient the grain vertically or horizontally, depending on your preference.



Keith Fenton has been designing scroll saw patterns for several years alongside his partner, Sheila Landry. Together they have contributed patterns and articles to several woodworking and painting magazines and e-zines. Visit

their website at sheilalandrydesigns.com to see their entire selection of patterns, including free samples. If you have any questions about this project, send Keith a message at sheilalandrydesigns@gmail.com.



Joe Pascucci started scrolling nearly 30 years ago. He also enjoys woodturning and other types of woodworking. Joe is a retired police sergeant and construction superintendent, and is the founding president of

the Long Island Scroll Saw Association. When Joe's not in the woodshop, he can be found gardening, traveling, and spending time with his grandkids. To see more of Joe's work, visit the Members section of liwoodworkers.org.

Christmas Tree PUZZLE BOX

This no-fuss evergreen is one you'll want to have up all year round

By Rita Cels

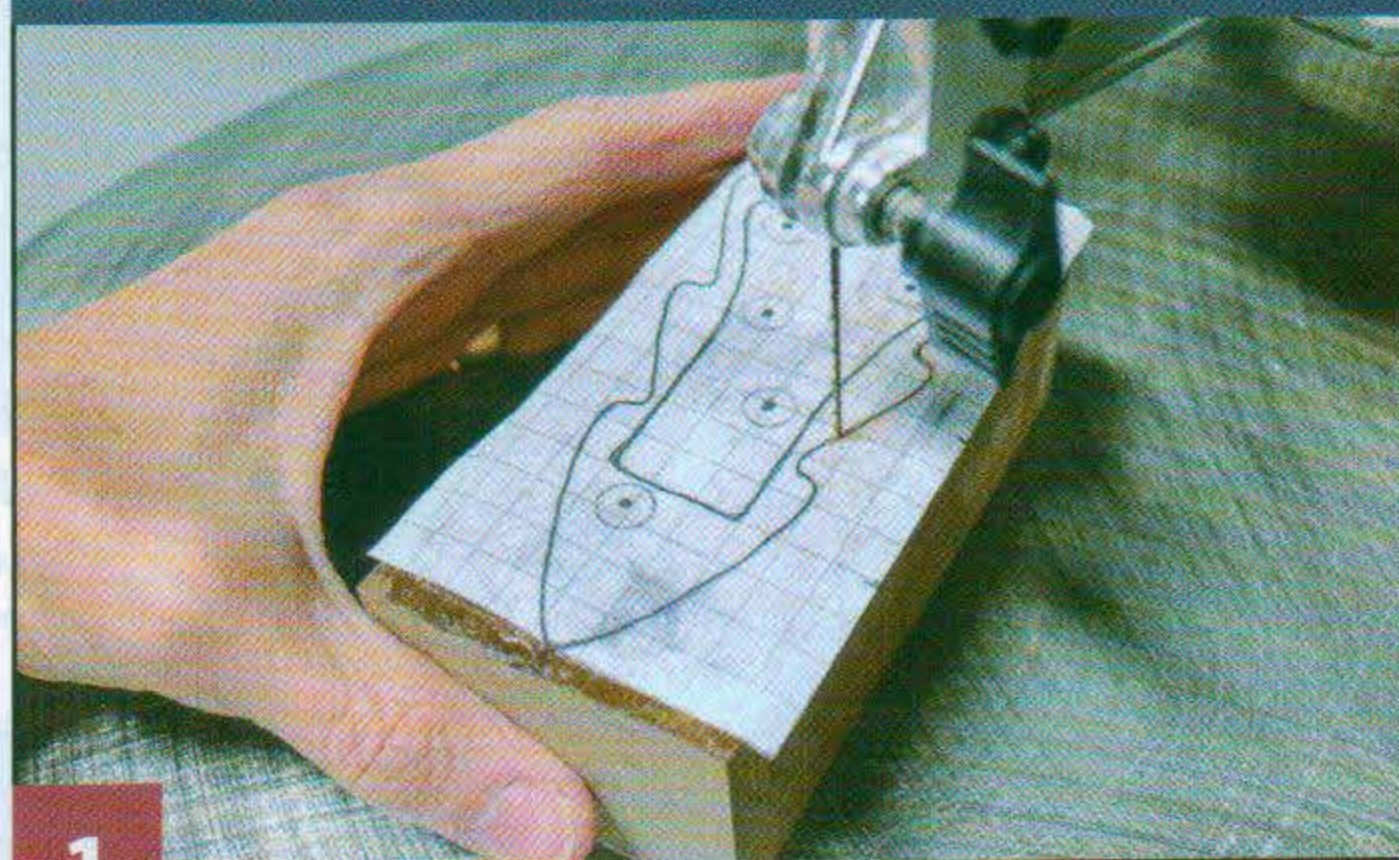
Christmas is a magical time of year, and what better way to celebrate its magic than by making a special little box with a secret compartment? The hidden chamber is the perfect size for a prized piece of jewelry, a special note, or a small item. The key is the ornament at the top. These adorable puzzle boxes can be finished in many ways. I love to experiment with different wood varieties, using their unique grains and colors to enhance a project. Make one—or a dozen! Each box is a unique work of art.

Getting Started

Select the wood you will use for this project. If colorful hardwoods aren't available, or if you only have bland wood on hand, you could always paint or dye your Christmas tree in later steps for a colorful alternative.

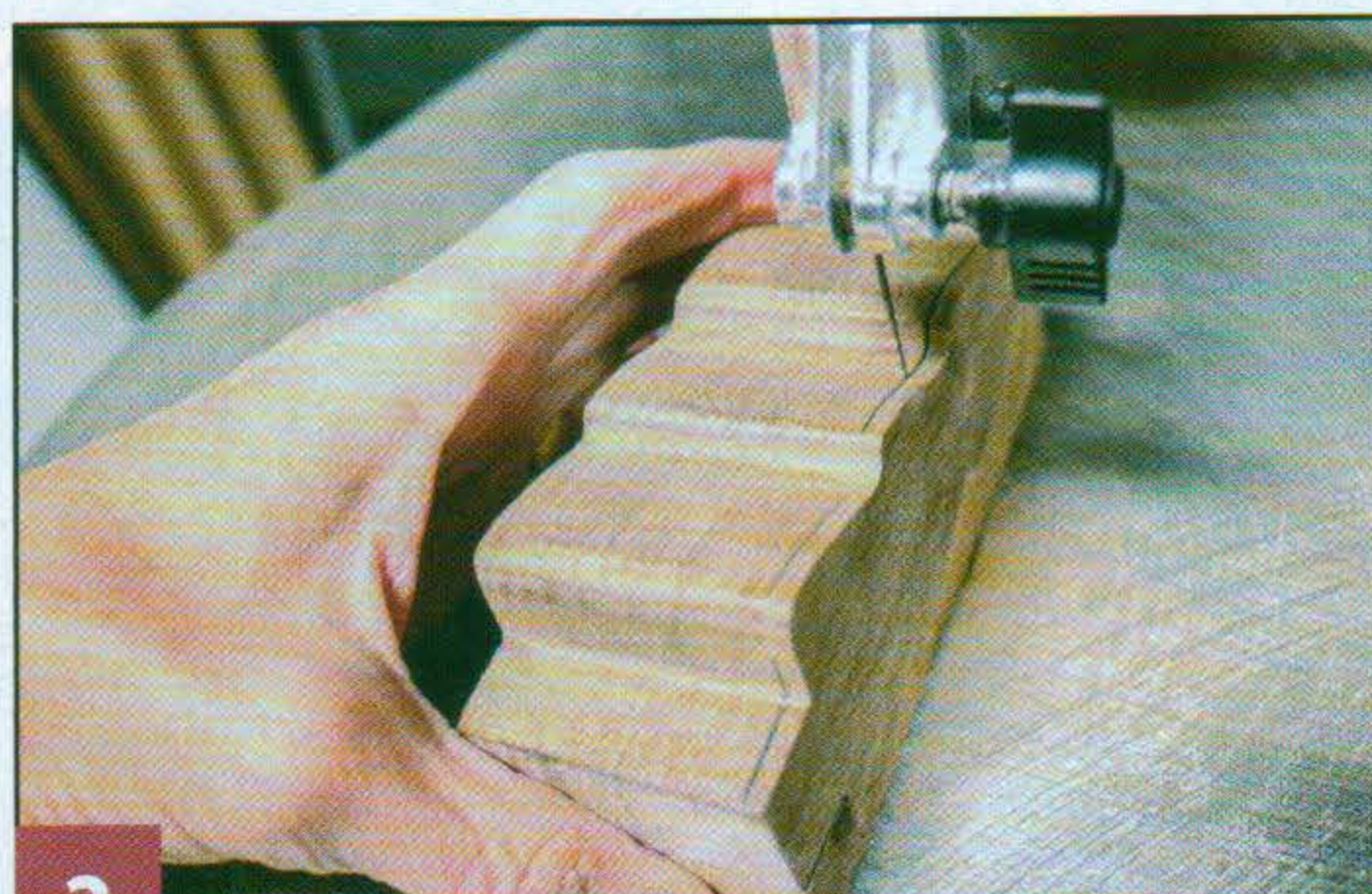
Attach the Top View pattern (on page 31) to the surface of the walnut blank with repositionable spray adhesive. Attach the Star pattern, with the grain running horizontally, to a small piece of yellow-colored wood; I used canarywood. Attach the tree overlay template to the poplar blank, with the grain running horizontally. The horizontal orientation of these pieces contrasts nicely with the vertical orientation of the tree trunk.

CUTTING THE PIECES



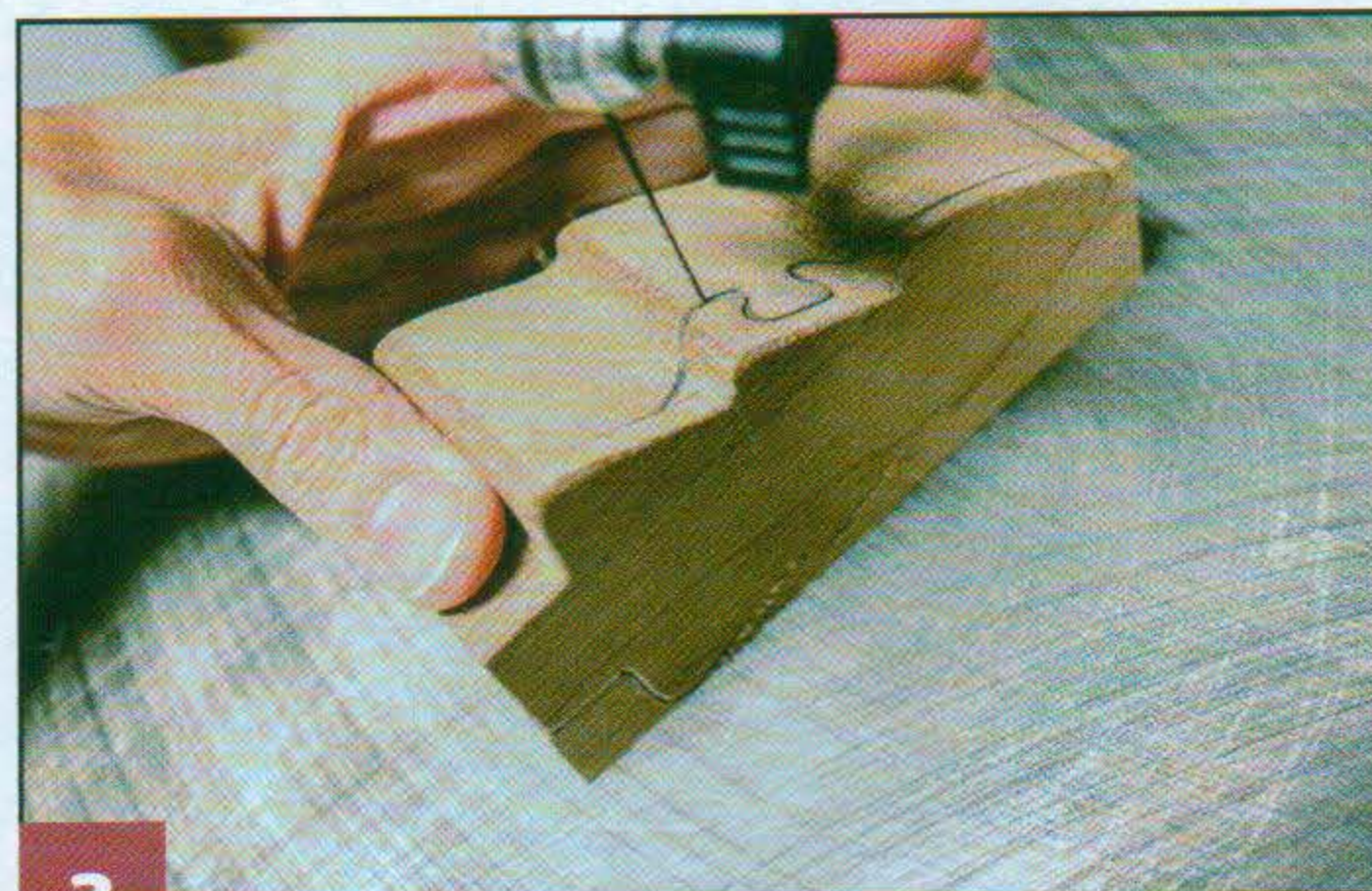
1

Cut the perimeter. Use a #7 reverse-tooth blade. Remove the pattern, keeping the waste pieces to use in later steps.



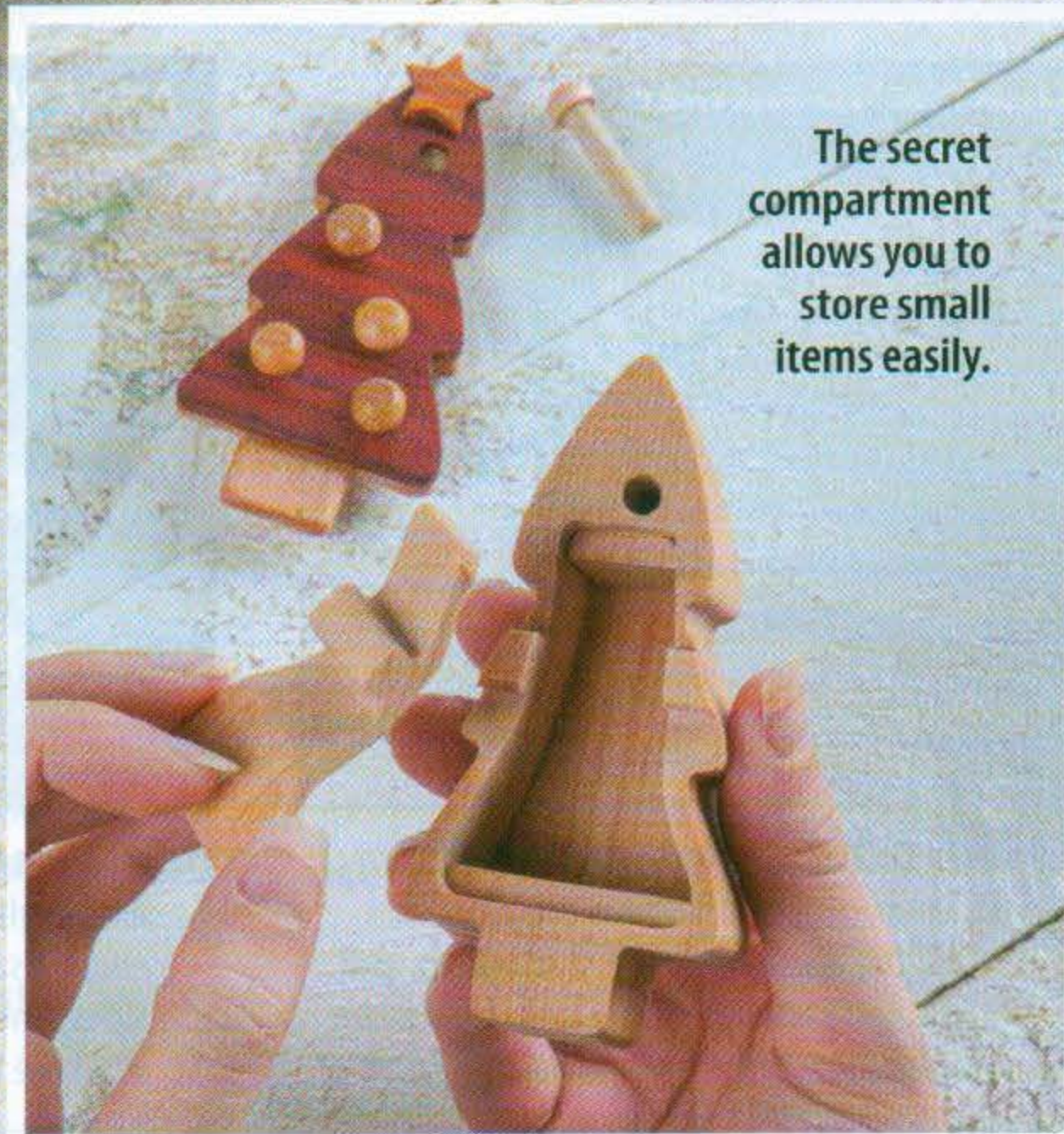
2

Cut the bottom of the box. It is essential that your blade is square with the table for this step and all steps following it. Using the side view template as a guide, cut $\frac{1}{8}$ " (3mm) off the bottom of the box using a #7 reverse-tooth blade. Set aside. *Note: Because of the irregular shape of the bottom, it is helpful to rest the tree shape on the waste wood from Step 1 while cutting the bottom.*

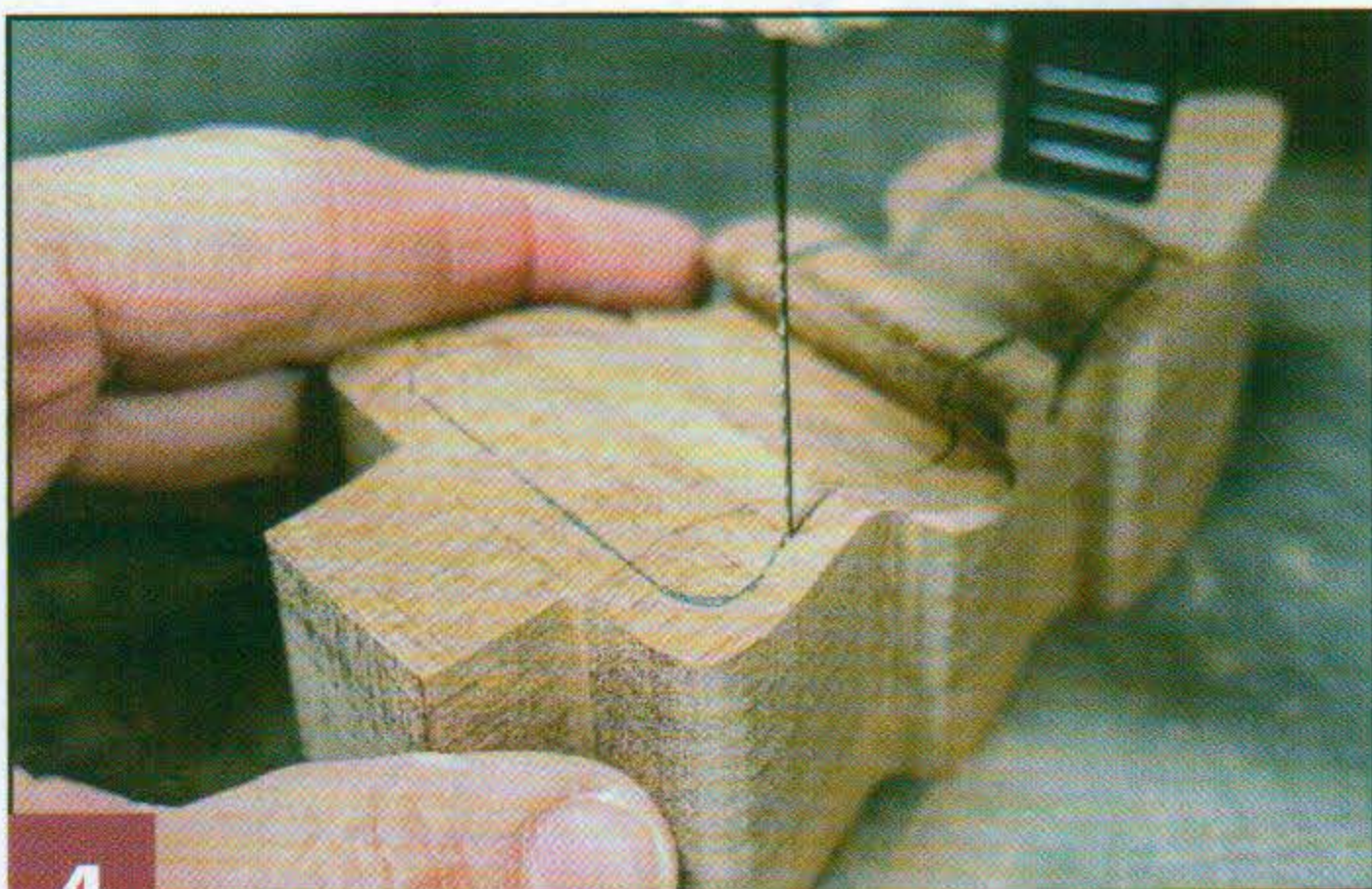


3

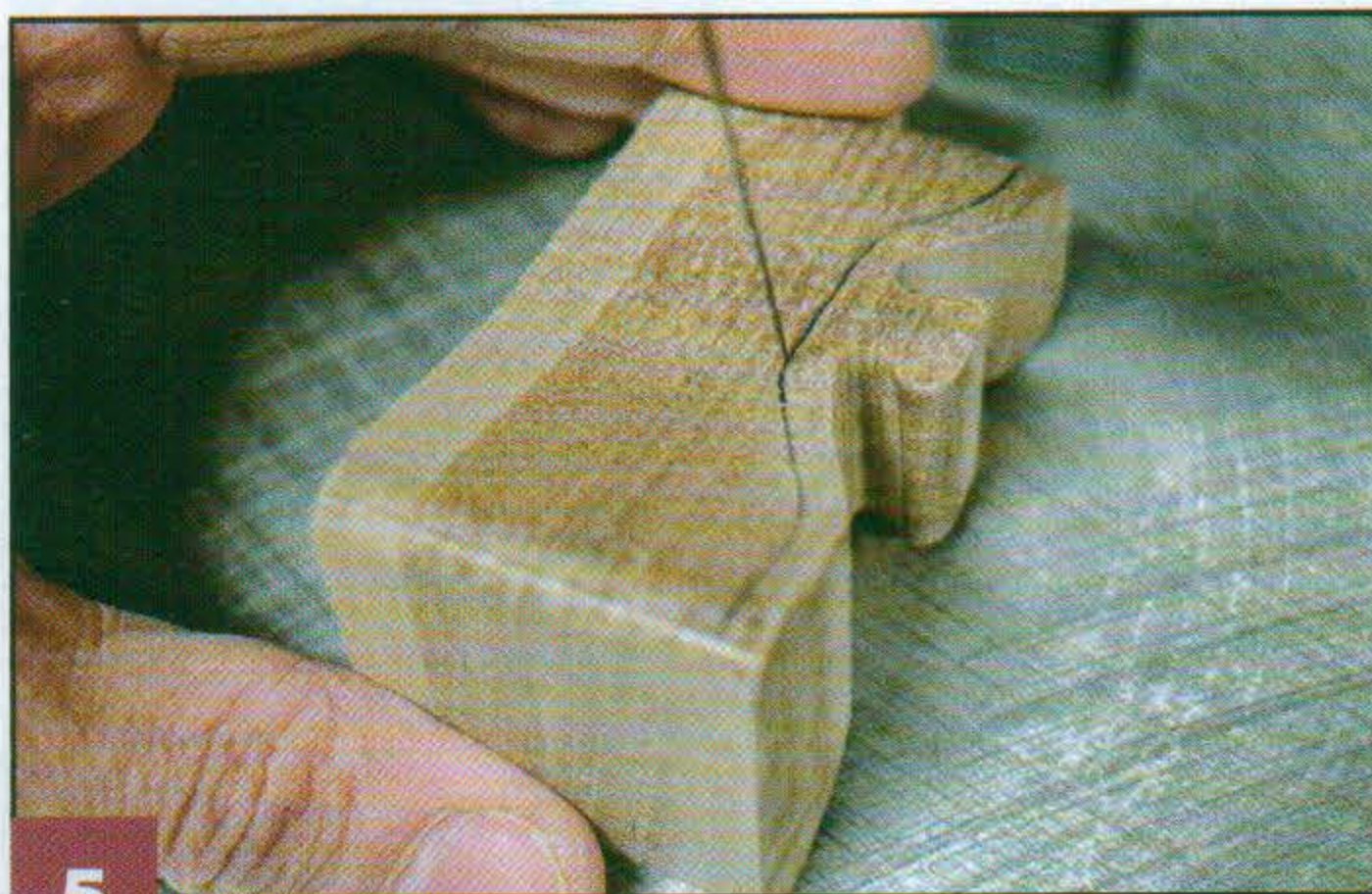
Cut the box lid. Using the Side View pattern as a guide, draw a cut line along the top of the blank. Using a #7 reverse-tooth blade, cut the lid off the tree blank. Be careful not to rush or pull the blade. Again, using the waste pieces for a level surface can be very helpful in this step. Slide the lid off and set it aside.



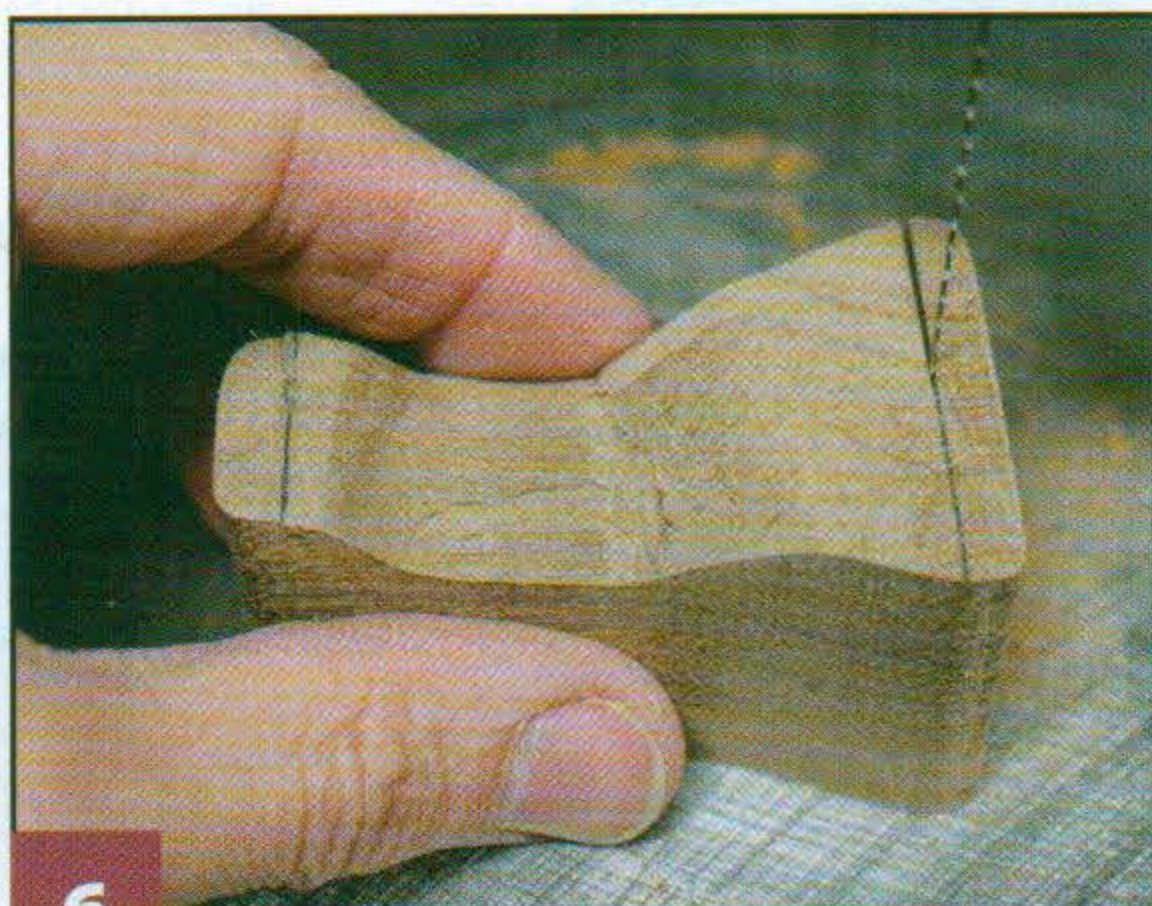
The secret compartment allows you to store small items easily.



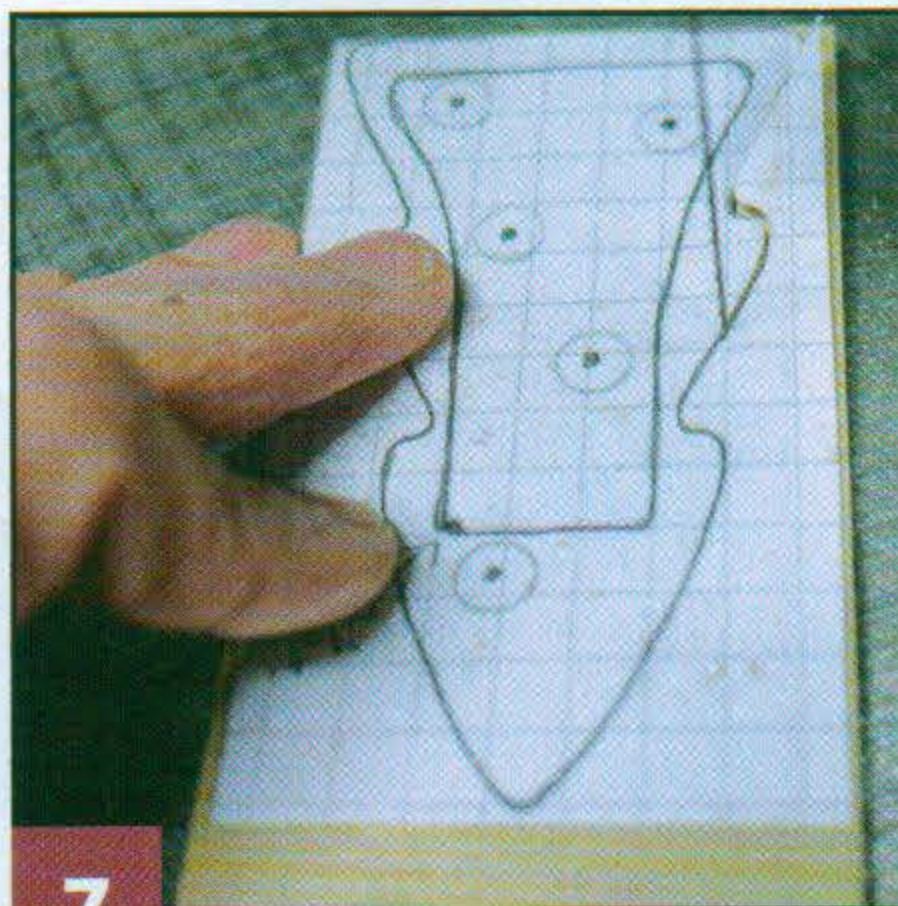
4 **Cut the chamber.** Using the "Top View" pattern as a guide, mark the perimeter of the inside chamber. Drill a $\frac{1}{16}$ " (2mm)-dia. blade-entry hole in a corner of the chamber. Then, using a #5 reverse-tooth blade, make the interior cut. Set the outside of the box aside.



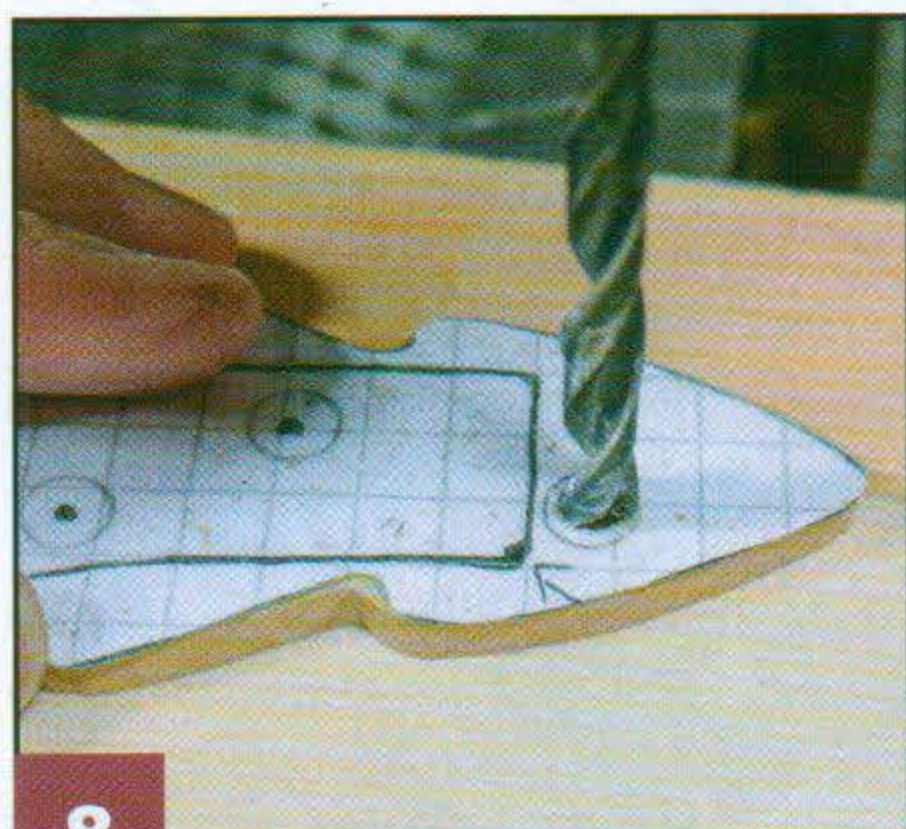
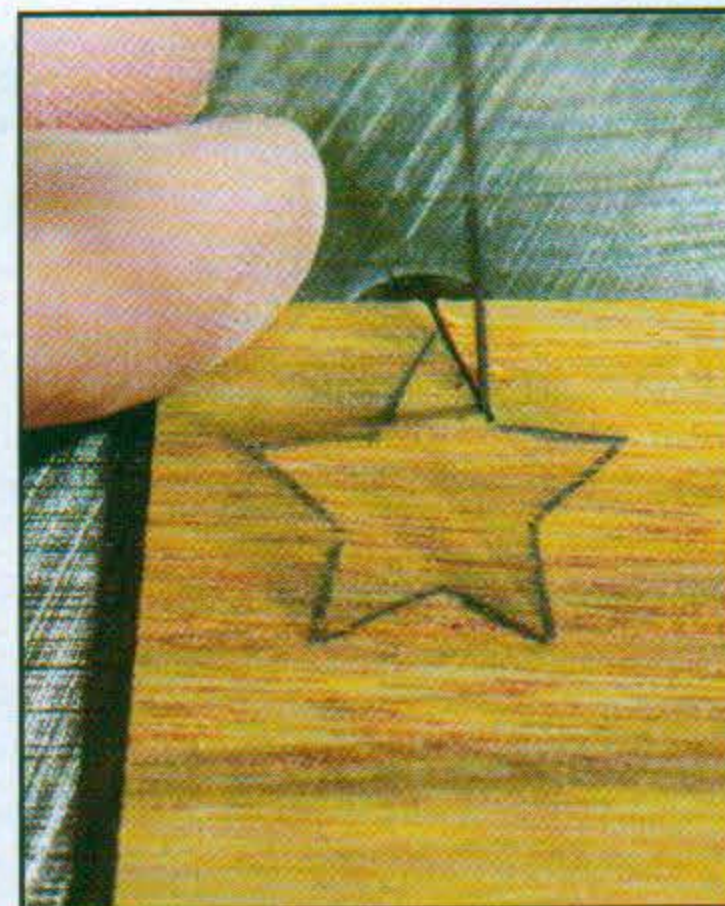
5 **Cut the chamber lid.** Draw a line about $\frac{1}{8}$ " (3mm) down from the top of the solid piece cut in Step 4, following the general contour of the top. Using a #5 blade, cut along the line. Set aside.



6 **Cut the support pieces.** From the remaining chamber piece, cut a small section off each end. These sections will act as supports for the chamber lid.



7 **Cut out the tree and star overlays.** I used a #1 reverse-tooth blade.

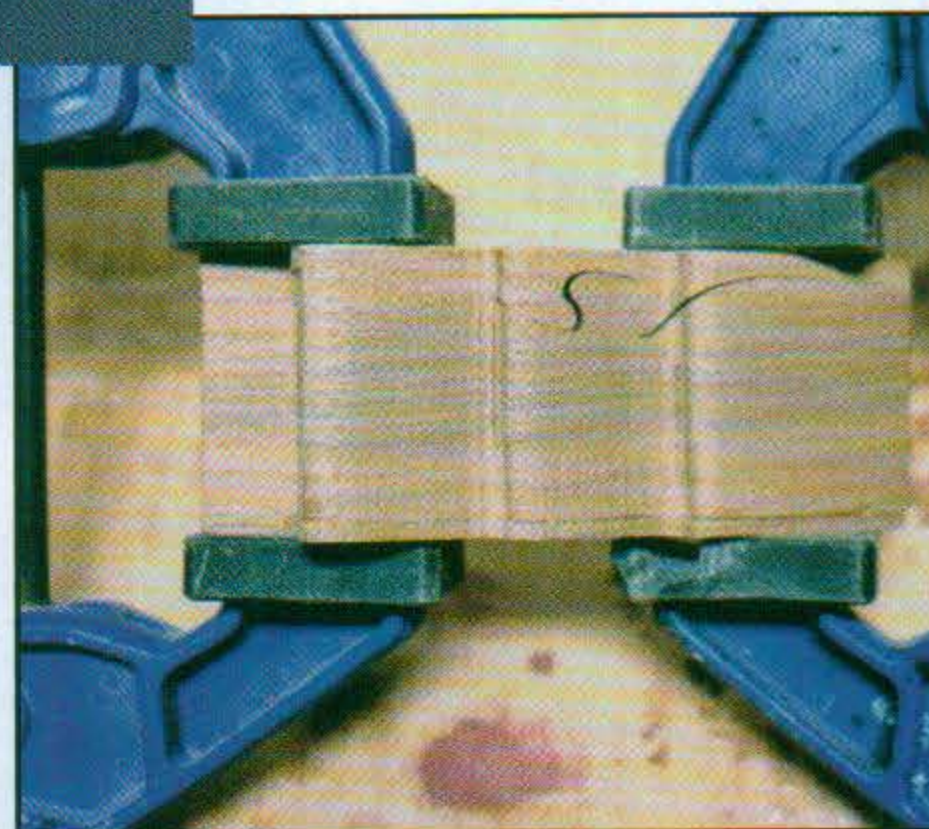


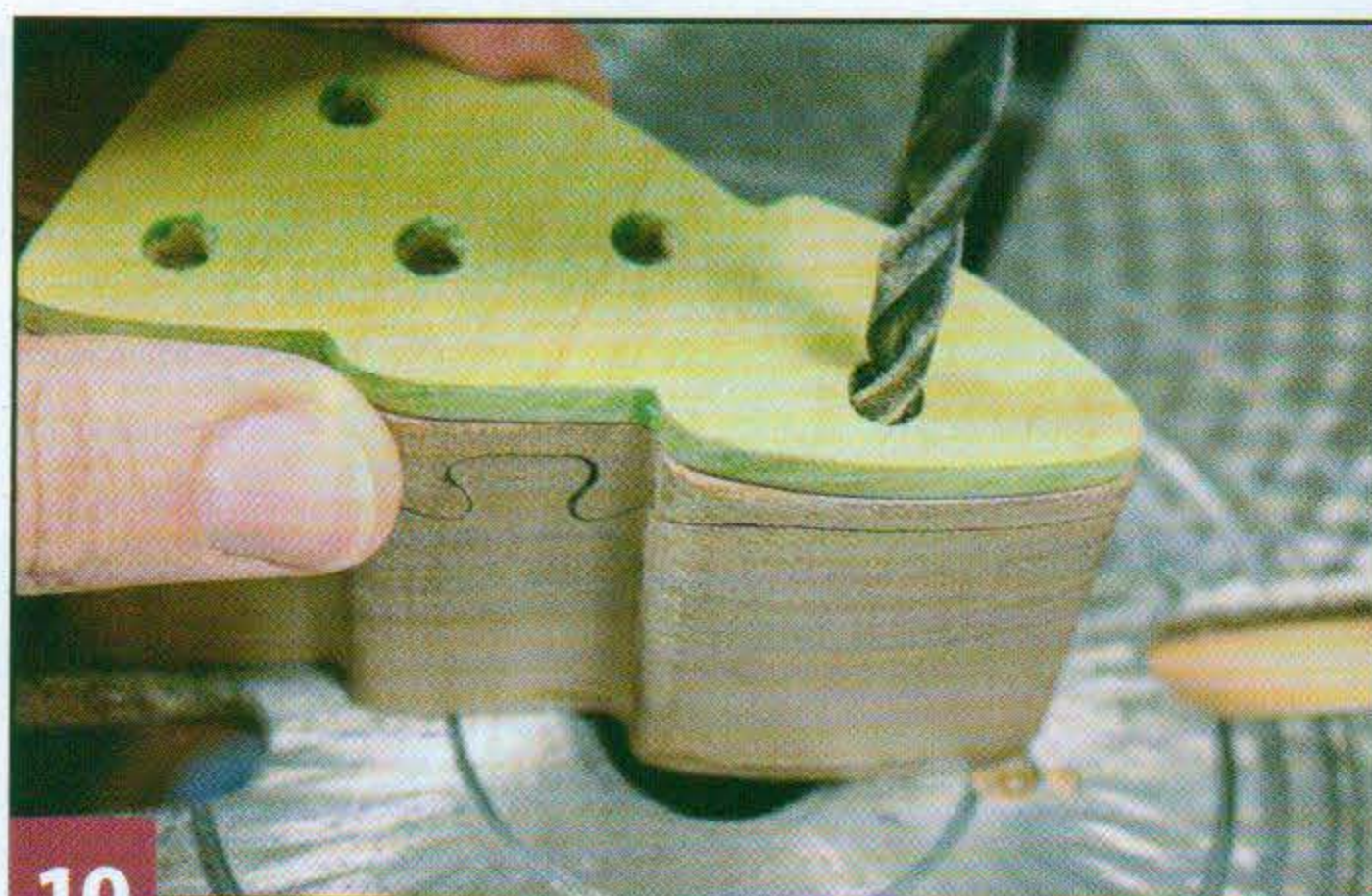
8 **Drill the holes.** Use the $\frac{13}{64}$ " (5.2mm)-dia. bit. Remove the pattern, mask the area where the star will go, and add color; I applied green stain for a more vibrant look. Set aside and let dry. Remove the masking for the star.

ASSEMBLING & FINISHING



9 **Assemble the box.** Glue and clamp the bottom panel to the box body, and remove the excess glue. *Note: Set the sliding lid aside for this part, as the rim of the box body provides a flat enough surface for clamping.* Let dry. Apply a small amount of glue to the inside ends of the box sides, and then attach the support pieces. Set the chamber lid down on top of the supports and slide the top lid carefully into place to ensure a proper fit. Clamp the assembled box until dry.

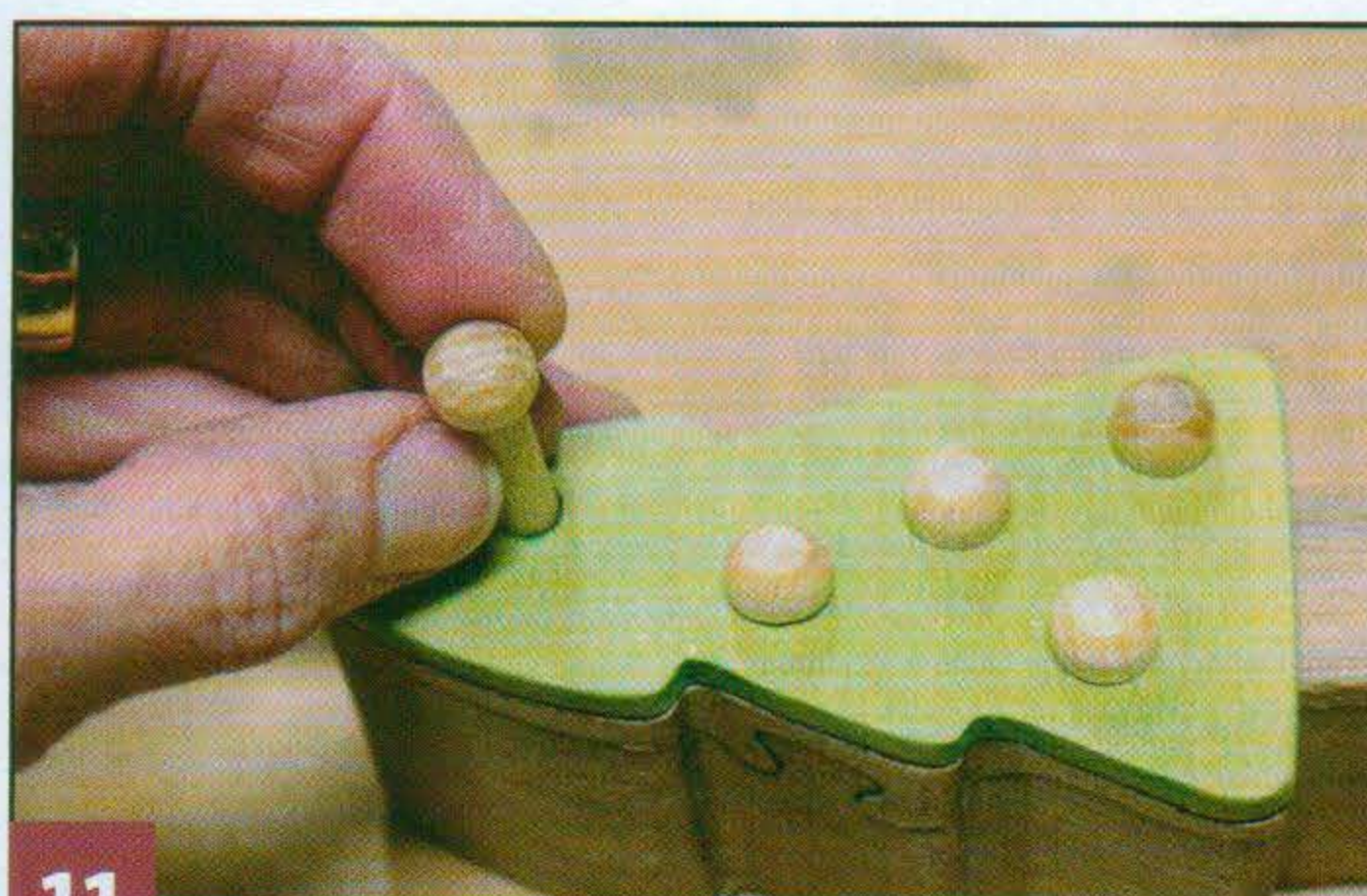




10

Complete the top. Glue and clamp the tree overlay into place.

Once dry, use the $\frac{13}{64}$ " (5.2mm)-dia. bit to deepen the keyhole to $1\frac{1}{4}$ " (3.2cm). Then prepare the pegs. Leave one axle peg at $1\frac{1}{4}$ " (3.2cm) for the key. Cut the other axle pegs to $\frac{1}{8}$ " (3mm) to use as ornaments. Color the pegs with paint or stains, or leave them natural. *Note: I find that the pegs are easier to handle if you apply color before cutting them to size.* Secure the four ornaments and the star you cut in Step 7 with wood glue. Set the key aside for later. Let the box dry.



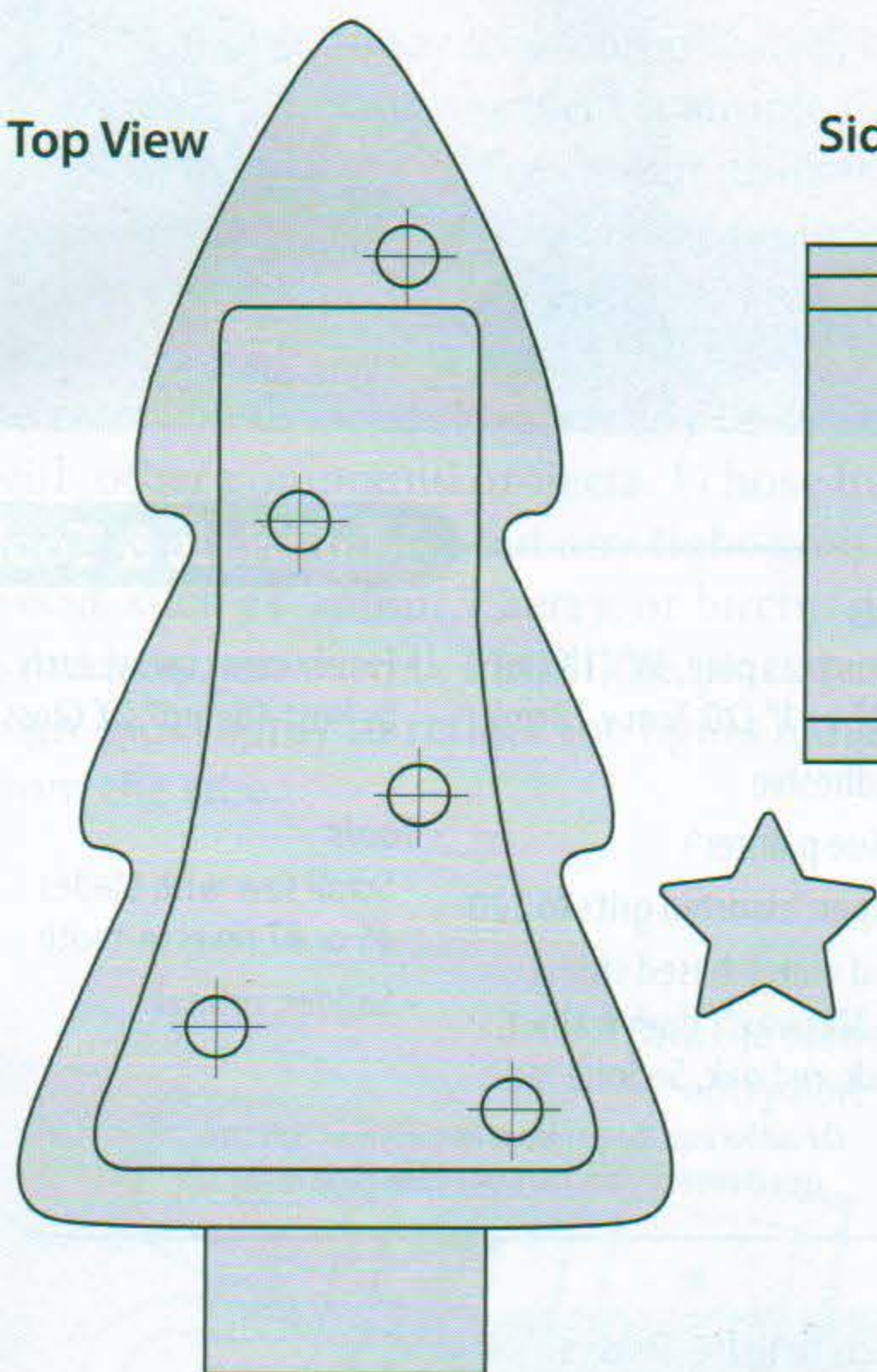
11

Finish the box. Sand the rough edges with a medium-grit

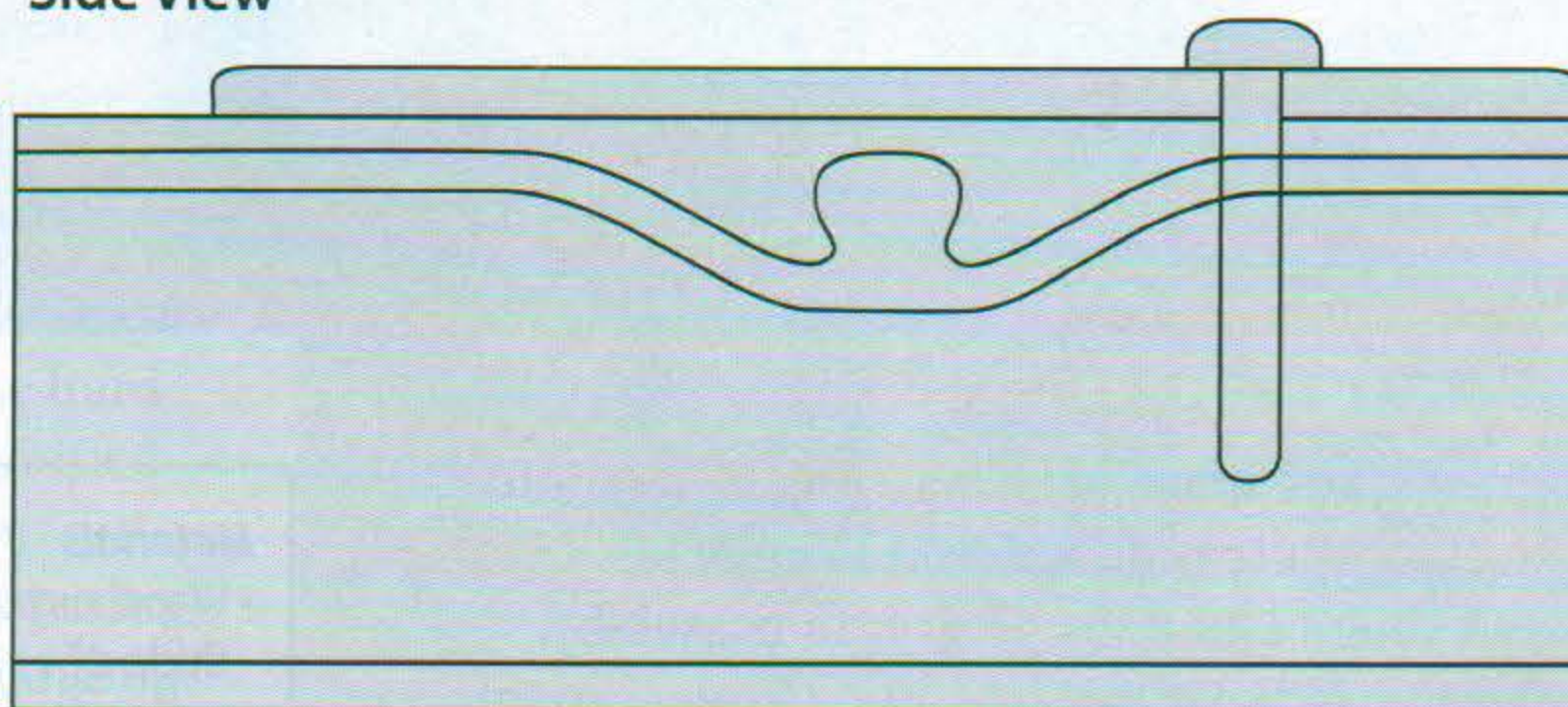
sanding sponge, and then switch to a fine-grit sponge to refine the wood. Wipe off excess dust with a tack cloth, and glue a lining to the bottom, if desired. Apply a finish of your choice; I brushed a coat of Danish oil over the outside. Place the key in the keyhole to lock the box.

Christmas Tree Puzzle Box Patterns

Top View



Side View



© 2021 Scroll Saw Woodworking & Crafts

Materials & Tools

Materials

- Wood, such as walnut, $1\frac{1}{2}$ " (3.8cm) thick: box body, 2" x 4" (5.1cm x 10.2cm)
- Wood, such as poplar, $\frac{1}{8}$ " (3mm) thick: tree overlay, $3\frac{1}{2}$ " (8.9cm) square
- Wood, such as canarywood, $\frac{1}{8}$ " (3mm) thick: star overlay, 1" (2.5cm) square
- Wooden axle pegs, 5 each $\frac{1}{4}$ " (6mm)-dia.: $1\frac{1}{4}$ " (3.2cm) long
- Spray adhesive: repositionable
- Tack cloth
- Finish, such as Danish oil
- Acrylic paints or dyes of your choice (optional)
- Wood glue
- Velvet or flocking: sized for box interior (optional)

Tools

- Scroll saw with blades: #1, #5, and #7 reverse-tooth
- Drill press with bits: $\frac{1}{16}$ " (2mm), $\frac{13}{64}$ " (5.2mm)-dia.
- Sanding sponges: medium, fine-grit
- Clamps
- Paintbrushes



Rita Cels is a retired teacher and self-taught scroller. Although much of Rita's time is spent making wooden children's toys, in her spare time, she loves designing special boxes using a variety of wood

types and techniques. Find more of her work @ritacelscreations on Instagram and Etsy.

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

Jingle Bells Puzzle

Hit a high note with this familiar shape

By Sarah Lyn Chamberlain



There's nothing quite like Christmastime in London. I enjoy traveling there on holiday, if I can. The brightly decorated shops and pubs beckon to passersby, there is an abundance of hot chocolate, and carolers roam the city donating their talents to anyone who will listen. I created this piece to celebrate this magical time of the year. It's a simple design that can be enjoyed as a puzzle, and elegant enough to be displayed as decoration.

Getting Started

Choose a light-colored wood; I prefer $\frac{3}{4}$ " (1.9cm) pine. Prepare the blank by sanding progressively through the grits to 220, and then covering the surface with blue painter's tape. Photocopy the pattern and use spray adhesive to secure it to the tape. The grain should flow horizontally.

Cutting and Finishing

Go slowly and let the blade do the work. Once you've made all of the cuts, remove the pattern. Then reassemble the puzzle. Smooth the front and back with an orbital sander, and then soften the sharp edges by hand. Stain as desired; I used various shades of Minwax®. Once dry, apply several light coats of a clear gloss finish.

Materials & Tools

Materials

- Wood, such as pine, $\frac{3}{4}$ " (1.9cm) thick: 8" x 11" (20.3cm x 28cm)
- Spray adhesive
- Tape: blue painter's
- Sandpaper: assorted grits to 220
- Assorted water-based stains, such as Minwax®: dark walnut, gunstock, red oak, Sedona red

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

Tools

- Scroll saw with blades: #5 or #7 reverse-tooth
- Sander: orbital

Pattern for the **JINGLE BELLS PUZZLE** is in the pullout section.



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.

COMPOUND-CUT Present Ornament

Scroll the shape and peel off the waste to reveal a gift that keeps on giving

By Clayton Meyers

Although it may look complicated, this compound-cut project is simple to make. The majority of the design utilizes the squareness of the blank and relies on interior cuts to give it a three-dimensional look. This reduces the amount of scrap that needs to be reattached, as would normally be the case with other compound projects. I chose hard maple for this project, but any tight-grained wood, such as walnut, cherry, or birch, would also work well. Finish the piece with a high-gloss spray to reflect the lights hanging from the tree.

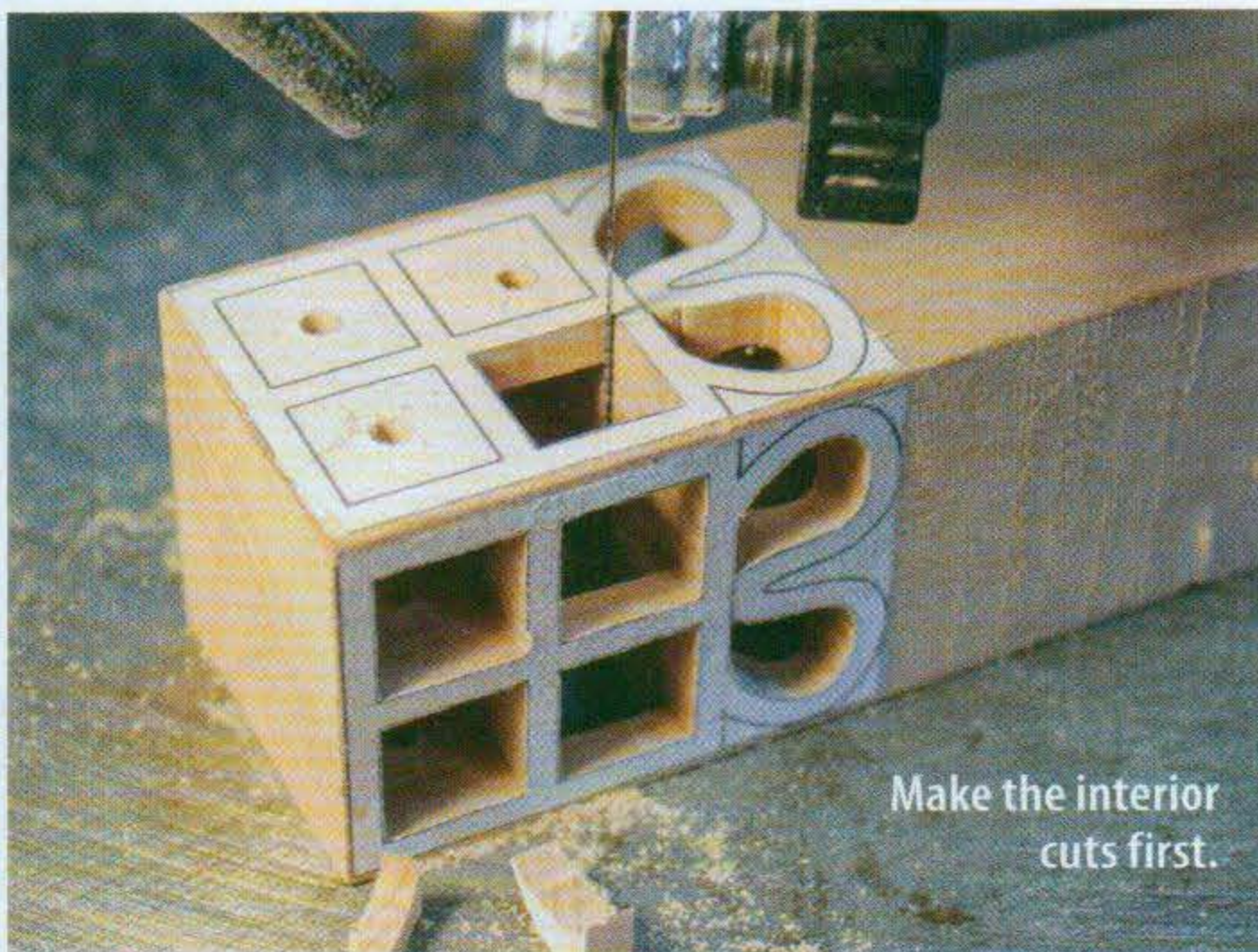
Drill the blade-entry holes.



Getting Started

Choose a kind of wood. Attach the pattern views to two adjacent sides of the blank using spray adhesive. Use a combination square to verify that the wood blank is perfectly square at all four corners. Drill the blade-entry holes for all interior cuts on both sides of the blank.

Lightly sand the pattern-free sides of the blank so that it will sit flush on your cutting surface. Ensure that your scroll saw blade is perfectly plumb before you start cutting, as any fluctuation of the blade will cause the present to look thinner on one side than the other.



Cutting and Finishing

Make all the interior cuts on one side of the blank. Then rotate the blank 90° and make all the interior cuts on the second side. Stay as close to the pattern lines as possible, cut slowly, and use a fresh blade. *Note: While you are making the cuts after rotating 90°, the thickness of the wood will vary depending on what portion of the piece you are cutting through. Avoid exerting too much force, as you can easily overcut the line while traveling into a thinner portion of the blank.* After finishing the interior cuts, begin on the outside cuts. Make all outside cuts for the first side in one pass, saving the waste pieces for later.

Using clear packaging tape, tape the waste pieces to the block exactly as they were before. Rotate the ornament 90°, make the outside cuts on the final side, and then remove all of the waste wood. Sand and finish the piece to your liking; I used assorted grits of sandpaper and a high-gloss polyurethane. Apply several coats for a durable, long-lasting finish. Add a ribbon or hook to display it on your holiday tree.



Materials & Tools

Materials

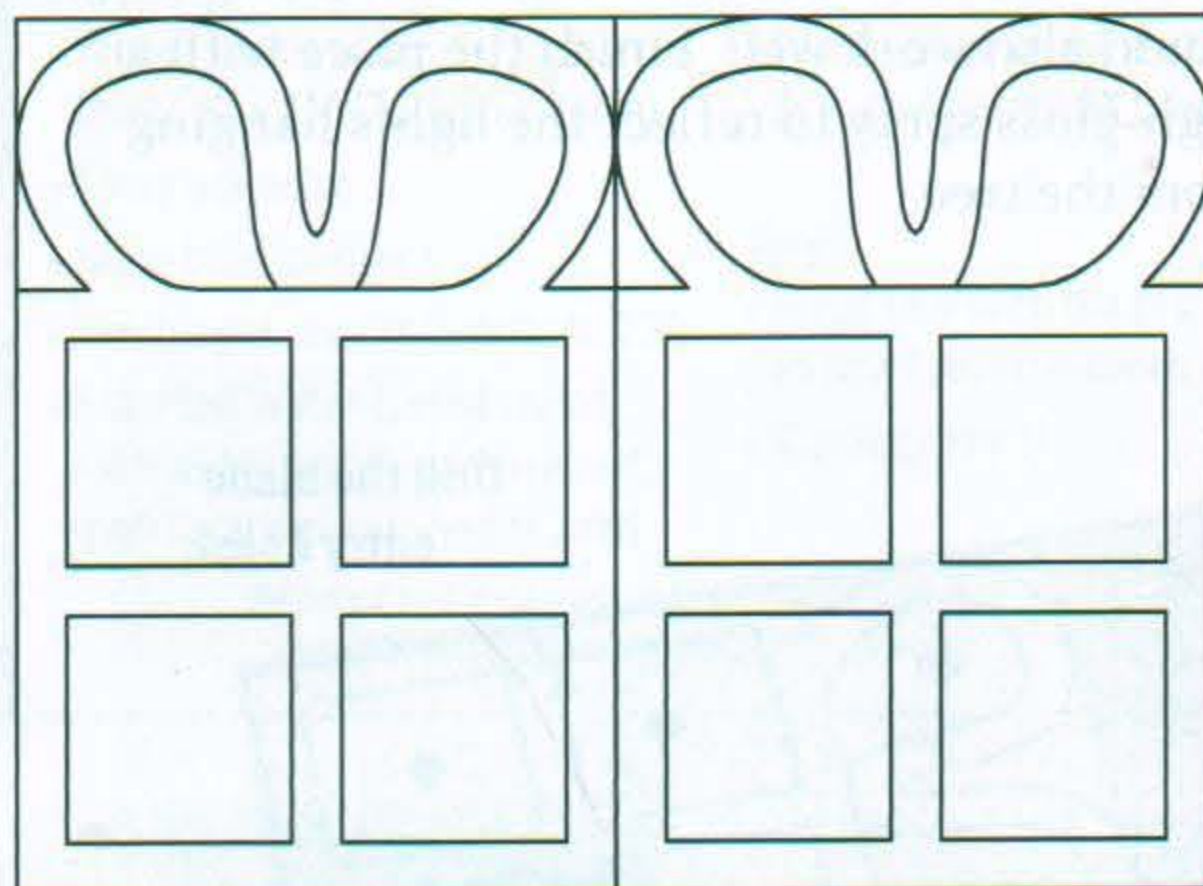
- Wood, such as hard maple, 1½" (3.8cm) square: 5¼" (13.3cm) long
- Spray adhesive
- Sandpaper: assorted grits
- Tape: clear packaging
- Clear spray finish, such as high-gloss polyurethane
- Ribbon or hook (for hanging)

Tools

- Scroll saw with blades: #3 skip tooth
- Drill press with bit: ⅛" (3mm)-dia.
- Combination square

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

Compound-Cut Present Ornament Pattern

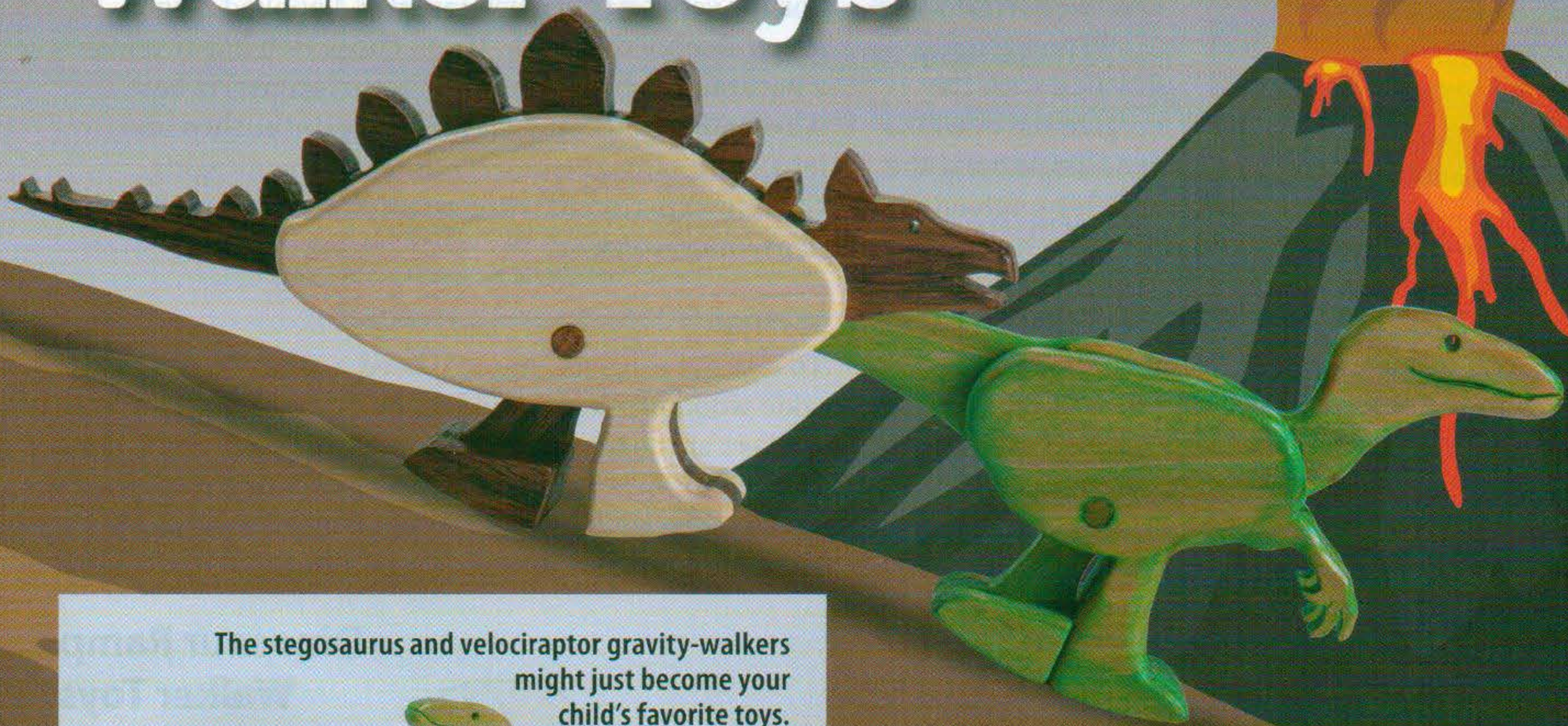


© 2021 Scroll Saw Woodworking & Crafts



Clayton Meyers is a 39-year-old woodworker, husband, and father of two. He has been woodworking for more than three decades and has spent the last 15 years fine-tuning his compound-cutting skills and patterns. Find more of his work on Etsy at [ClaytonsPatterns](https://www.etsy.com/shop/ClaytonsPatterns).

Dinosaur Ramp Walker Toys



The stegosaurus and velociraptor gravity-walkers might just become your child's favorite toys.



Enjoy endless entertainment with these prehistoric racers—no wheels required

By Paul Fellay
Cut by Rolf Beuttenmuller

Cutting and Assembling

Cut the pieces. Then drill the $\frac{1}{4}$ " (6mm)-dia. dowel holes while the outer pieces are stacked. Remove the patterns and sand each piece with an orbital sander, lightly softening the sharp edges on all sides except the ones that will be glued; these should stay flat. Take extra care to smooth the swinging leg piece, as it should be able to move without friction. In the center of the swinging leg piece, drill a $\frac{17}{64}$ " (7mm)-dia. hole. Stack the three body pieces, making sure the edges are flush.

Glue and clamp one side onto the central body piece, keeping glue out of the area where the swinging leg will go. Once the glue is cured, dry-fit a $\frac{1}{4}$ " (6mm)-dia. dowel into the hole to help with alignment. Glue and clamp the three swinging leg pieces together. Dry-assemble the leg mechanism, making sure that the leg swings freely from the body pieces and sits at the same level as the front leg. The legs will form a slight curvature when side-by-side to allow for rocking.

I love making ramp walker toys because each one includes an element of surprise. I enjoy that special moment when a child sees the toy, and their curiosity and wonder get the better of them. They typically want to know: *How is it powered? Where is the battery?* "It's magic," I reply.

So, get ready to play magician in the life of your little one. This design is simple enough to make in an afternoon and even easier to play with. I've also provided a bonus dinosaur pattern of a velociraptor so the stegosaurus has someone to race.

Getting Started

Pre-sand the blanks, moving up progressively through the grits until you reach 320. Remove excess dust with a tack cloth. Stack the two outer layers, securing them with clear packaging tape. Apply removable shelf paper to the surface of each blank and attach the patterns. Drill the hole for the eye. *Note: You could also woodburn the eyes later, if desired.*

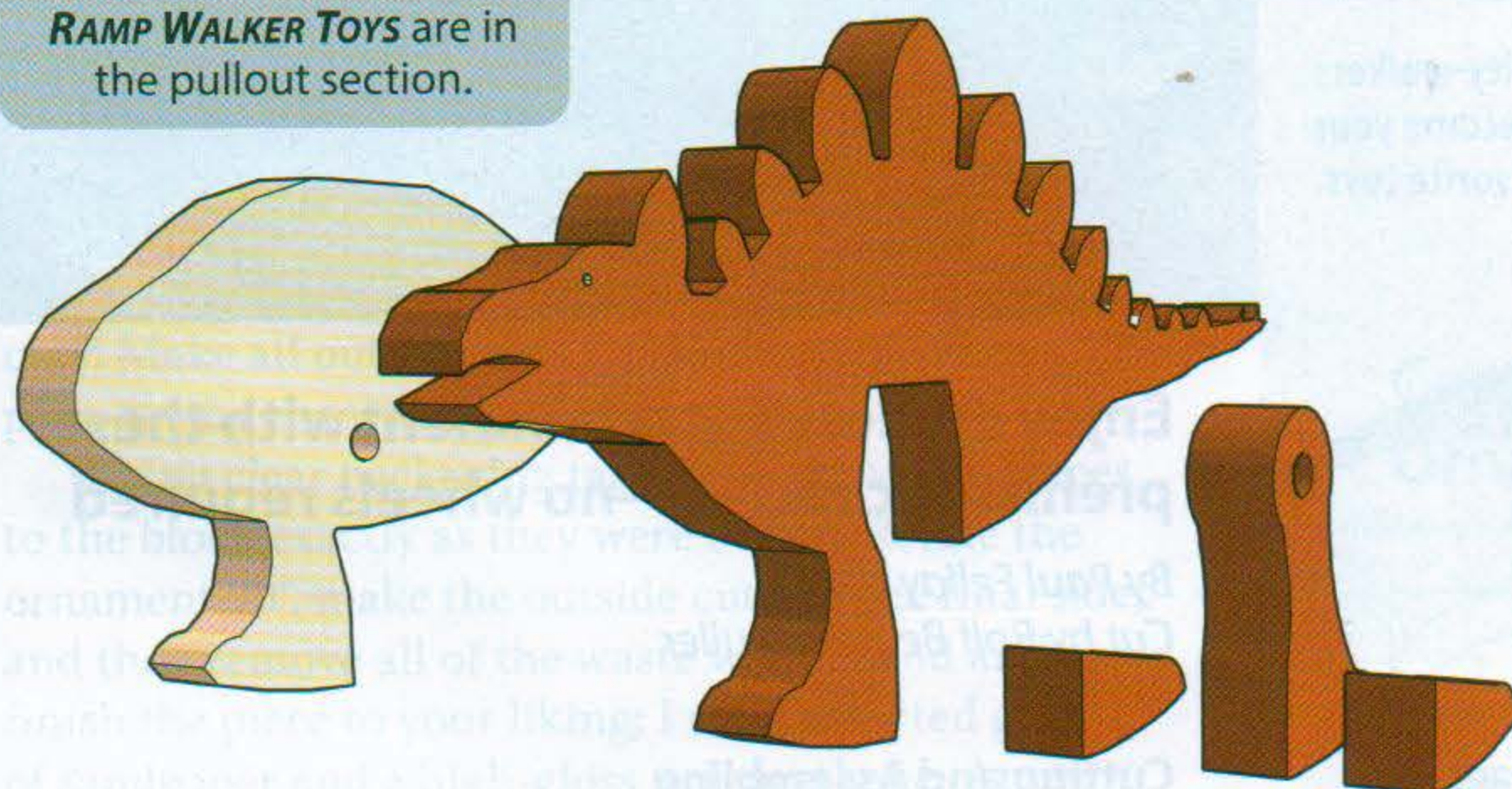


Note: If the legs do not sit at the same level, the creature will not walk properly. Refer to the exploded drawings below.

When you are satisfied with the fit, glue the dowel to one side, leaving the back leg unglued

and free to swing. Then glue and clamp the second body side in place, applying glue to this side of the dowel, as well. Cut off the excess dowel and sand both sides smooth on a belt sander. Soften all body edges further with the orbital sander, and then hand-sand the edges, moving up progressively through the grits to 320. Remove excess dust with a tack cloth.

Patterns for the **DINOSAUR RAMP WALKER TOYS** are in the pullout section.



Dinosaur Ramp Walker Toys Assembly Drawing

ON THE WEB See a video of the ramp-walkers on our website.
woodcarvingillustrated.com

Materials & Tools

Materials

- Wood, such as cocobolo, 1/2" (1.3cm) thick: body, 10" (25.4cm) square
- Wood, such as holly, 1/2" (1.3cm) thick: sides, 10" (25.4cm) square
- Wood dowel, 1/4" (6mm)-dia.: 4" (10.2cm) long
- Self-adhesive shelf liner, such as Con-Tact® removable creative covering
- Tape: clear packaging
- Sandpaper: assorted grits to 320
- Wood glue
- Tack cloth
- Finish, such as clear satin lacquer
- Acrylic paints or dyes (optional)

Tools

- Scroll saw with blades: #3 or #5 reverse-tooth
- Drill press with bits: 1/4" (6mm), 17/64" (7mm)-dia.
- Variable-temperature woodburner with nib: writing (optional)
- Sanders: belt, orbital
- Clamps
- Wide wood plank (optional)

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

Finishing

Apply a finish. If you chose a material without a pronounced or decorative grain, such as MDF or pine, get creative with different colors; you could paint on thinned acrylics in various designs, and then apply a clear lacquer once the paints have dried. For my version of the velociraptor, I applied a light green alcohol dye wash. If you chose rich hardwoods, a natural finish (such as clear satin lacquer) is best. Alternately, you could leave the toy unfinished and let a child's imagination do the rest, encouraging them to experiment with watercolors, glitter, felt pens, or crayons.

Test Run

To test the projects, you will need a ramp. I used a wide wood plank, propped up on one end. Position the walkers at the top of the slope and give each one a tap to get it to rock. Adjust the angle as needed; if it's too shallow, the walkers won't move, but if it's too steep, they'll fall on their noses.



Paul Fellay is an Argentinean woodworker who has been building and designing wooden dynamic toys for the past four years. With the help of Paul Roy from Ontario, Canada, he works tirelessly to perfect each ramp walker design. Find more of Paul Fellay's work on Etsy at RampToyPlans, on Sellfy at Ramp Walker Toys, or facebook.com/ramp toys.



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 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.



Red-Nosed Reindeer Ornament

This elegant take on a Christmas classic is sure to become a mainstay on the family tree

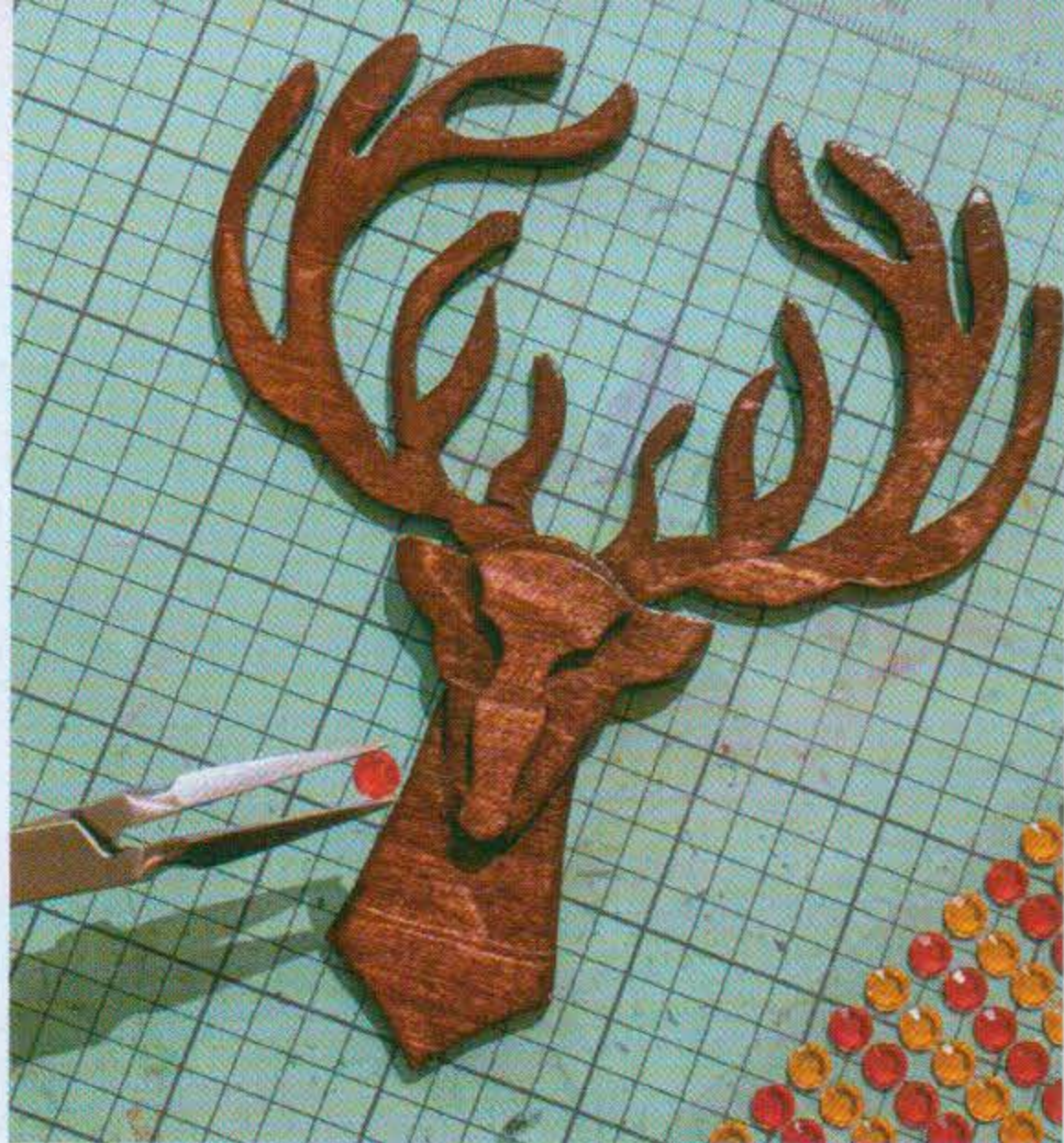
By Rich Hesketh

My wife Linda came home with a reindeer greeting card one day, and I was instantly inspired to turn that design into a scroll sawn ornament. A small drill hole in the top, a shiny red nose, and voilà! Rudolph is all grown up and hanging on the tree. I still feel like a beginner, although I've been scrolling for the better part of 15 years. I feel an immense sense of satisfaction when a project is finished. Once you make your first Rudolph, you will, too!

Getting Started

Photocopy the patterns. If desired, pre-sand the blank to 220-grit. Attach the patterns to the surface of the wood with repositionable spray adhesive.





Cutting and Finishing

Cut out each piece, being careful to stay on the line. Go slowly, especially on the antlers, and let the blade do the work. After you've cut out the pieces, use 220-grit sandpaper or a rotary tool to carefully smooth the edges.

Stack the layers. Attach the face to the head with a few drops of cyanoacrylate (CA) glue; keep the glue away from the edges to prevent squeeze-out. Apply downward pressure until the piece is set. Then do the same for the nose.

Finish the ornament. Use a $\frac{1}{16}$ " (2mm)-dia. bit to make a small hole in the top of the head to later accept a piece or string or decorative ribbon. Apply stain; one coat should suffice. Wipe off the excess stain after about 30 minutes and let dry for another 24 hours. Apply a finish; I used three coats of spray Varathane®. Once dry, add a red nose. I attached a craft store jewel with a pair of pliers and a dab of cyanoacrylate (CA), but you can use acrylic or puffy paint, if desired. Then hang the ornament with your chosen material to display.



Rich Hesketh enjoys creating in Calgary, Canada, where he lives with his family. His artistic endeavors range from playing musical instruments and drawing as well as woodworking and carving detailed pumpkins. Rich was also a national team decathlete for Canada for 15 years. He is inspired by his father's and grandfather's woodworking, which has been cherished by generations. To see more of Rich's work, visit @the.whittlethings on Instagram.

Materials & Tools

Materials

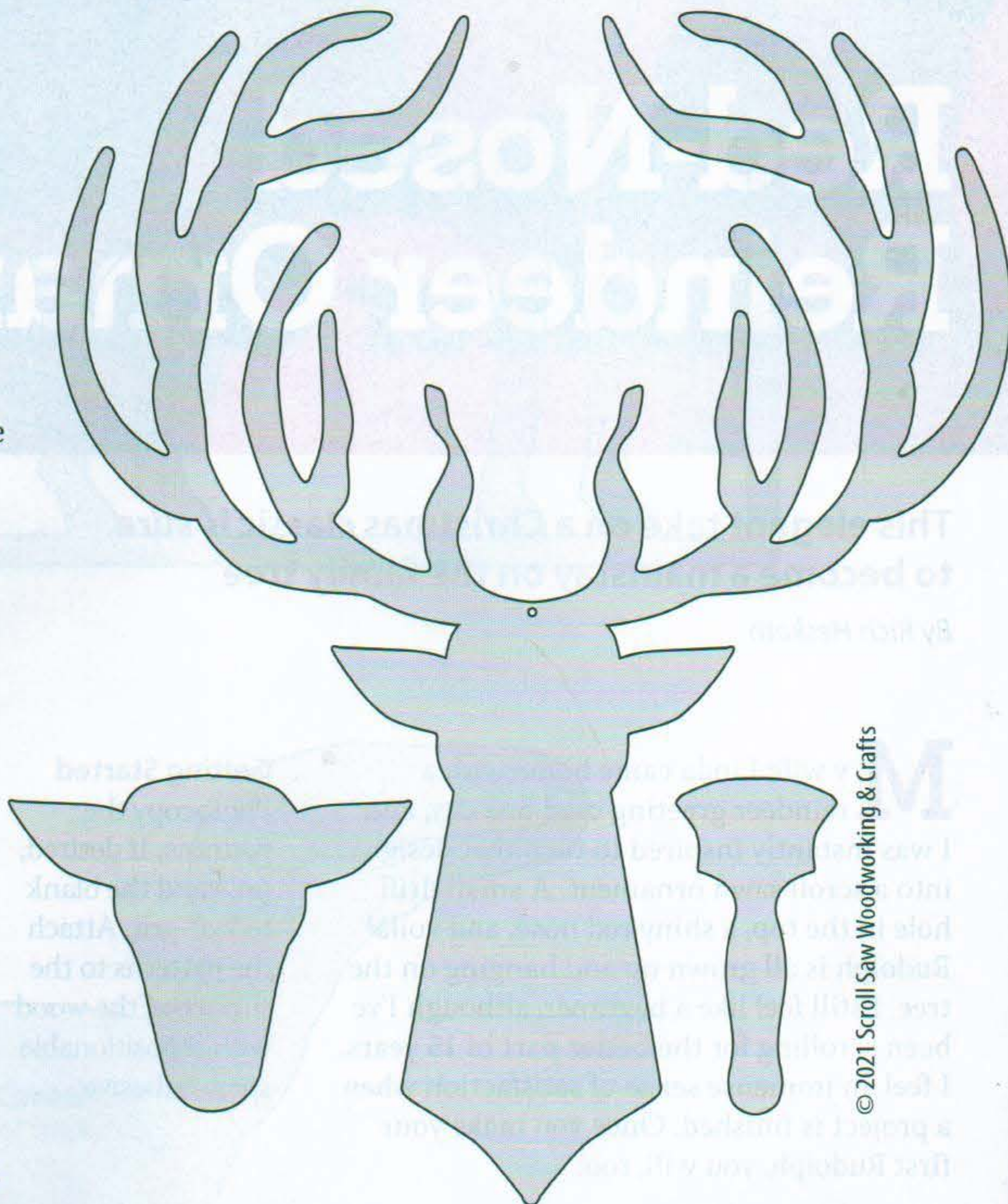
- Wood, such as Baltic birch plywood: $\frac{1}{8}$ " (3mm) thick: 6" (15.2cm) square
- Sandpaper: 220-grit
- Spray adhesive
- Glue: cyanoacrylate (CA), wood
- Paints: acrylic or puffy (optional)
- Jewel: red
- Stain, such as Minwax®: red chestnut 232
- Clear spray finish, such as Varathane®: semigloss
- String or decorative ribbon

Tools

- Scroll saw with blades: #3 or #5 reverse-tooth
- Drill with bit: $\frac{1}{16}$ " (2mm)-dia.
- Pliers: needle-nose (optional)
- Rotary tool (optional)

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

Red-Nosed Reindeer Ornament Patterns



© 2021 Scroll Saw Woodworking & Crafts

Wine Bottle Holder

Give your favorite vintage the royal treatment
with this elegant and sturdy design

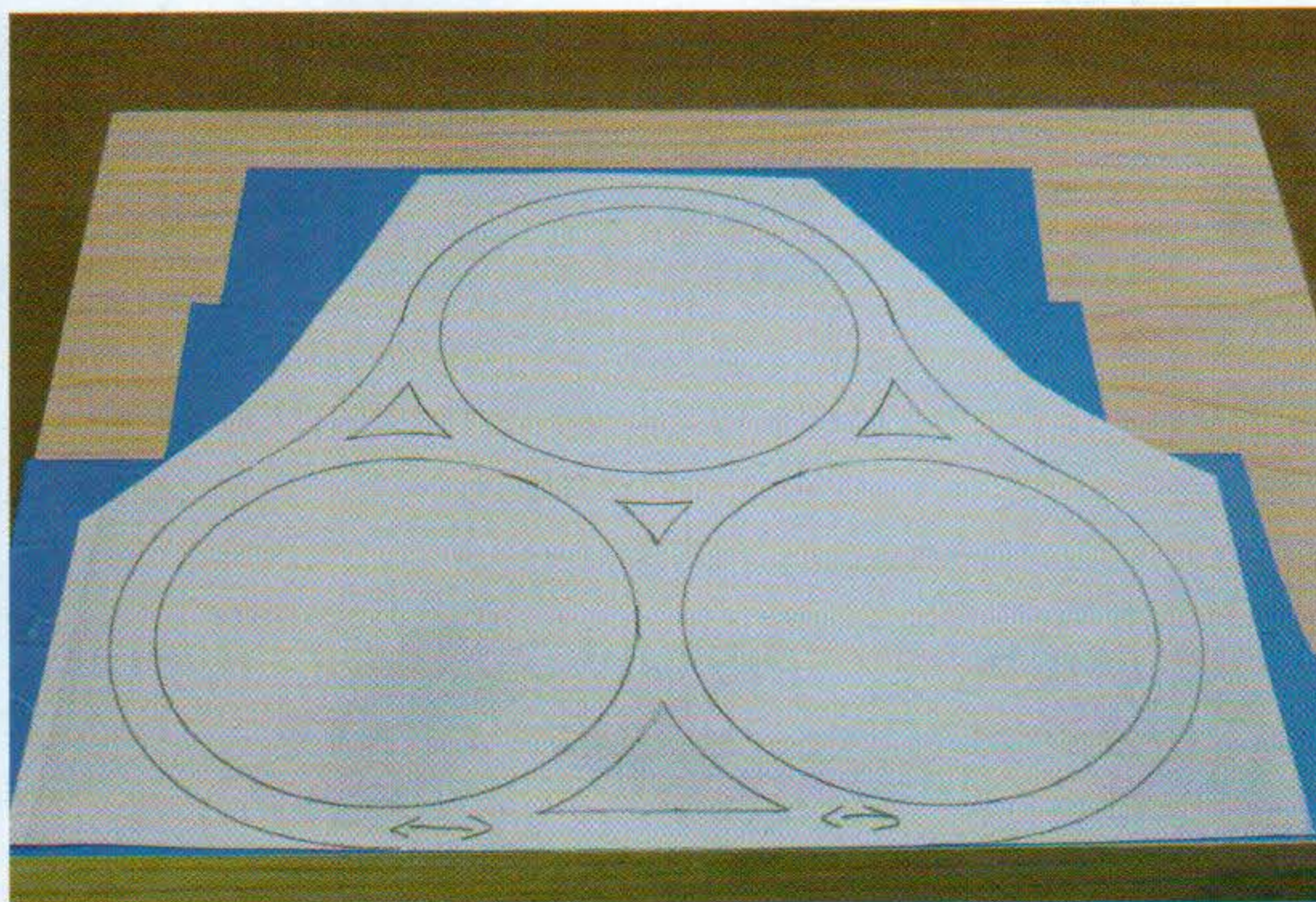
By Carole Rothman



The glued-up base makes
for an eye-catching piece.

Holders for wine bottles vary from large, refrigerated units for long-term storage to small coasters for keeping drips off tabletops. This compact holder is designed to keep three bottles close at hand for easy access while providing a decorative accent for the kitchen or dining room.

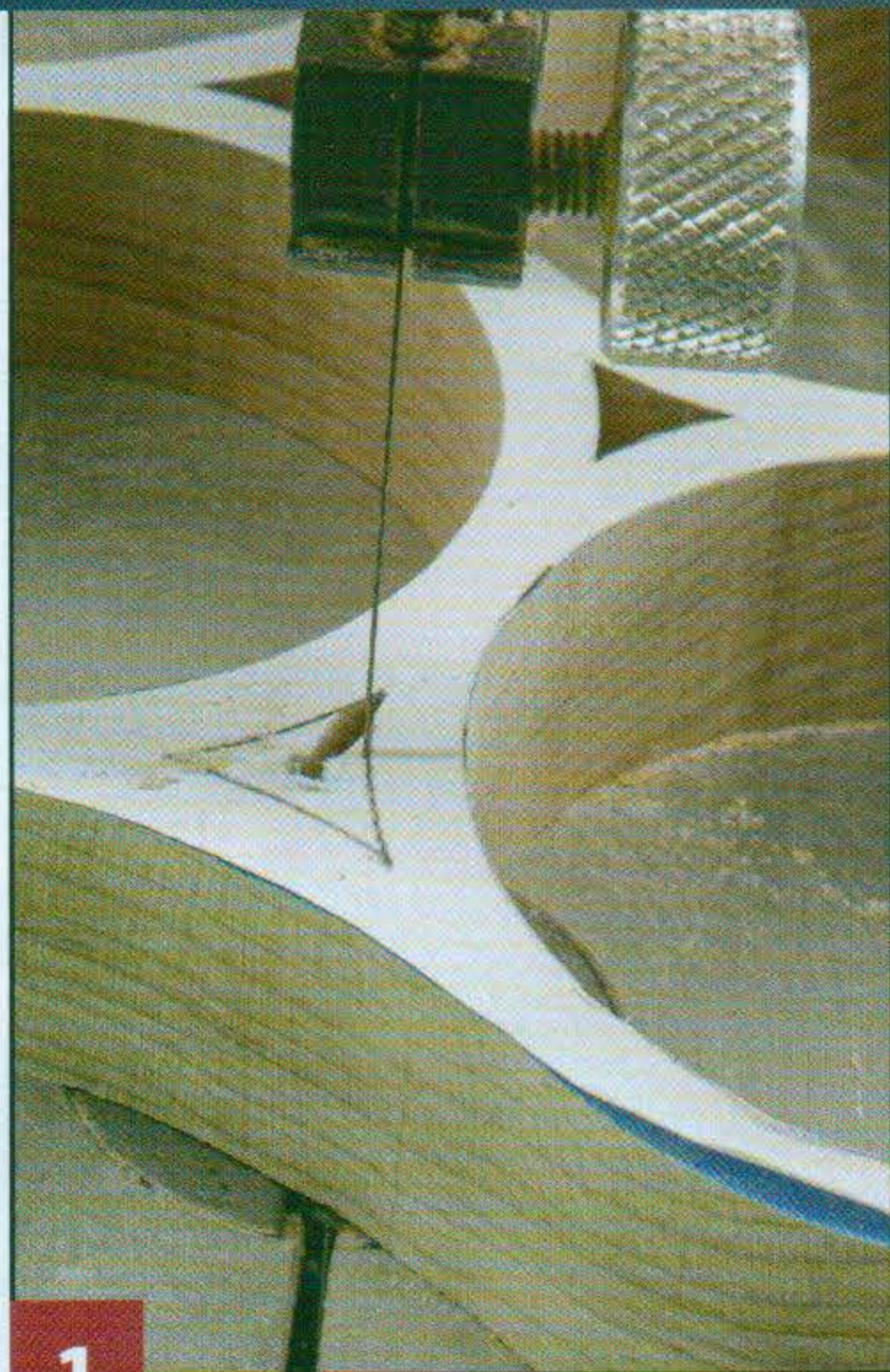
Made from sturdy maple, the holder consists of two curved supports and a base. The supports are easy to sand with belt and spindle sanders, and the base can be as simple or elaborate as you'd like. The base uses glued-up strips of maple, bubinga, and black veneer to simulate a cutting board, but a single piece of contrasting hardwood, with an interesting grain or figure, would be an attractive alternative.



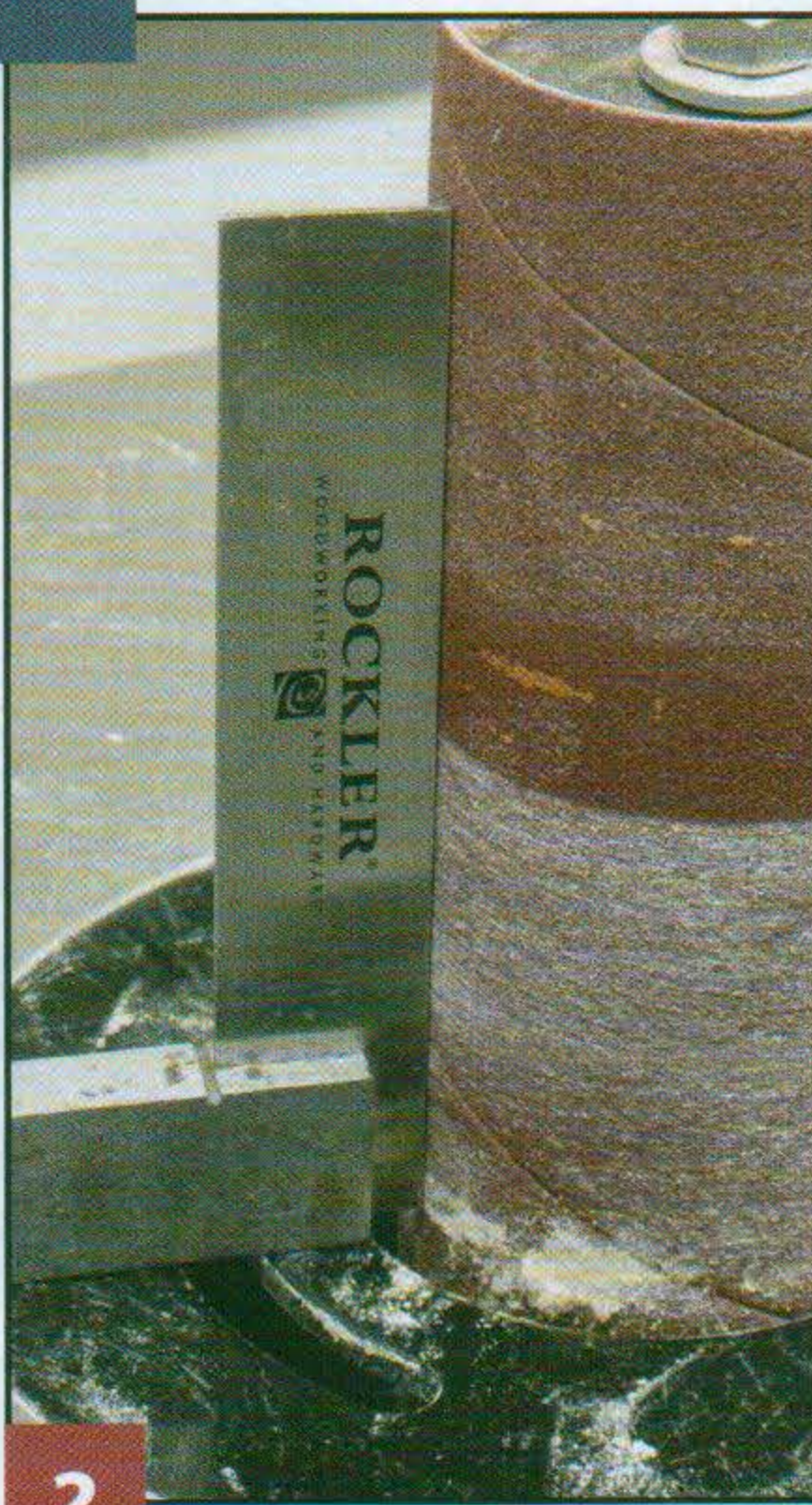
Getting Started

Cover the wood for the two supports with blue painter's tape and attach a copy of the pattern to each piece using spray or stick adhesive. Be sure to align the straight bottom edge of the pattern with the bottom edge of the maple, running with the grain.

MAKING THE SUPPORTS

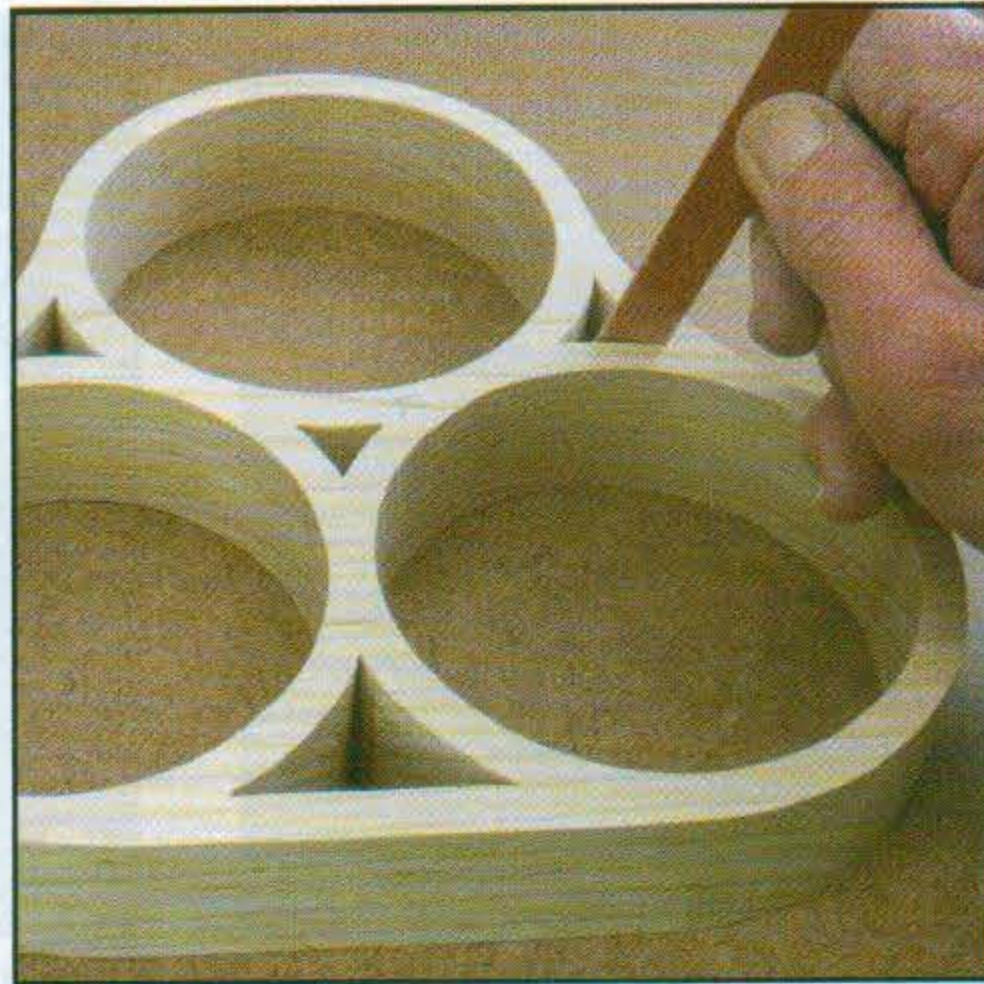
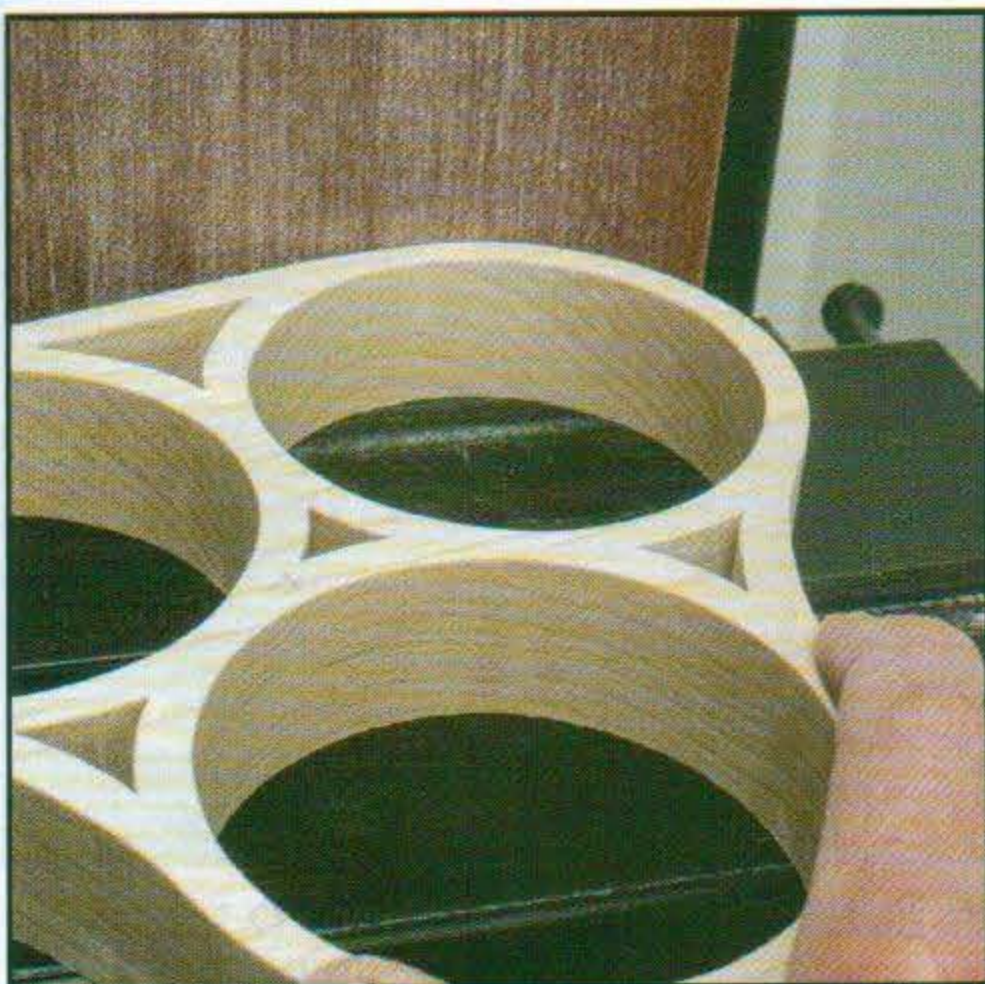


1 Cut out the pieces. For each support, use a drill press and $\frac{1}{8}$ " (3mm)-dia. bit or smaller to drill blade-entry holes inside the three circles and the four triangular shapes. Use a #7 skip-tooth blade to cut along the outer profile. Then cut out the circles and triangles.



2 Sand the incurving areas with a spindle sander. Before you start, make sure that the spindle and spindle sander table are perpendicular to each other. Mark the top face of each support and keep this orientation as you sand. Begin with the inside of the circles to remove blade marks and other irregularities. Check your progress by running a finger around the inside of the circles to detect flat or uneven areas, and then remove them. Sand the incurving areas of the outer profile. You'll sand the outcurving and straight areas in Step 3.

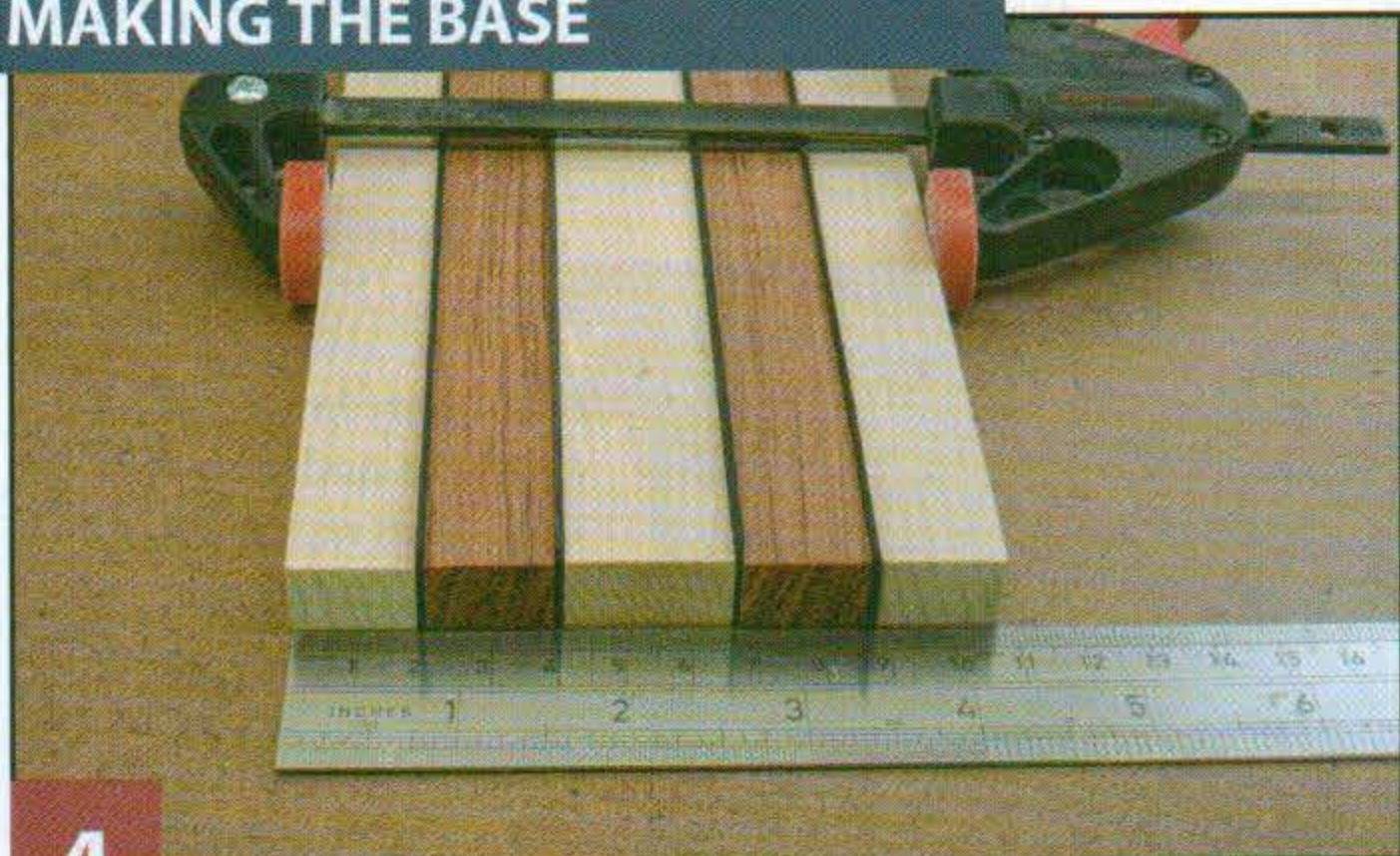




3

Complete the sanding. Check that the table of the belt sander and its belt are perpendicular. With the top face up, sand the flat bottom of each support. Continue into the outcurving area at each end to form a smooth curve. Sand the remaining outcurving areas, blending them into the incurving ones. Use the spindle sander, if needed, to smooth the transition points. Then sand the inside of the triangles; an emery board works well. Soften the edges by hand or with a 240-grit mac mop, and then sand all surfaces progressively to 320-grit.

MAKING THE BASE



4

Check the width. Assemble the base pieces in the following order: $\frac{3}{4}$ " (1.9cm) maple, veneer, bubinga, veneer, 1" (2.5cm) maple, veneer, bubinga, veneer, $\frac{3}{4}$ " (1.9cm) maple. Clamp them together and measure the width. If the assembly is wider than 4" (10.2cm), remove equal amounts of wood from the outer pieces of maple, or from all four side strips, to reduce the overall width to 4" (10.2cm); I used a drum sander for greater control.



5

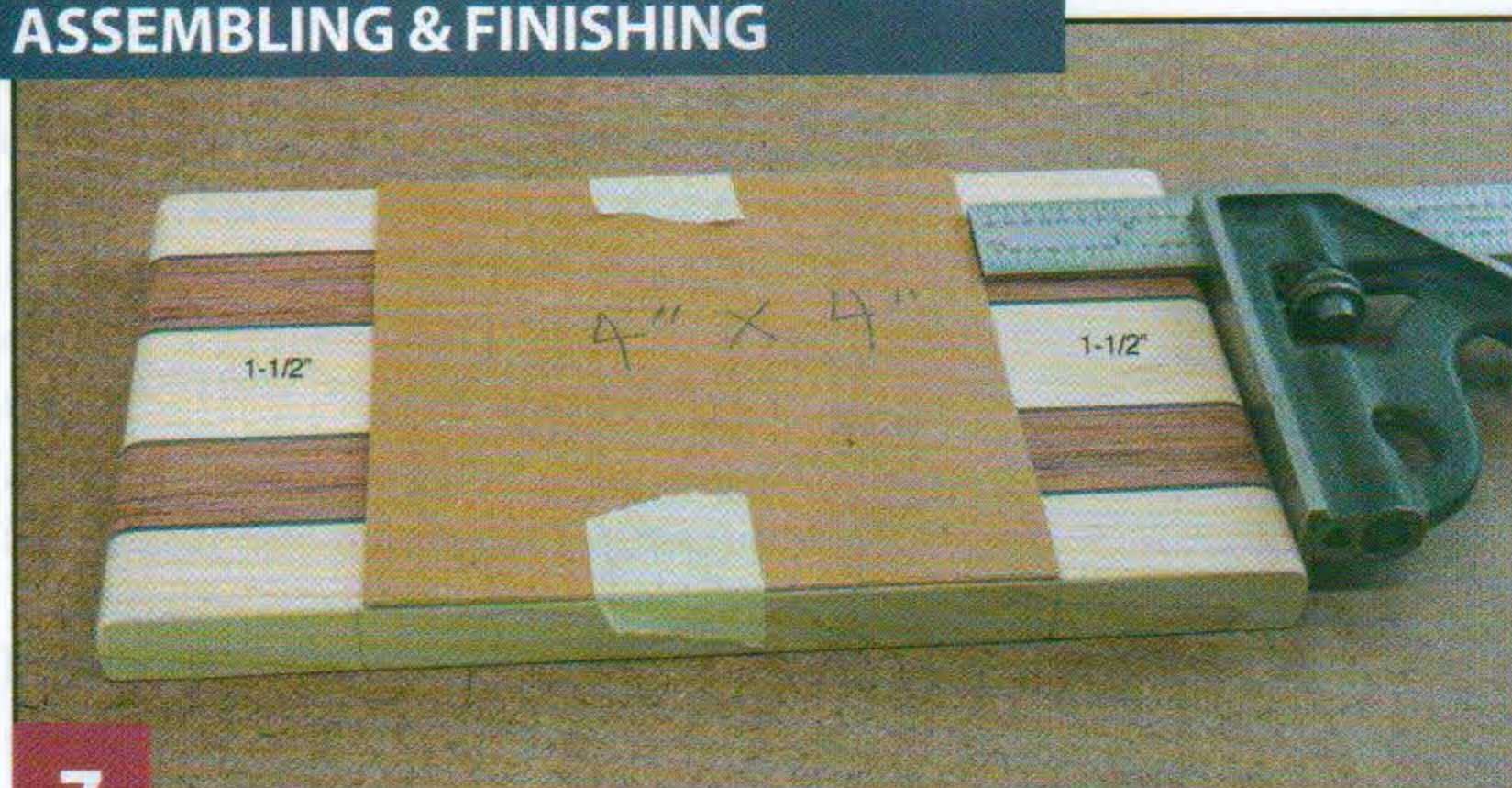
Glue up the strips. A shop-made gluing jig is helpful for keeping the ends of the strips aligned and their bottom faces even. For greater control, glue the strips together in two stages. The first stage consists of the center maple strip, two pieces of veneer, and the bubinga strips. Start with the center strip and glue on the pieces one at a time. Keep the ends as even as possible and be sure each piece is fully seated. Clamp the pieces; I used three small clamps. Clean up as much squeeze-out as possible. Once the glue has set, add the remaining veneer and side maple strips in the same manner. Let the assembly dry completely. Sand the upper and lower surfaces until smooth and even. I used a SandFlee® to obtain a flat bottom surface, and then switched to a drum sander to sand the top and ensure that the glued-up piece was the same thickness throughout.



6

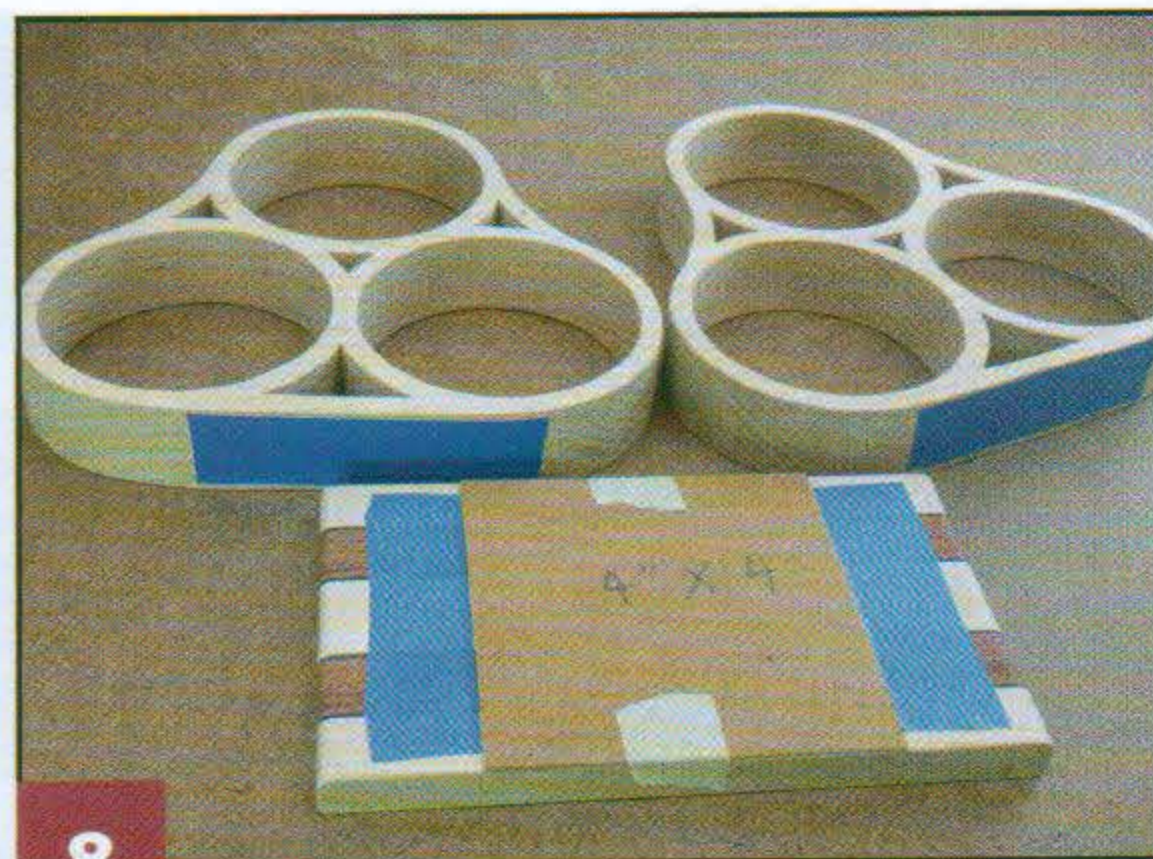
Complete the base. Trim one end of the base so that all components are even. Mark the other end 7" (17.8cm) from the first and cut the piece at that point. Use a belt sander to soften the upper edge at both ends. To do this, hold the piece perpendicular to the table, long side down, and pivot the upper edge against the belt. Repeat until you achieve the desired curvature, checking frequently for evenness. *Note: I recommend practicing the motion with a scrap of similar width and density. If you prefer, you can get the same effect with a pneumatic drum, or simply soften the ends by hand.* Soften all edges with a 240-grit mac mop or by hand, and then sand all surfaces progressively to 240-grit. If you used a belt sander to curve the ends, be sure to remove any cross-grain scratch marks.

ASSEMBLING & FINISHING



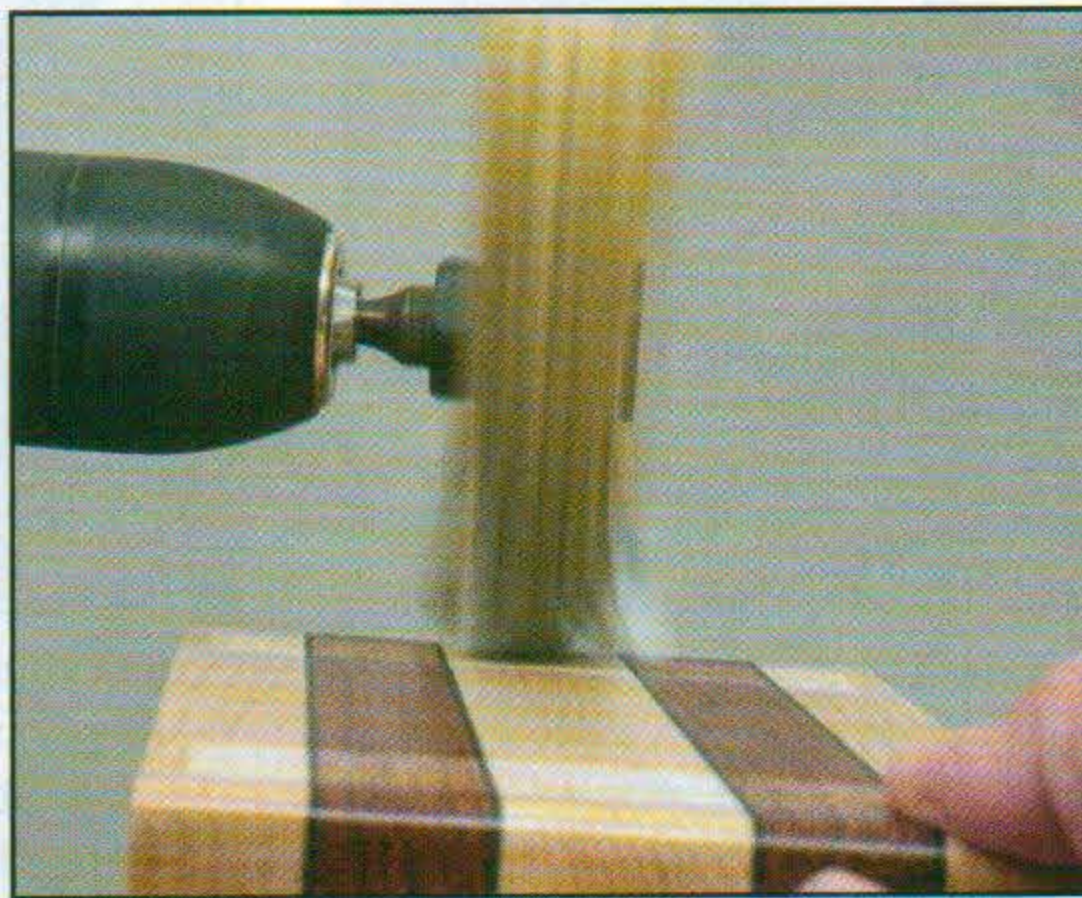
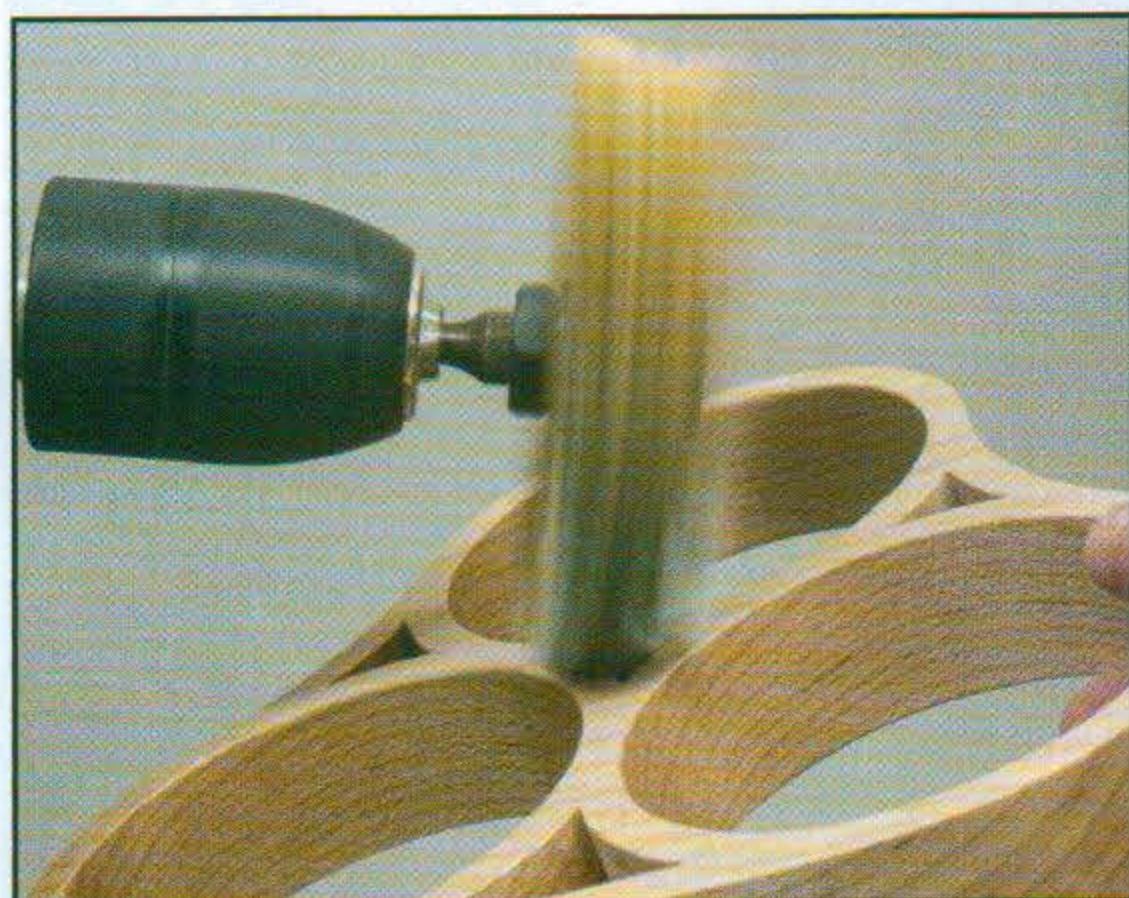
7

Position the supports on the base. Cut a thin cardboard template measuring 4" (10.2cm) square. Center the template on the base, taping it at the sides to secure its position. There should be 1½" (3.8cm) of wood between the edge of the template and the end of the base. Position the supports on the base with their inner edges against the template; you should have about ¾" (1cm) protruding at each end. Remove the supports, but leave the template in place.



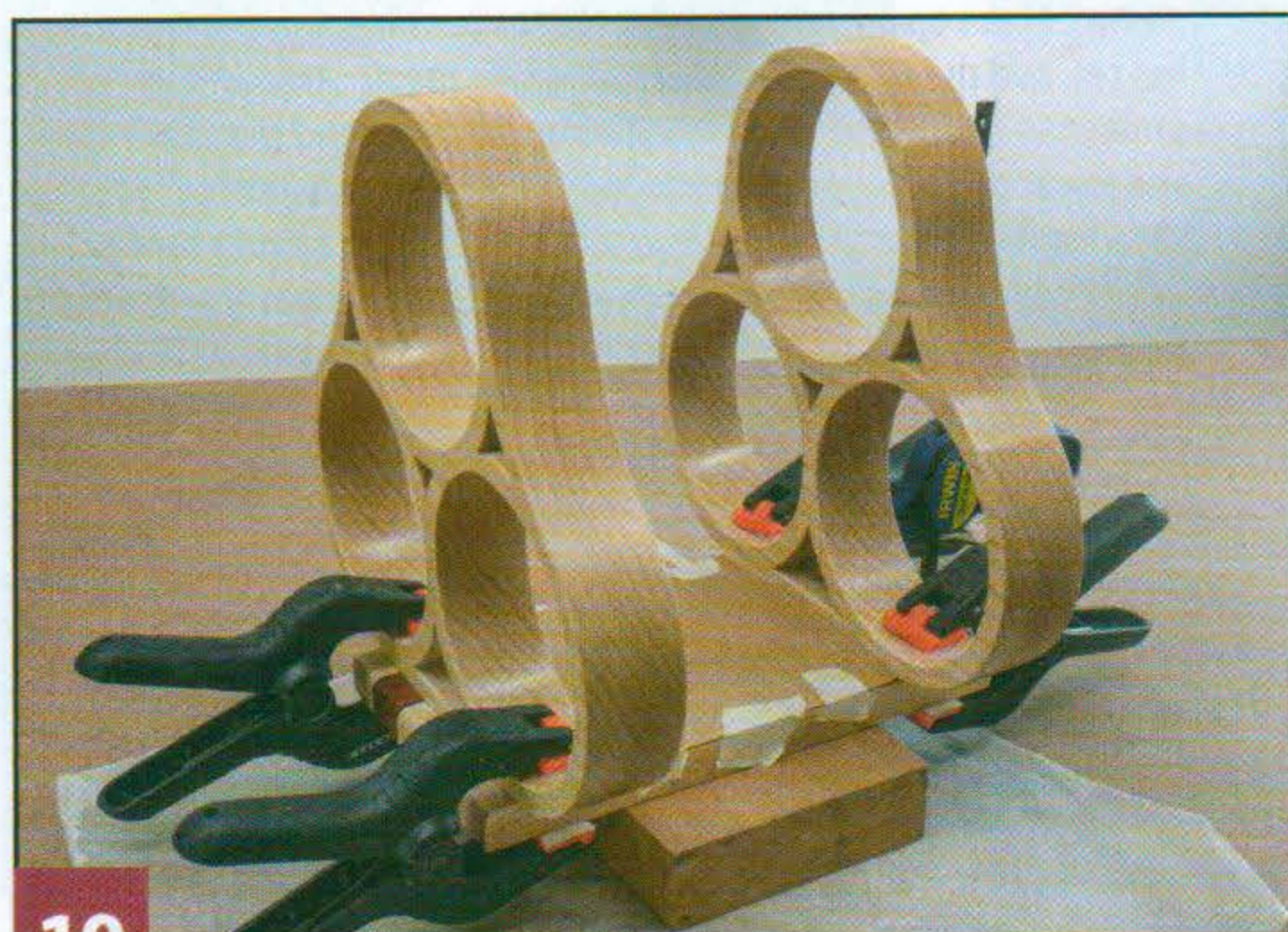
8

Mask the gluing areas. Apply a 1" (2.5cm)-wide strip of blue painter's tape to the flat underside of each support. Then apply a 1" (2.5cm)-wide strip of blue painter's tape across the base adjacent to each side of the cardboard square. Remove the cardboard and save it for Step 10.



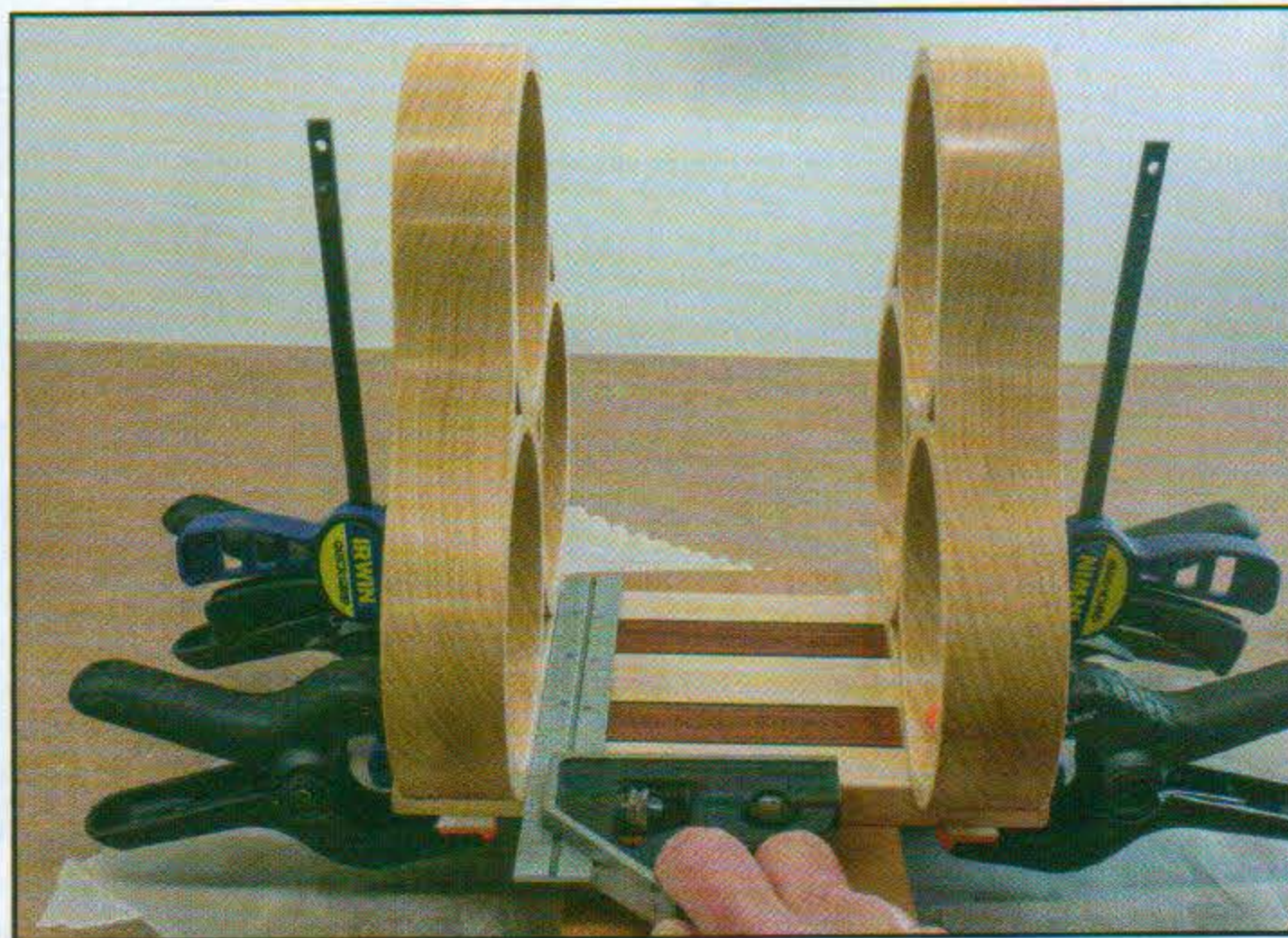
9

Apply finish to the supports and base. Seal all surfaces with shellac, and then sand them smooth with 320-grit sandpaper or a 320-grit sanding mop. Add additional coats of shellac or clear gloss lacquer, rubbing down between coats with the sanding mop or 0000 steel wool.



10

Glue the support pieces to the base. Remove the blue painter's tape from the supports and base, and then sand away any ridges created by the finish. Place and secure the cardboard spacer as in Step 7. Place each support against the spacer, making sure each is centered on the base. Working one at a time, apply a thin, even coat of glue to the gluing surface of the support and the base. Position the support and clamp it into place. When both supports are attached, remove the spacer and check that the supports and base are perpendicular. Remove squeeze-out with a toothpick and damp paper towel. Let the glue dry completely. Insert three of your favorite bottles and admire your work.



Wine Bottle Holder Pattern

© 2021 Scroll Saw Woodworking & Crafts



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 Scroll Saw Wooden Bowls: Revised & Expanded Edition, at foxchapelpublishing.com.

Materials & Tools

Materials

- Wood, such as maple, 1 $\frac{1}{8}$ " (2.9cm) thick: supports, 2 each 8" (20.3cm) square
- Wood, such as maple, $\frac{1}{2}$ " (1.3cm) thick: base stripe, 1" x 7 $\frac{1}{2}$ " (2.5cm x 19.1cm)
- Wood, such as maple, $\frac{1}{2}$ " (1.3cm) thick: base stripe, 2 each $\frac{3}{4}$ " x 7 $\frac{1}{2}$ " (1.9cm x 19.1cm)
- Wood, such as bubinga, $\frac{1}{2}$ " (1.3cm) thick: base stripe, 2 each $\frac{3}{4}$ " x 7 $\frac{1}{2}$ " (1.9cm x 19.1cm)
- Veneer, black: base stripe, 4 each $\frac{1}{2}$ " x 7 $\frac{1}{2}$ " (1.3cm x 19.1cm)
- Tape: blue painter's
- Adhesive, such as spray or stick
- Wood glue, such as Weldbond®
- Thin cardboard
- Shellac: spray
- Spray lacquer (optional)
- Sandpaper: assorted grits to 320
- Steel wool: 0000 (optional)

- Toothpicks
- Paper towels

Tools

- Scroll saw with blades: #7 skip-tooth
- Drill with bit: $\frac{1}{8}$ " (3mm)-dia.
- Shop-made gluing jig
- Emery board
- Clamps

- Sanders: orbital (optional), belt, drum
- Spindle sander: 2" (51mm)-dia. spindle
- Mac Mop: 240-grit (optional)
- Sanding mop: 320-grit (optional)
- SandFlee® (optional)
- Pneumatic drum (optional)

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

Student in Training

Jimmy DiResta talks shop tips, machine hoarding, and problem-solving as a way of life

By Kaylee Schofield

For lifelong maker Jimmy DiResta, woodworking isn't just a fun hobby; it's at the heart of everything he does. From regularly churning out YouTube tutorials and podcasts to his current role as Woodshop Master on NBC's primetime competition show, *Making It*, Jimmy has built a career out of problem-solving in the workshop—and passing on what he knows with a warmth and good humor you can't help but respond to.

SSW: What led you to woodworking?

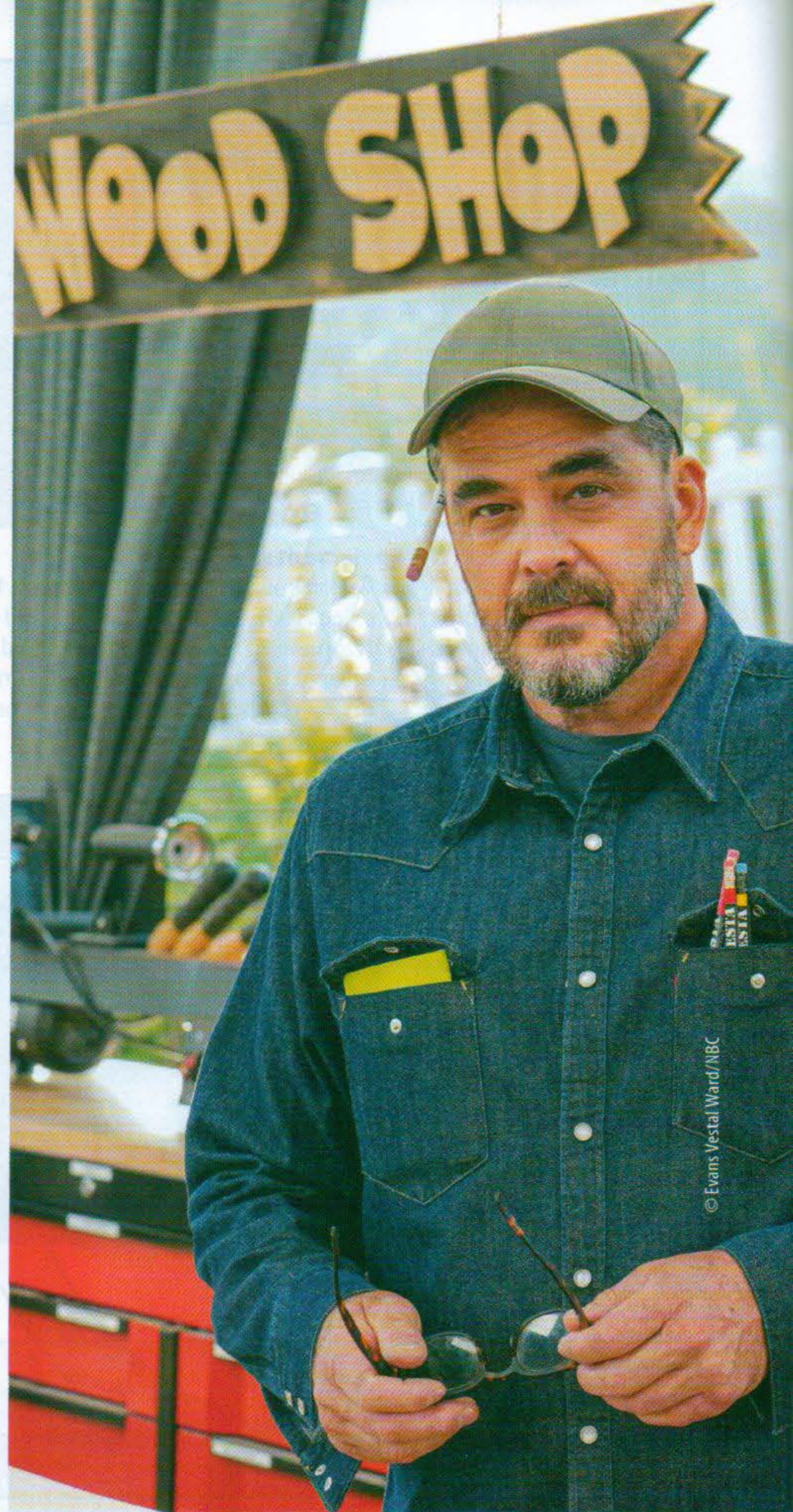
JD: I grew up in a shop with my father, and I naturally gravitated toward woodworking because it was in my environment. I have two older brothers and one younger sister, and we were all exposed to it. Now we all make—one way or another. But for me, the workshop is where I feel completely at home, and I've never left. I knew playing sports would be a waste of my time, and I always felt much more at ease in the shop, even from a young age. I use the same five or seven chisels constantly, and those are the tools my dad bought me when I was around seven years old.

SSW: You're a jack-of-all-trades—you've done carving, furniture making, resin work, and leatherworking.

Do you have a favorite kind of making?

JD: I really love blacksmithing and machining—anything that's a new challenge. I just bought a kiln and a bunch of pottery supplies. It's another way for me to apply my woodworking skills to something new. Early on, I did a video where I used the table saw to make nice parallel cuts in leather, and people said, "I wouldn't think to use the table saw to cut leather!" Growing up with my foundation of woodworking, I apply it to everything I can think of.

There's a method of working with clay called hand-building, which means anything outside the rotating wheel. I laid out a bunch of material with the rolling pin and cut it all up, and the whole time I worked, I just imagined that it was layers of plywood. In my mind, I approach it just like I would package design with paper,



wood, or metal. Spending years designing, developing, and making things with wood, it's really important to understand what is going to cover what, which part of what joint is going to show, and which part of which joint is going to be disguised. It goes back to the old adage, "What makes a good woodworker? Somebody who's really good at covering up his mistakes."

SSW: Tell me about your role as Woodshop Master on the show.

JD: It's funny because Nick Offerman is on the show, and people always say that to him—"You're a master woodworker." He's like, "I'm not a master woodworker, I'm a student in training." And I feel the same way. I'm skilled,

Five Easy Shop Hacks from Jimmy

but there are people I would consider to be the best; I don't fall nearly into that category. I ask the contestants to call me the shop teacher. That's really where I feel at home, showing people how to do things in the shop.

My father taught me so many tips when I was in my formative years—old-school ways of doing certain things and tricks he learned from *his* grandfather. So I still have those right on the surface. Working on the show has been a great opportunity for me to see what I know. And you don't know what you know (or don't know) until you have to teach it. Whenever I see an opportunity, the contestants and I learn how to do something new together.

SSW: Do you have a short list of tools that every woodworker should invest in when they start?

JD: Find a band saw and a table saw with a crosscutting sled (get one or make one out of MDF and 2x4s; it's a great starter project and you can nail jigs to it if you're going to be cutting at an odd angle over and over again). The table saw can become the heart of any workshop. I also highly recommend a SawStop, because I nearly cut my pinkie off 11 years ago even after a lifetime of experience and 24 years on my saw.

I collect old machines, too. They're very tactile, very responsive. It can feel like you're the steward of this object, like an episode of *The Twilight Zone*—when the band saw dies, I'm gonna die.

SSW: You work with experienced makers on the show, but not everyone is an experienced woodworker. Are there common woodworking mistakes that you see?

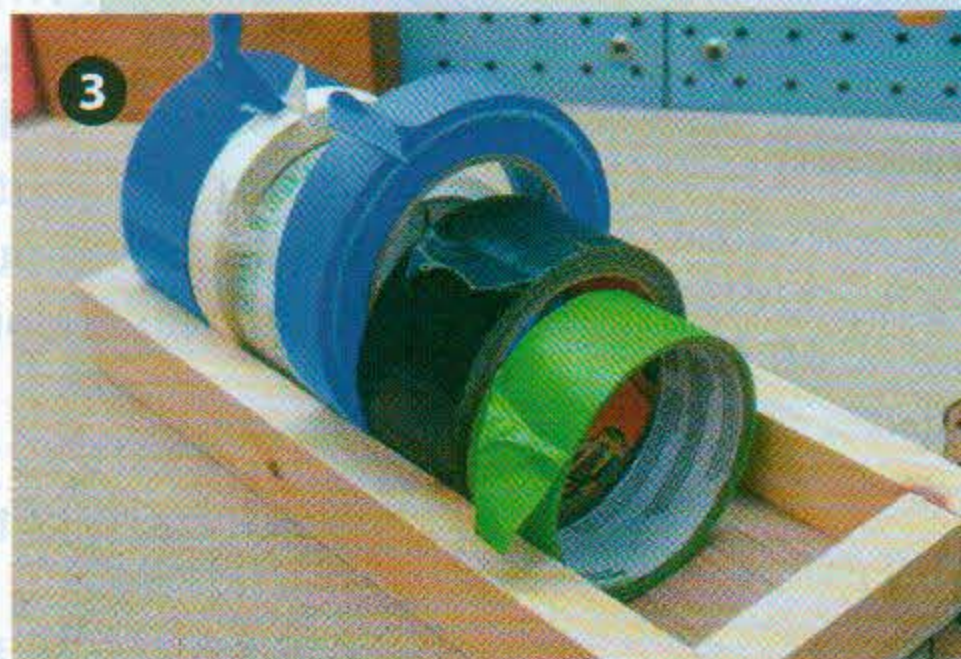
JD: We tend to use dowels on everything. There's a big bucket of various diameters of doweling. Something that's very important is that if you're going to cut a rounded object, especially a big one, hold it with a clamp because that rotating blade comes down, and it wants to pull everything into the table. A lot of times, people want to cut balls in half; that's another craft item. So always secure whatever it is you're cutting. I use screw clamps; I love them and I use them for everything.



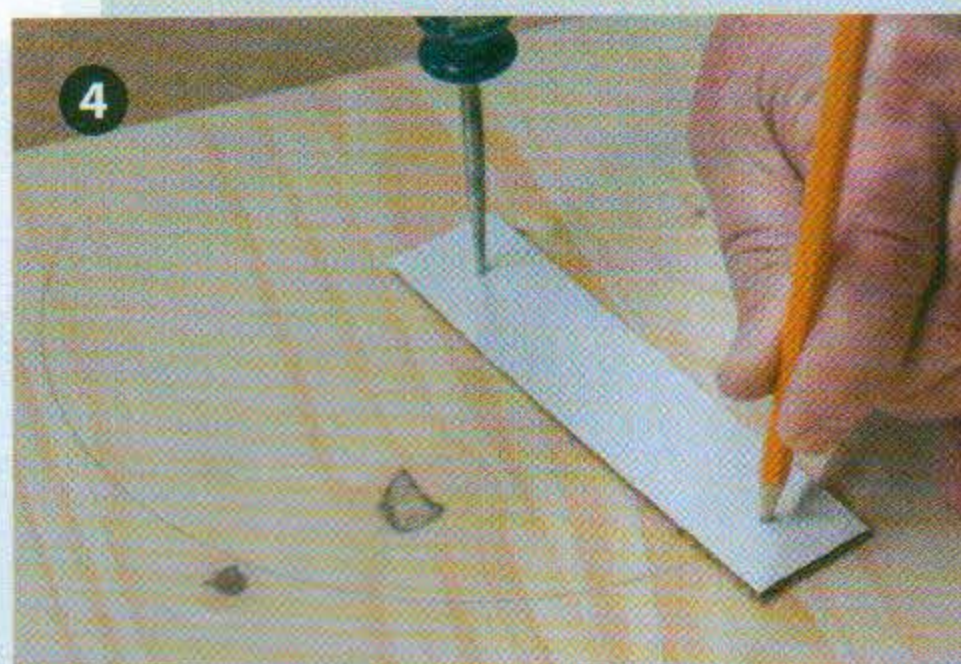
1. Make a poor man's oscillating sander by attaching basic sanding drums to a drill press. Rotate the drill head vertically while moving the workpiece to smoothly sand the side of any curved project.



2. You can make your hand drill much more useful by giving it a flat top. This way, if you're assembling something with square sides, you can brace one side of the drill against the wood to ensure perfectly parallel holes every time. I used scrap wood and hot glue, so I can detach and reattach these pieces again and again.



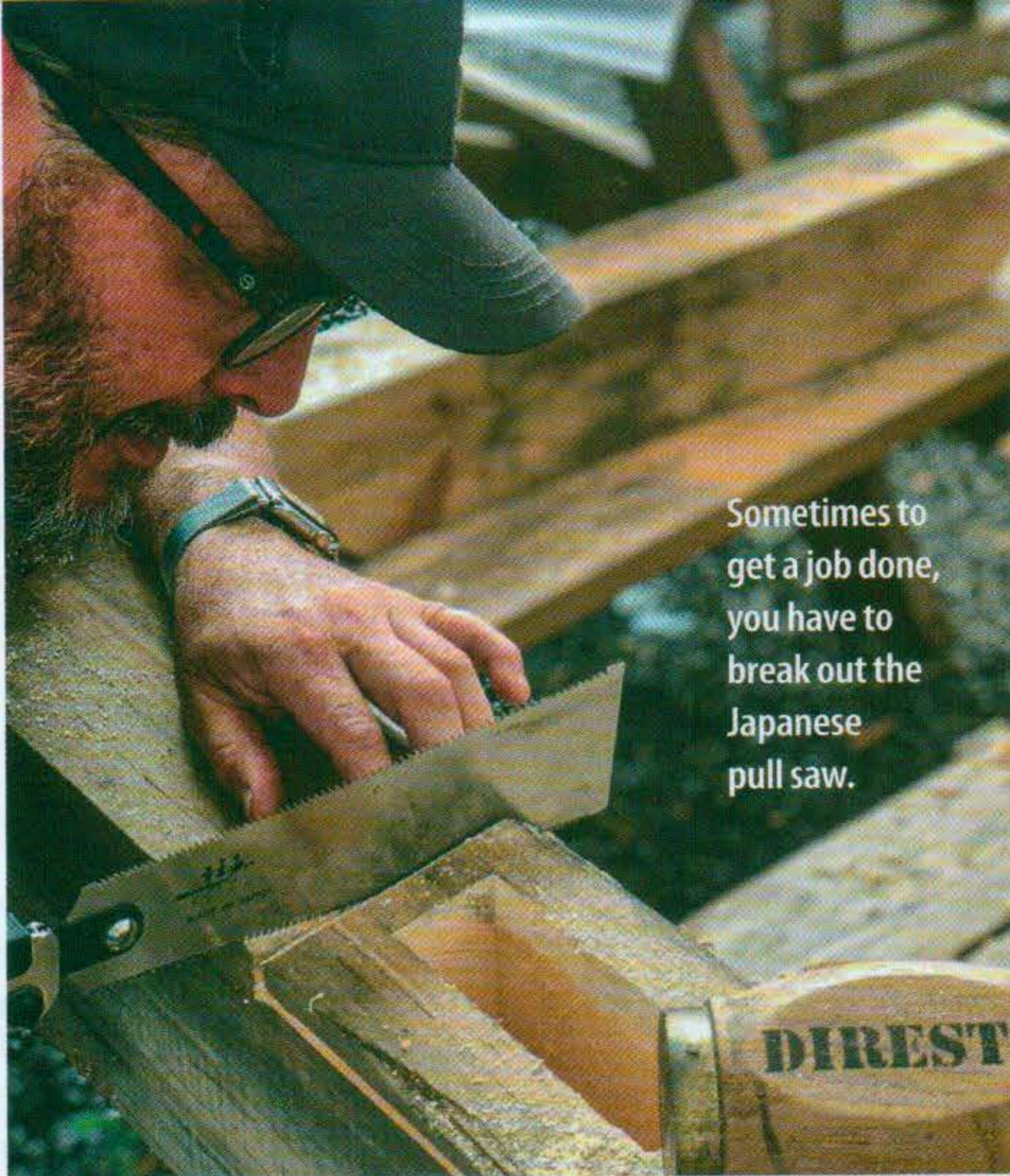
3. If you have lots of tape rolls lying around and want to keep them organized and accessible, make a simple tray caddy from scrap wood and hot glue. Then fold the very end of each roll over before replacing it to save time later.



4. If you don't have a compass, you can make perfect circles on wood blanks using just an ice pick or awl and a scrap piece of cardboard. Mark the desired radius of your circle on the cardboard, and then lightly stab the tool through the cardboard at one end of the line. Spin the cardboard around the spike, holding a pencil in place to create a consistent mark.



5. To create durable, cheap hangers for wall art, all you need is screws, craft wire, and a drill. Sink a screw into your work surface. Measure two strands of craft wire a little over twice the length of the finished piece, and then fold them in half, looping the fold over the screw and pulling the four strands of wire tight. Wrap the other end tight and spin it with the drill until you have a full cable.



Sometimes to get a job done, you have to break out the Japanese pull saw.

SSW: What is your shop space like?

JD: I have two. One is a "fantasy" shop in my backyard. It's 2,600 square feet and has a 20' high ceiling in preparation for a second floor one day. My team and I built it from scratch—clapboard on the sides and long planks inside. I like to keep it lean and neat. It's really a dream come true, and it's been a labor of love. And I rent a 5,000-square-foot shop down the block—which is full of most of my machinery. Remember I said I was a machine hoarder?

I don't travel too much outside of work, and I don't like fancy cars or fancy vacations. I just put all my money into what I do.

SSW: There seems to be a tie between animals and woodworking. Do you have a designated shop animal?

JD: I do! We have four cats who sometimes work their way into the shop. We also have chickens, turkeys, and three dogs—a big dog, Bear, and two Yorkies, Pepper and Chippy, one with black fur and one who looks like the Wookiee from *Star Wars*. Then my girlfriend Taylor owns a horse, which is big, beautiful, and scary.

SSW: It's interesting that horses make you nervous, but band saws and table saws don't.

JD: They don't kick and bite.

SSW: You often talk about the importance of building a problem-solving arsenal. How has that come into play for you?

JD: Right now I'm building an enclosed trailer, and one of my assistants was just asking me, "Isn't this a really big job?" I said, "No, it's a lot of little jobs all in the same spot. Building these walls, that's a job. And covering those walls, that's another job." Let's say we want to build a big milk carton. We make it in paper first so we understand

the relationships of the sides, and it starts to be less daunting. If you're planning a big trip, you might think, "There's so much I have to do!" I say, "Let's just worry about getting there." That's really all you have to do right now. And when you get there, you can go to the next lily pad, and from there, to the next one.

SSW: What advice do you have for woodworkers who are looking to break into the business? Woodworkers who are just starting out?

JD: If you want to make money with it, it's important to have an online library of your work, because when someone wants to hire you for something, you want to show what you can do. Put your work on Instagram, Pinterest, or Facebook. If you include something you built for your wife, your mother, your cousin—don't tell anybody that. Just say, "Look at the things I've built." And take pride in your pieces. We tend to say, "Well, I made this book, but there's a scratch here." You show somebody and immediately point out everything that's wrong with it. It kind of takes away from the significance, because you think they're not going to judge you as harshly. But try and get over that fear—I still struggle with it, too—and you'll start to build your confidence as someone who makes things to fulfill people's needs.

Most importantly, just put up everything online that you're proud of and get good photography if you can. Just start putting stuff out there. Everybody's always worried about getting perfect before they publish. Just start publishing and you'll get perfect in the process.

SSW: You're your own worst critic a lot of the time.

JD: 100% of the time.

For more on Jimmy's work, visit jimmydiresta.com.



To keep your shop more orderly, repurpose used denim jeans into simple tool caddies.

Musical Stocking Stuffers

You've seen kazoos—you've seen ukuleles—but this humorous hybrid leaves them all in the dust

By Daryl Webb

One evening, at a meeting for my ukulele club, several members suggested using kazoos as accompaniment during performances. The word Kazukulele® (kuh-zook-oo-lay-lee) popped into my head. Why not make a kazoo shaped like a ukulele? The only design requirement for a Kazukulele® is that there be a place for air to go in, pass a diaphragm of waxed paper, and go out. I included several design variations in this article to show how versatile the project is.

The patterns included on page 49 can be used to make all four variations (see Exploded Drawings on page 48). The letter key indicates which patterns should be attached to which layers. The layers without letters will be stack-cut with the layers above them.



Daryl Webb is semiretired, working out of his "man cave" in northeastern Kansas. He has been scrolling for 15 years, turning perfectly good wood into sawdust. Most of his project are toys or

whirligigs, which keep his inner child happy. He plays the ukulele with an enthusiasm equal to his love for woodworking. To see more of his work, visit [Kazukulele on Etsy](#).



Sheet music from *Piano Adventures Christmas Book Level 2B*.
Copyright © Dovetree Productions, Inc.
Used with permission.

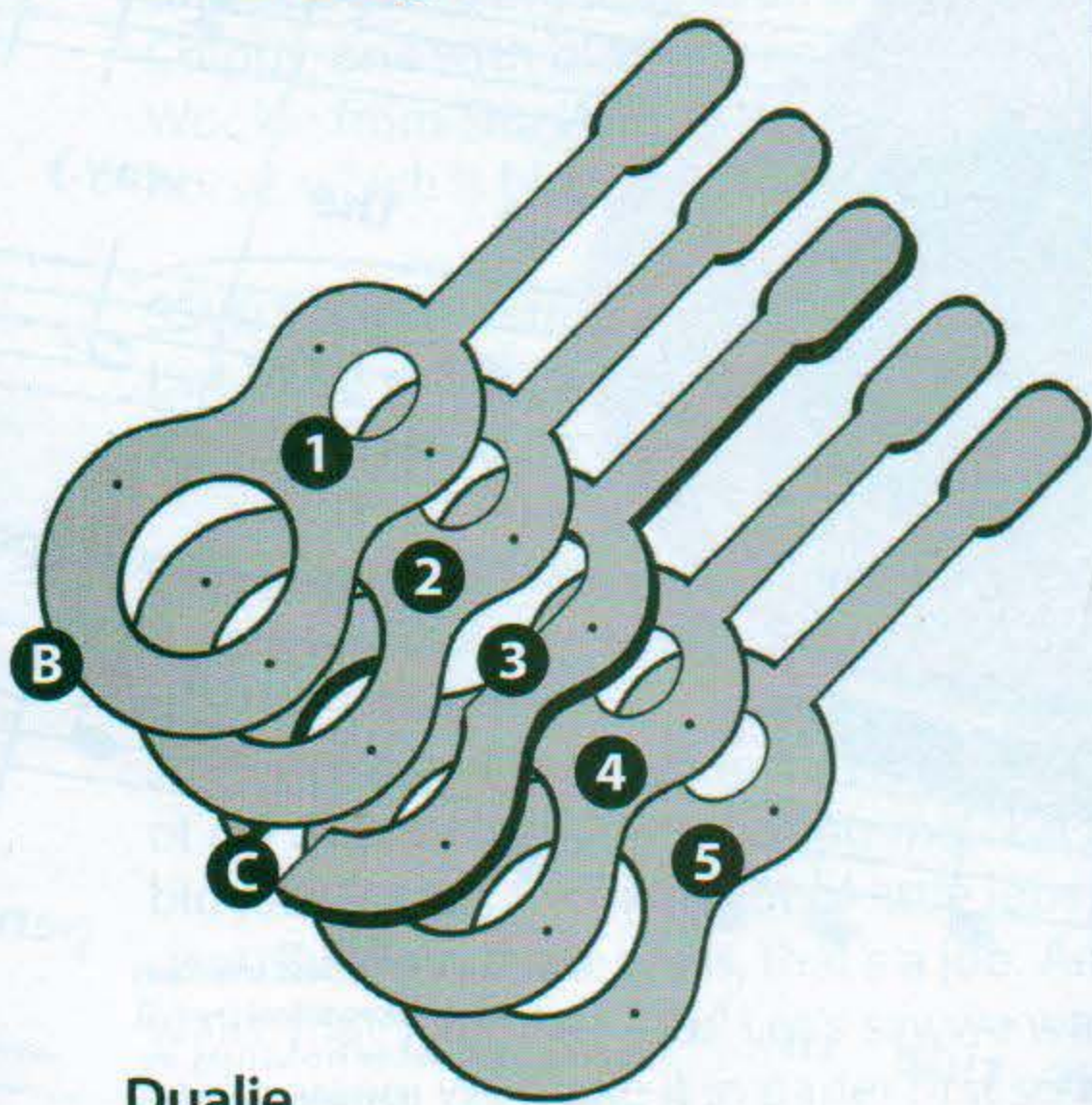
Getting Started

Prepare the blanks for the Dualie version. Hand-sand the blanks smooth, moving up through the grits to 320. *Note: Stacking alternating wood species makes for a nice effect, so decide on the order of layers now. Use 1/4" (6mm)-thick wood for the third layer in each project and 1/8" (3mm)-thick wood for all other layers.*

Stack all five layers, with the grain running vertically, and then secure the edges with blue painter's tape. Attach the pattern directly to the taped top layer.

Add the holes. Clamp the stack securely to the drilling surface. Drill four 1/16" (2mm) pilot holes for the screws. Using a 1" (25mm) Forstner bit, drill the lower hole through all five layers. Then, using a 1/2" (1.3cm) brad-point bit, drill the upper hole through all five layers.

Exploded Drawings



Dualie

Other Versions

The other three variations consist of four layers. Once each version is assembled, treat all exposed surfaces with a food-safe finishing oil and allow to dry for 24 hours.

Lake Pipes

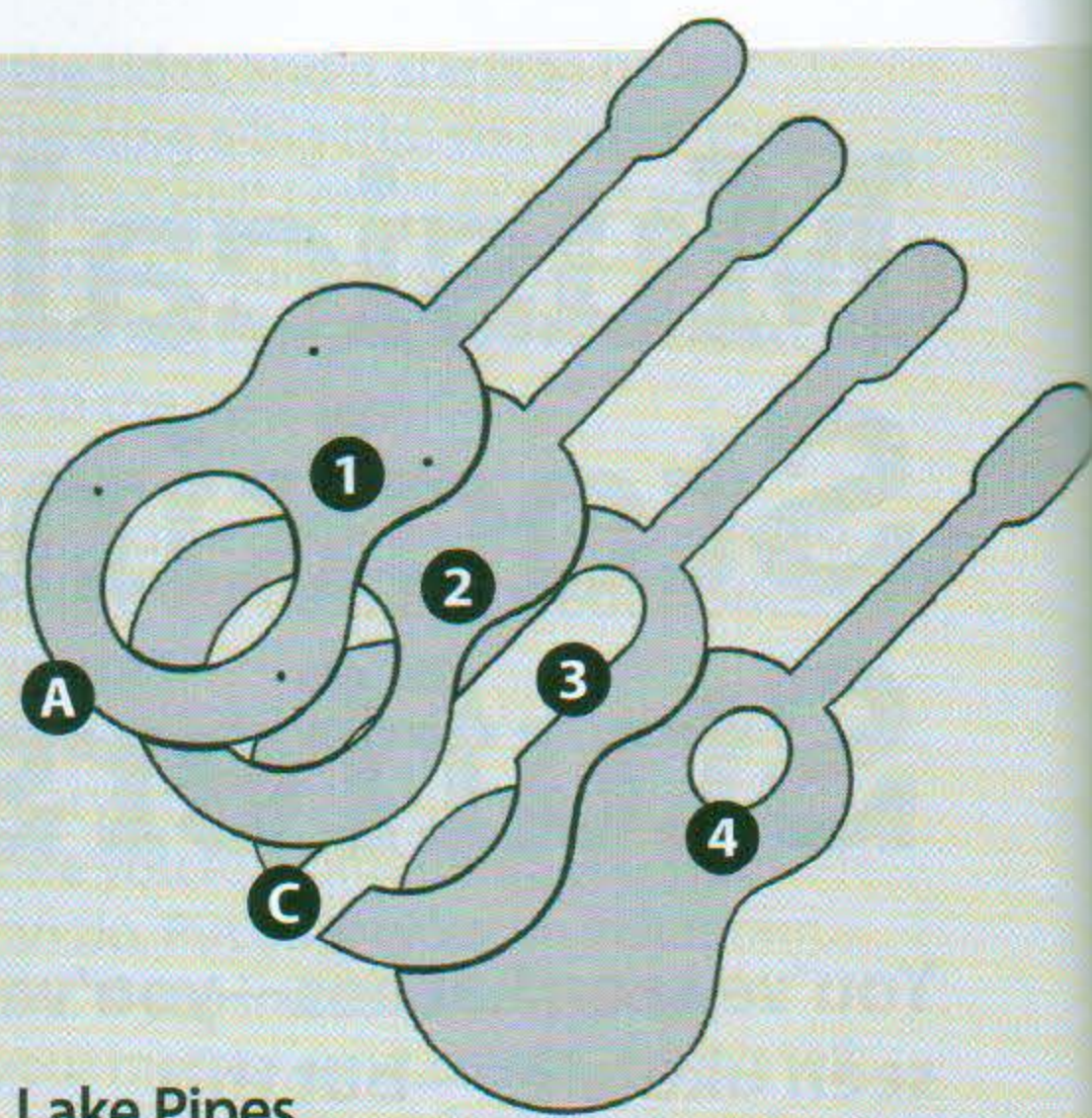
For the Lake Pipes version, bind Layers 1, 2, and 3 with tape, avoiding the underside of the stack. Apply the pattern, and then drill the four 1/16" (2mm) pilot holes for the screws. Then drill the lower 1" (2.5cm) hole through the layers. Attach the bottom layer to the stack. Then cut along the perimeter of the pattern on the scroll saw. Disassemble and bind Layers 3 and 4. Center a 1/2" (1.3cm) hole between the upper pilot holes for the screws. Disassemble the layers, apply Pattern C to Layer 3, and cut the slot in Layer 3. Glue Layers 2, 3, and 4 together, using clamps to align the parts. Attach Layer 1 with screws, placing waxed paper between Layers 1 and 2 to cover the hole.

Straight Pipes

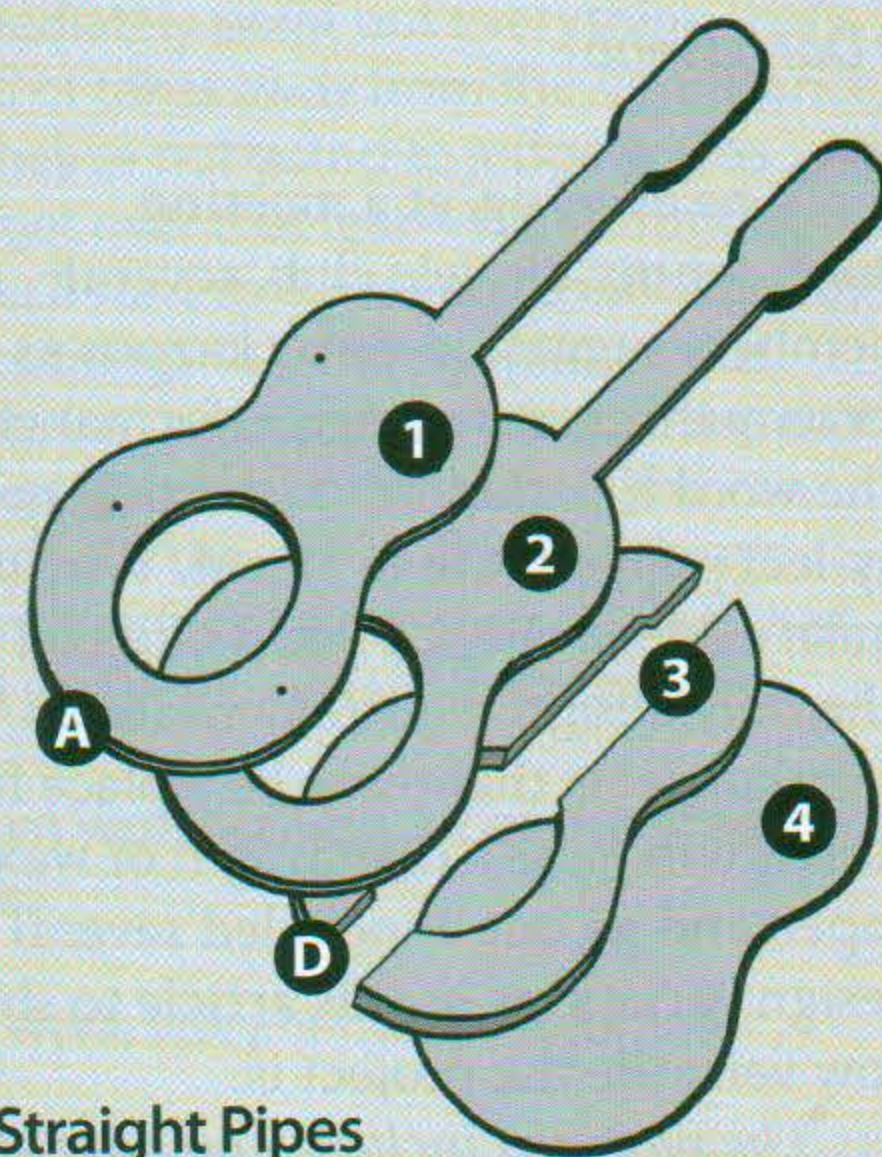
The Straight Pipes version eliminates the hole in Layer 4 by extending the slot in Layer 3 completely through the body, thereby removing the neck. The neck from Layer 4 should also be removed. Otherwise, assembly is identical to the Lake Pipes version.

Straight Pipes Deluxe

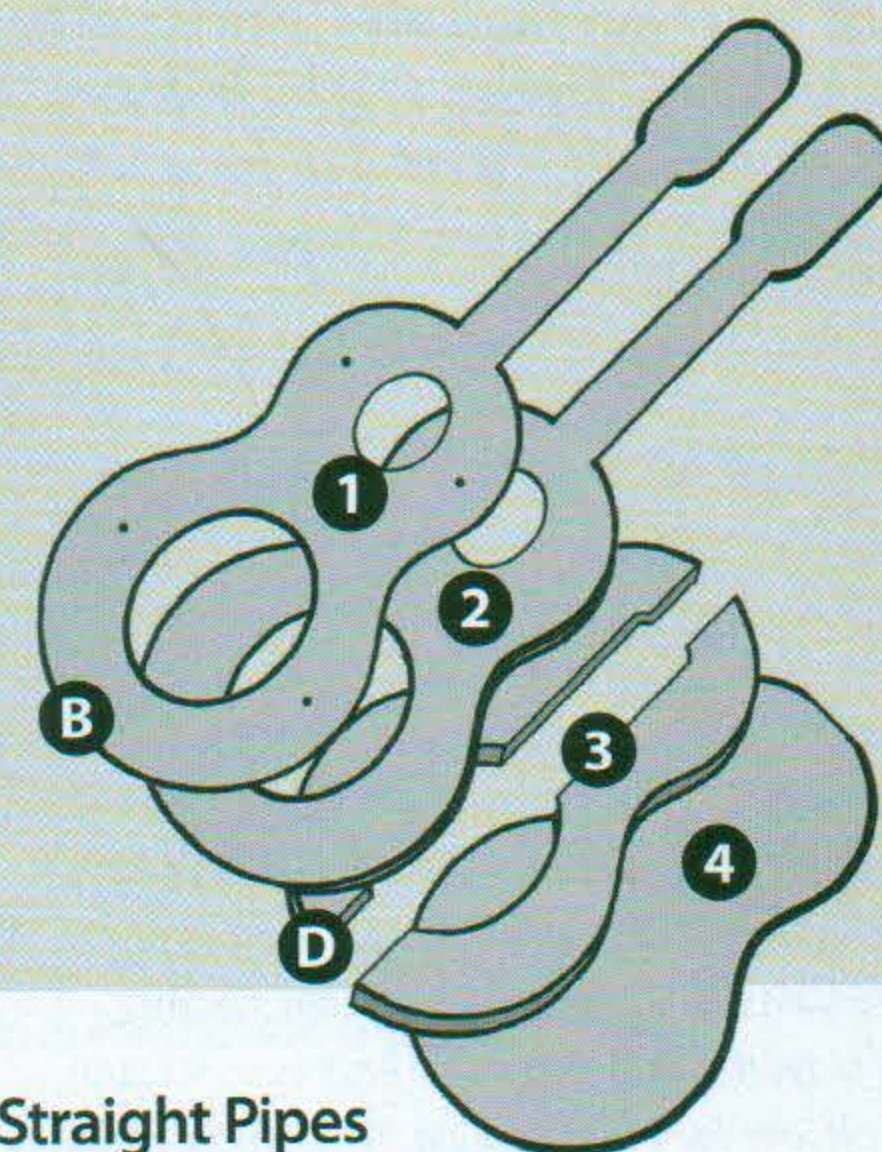
To make the Straight Pipes Deluxe version, follow the instructions for the Straight Pipes, but cut Layers 1 and 2 from the Dualie project (use pattern B for these layers instead of pattern A). Use enough waxed paper to cover both holes.



Lake Pipes



Straight Pipes



Straight Pipes Deluxe

Cutting, Assembling, and Finishing

Cut the perimeter of the stack on a scroll saw. Disassemble the stack, apply Pattern C to Layer 3, and cut the slot in Layer 3. Glue and clamp Layers 2, 3, and 4 together and allow to dry overnight. Once dry, place a piece of waxed paper large enough to cover just the larger hole between Layers 1 and 2. Attach Layer 1 on top of the waxed paper and secure the assembly with screws. Remove any excess waxed paper with a sharp knife. Flip it over and do the same between Layers 4 and 5, covering just the larger hole with waxed paper and securing Layer 5 on top with four more screws. *Note: For the Dualie, which is the only version with screws on both sides, you may have to grind down the ends of the screws on one side of the project before inserting, to avoid running into those on the opposite end.* Treat all exposed surfaces with a non-toxic finish; I used Tung oil.

TIP

SAFE FINISH

Tung oil is food-safe when fully cured. Be sure to let the project sit for around 30 days before use.

Materials & Tools

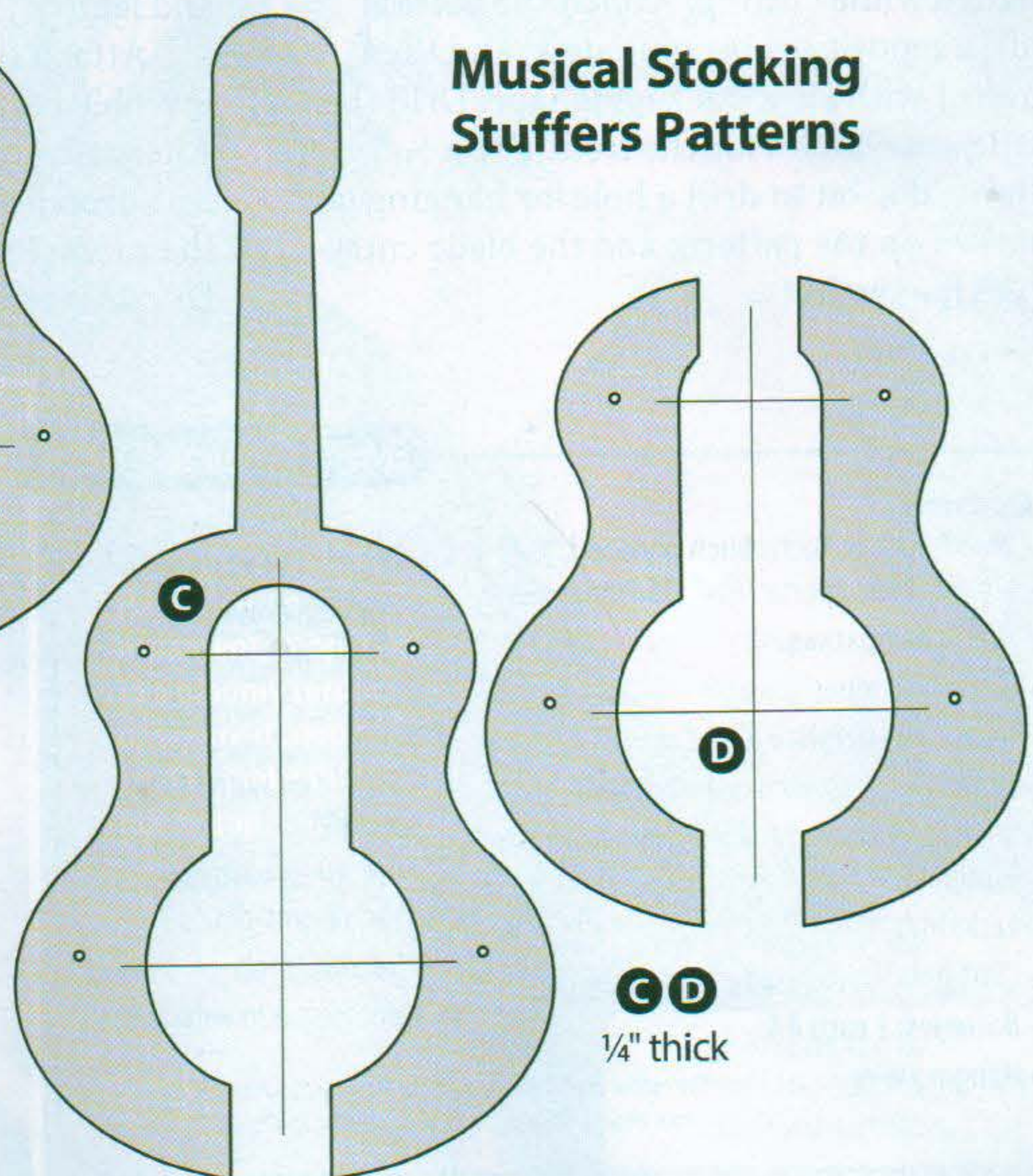
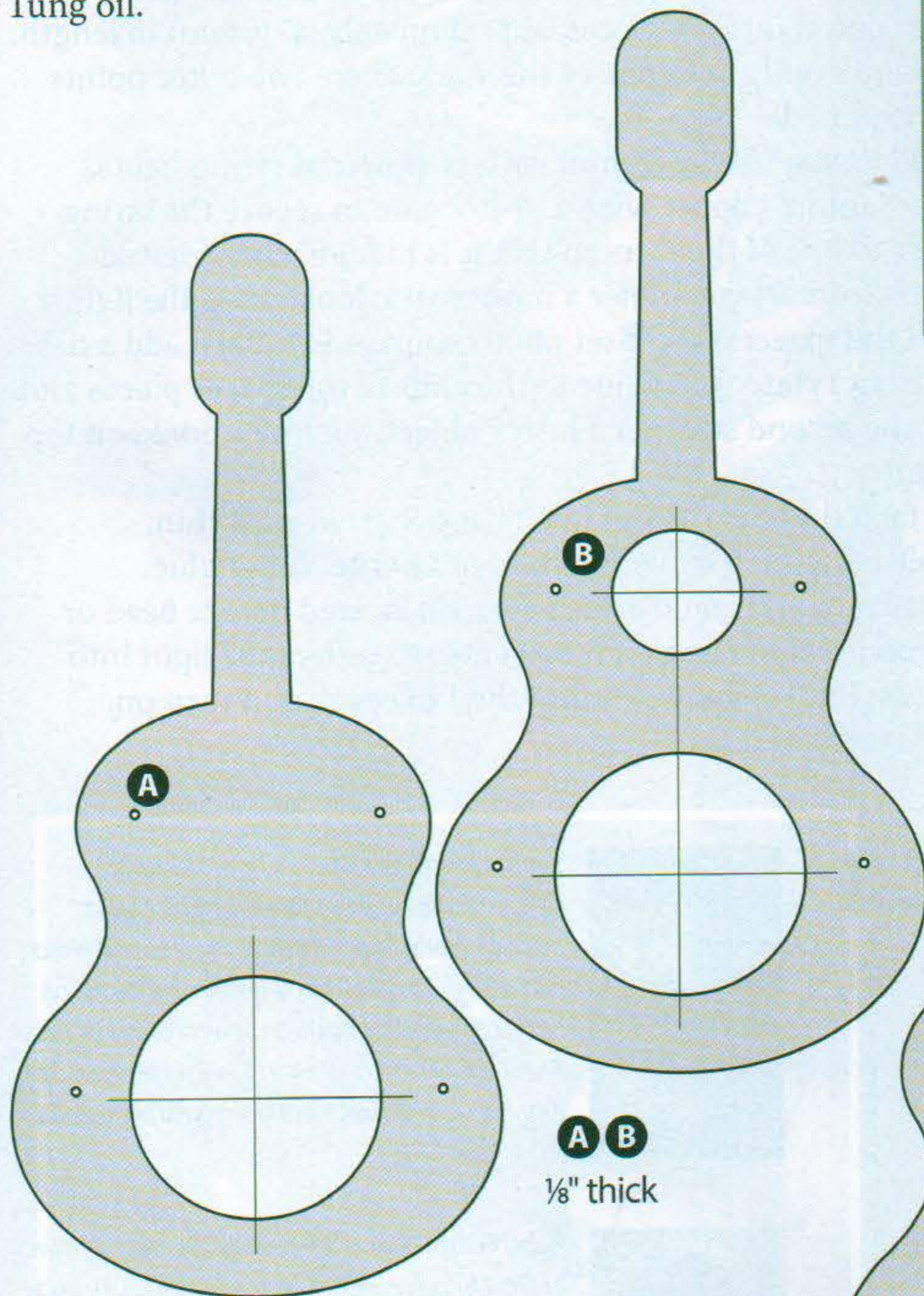
Materials

- Interesting wood, $\frac{1}{8}$ " (3mm) thick: $2\frac{1}{4}$ " x $4\frac{1}{2}$ " (5.7cm x 11.4cm) per layer
- Wood, such as walnut, cherry, or maple, approx. $\frac{1}{4}$ " (6mm) thick: $2\frac{1}{4}$ " x $4\frac{1}{2}$ " (5.7cm x 11.4cm) per layer
- Spray adhesive
- Tape: blue painter's
- Glue: wood
- Waxed paper
- Sandpaper: assorted grits to 320
- Tack cloth
- Screws: #4 flat Phillips head, $\frac{3}{8}$ " (10mm)
- Food-safe finish, such as Danish oil or Tung oil

Tools

- Scroll saw with blades: #5 skip-tooth
- Drill press with bits: $\frac{1}{16}$ " (2mm), $\frac{1}{2}$ " (13mm)-dia. brad-point; 1" (25mm) Forstner
- Clamps
- Knife

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



Musical Stocking Stuffers Patterns

Winter Luminary

Light the way this season with a simple fretwork design

By Beatrix Brockman

Cut by Robert Carpentier

The days are shorter during the winter season, especially in North America and northern Europe. Many of us commute to and from work in the dark. When I was a child, my father built enormous wooden stars (nearly three feet in diameter) out of slats and illuminated them with Christmas lights. Each December, my parents hung one in almost every window of the house and on top of the 30-foot-tall spruce in the backyard, sending light and hope into the neighborhood. I invite you to adopt this practice with a smaller version you can make with Baltic birch.

Getting Started

Prepare the blanks. I stack-cut two pieces of Baltic birch plywood, securing the edges with clear packaging tape to ensure they stay aligned while cutting. Attach the pattern with a repositionable glue stick, and then cover it with clear packaging tape. Drill the blade-entry holes for the frets. Use a $\frac{1}{16}$ " (2mm)-dia. bit to drill a hole for hanging, as marked on the pattern, and the blade entry-holes for the frets.

Cutting, Assembling, and Finishing

Cut the pieces on a scroll saw. Cut out the center star first and set it aside for later. Make the rest of the cuts, working from the center of the pattern outward. Aim for clean point cuts. Start the cut from the top, and then back all the way out, loop around, start the next cut, and repeat. After cutting, sand the pieces with a mop sander, or, if preferred, carefully sand by hand. Leave the luminary untreated or apply stain; Robert used a dark walnut. Then make the spacer pieces. Cut a $\frac{3}{8}$ " (1cm)-dia. wooden dowel into six pieces, approximately $\frac{1}{4}$ " (6mm) in length. Glue them evenly onto one of the stars where two outer points converge. Let dry.

Add lights. Use LED mini battery-powered string lights, such as Sanniu® copper wire. Use hot glue to secure the string of lights to one of the stars so that it is hidden when viewed from the front. If you prefer a more rustic look, wrap the lights around the spacers (see inset photo on page 51). Then add a dab of cyanoacrylate (CA) glue to the ends of the spacer pieces and attach the second star. Set a heavy object, such as a book, on top and let dry.

Attach the star you cut in Getting Started with thin, invisible hanging wire with a bead of Loctite® super glue. Alternatively, you could attach a small, faceted quartz bead or tear drop jewel to dangle in the center to reflect the light into the room. Put AA batteries into the LED pack and turn on. Display as desired.

Materials & Tools

Materials

- Wood, such as Baltic birch plywood, $\frac{1}{16}$ " (2mm) thick: approx. 6 $\frac{1}{4}$ " (15.9cm) square
- Tape: clear packaging
- Glue stick: repositionable
- Glue: cyanoacrylate (CA), Loctite®
- Sandpaper: assorted grits (optional)
- Stain: dark walnut, such as Minwax® (optional)
- Tack cloth
- LED lights: battery-powered, mini
- Batteries: 3 each AA
- Hanging wire

- Jewel or bead (optional)
- Wooden dowel: $\frac{3}{8}$ " (1cm)-dia.

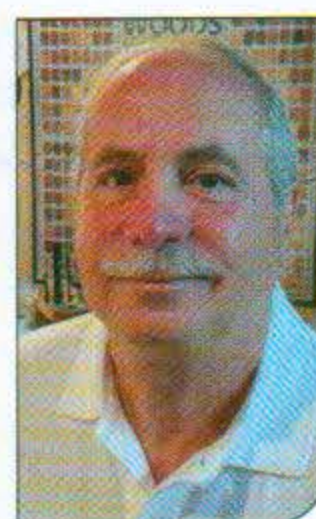
Tools

- Scroll saw with blades: #5 MGT
- Drill press with bits: $\frac{1}{16}$ " (2mm)-dia.
- Sanding mop
- Hot glue gun with sticks

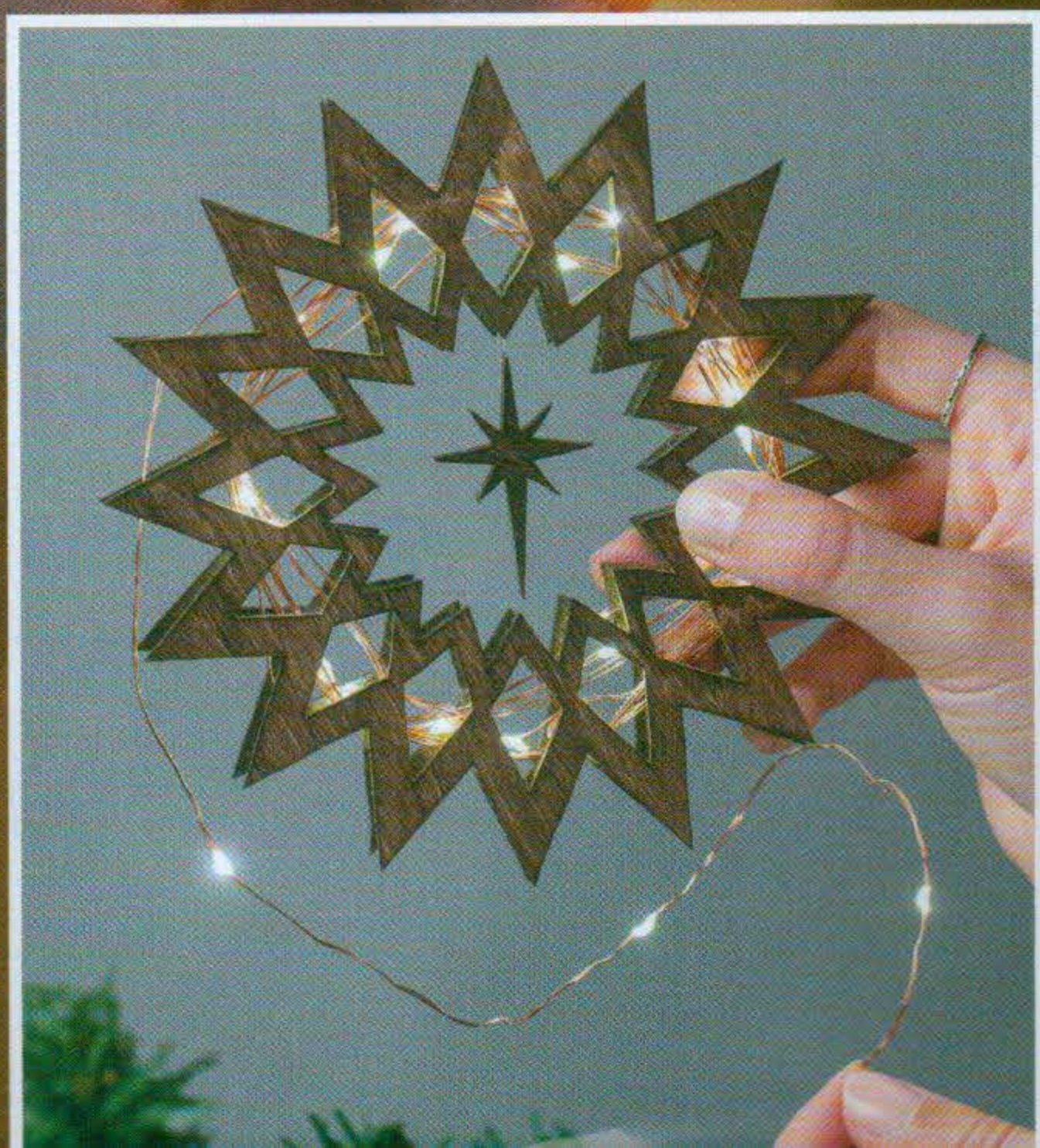
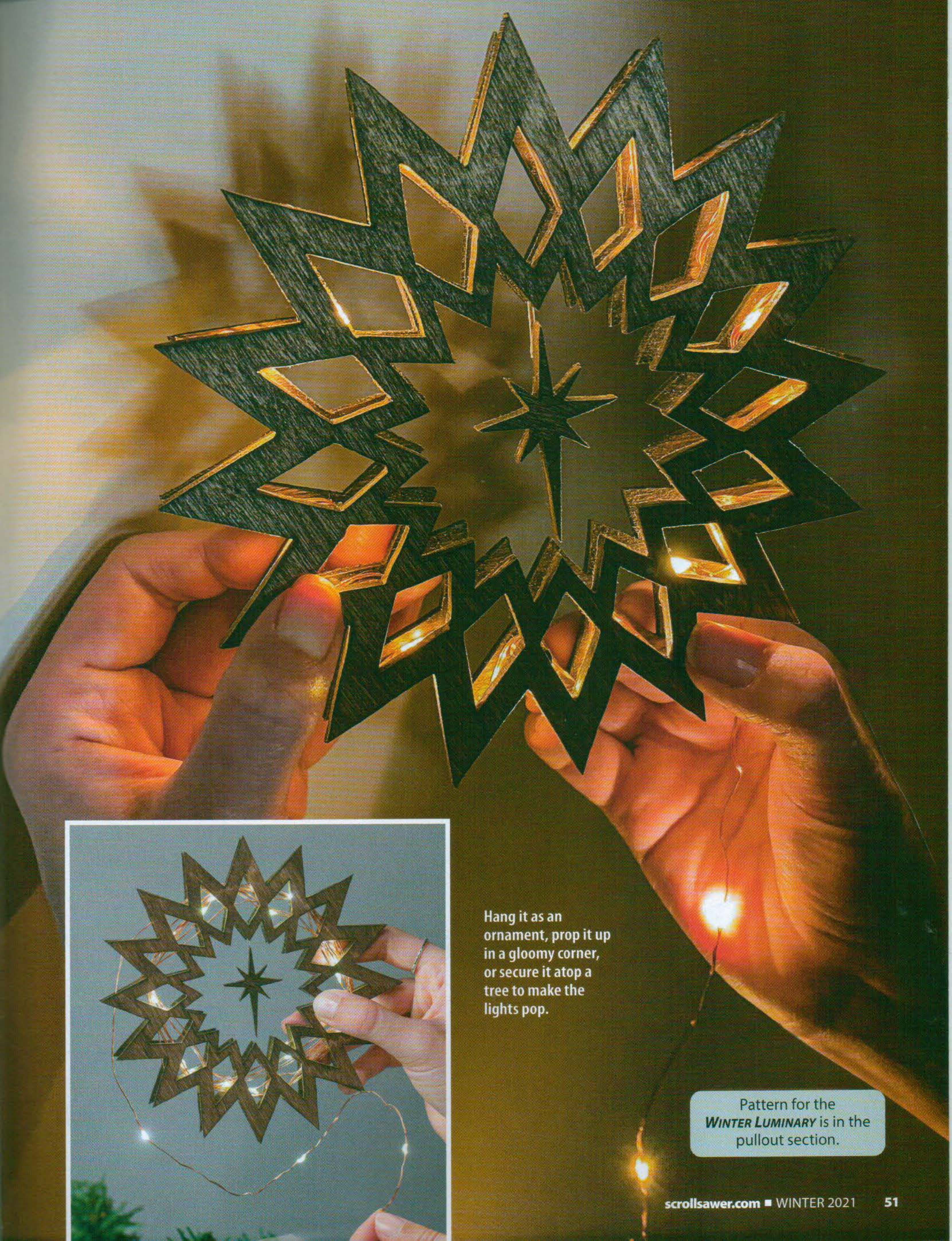
The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.



Beatrix Brockman works as a professor of German language in Tennessee. She enjoys designing and making intarsia pieces and word art (as well as puzzles and decorative items) on her scroll saw. She has won several prizes at the Riverfest Juried Art Show in Clarksville, Tenn. See more of her work on Instagram @carpentarbea.



Robert Carpentier is a retired music teacher living in West Islip, NY. He began scrolling in 2010 and joined a local woodworking club. He studied intarsia with Judy Gale Roberts in 2012 and has since done many solo exhibits, displaying over 60 pieces in fretwork, intarsia, inlay, and segmentation. Reach out to Robert via e-mail at rcarpen51@yahoo.com.



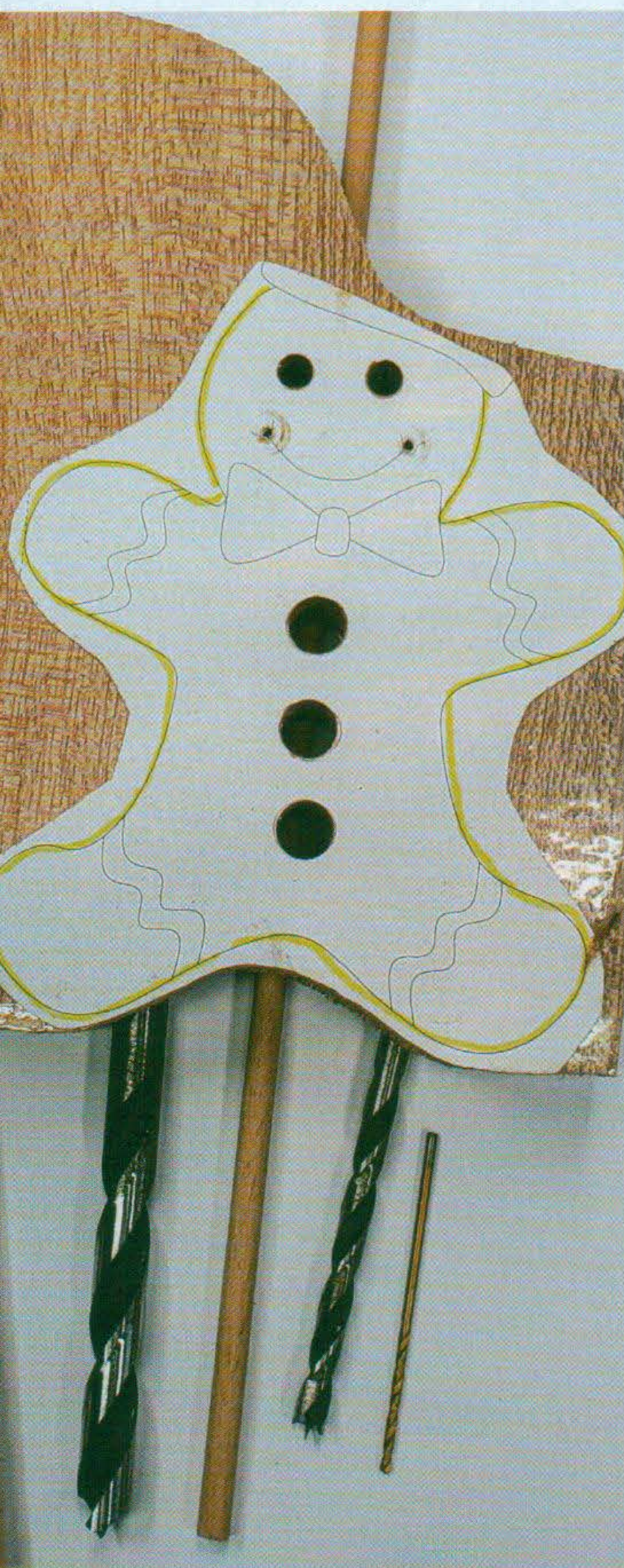
Hang it as an ornament, prop it up in a gloomy corner, or secure it atop a tree to make the lights pop.

Pattern for the *WINTER LUMINARY* is in the pullout section.

Intarsia Gingerbread Ornaments

Immortalize a beloved cookie in wood for a one-of-a-kind decoration

By Janette Square



There's nothing quite like the smell of gingerbread cookies baking on a cold winter's day. If you're like me, the scent of cookie dough and the ding of a stove timer instantly take me back to a simpler time. I have many fond memories of making a mess in my grandma's kitchen during the holidays. I decided to make this intarsia gingerbread ornament to honor those cherished moments. I've even included bonus patterns, so you can make a little family.

I used a variety of hardwoods to give the gingerbread some character, and I embellished the buttons with a pop of color. I created the ornaments using standard $\frac{3}{4}$ " to 1" (1.9cm to 2.5cm)-thick lumber. Because of their size, $\frac{1}{2}$ " (1.3cm) thickness would also work well. This is a great project for using up some of those scraps you've been saving!

Getting Started

You will need two copies of the pattern, plus a master copy. Cut out the individual pattern pieces. Select your wood and apply clear packaging tape to the surface. Attach the pattern pieces to the tape with spray adhesive. The tape helps lubricate the blade and makes the pattern easy to remove after cutting. By using clear tape rather than blue or other color painter's tape, you can still see the grain of the wood, which is crucial for intarsia. Use appropriately sized drill bits to drill blade-entry holes for the mouth and holes for the eyes and buttons. *Note: To avoid tear-out on the bottom when drilling, put a scrap piece of $\frac{1}{4}$ " (6mm) plywood under your piece.*

TIP

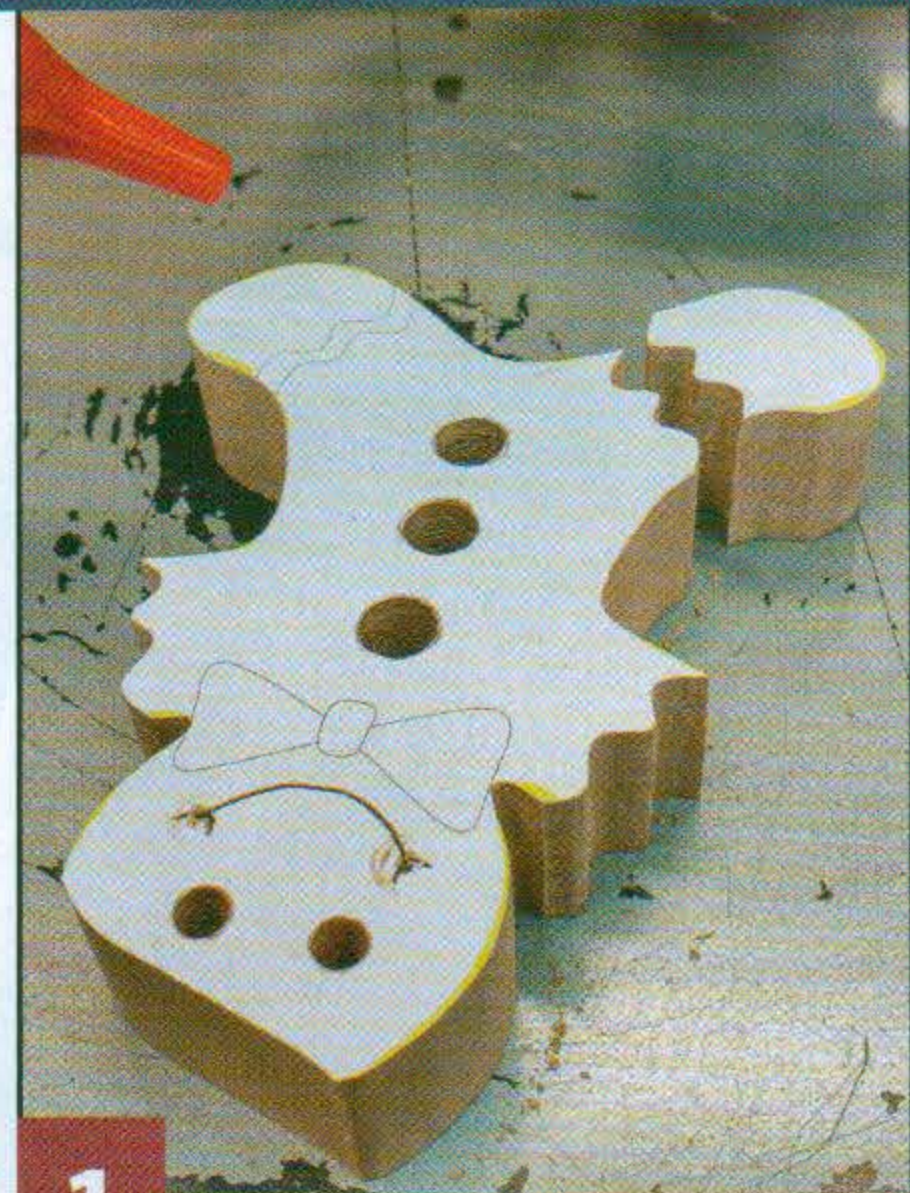
CUTTING CURVES

When cutting the wavy lines, take care going around the curves. Do not make any sharp turns while cutting or the pieces will not fit together properly. The best way to do this is to approach the turn and, rather than forcing the blade, let it go past the line into the scrap area. Back up your blade and create a small hole. This will allow room for the blade to turn without flexing and help to create an accurate fit. Follow this same procedure when cutting the piping and any other curvy areas.



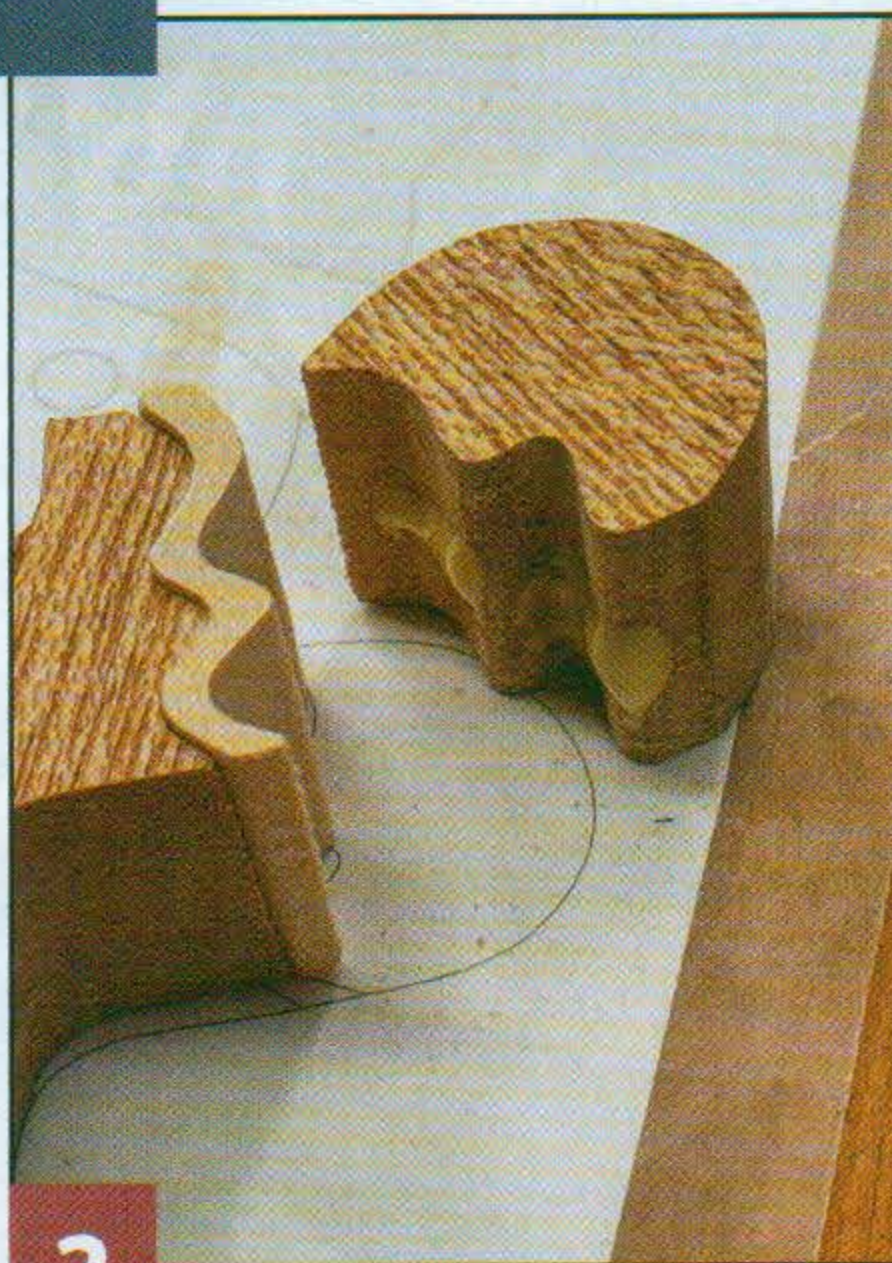
Utilize colorful hardwoods to give your gingerbread family a splash of color and personality.

CUTTING THE PIECES



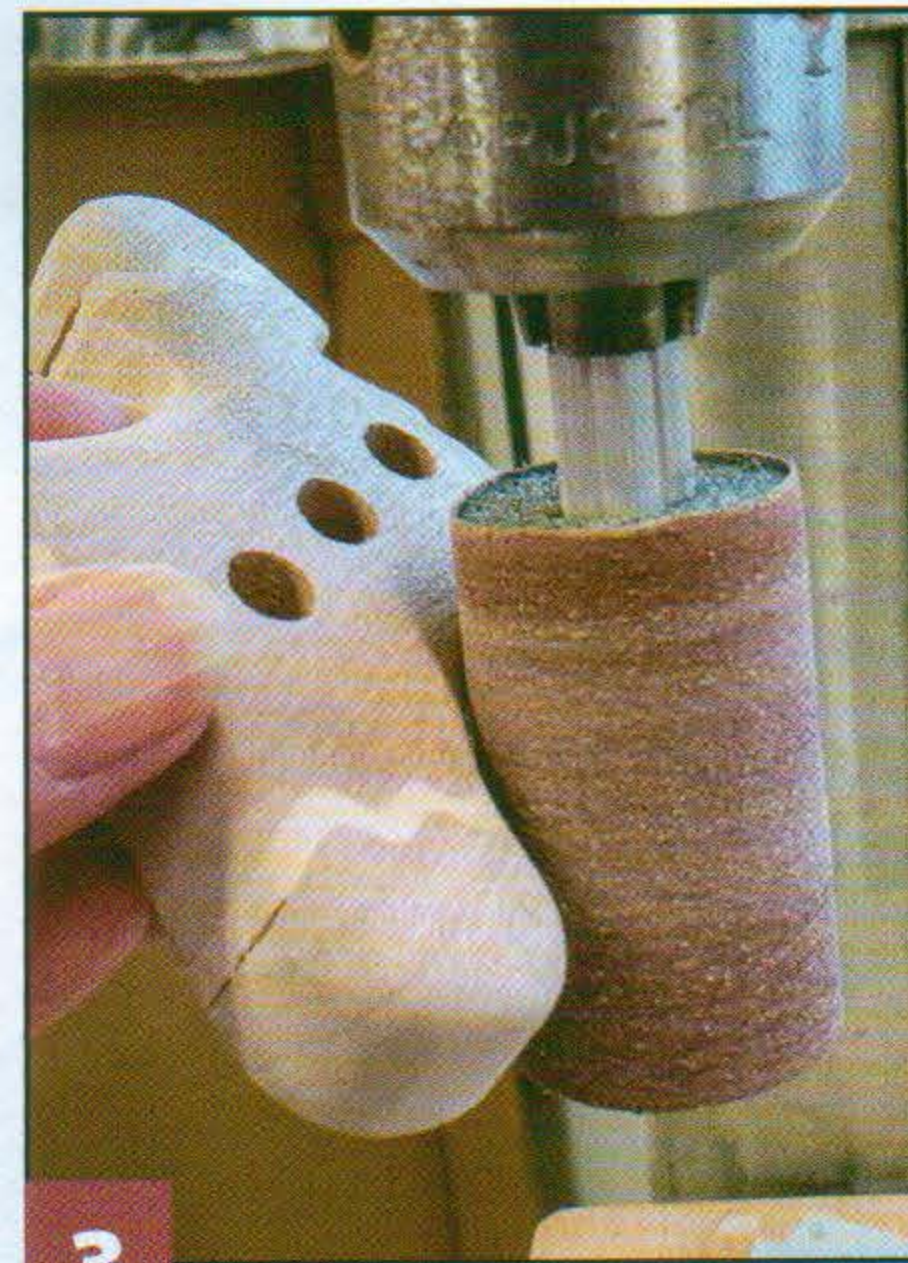
1 Cut out the pieces on a scroll saw.

Use a mop sander to remove the fuzzies from the back of each piece. Because most of the pieces are symmetrical, mark the bottom of each so you don't accidentally shape the wrong side. Remove the patterns from the wood and assemble the project on the master pattern.



2 Glue the piping pieces to the arms and body.

These pieces will be shaped together later. If you prefer the piping to stand out above the body, like icing would on a real gingerbread man, you can treat them as individual pieces and carefully shape them separately by hand.



3 Shape the connected pieces using 120- or 180-grit sandpaper.

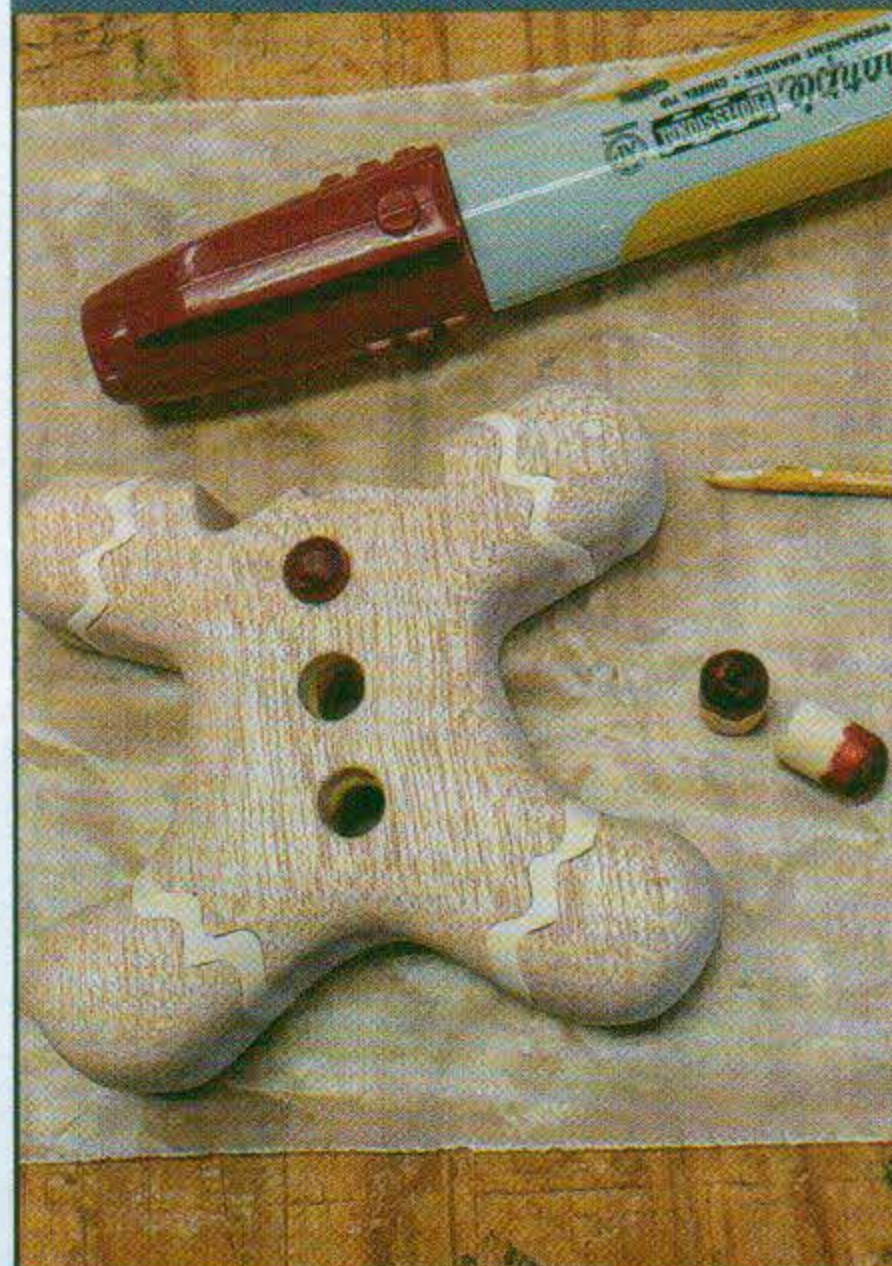
For some of the tighter areas, use a rotary tool or a mini flex drum sander. Some areas may have to be hand-sanded. When shaping, take into account the thickness of the piece and how it fits with the surrounding pieces. Aim for the bow tie and hat brim to stand above the body and head. Once satisfied with the overall shape, sand all of the pieces with 220-grit, going with the grain to smooth out any scratches. Hand-sand the pieces, and then buff them with a 220-grit mop sander. Work slowly and continue to test the fit of the pieces, making adjustments, if needed.



4 Make the eyes and buttons.

Round over and sand the end of a dowel. Test the fit into the drilled hole. You may have to hand-sand the sides in order for the dowel to fit snugly. Once satisfied with the fit, cut the dowel to size—about 1/2" (1.3cm). The length may vary depending on the thickness of your gingerbread person. Repeat this process for each button and eye.

ADDING DETAILS & FINISHING



5 Color the buttons with permanent marker or paint.

Then glue them in place. You may need to tap them in with a rubber mallet, but use light force. You want them to protrude slightly, and it is very difficult to remove a dowel once you've inserted it. *Note: Be aware that with some types of wood and markers, the color may bleed when the final finish is applied. You may wish to apply finish to the dowel pieces prior to gluing them in place. Keep in mind that the finish may cause them to swell, and also add thickness. Take this into account when dry-fitting your dowels. Alternately, apply finish only to the buttons with a small brush after they are glued in. Allow to dry before finishing.*



6

Apply a finish. Place waxed paper over the master pattern and reassemble the project. With a skewer, "edge" glue all the pieces together to control the amount of glue applied. Let the project fully dry. Then apply several coats of your preferred finish. Add Craft Twinkles® glitter paint to the buttons, bow, and/or hat for a more festive look.

Intarsia Gingerbread Ornaments Pattern



© 2021 Scroll Saw Woodworking & Crafts

Materials & Tools

Materials

**Note for wood dimensions: These are the minimum dimensions needed. It is best to have larger pieces so that you may select optimal grain variation.*

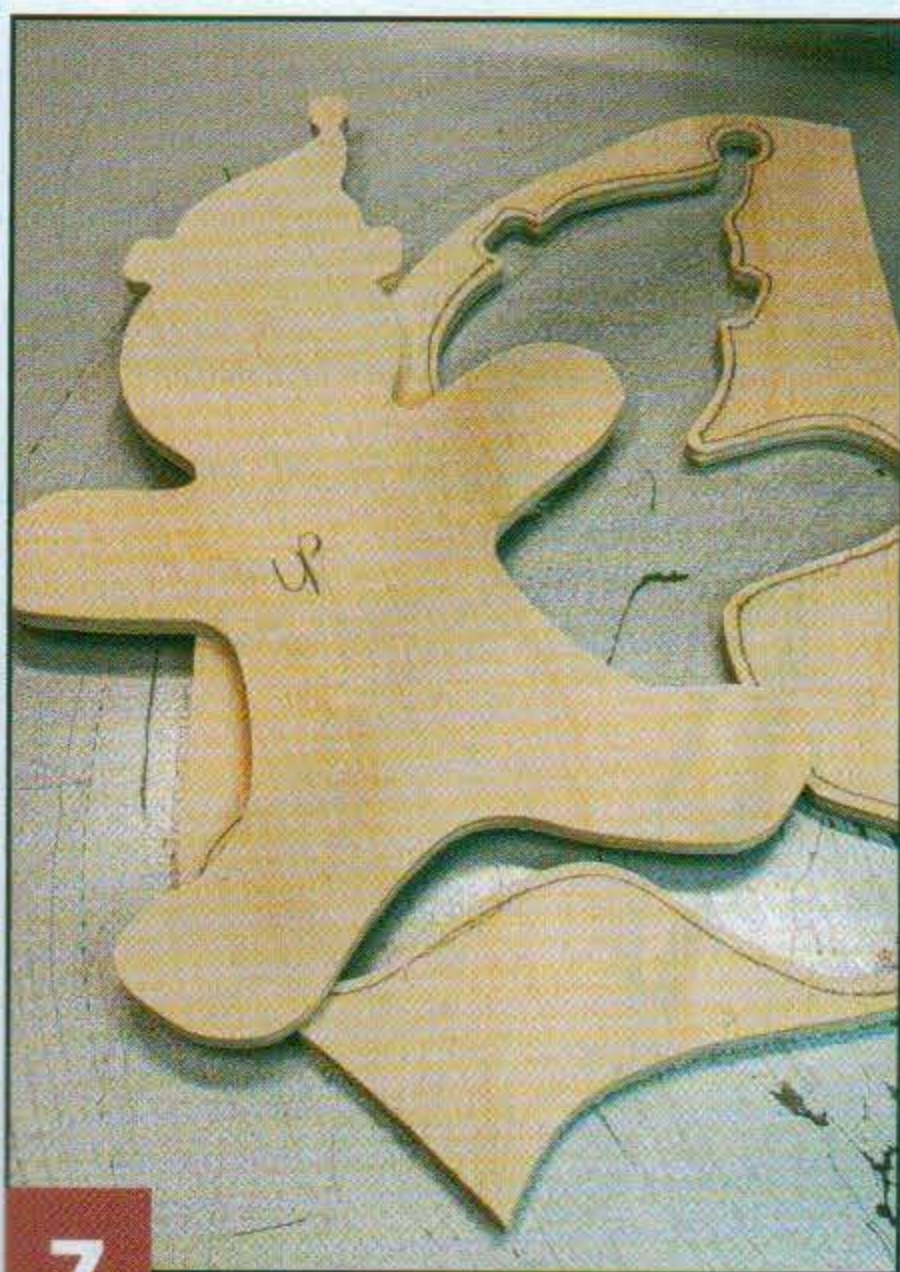
- Wood, such as light mahogany or cherry, $\frac{3}{4}$ " (1.9cm) thick: body, 4" x 5" (10.2cm x 12.7cm)
- Wood, such as red cedar, $\frac{3}{4}$ " (1.9cm) thick: hat and bow, 2" x 3" (5.1cm x 7.6cm)
- Wood, such as aspen, $\frac{3}{4}$ " (1.9cm) thick: hat trim, 1" x 4" (2.5cm x 10.2cm)
- Wood, such as Baltic birch plywood, $\frac{1}{8}$ " (3mm) thick: backer, $3\frac{1}{2}$ " x $5\frac{1}{2}$ " (8.9cm x 14cm)
- Wooden dowels: eyes, $\frac{3}{16}$ " (5mm)-dia.; buttons, 3 each $\frac{5}{16}$ " (8mm)
- Tape: clear packaging tape
- Pencil
- Spray adhesive
- Waxed paper
- Sandpaper: assorted grits to 220
- Glue: wood

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

- Markers (optional)
- Paint (optional)
- Glitter paint, such as DecoArt® Craft Twinkles®: gold (optional)
- Hook of choice for hanging
- String or ribbon for hanging
- Finish, such as clear gel varnish
- Skewer

Tools

- Scroll saw with blades: #5 or #7 reverse-tooth; #2 or #3 for backer
- Drill with bits: $\frac{1}{16}$ " (2mm), $\frac{3}{16}$ " (5mm), $\frac{5}{16}$ " (8mm)-dia.
- Sanders: mop; flex drum with 120, 220-grit sleeves
- Small paintbrush (optional)
- Rubber mallet (optional)



7

Cut the backer. Trace your gingerbread person onto $\frac{1}{8}$ " (3mm)-thick Baltic birch plywood. Cut approximately $\frac{1}{16}$ " to $\frac{1}{8}$ " (2mm to 3mm) inside the lines. Sand away any fuzzies by hand. Test the fit of the backer, and then glue. Let dry and apply a hook of your choice to the back, about $1\frac{3}{8}$ " (3.5cm) down from the top. Add a string or ribbon through the hook and display!



Janette Square lives in Yachats on the Oregon coast. For more of Janette's work, visit her website at square-designs.com.

Additional patterns for the **INTARSIA GINGERBREAD ORNAMENTS** are in the pullout section.

MULTILAYERED Fretwork Ornaments

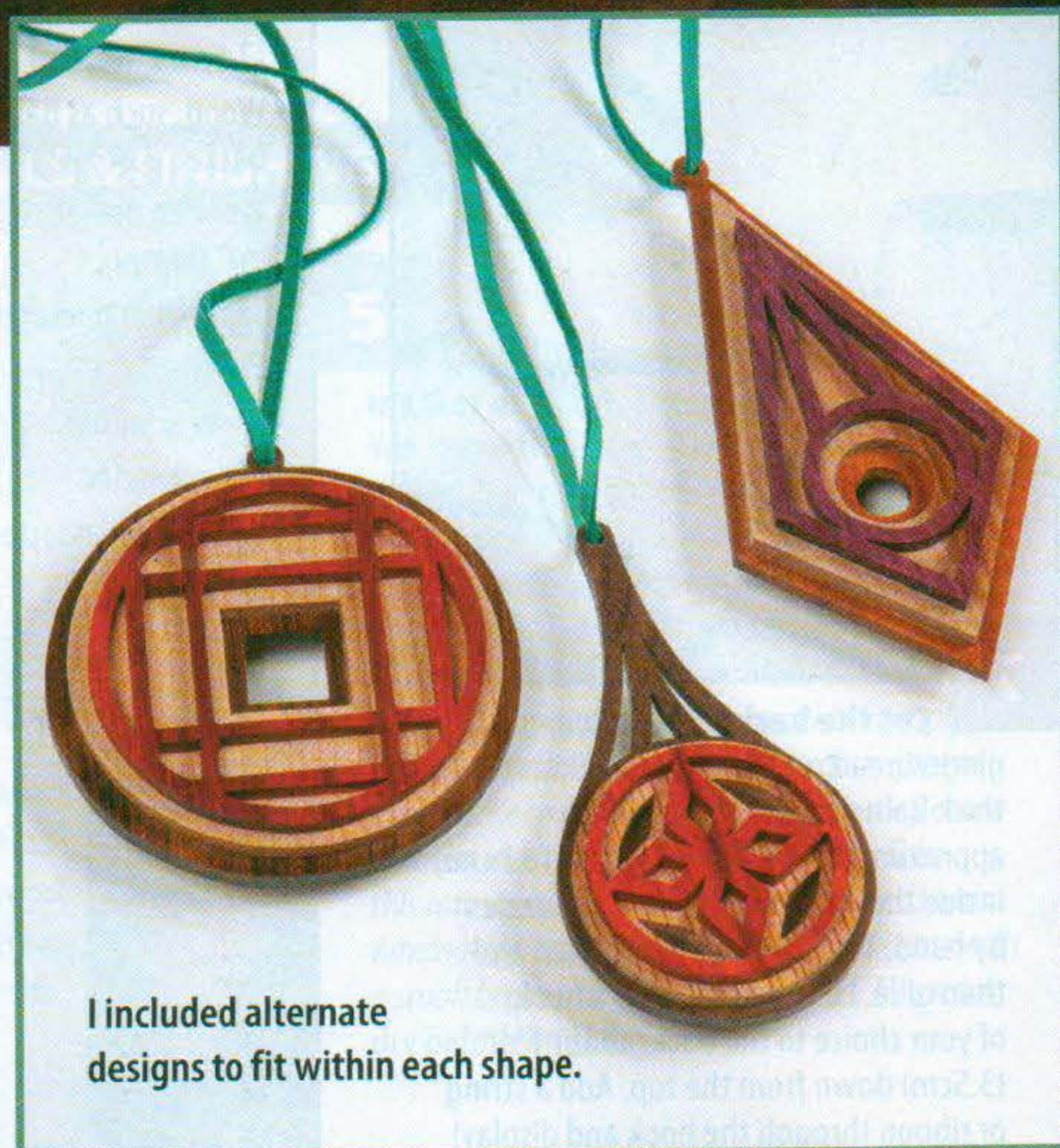


Sand fine-figured hardwoods with extra care to reveal their dramatic grain.

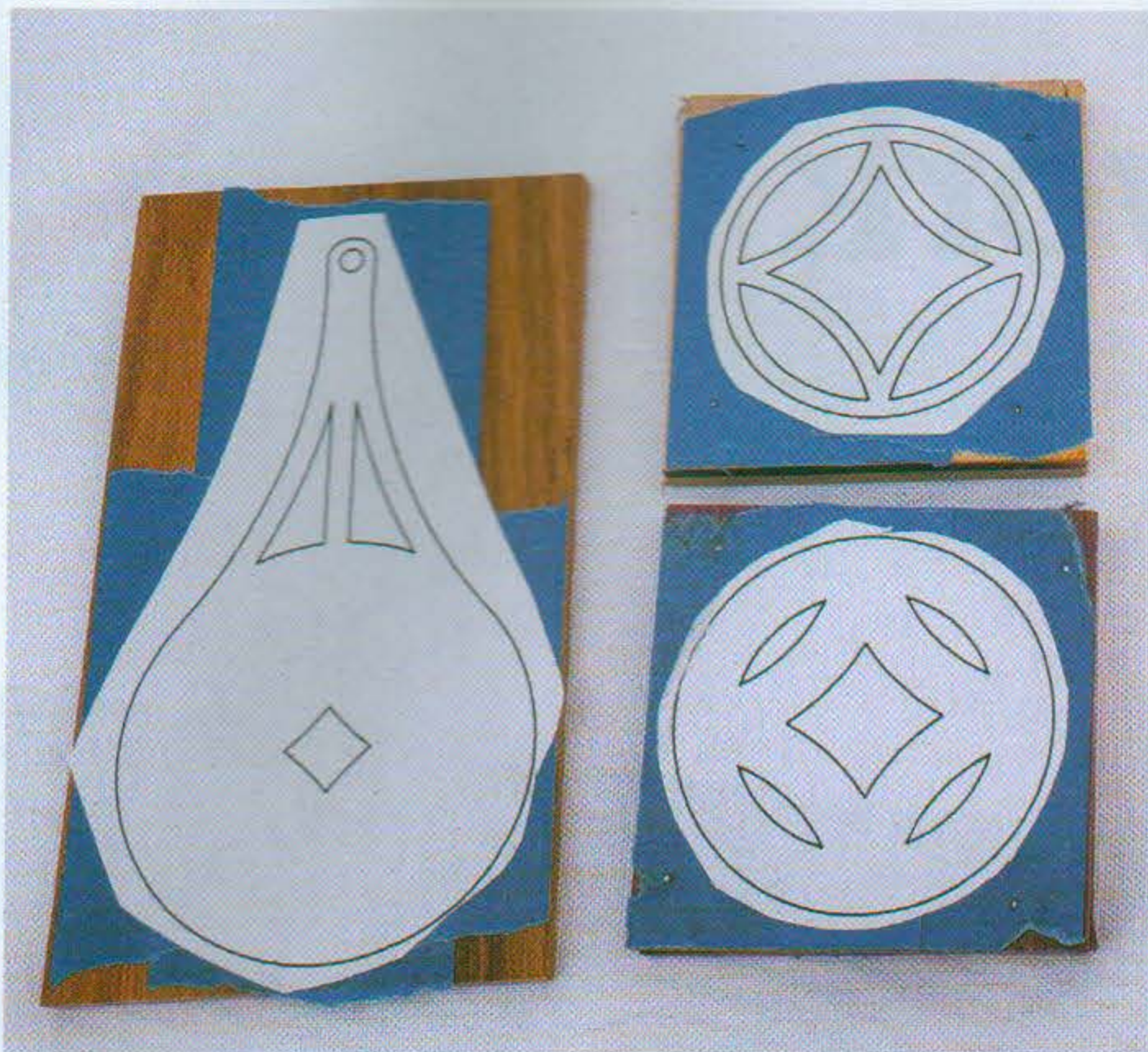
No need for massive light displays this year—these baubles bring the color all on their own

By Dan Wilckens

Want to add an extra pop of color to your tree this holiday season? These layered designs are just the ticket. You can cut them from a variety of wood types to emphasize the natural colors of the grain and give each ornament its own personality. I used an array of poplar, canarywood, padauk, hard maple, purpleheart, shedua, mahogany, walnut, and yellowheart scraps—but use whatever you have on hand. The shapes are fairly simple, but precision and patience are key. Make one at a time or stack-cut several at once.



I included alternate designs to fit within each shape.



Getting Started

Photocopy the patterns. Select wood of the proper thickness, and then cover the surface with blue painter's tape. If stack cutting, assemble the stack now, securing the edges with clear packaging tape. *Note: When stack cutting, I use waxed paper between pieces of wood. Waxed paper lubricates the blade and makes harder, denser wood, such as purpleheart, easier to cut.* Attach the patterns to the tape with spray adhesive, and then drill the blade-entry holes. For exterior cuts, you can cut in from the edge or drill a small hole just outside the exterior line.

Cutting

Feed the scroll saw blade through the entry holes and cut along the lines, saving the perimeter of each piece for last; this leaves you something to grip as you maneuver the pieces. Once you've made all cuts, gently peel off the patterns.

Sanding and Finishing

Sand each piece by hand or with a handheld sander, and then remove any remaining burrs or fuzzies with an X-Acto® knife or needle files. Remove excess dust with a tack cloth. Then glue and clamp the pieces together, working a layer at a time to ensure good centering. Wipe off any squeeze-out while wet, as this can interfere with the finish. Apply a finish per the manufacturer's instructions; I used several light coats of gloss spray lacquer. Once the finish is dry, thread a piece of fishing line or decorative string through the ornament to hang it.

Materials & Tools

Materials

- Wood, 1/8" (3mm) thick: sized for patterns
- Tape: blue painter's, clear packaging
- Spray adhesive
- Sandpaper: assorted grits to 320
- Clear finish, such as Minwax® spray lacquer: gloss
- Waxed paper (optional)
- Tack cloth
- Glue
- Fishing line or string for hanging

Tools

- Scroll saw with blades: #2 or #3 reverse-tooth
- Drill press with bit: 1/16" (2mm)-dia.
- Sander: handheld
- X-Acto® knife or needle files
- Clamps

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



Dan Wilckens and his father, Ray, started scrolling 25 years ago as a hobby. Then they began designing their own patterns and making them available for others to enjoy. Dan's background is in tool design and tool and die work. See more of his work at wilckenswoodworking.net.

Patterns for the **MULTILAYERED FRETWORK ORNAMENTS** are in the pullout section.

Forest Fretwork Scene

Challenge your symmetry skills with a striking, frosty portrait

*Designed by Daria Alyoshkina
Cut by Robert Carpentier*

As a papercutting artist, I constantly think about how much material can be removed in order to make a design dramatic. Over the years, I've learned that there's beauty to be discovered in the subtractive process. This portrait was inspired by winter in Ukraine. Take your time with the frets around the antlers and branches. They might prove to be a challenge—a worthwhile one.

Getting Started

Pre-sand the wood to 320-grit using an orbital sander. Remove excess dust with a tack cloth. I stack cut two pieces of Baltic birch plywood, securing the edges with blue painter's tape. Apply removable shelf paper to

the top surface and attach the pattern, making sure it is centered. Drill the blade-entry holes for the frets, and sand the back of the stack smooth with the orbital sander once more.

Cutting and Finishing

Cut the frets on a scroll saw, going slowly and letting the blade do the work. Remove the pattern and separate the stack. Hand-sand the portraits with 320-grit sandpaper to remove any fuzzies. Wipe away excess dust with the tack cloth and apply a finish of your choice. I finished mine with a dark blue stain, sealing the piece with a few coats of clear satin spray once dry. Let dry and display as desired; I mounted mine to a white backer inside a gray matte frame.

Materials & Tools

Materials

- Wood, such as Baltic birch plywood, 1/8" (3mm) thick: 8 1/2" x 11" (21.6cm x 27.9cm)
- Sandpaper: assorted grits to 320
- Tack cloth
- Removable shelf paper, such as Con-Tact®
- Tape: blue painter's
- Stain, such as Minwax®: Navy 286
- Finish, such as clear satin spray
- Hanger of choice

Tools

- Scroll saw with blades: #2/0 reverse-tooth, body and tree trunk; #1 or #2/0 spiral blade, branches and antlers
- Drill press with bit: 1/16" (2mm)-dia.
- Sander: orbital

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

Pattern for the **FOREST FRETWORK SCENE** is in the pullout section.



Daria Alyoshkina is a papercutting artist and sculptor based in Lviv, Ukraine. Find more of her work on Instagram @vytynankaalyoshkina.



Christmas Ornament Puzzles

Get the ball rolling on winter with these easy-cut designs

By Sarah Lyn Chamberlain

Decorating for the holidays is a beloved tradition of mine. I make an entire day out of it. I bake cookies, play Christmas music, and take my time pulling the old trunks of family decorations down from the attic. I created these puzzles to celebrate this special tradition and chose a simple design that would resonate with hearts far and wide.

Getting Started

Choose a light wood; I prefer $\frac{3}{4}$ " (1.9cm) pine. Prepare the blank by sanding progressively through the grits to 220 and then covering the surface with blue painter's tape. Photocopy the pattern and use spray adhesive to secure it to the tape. Reference the lead photo for proper grain direction. Drill a blade-entry hole with a $\frac{1}{16}$ " (2mm)-dia. bit in the ornament's cap.

Cutting and Finishing

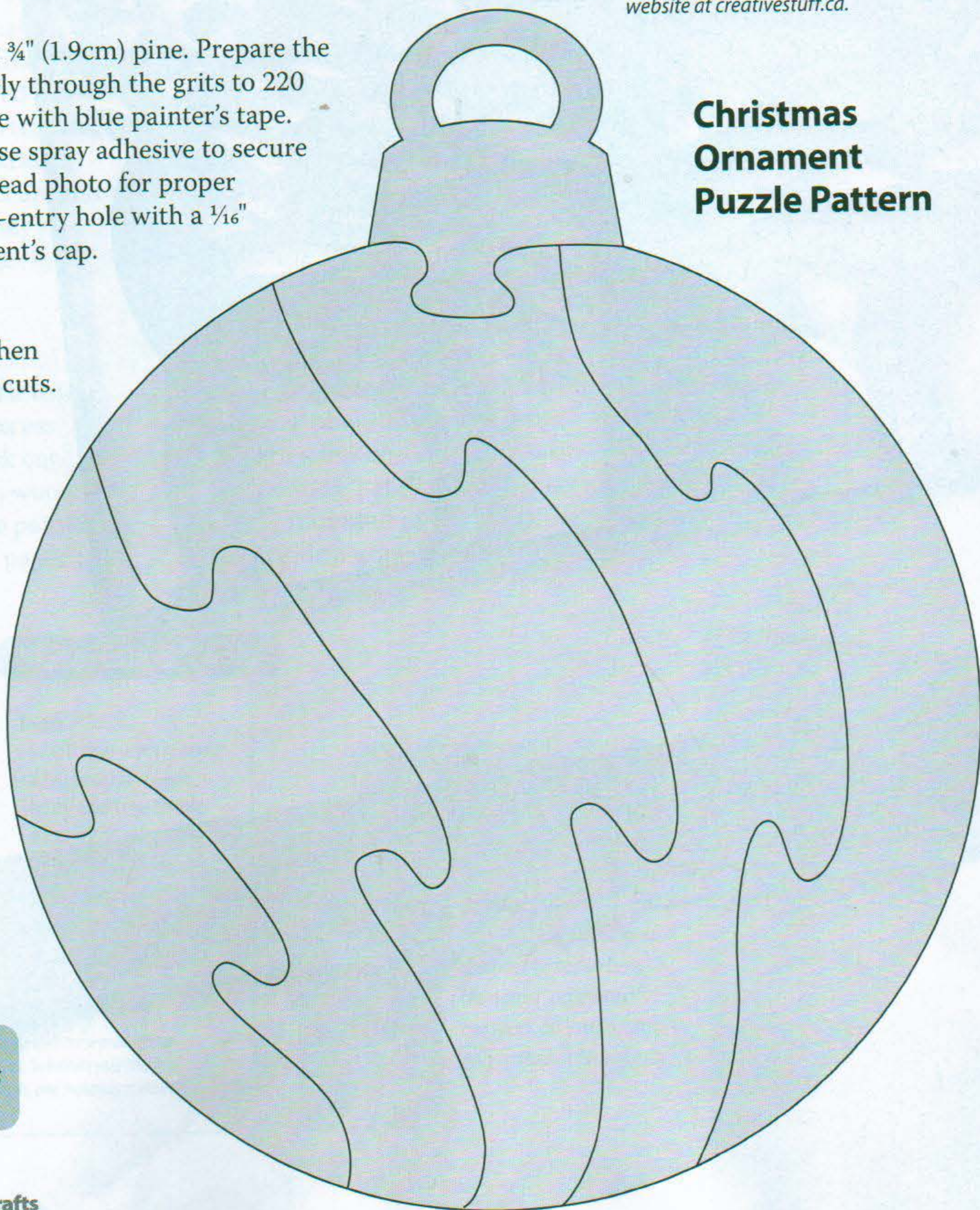
Cut the ornament cap, and then work through the rest of the cuts. Go slow and let the blade do the work. Once you've made all of the cuts, remove the patterns. Then reassemble the puzzle. Smooth the front and back with an orbital sander, and then sand the edges by hand. Stain as desired; I applied a deep red stain to some of the pieces and left the others natural to achieve a candy cane look. Once dry, apply several light coats of a clear gloss finish, sanding lightly between coats.

Additional pattern for the **CHRISTMAS ORNAMENT PUZZLES** is in the pullout section.



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.

Christmas Ornament Puzzle Pattern





Materials & Tools

Materials

- Wood, such as pine, $\frac{3}{4}$ " (1.9cm) thick: approx. $5\frac{1}{2}$ " x $6\frac{1}{2}$ " (14cm x 16.5cm) per puzzle
- Spray adhesive
- Tape: blue painter's
- Sandpaper: assorted grits to 220
- Water-based stain, such as Minwax®: Sedona red
- Finish: clear spray, such as Rust-Oleum® 2X Gloss

Tools

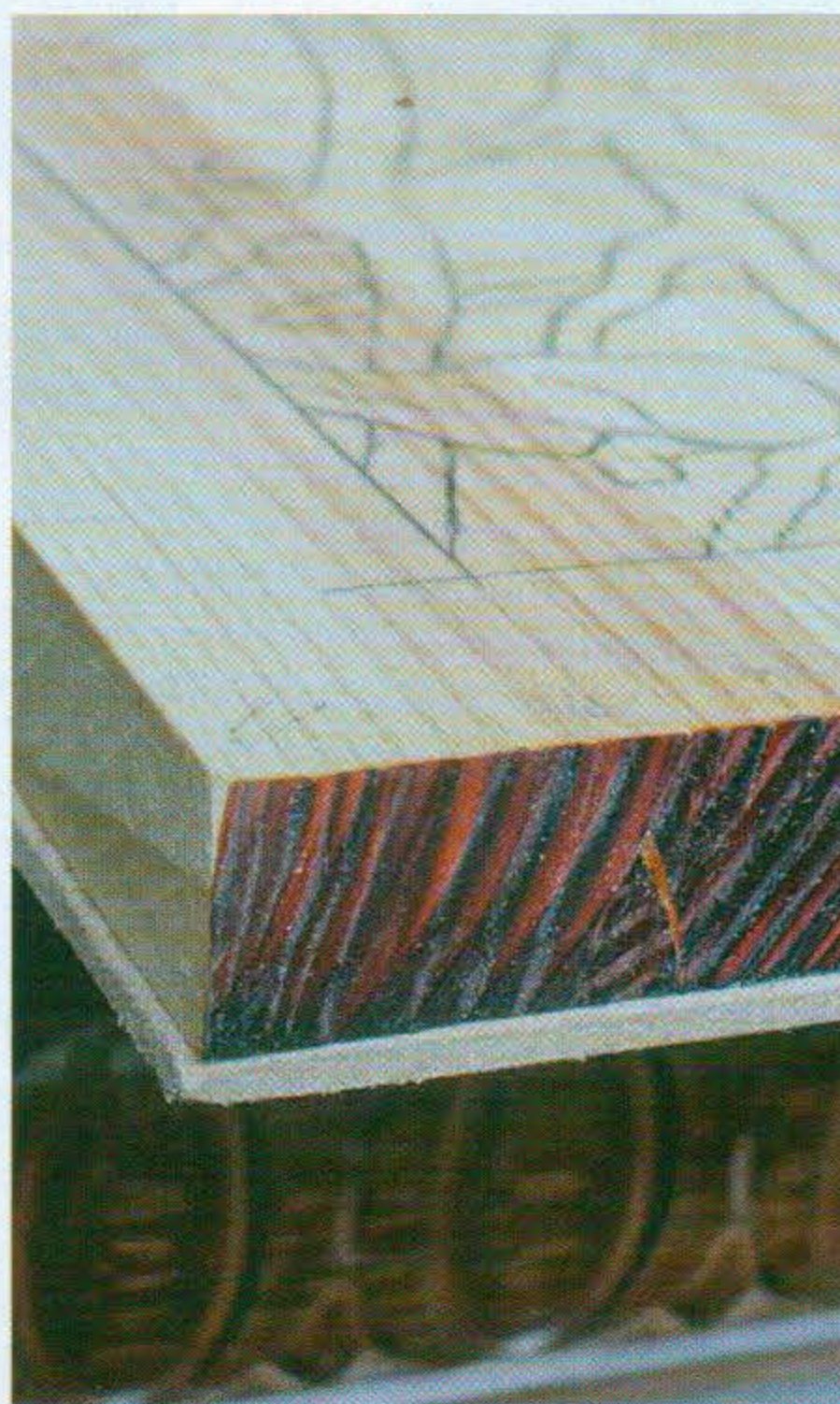
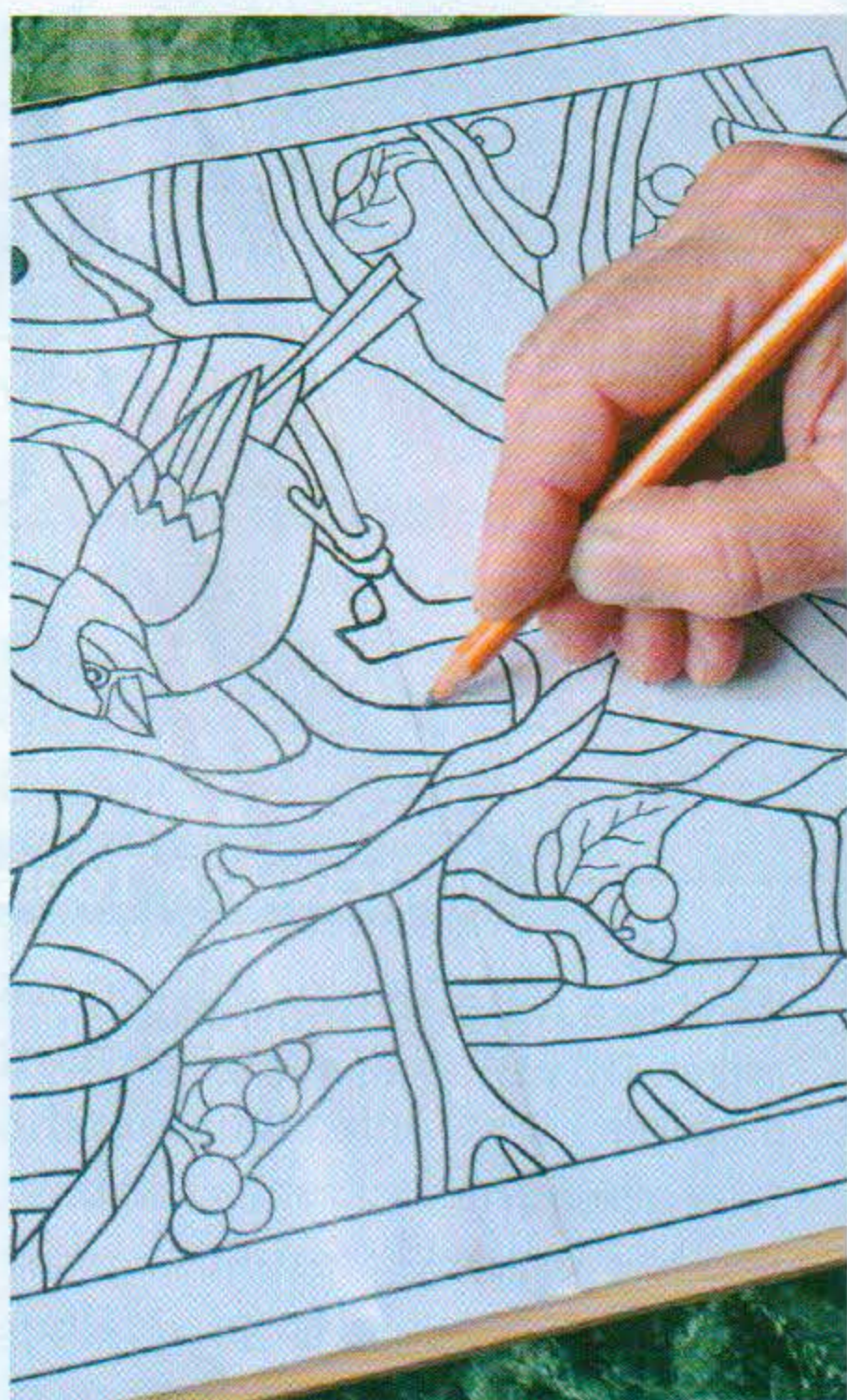
- Scroll saw with blades: #5 or #7 reverse-tooth
- Drill with bit: $\frac{1}{16}$ " (2mm)-dia.
- Sander: orbital

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

Winter Cardinal Scene

Tranquil scene evokes a post-snowfall stroll

By Anatoly Obelets



My yard is home to many fruit trees. Even in the winter, they bring me joy. The neighborhood birds delight in their existence as well; I often watch different creatures take refuge from the weather and nest in the branches. Last winter, a cardinal made a home in one of my trees; this winged visitor inspired my design.

Getting Started

Cut the pine to size and sand it smooth with 100- and then 150-grit sandpaper. Photocopy the pattern and transfer it to the blank; I used graphite transfer paper and a pencil, but you can save time by attaching the design directly. Cover the wood with blue painter's tape and stick the pattern to the tape with spray adhesive. Cut the plywood backer. Attach the backer to the pine with clear packaging tape; you'll be removing it about halfway through the cutting process. Then drill all blade-entry holes; these will go around the perimeter of the tree and between the branches.



CUTTING THE PIECES



1 **Make the outside cuts, starting with those around the branches.** Use a #7 blade or one of your choice. (I used a Pyrosegmentator—a cutting tool of my own design—but you can use a scroll saw.) Only make cuts in the areas with blade-entry holes; you will deal with the more intricate parts later.



2 **Gently work through the rest of the areas with blade-entry holes.** *Note: Keep in mind that you are cutting the plywood backer at the same time.* You should now see the outlines of the branches, leaves, bird, and berries. Make sure to maintain especially straight lines near the outer edge. Separate the pine from the backer.



3 **Separate the fretwork from the frame.** Go slowly and let the blade do the work. Put the inner fretwork design aside for now. Then glue the newly cut frame onto the backer. Let dry.



4 **Separate the fretwork design into smaller sections.** Then cut out every detail. You'll put the design back together like a mosaic. Use a carving knife or a sander of your choice to rough-shape the pieces. *Note: Always wear a carving glove and thumb guard. The photo was taken without them to clearly show hand and knife positions.*



5 **Reassemble the pieces onto the backer.** Do not glue them in place yet. Test the fit and make adjustments on the scroll saw as needed.

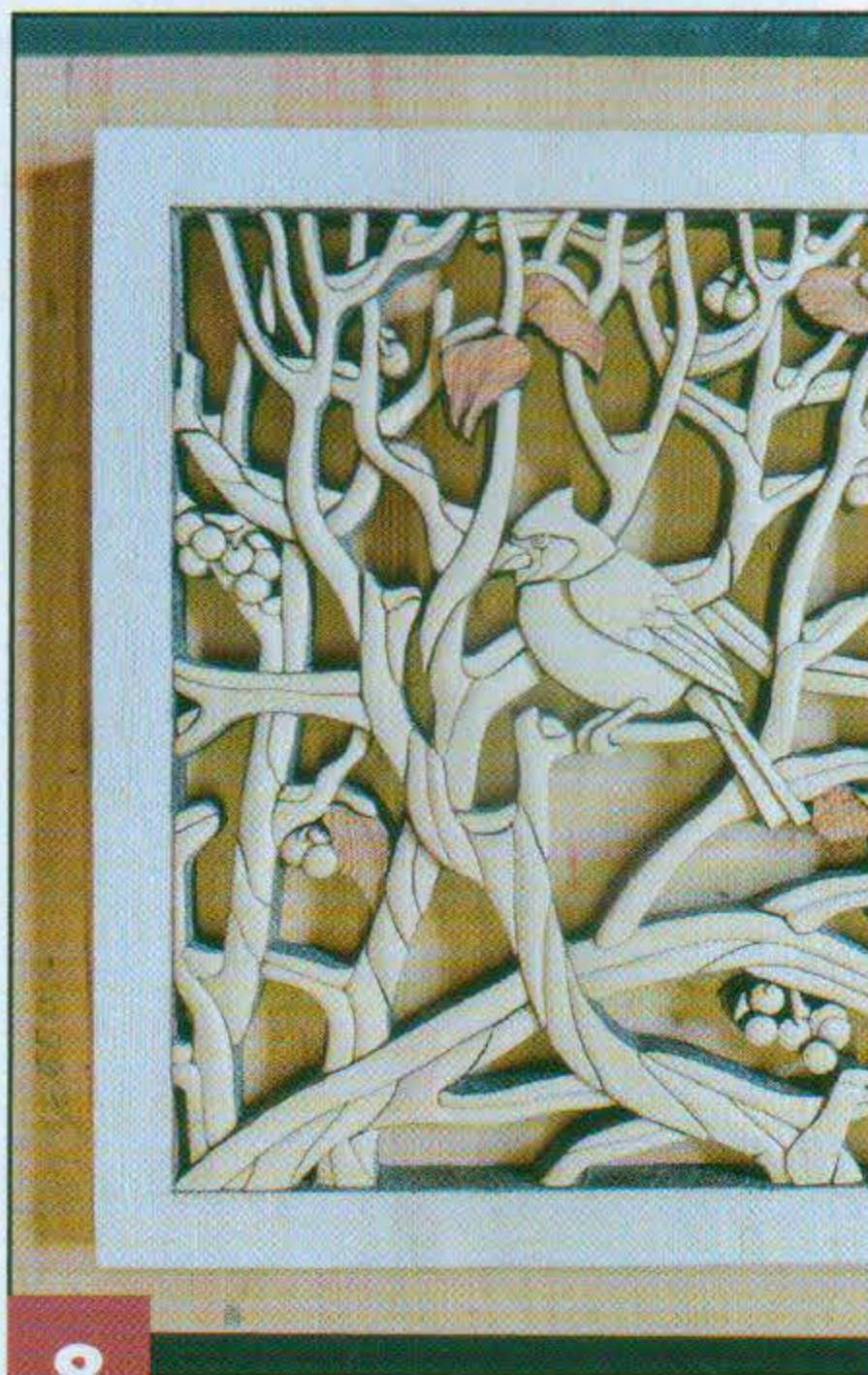


6 **Add the leaf veins.** Use a variable-temperature woodburner with a writing nib.



7

Add texture to the leaves. For maximum decorative effect, I often use a technique called wood brushing. Using a metal scratch brush with medium bristles, rub the surface of each leaf aggressively, working against the grain. The result is a mottled surface with a slightly crumpled texture reminiscent of dried leaves. Apply the same technique to the branches and bird's feathers for a more pronounced, dramatic look.



8

Refine the remaining pieces. Use a round inflatable sander or similar tool to bring down certain areas where the branches overlap, moving from coarse-to-fine-grit sleeves as you go. Continuously dry-fit the pieces and make adjustments as needed. Round the branches and the bird's body using either a combination of edged hand tools—such as the knife and a gouge—or the round inflatable sander. *Note: The bird's belly and tail should be slightly lower than the wings and head.*



9

Add color. I used watercolor paints and assorted stains to color the scene, but you could use acrylics or dyes, if preferred.

Pattern for the **WINTER CARDINAL SCENE** is in the pullout section.

Materials & Tools

Materials

- Wood, such as pine, $\frac{3}{4}$ " (1.9cm) thick: winter scene, $9\frac{1}{2}$ " x 12" (24.1cm x 30.5cm)
- Wood, such as Baltic birch plywood, $\frac{1}{16}$ " (2mm) thick: backer, $9\frac{1}{2}$ " x 12" (24.1cm x 30.5cm)
- Wood, such as pine or oak, $\frac{1}{2}$ " (1.3cm) thick: frame pieces, 4 each $\frac{3}{4}$ " x 12" (1.9cm x 30.5cm) (optional)
- Sandpaper: assorted grits to 220
- Graphite paper
- Pencil
- Tape: clear packaging
- Assorted stains, such as alder, golden pine, light oak, teak
- Acrylic or watercolor paints or dyes: black, blue, red, white
- Wood glue

- Finish, such as clear matte varnish
- Sawtooth hanger with screws

Tools

- Scroll saw blades: #5 or #7 reverse-tooth
- Drill with bit: $\frac{3}{64}$ " (1.2mm)-dia.
- Sander: round inflatable; coarse, medium, and fine-grit sleeves
- Carving knife
- Gouge (optional)
- Brush: metal scratch
- Paintbrushes: assorted
- Woodburner with nib: writing

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

Finishing

Apply a finish. I used a small paintbrush to apply varnish to each piece separately. Let dry. Then assemble the scene. Set the pieces in place, and then glue them down, one by one. Let dry and display as desired; I made a simple frame and used a sawtooth hanger and small screws to hang the piece prominently.



Anatoly Obelets of Kherson, Ukraine, has been engaged in intarsia work for over 15 years. One of his favorite subjects to portray is sunflowers; his friends jokingly call him the "Ukrainian Van Gogh." Find more of Anatoly's work at [Facebook.com/anatoly.obelets](https://www.facebook.com/anatoly.obelets).

Gazing Tiger

INTARSIA

This fierce feline is a welcome escape to the tropics

By Kathy Wise

I have always had a strong love for animals. Wild cats are one of my favorite subjects to design, thanks to their long bodies and striking features. This tiger design appears in my latest book, *Intarsia Animals: Woodworking the Wise Way*. Due to the many inlay stripes, this is an intermediate-to-advanced level design. If you want an easier version, cut the pattern from one piece of light wood and stain the stripes after you've finished sanding.



© schmidt_jan/Shutterstock.com

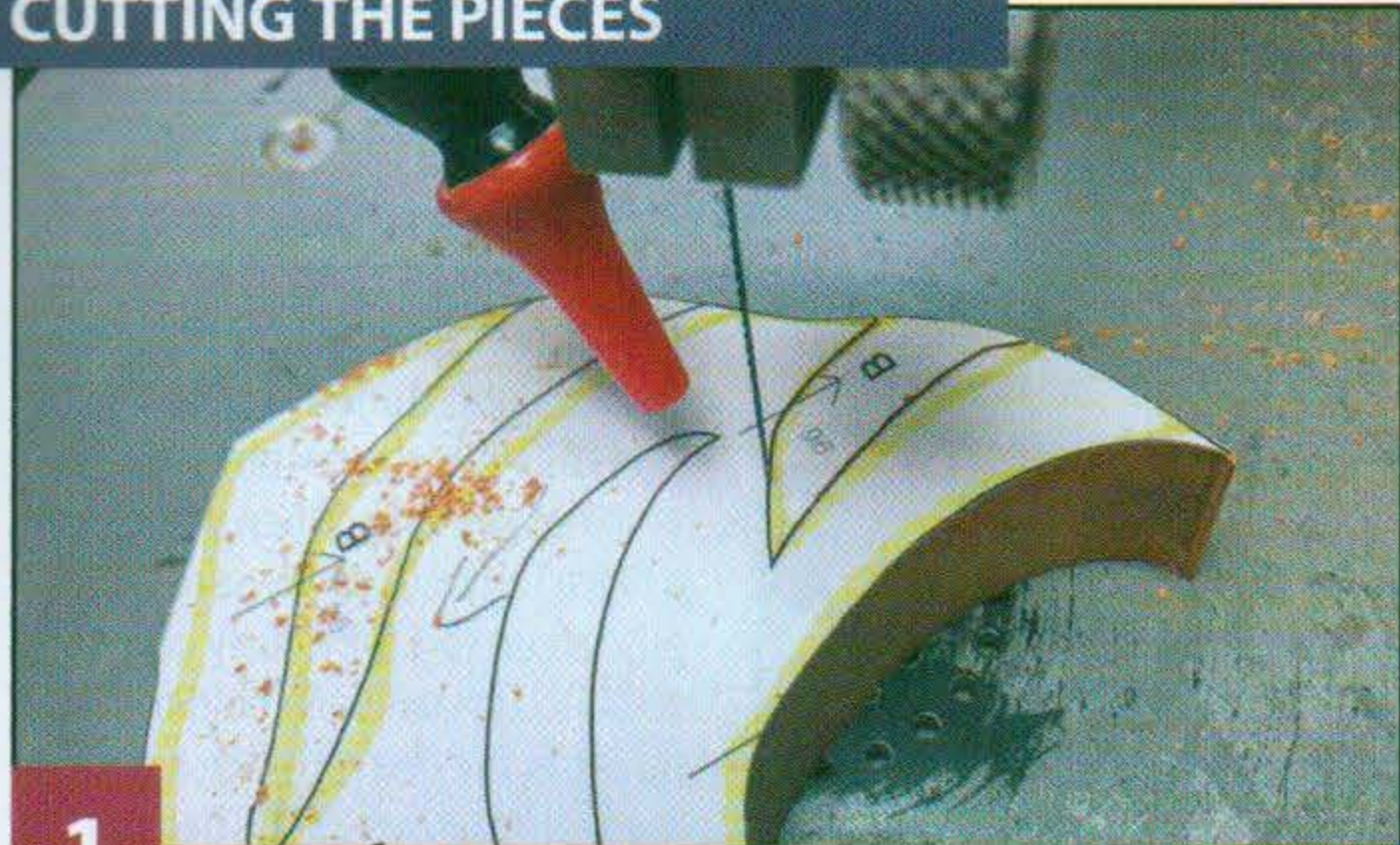
Getting Started

Prepare the wood; I planed mine smooth, but you can sand each piece by hand with 220-grit sandpaper. Then photocopy the pattern, making a total of seven copies. Always keep a master copy close by for reference. Cut out the pattern pieces and group them together by color. Spray the backs of the patterns with spray adhesive and attach them to the shiny side of contact paper. *Note: I like using contact paper because it comes off clean after you are finished cutting, and it helps lubricate the blade for less burning.* Peel and stick the sections onto the appropriate pieces of wood, orienting the grain as shown on the pattern. Make sure your blade is square to the saw table.

Attach patterns by color and grain orientation to prepared hardwood blanks.

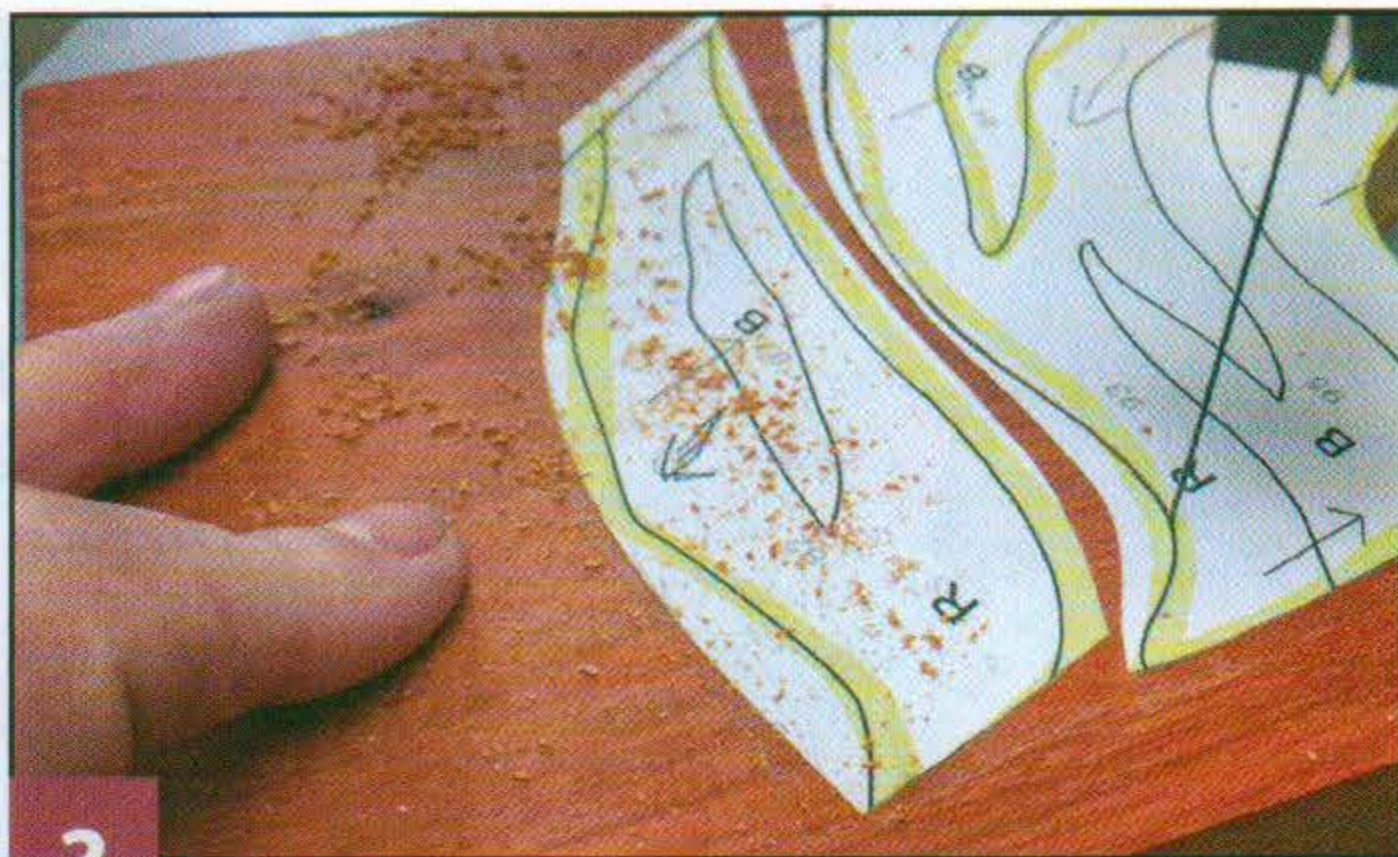


CUTTING THE PIECES



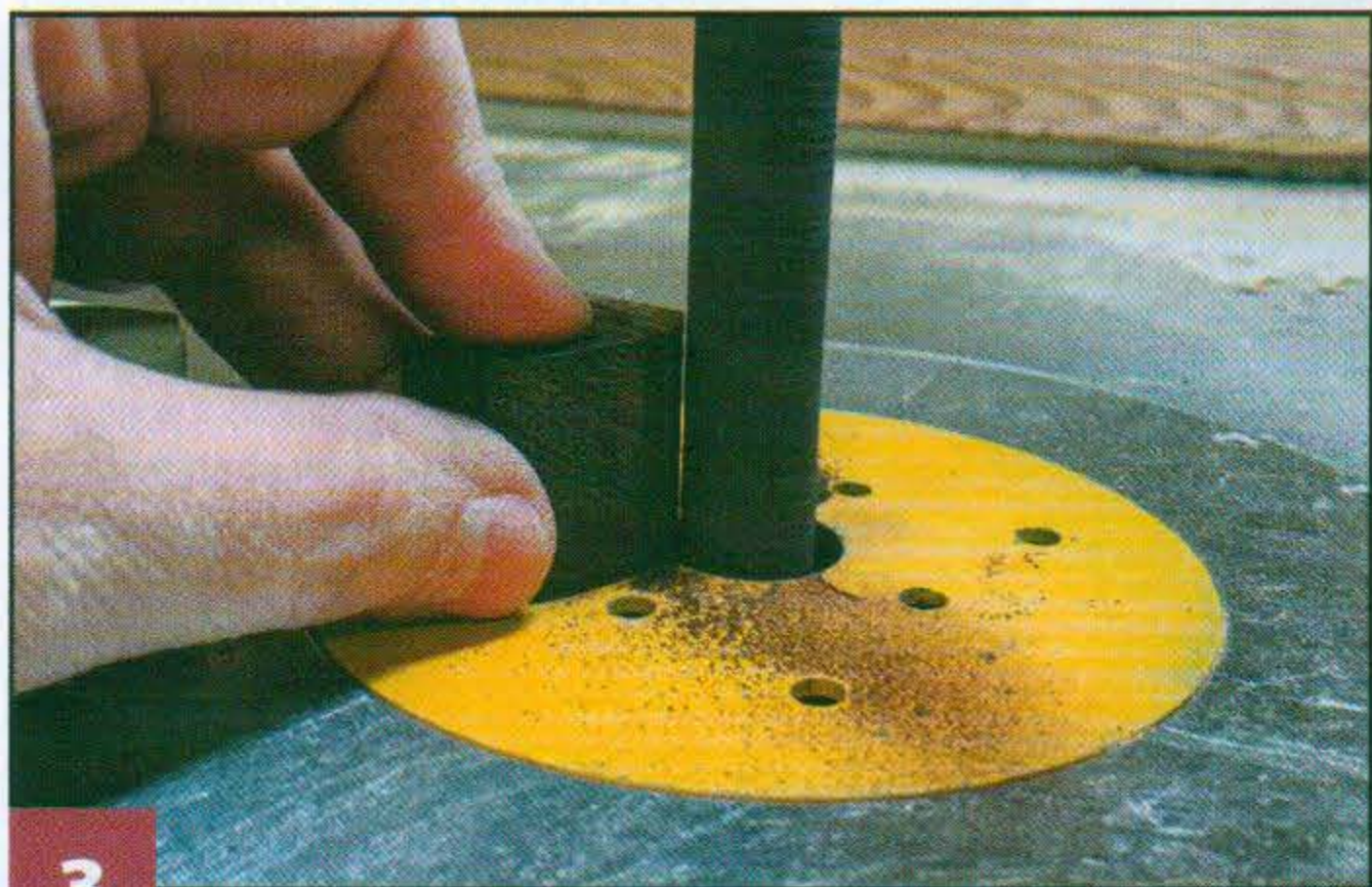
1

Cut the body pieces. Using a scroll saw and a #5 skip-tooth blade, cut the large pieces first. Then use a smaller blade (a #2 or #3) to slice up the sections. Number each piece on the bottom with a pencil. Lay out all of the cut pieces on a pattern taped to a workboard and check the fit.



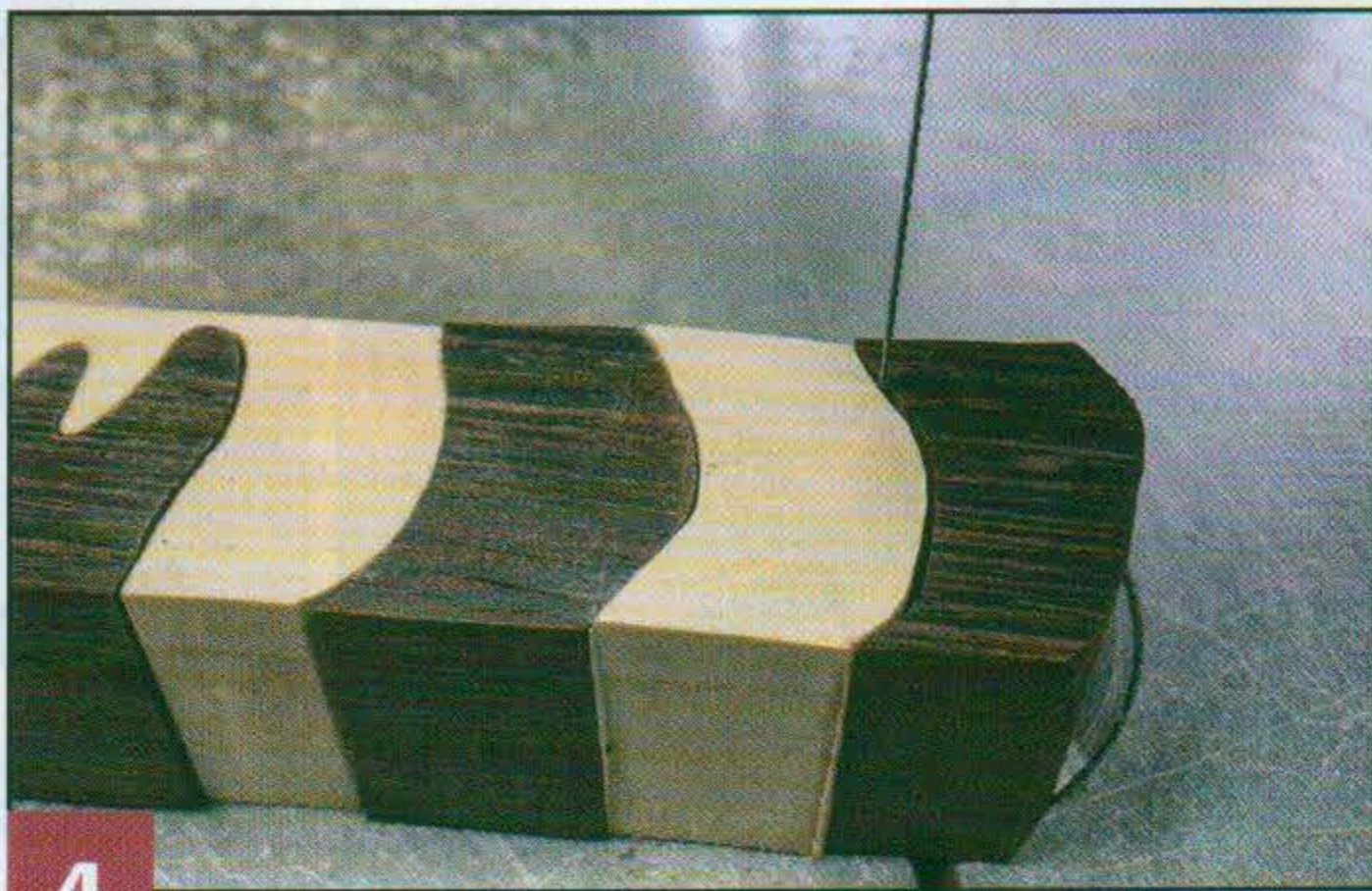
2

Cut the inlay pieces. For the inlay stripes, cut exactly on the line on your body piece and on the outside of the line on your stripe piece. This will eliminate the kerf (the material removed by the blade) and allow the pieces to fit tightly together.



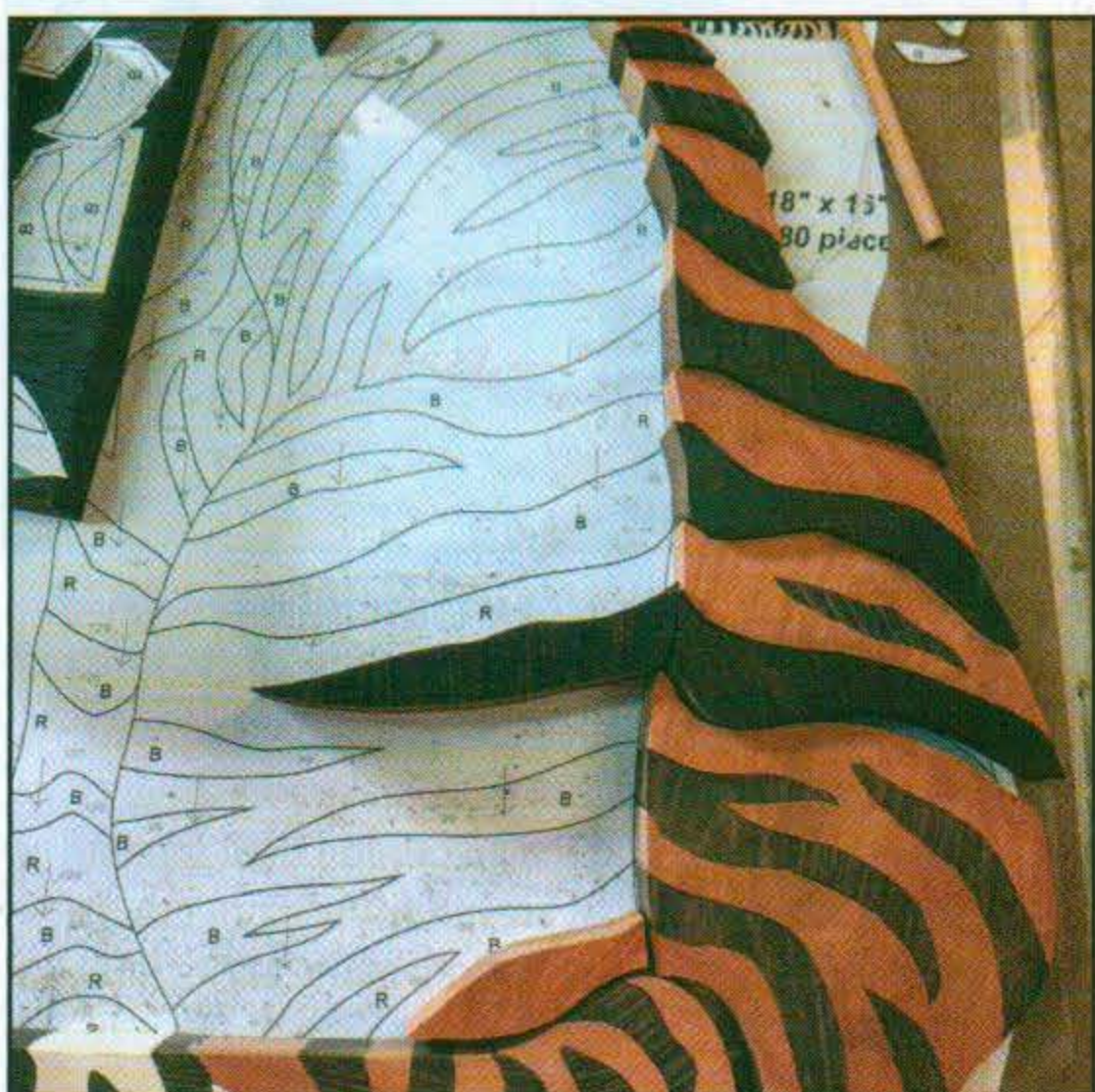
3

Dry-fit the pieces. You may have to make some side adjustments for a tight fit if you pushed your blade and made a slight angle on your inlay piece. The oscillating sander works great for fixing slanted edges.



4

Address any gaps. If needed, you can recut the lines between two pieces with a #3 blade by carefully holding the pieces together as you recut the line. This will draw them together more tightly. You may have to repeat the process a few times to eliminate the gap. This is an advanced technique that requires some practice, but once mastered, it will help to achieve tight-fitting pieces.

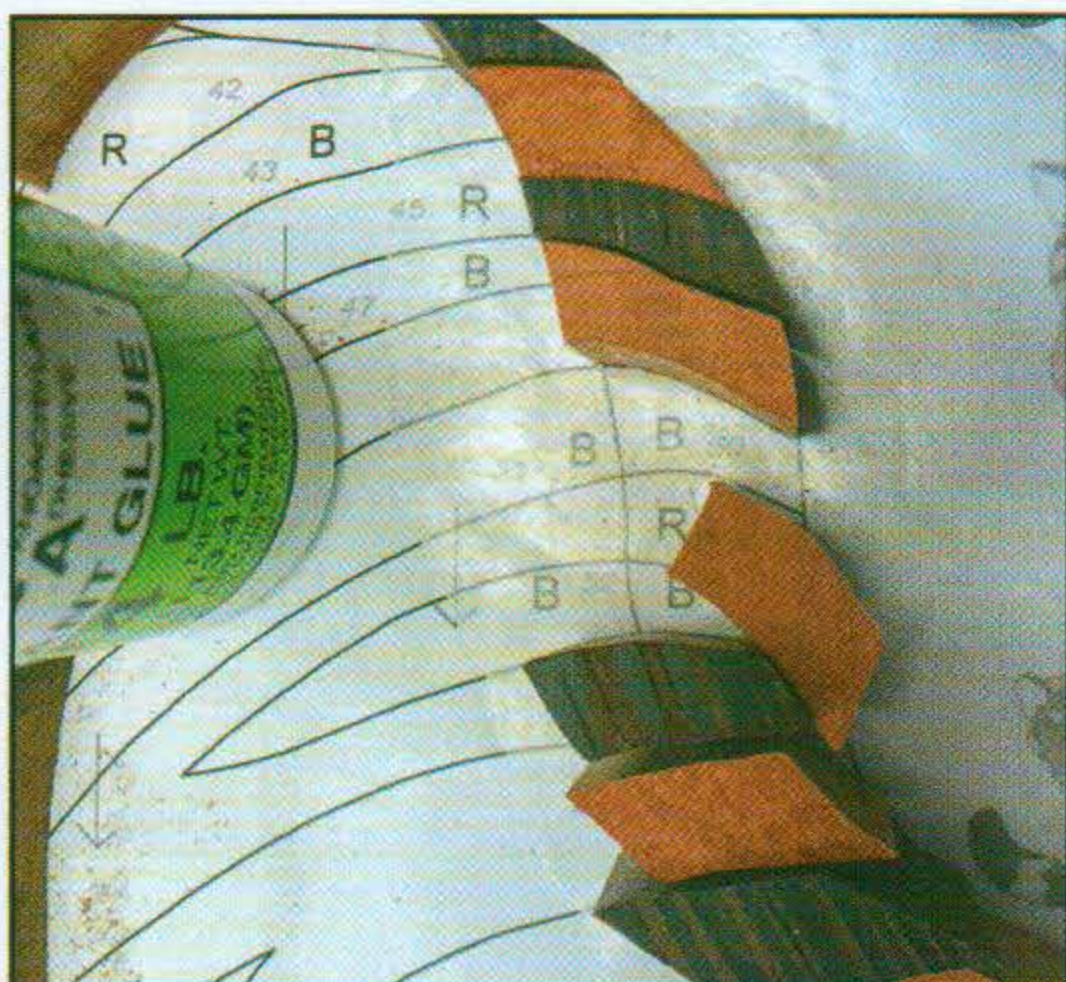


5

Prepare the pieces for glue.

Since this is a complex piece, I pre-glued the stripes into the body sections so I could sand the torso as a unit. I used cyanoacrylate (CA) glue and an accelerator. After gluing each section together, flat-sand the bottom on a Sand-Flee® sander with 150-grit to remove glue and shape uneven pieces for a clean, flat gluing surface.

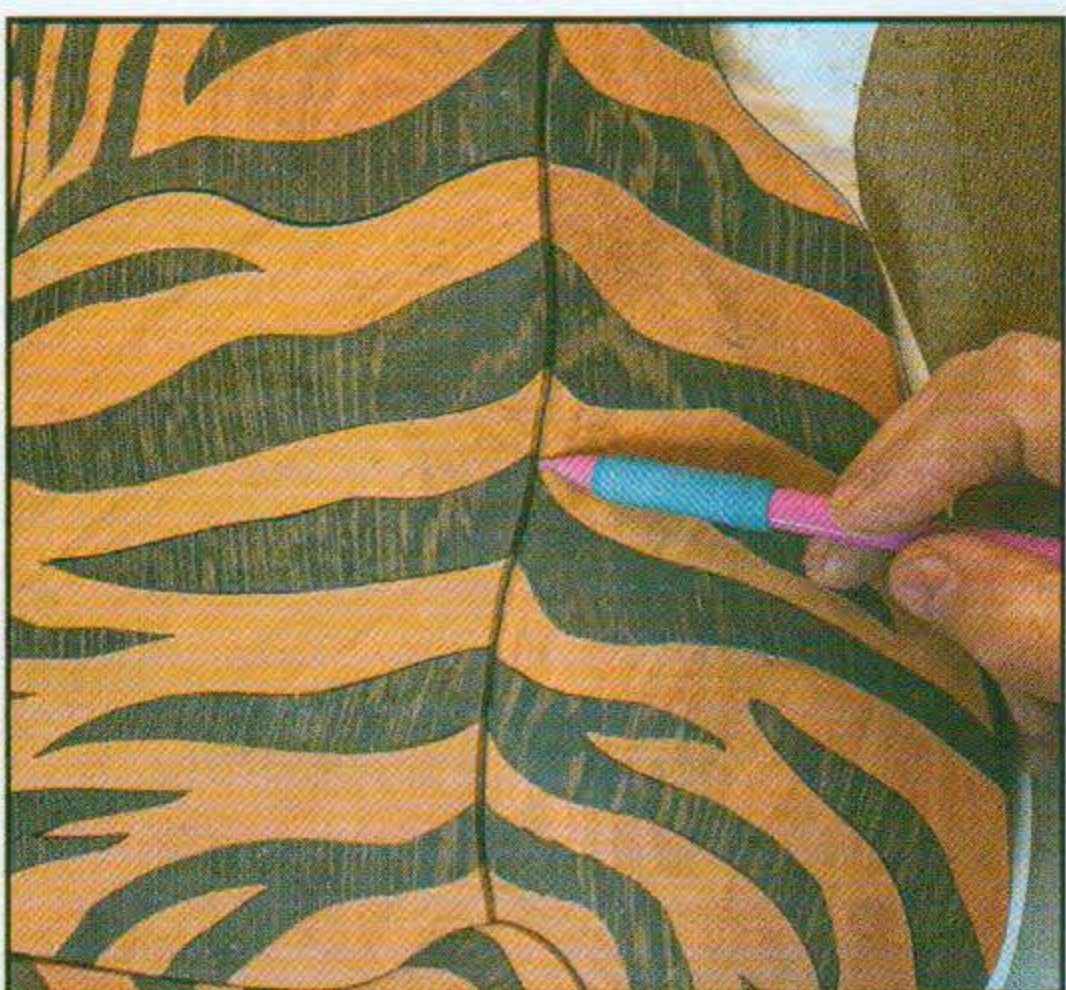




6

Arrange the sections.

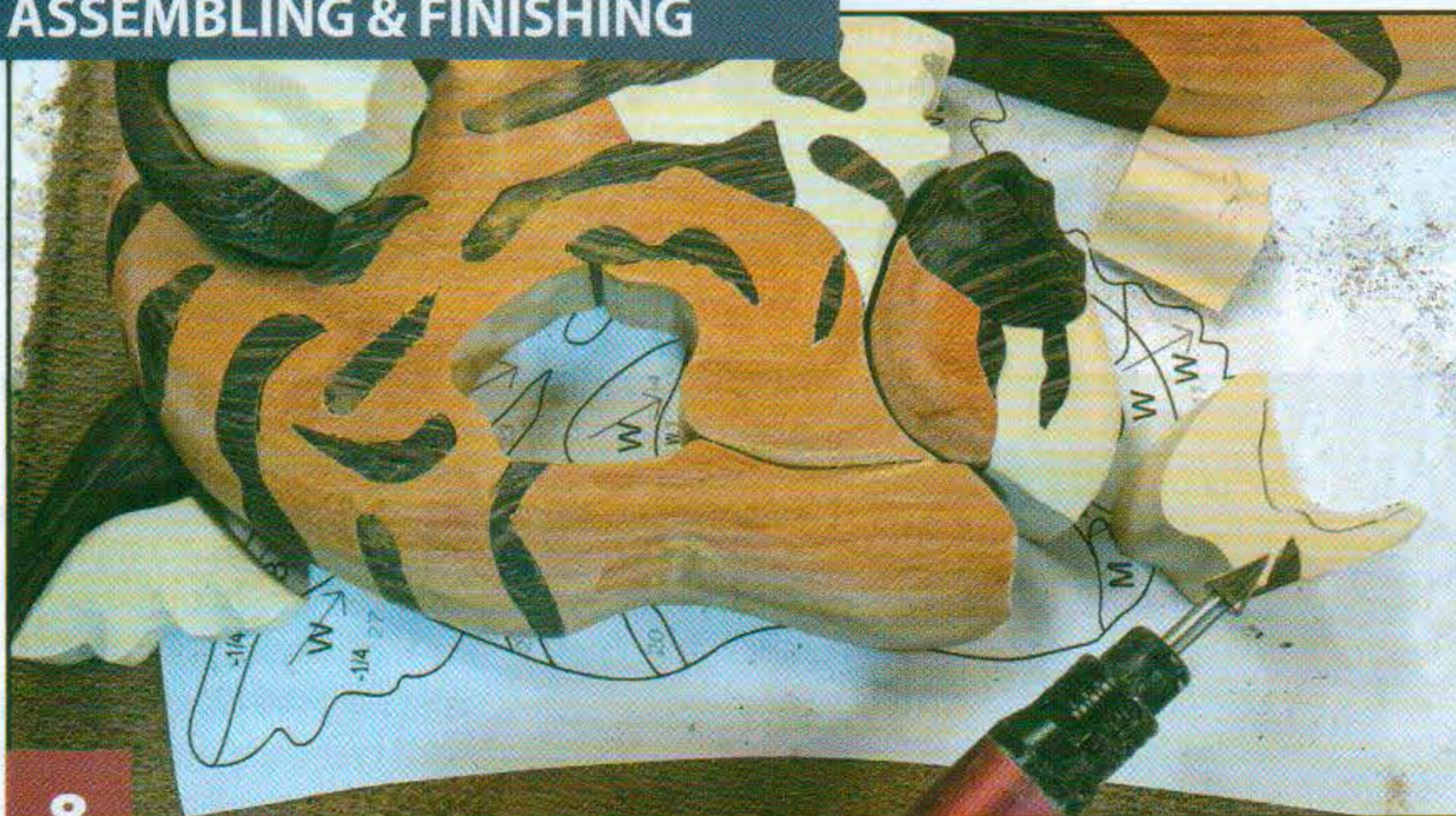
Assemble the sections on top of a sheet of waxed paper placed over the pattern. Glue the stripes and body sections together, making sure to follow the pattern lines as much as possible. When you glue a piece together, make sure it is pushed up to a previously glued section. This will help hold the pieces in the correct place. Continue gluing the stripes to the body in sections. Once all of the stripes are glued, let dry.



7

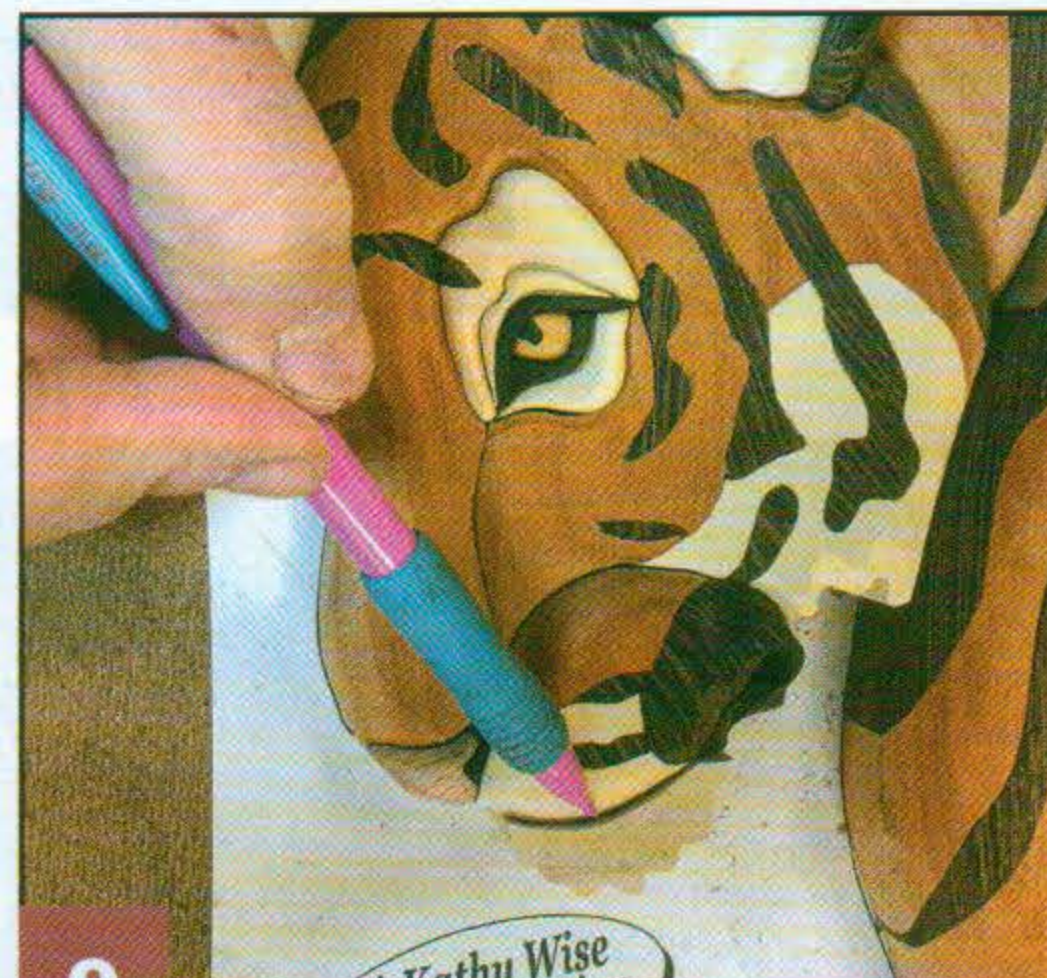
Use a pencil to mark where you want to remove excess wood. Sand down to those lines and replace pieces back into the project often to check how much wood is being removed. Continue to replace and remark as needed. Referencing photos of real tigers is helpful in the shaping phase.

ASSEMBLING & FINISHING



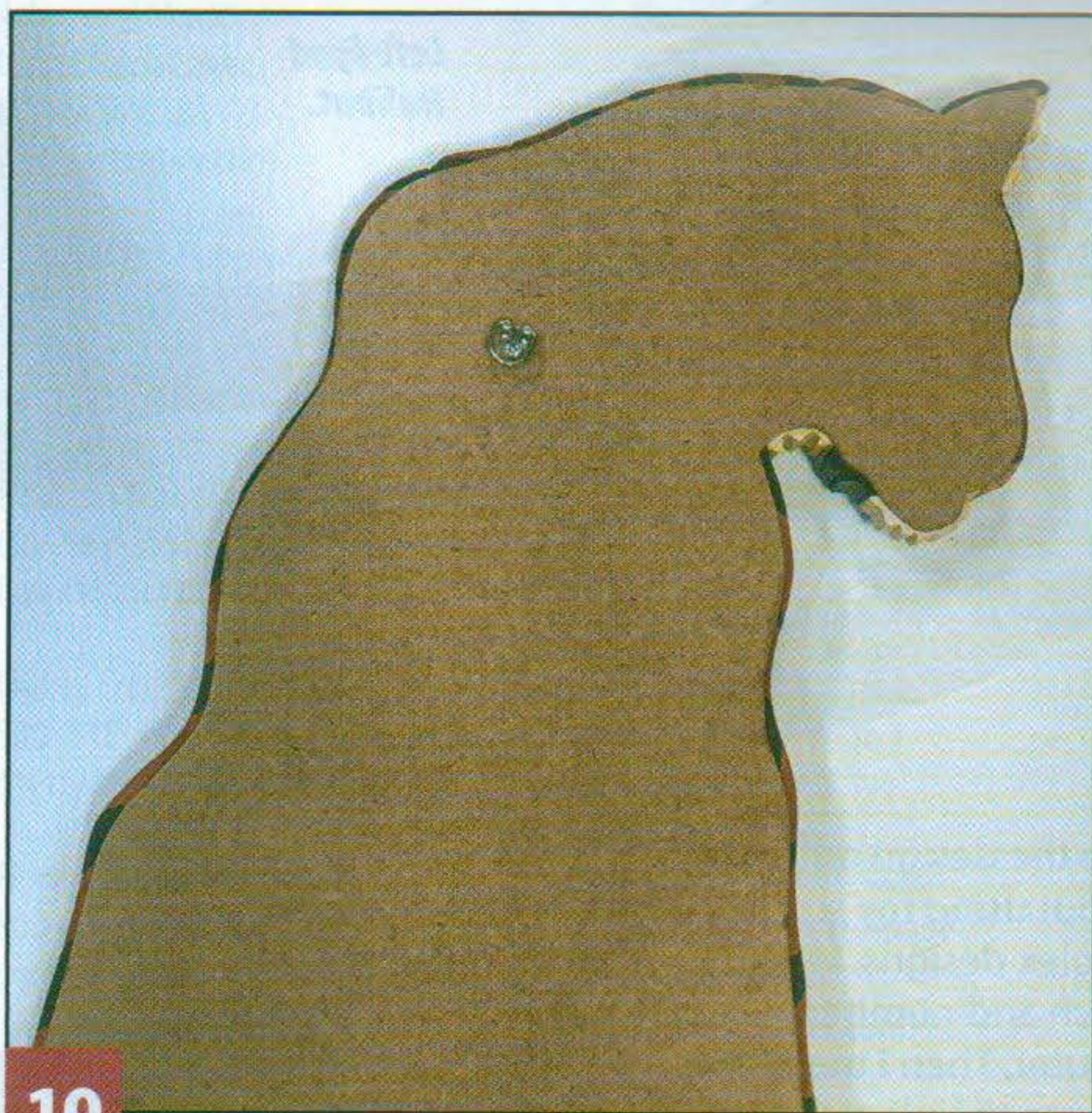
8

Shape each section. The back ear pieces are slightly rounded and lowered to about $\frac{1}{4}$ " to $\frac{1}{2}$ " (6mm to 1.3cm) to give the tiger a more 3D appearance and make the other ear appear closer to the viewer. For the large pieces, I used pneumatic drum sanders with 100- and 220-grit, but you can use a Dremel® if preferred. On the delicate areas, such as the inside edges of the eye, ears, and chin, I used a $\frac{1}{4}$ " (6mm) cone-shaped carbide cutter bit. Don't forget about the small concave wrinkles in the white areas of the ears. Finish sanding all the pieces and check for fit. Use a sanding mop with 150- to 220-grit to finish sanding each piece. The mop works quickly and gets in all of the curves and crevices. Remove excess dust with a clean cloth.



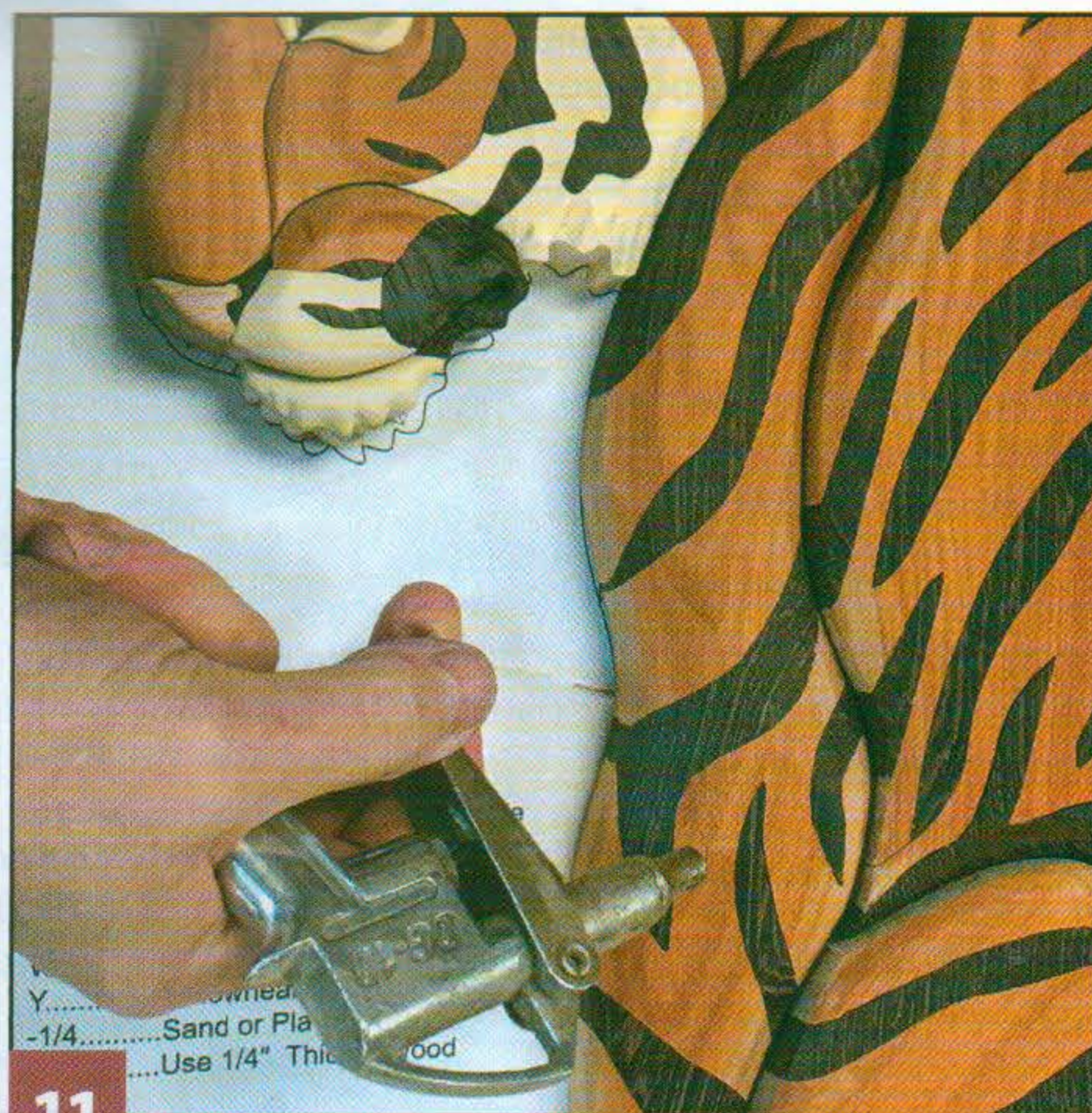
9

Finish gluing. Glue the smaller, pre-glued sections to one another (the head, tail, body right, and body left). Make sure the sections fit tightly together as you glue. Make adjustments as needed by marking the pieces and then sanding or recutting pieces that are not fitting correctly. Let dry and flat-sand the bottom of the entire tiger.



10

Attach the backer. Cut the backer out of 1/8" (3mm)-thick Masonite. Trace the outline of the tiger on the backing material and cut about 1/4" (6mm) inside the line so that the backer doesn't show. Apply dots of Titebond® wood glue evenly on the tiger's back. Don't apply too much or it will come up between the pieces. Use the accelerator on the backer board and press down firmly for about a minute until the glue adheres. Clamping will not be necessary. Attach your hanger of choice.



11

Add finish. Apply a finish of your choice; I used clear satin gel varnish. Using a disposable foam brush, wipe on the finish, and then wipe off the excess with a cloth. Use an air compressor to blow out the gel from the cracks, wiping away excess as it blows out. Use cotton swabs to clean out the inside corners and small areas. Apply two additional coats of finish and let dry overnight. Apply clear gloss finish to the eye for a lifelike look. Let dry and display.

Materials & Tools

Materials

- Medium wood, such as beech, 1" (2.5cm) thick: nose, 2" (5.1cm) square
- Reddish orange wood, such as chakte viga, 1" (2.5cm) thick: body, 8" x 48" (20.3cm x 121.9cm)
- Dark wood, such as ebony, 1/2" (1.3cm) thick: eyes, 2" (5.1cm) square
- Dark brown wood, such as wenge, 1" (2.5cm) thick: body stripes, 8" x 20" (20.3cm x 50.8cm)
- Light wood, such as aspen, 1" (2.5cm) thick: inner ears, cheek, eye area, mouth, and white stripes, 6" x 10" (15.2cm x 25.4cm)
- Yellow wood, such as yellowheart, 1/2" (1.3cm) thick: eyes, 2" (5.1cm) square
- Tempered hardboard, such as Masonite, 1/8" (3mm) thick: backer, 18" x 20" (45.7cm x 50.8cm)
- Pencil
- Sandpaper: assorted grits to 320
- Contact paper: clear
- Spray adhesive
- Glue: cyanoacrylate (CA), wood such as Titebond®

- Accelerator
- Waxed paper
- Gel or spray varnish, such as Varathane®: satin, gloss
- Clean cloth
- Cotton swabs
- Disposable foam brush (for finish)
- D-hanger

Tools

- Scroll saw with blades: #2 or #3, #5 skip-tooth
- Sanders: Sand-Flee®, mop, oscillating, pneumatic drum
- Air grinder
- Planer
- Dremel® or rotary tool with bit: 1/4" (6mm) cone-shaped carbide cutter (optional)
- Air compressor

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

Pattern for the **GAZING TIGER INTARSIA** is in the pullout section.



Kathy Wise is a nationally acclaimed intarsia artist. She has contributed to more than 65 articles for Scroll Saw Woodworking & Crafts over the years, including countless articles for regular issues and additional patterns for a variety of special issues. Kathy has also written four books, and her intarsia designs are included in more than ten Fox Chapel Publishing woodworking books. For a free catalog of more than 850 patterns, contact Kathy at Kathy Wise Designs Inc., P.O. Box 60, Yale, Mich. 48097, wiseintarsia.com, kathywise@bignet.net.

(Continued from page 72)

SSW: What led you to combine your two passions: woodworking and science?

Kim: While working as a marine biologist, I started to see possibilities for a synergy between my passions, where I could share scientific knowledge with the general public through an engaging visual medium like scroll saw art. I mainly focus on lesser-known sea creatures that people might perceive as unusual, such as the fried egg jellyfish and the warty sea cucumber. I want to not only show people that these animals exist, but also express how amazingly cool and well-adapted they are to their particular environments.

For my last gallery show, I wrote descriptions of each organism along with some interesting facts about their physiology or evolution and placed that blurb next to each piece.

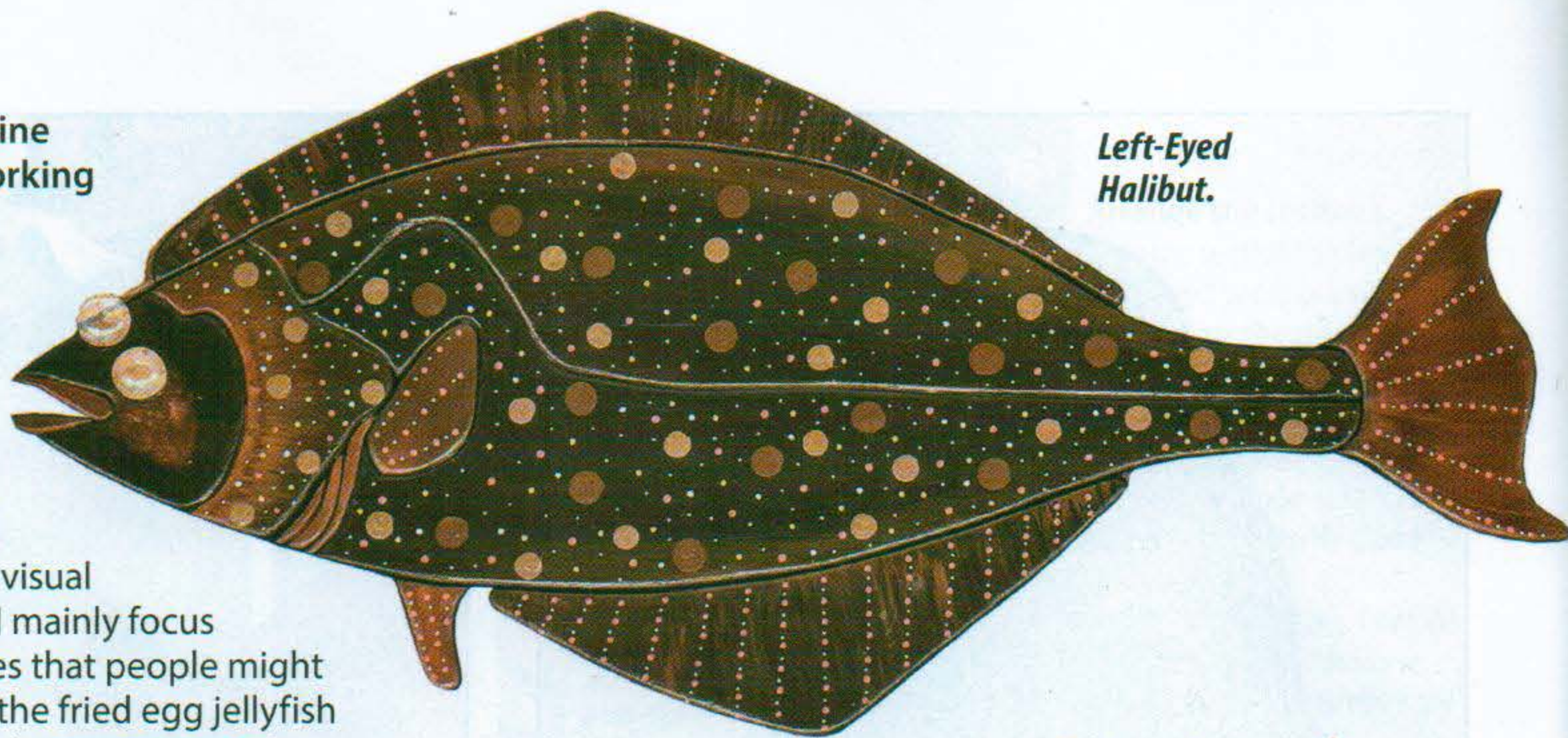
Occasionally, I'll accompany art shows with a scientific presentation to the public based on the animals I have showcased. These shows provide me with a drastically different medium for communicating my research compared to more traditional scientific papers or presentations. I am excited to see where it leads.

SSW: What is your creation process like?

Kim: Once I think of a design I want to try, I sketch it out to visualize the sequence of assembly. Once I'm satisfied with the flow of the pattern,



Tanner Crab.



Left-Eyed Halibut.

I transcribe the design onto wood and cut it out using my scroll saw. For more complex designs, I take a picture of the sketch and number each piece on a computer. Then I transcribe the numbers onto the pieces as I cut them, which allows me to stay organized. Each segment is sanded and painted before assembly. I add finish, sand the edges with 1,500-grit sandpaper, and then put on a final topcoat. To finalize the piece, I add an MDF backer and hanging hardware, which I usually make myself out of baling wire.

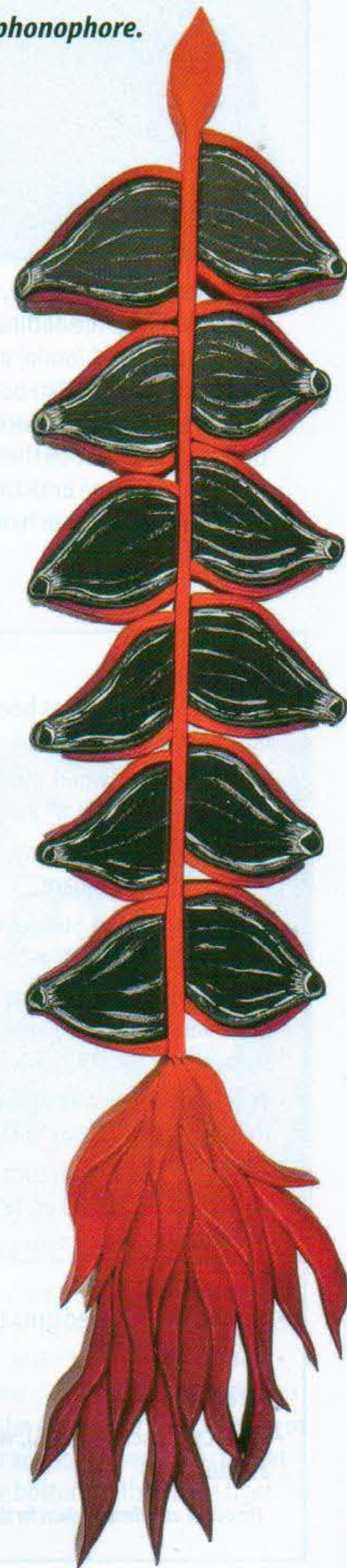
SSW: What do you hope people learn from your wooden art?

Kim: I hope that people learn more about the creatures that live in our oceans, especially the ones that aren't so well known—take siphonophores, for example. Siphonophores aren't just one animal, but are multiple organisms, known as zooids, living together in a colony connected by a vertical, branch-like tissue. Most siphonophores are small, but one species, known as the giant siphonophore, can grow to be longer than a blue whale!

I also want to share lesser-known facts about the well-known sea creatures, like rockfish; they're fished both commercially and for sport in Alaska and can live to be older than 100! I hope to pass along the knowledge and passion I have for these organisms to increase awareness about the interconnectedness of the natural world.

To learn more about Kim Schuster's work, visit aqueousdesignsak.com or [@aqueousdesigns](https://www.instagram.com/aqueousdesigns) on Instagram.

Siphonophore.



Advanced Machinery
Inside Back Cover
800-SCROLLER
advmachinery.com

Bear Woods Supply Company
Back Cover
800-565-5066
bearwood.com

Bushton Manufacturing—page 11
620-562-3557
hawkwoodworkingtools.com

Cherry Tree Toys—page 11
800-848-4363
cherrytreetoys.com

Flock It—page 13
800-336-6537
donjer.com

Klingspor Woodworking Shop—page 5
800-228-0000
woodworkingshop.com

Mike's Workshop—page 11
503-760-1614
mikesworkshop.com

Ocooch Hardwoods—page 71
888-322-2432
occoochhardwoods.com

PS Wood Machines—page 17
800-939-4414
pswood.com

Proxxon—page 17
proxxon.com/us

Razertip—page 17
877-729-3787
razertip.com

Seyco, Inc.—page 1
800-462-3353
seyco.com

Spirals by Steve—page 71
479-223-3767
spiralsbysteve.com

Wooden Teddy Bear
Inside Front Cover
888-762-9149
woodentedybear.com

Wudpal—page 5
wudpal.com

Spirals by Steve

Make Scroll Saw Shells from PDF Patterns.
Several different patterns
available with more
being added.



www.spiralsbysteve.com
(479) 223-3767

Use Code SSWC for 10% Off



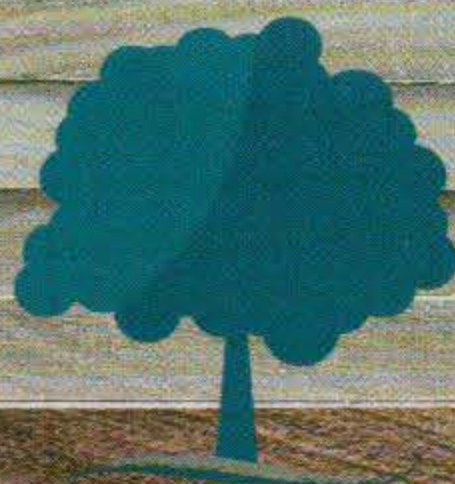
Fox Hunt

Sigrd Marble of Deerfield, N.H., and Debra Vitko of Mineral Point, Pa., were randomly drawn from the participants who located the fox in our last issue (Fall 2021, Issue #14). The fox was taking shelter under the wing of Sarah Chamberlain's Phoenix Puzzle on page 33.

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 11, 2021, to be eligible. Note: The contest fox is an outline drawing that would have left if its feet were on the "ground" (other foxes appearing in SSW&C don't count).

Send your entry to SSW&C, Attn: Find the Fox, 903 Square Street, Mount Joy, PA 17552 or enter online at scrollsawer.com.

Scroll Saw Ready Hardwoods



Ocooch Hardwoods

Your choice for

FREE CATALOG

OcoochHardwoods.com
(888) 322-2432

- Carving stock
- Turning blanks
- Intarsia lumber
- Plywood
- Variety of sizes—up to 12" wide
- Over twenty-five species
- Fast service
- Satisfaction guaranteed

STATEMENT OF OWNERSHIP

Statement of Ownership, Management and Circulation Published in accordance with US Postal Service regulations. 1) Publication Title: Scroll Saw Woodworking & Crafts. 2) Publication No.: 1532-5091. 3) Filing Date: August 11, 2021. 4) Issue Frequency: Quarterly. 5) Number of Issues published annually: 4. 6) Annual subscription price: \$29.99. 7) Complete mailing address of known office of publication: Fox Chapel Publishing Co., Inc., 903 Square Street, Mount Joy, PA 17552-1911—Lancaster County. 8) Same. 9) Full Name and complete mailing address of Publisher, Editor, and Managing Editor: Publisher—Alan Giagnocavo, 903 Square Street, Mount Joy, PA 17552-1911, Lancaster County. Editor—Kaylee Schofield, 903 Square Street, Mount Joy, PA 17552-1911, Lancaster County. 10) Owner: Alan Giagnocavo, 903 Square Street, Mount Joy, PA 17552-1911, Lancaster County. 11) Known Bondholders: none 12) Tax Status: Has not changed during preceding 12 months. 13) Publication Title: Scroll Saw Woodworking & Crafts. 14) Issue Date for circulation data below: Summer/March 2021. 15) Extent and Nature of Circulation—Average No. Copies Each Issue During Preceding 12 months/Actual Copies of Single Issue Published Nearest to Filing Date: A. Total Number of Copies (net press run): 36,300/36,066. B. (1) Paid Outside County Mail Subscriptions: 13,701/13,227. B. (2) Paid In-County Subscriptions: 0/0. B. (3) Sales Through Dealers and Carriers, Street Vendors, Counter Sales and Other Non-USPS Paid Distribution: 6,754/7,881. B. (4) Other Classes Mailed Through the USPS: 145/104. C. Total Paid Circulation: 20,600/21,212. D. Free Distribution by Mail (Samples, Complimentary, and Other Free) (1) Outside-County: 38/36 (2) In-County: 0/0 (3) Other Classes Mailed Through the USPS: 117/150. (4) Outside the Mail (carriers or other means): 201/271 E. Total Free or Nominal Rate Distribution: 356/457. F. Total Distribution: 20,956/21,669. G. Copies Not Distributed: 15,344/14,397. H. Total: 36,300/36,066. I. Percentage Paid and/or Requested Circulation: 98.3%/97.9%. 16.) Total Circulation includes Electronic Copies: No 17) Publication Required. Will be printed in the Winter 2021 issue of this publication. 18) Kaylee Schofield, Editor—8/11/21.

Scrolling the Ocean Floor

Marine biologist Kim Schuster uses a scroll saw to teach science to the masses

By Kelly Umenhofer

Photography by Kim Schuster and Bryan Peters

Kim Schuster is not afraid to go to great lengths (and depths) to explore her passion. During her middle school years, she was determined to sign up for shop class rather than the recommended home economics course. After petitioning the school for an exemption, she was allowed in, and she took to the scroll saw like a fish to water. Years later, when she became a marine biologist and worked on an expedition ship in Antarctica, Kim decided to incorporate her love of scrolling into her day job. She discovered that she could share her scientific knowledge with others through her scroll sawn art.

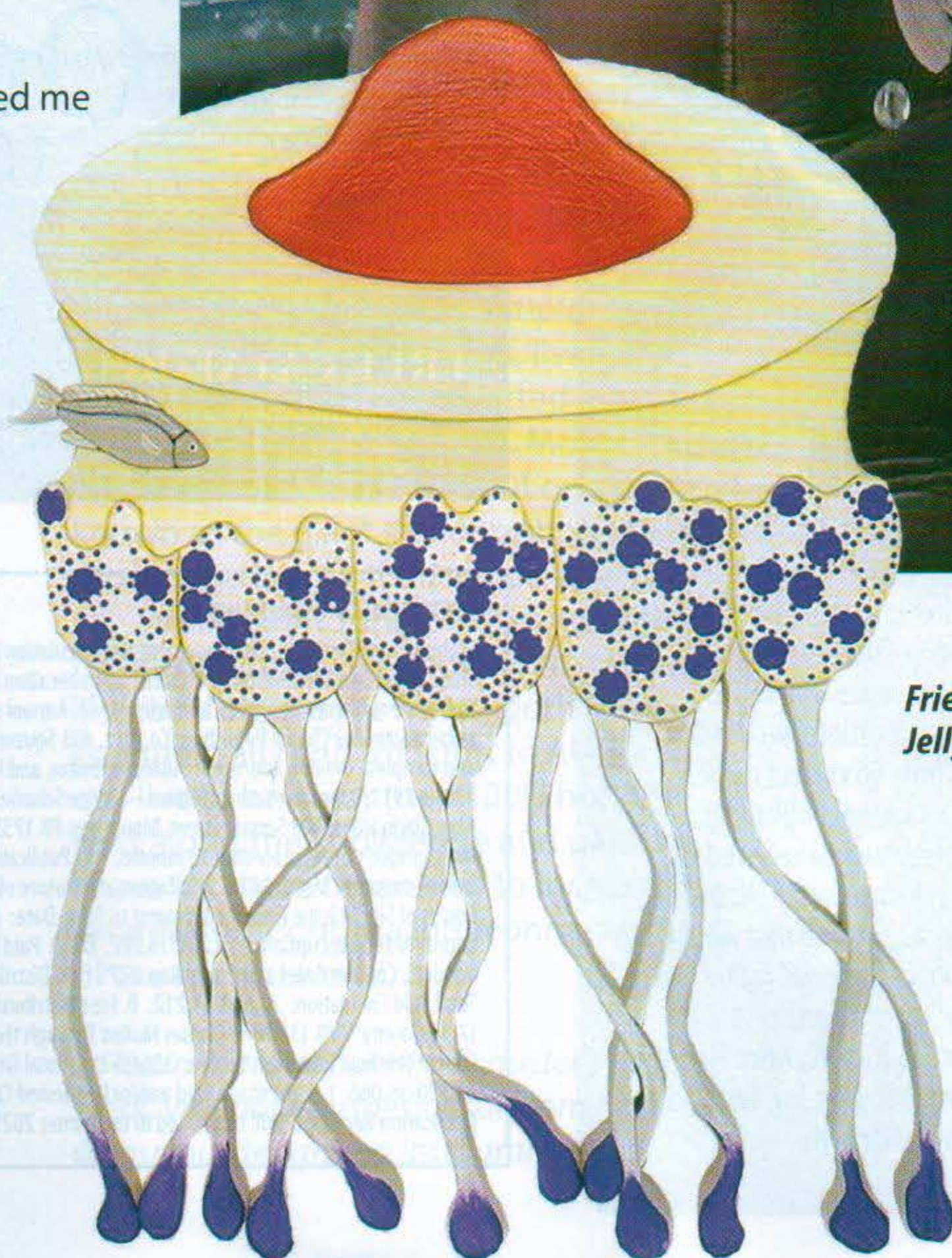
SSW: What subjects inspire you the most?

Kim: My career as a marine biologist has allowed me to spend time in remote, seldom-visited areas, such as the Aleutian Island chain in Alaska and the Antarctic Peninsula. While in Antarctica, I worked as a guide on an expedition ship, where I discussed the scientific research being done there to visitors and showed them the local fauna and landscapes. A lot of my field work involves cold-water scuba diving—which has inspired my art as well as my desire to share the wonders of the natural world with others. Jacques Cousteau said it best: “The sea, once it casts its spell, holds one in its net of wonder forever.”

SSW: Why is the scroll saw your tool of choice?

Kim: I love its versatility. I enjoy manipulating the wood as I’m cutting it instead of manipulating the saw—it helps me feel more connected to the piece I am creating. The scroll saw also allows me to achieve intricate detail, which I take advantage of in my more complex designs.

(Continued on page 70)



Fried Egg Jellyfish.

HEGNER

The Ultimate Upgrade

HEGNER Multimax
18-V with HLX7 Deluxe
Accessory Package.

Unsurpassed long-term
reliability and value:

- Fast & Easy Blade Change
- Smooth, quiet operation
- Superior Control
- Smooth Edges...
No Sanding!

Is your old scroll
saw getting tired?
Or have you just
outgrown it?

FACT: Almost any
modern scroll saw
outperforms older spring-
tension saw designs.

FACT: Only hand-
assembled HEGNER High-
Performance Precision
Saws from Germany
consistently outperform
other modern scroll saws.

FACT: A HEGNER is
The Ultimate Upgrade for
your scrolling shop.

Why settle for less?
You can own the saw
recognized as the
American and world-
wide standard—the
acknowledged leader in
its class—for more than
40 years. And your true
cost is only pennies a day!

Take your scroll sawing
to the next level!
Improve your shop today
with a HEGNER High-
Performance Precision
Scroll Saw.

**It's The Ultimate
Upgrade.**

Learn more: Call **1-800-SCROLLER** or visit **www.advmachinery.com**



Bear Woods

Supply Company | Since 1987

WOOD CRAFT, **HOBBYIST SUPPLIES**, TOOLS
CLOCK PARTS, HARDWARE, **EPOXY RESIN**



PEGAS SCROLL SAWS BLADES & CHUCKS

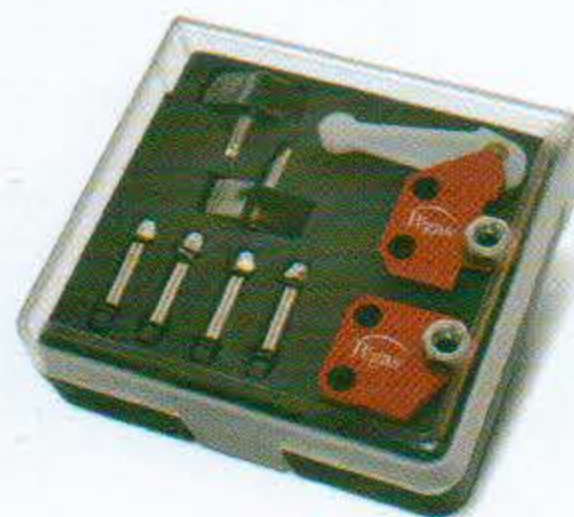
"The first time I installed a good blade in my scroll saw, it was like I had upgraded my entire machine. I was hooked."

Steve Good — Author of
"The Scroll Saw Workshop"



21" Throat Depth, Upper Arm Raises, Proven Motor and Linkage. Swiss-made build quality, precision engineering at it's finest. Features a quick blade changing system thanks to the included Pegas Chuck Head that comes with every purchase.

bearwood.com/scrollsaw



Remove vibrations from your scroll saw today. Pegas Blade Chuck Heads weigh 40% less than competitors. Change blades quicker and easier.

MARATHON HIGH-SPEED ROTARY TOOL

The sleek, versatile, compact design of these micromotors make them easy to use and economical. Finish your next scroll piece the right way. Remove fuzzies and add intricate details easily.

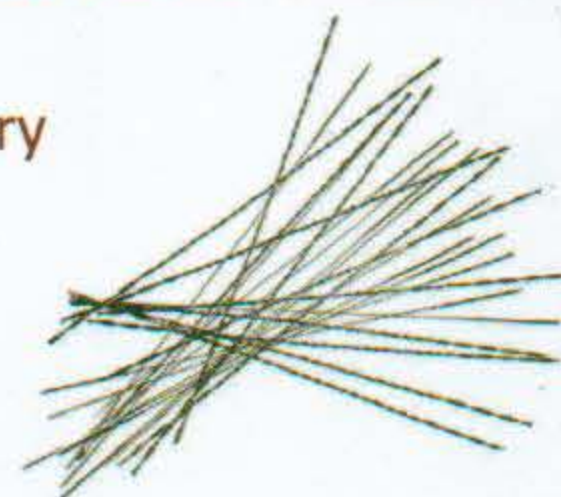
bearwood.com/rotary

KUTZALL ROTARY BITS & BURS

The Kutzall Original tool line provides a fast stock removal with an outstanding finish, making them the most universal and best value for their price range.

bearwood.com/kutzall

- Modified Geometry
- Skip Tooth
- Pinned
- Metal Cutting
- Spiral & More



SAFETY AND LIGHTING

Having a safe working-environment is the most important part of any job or task, that's why we carefully selected these supplies for durability and versatility.

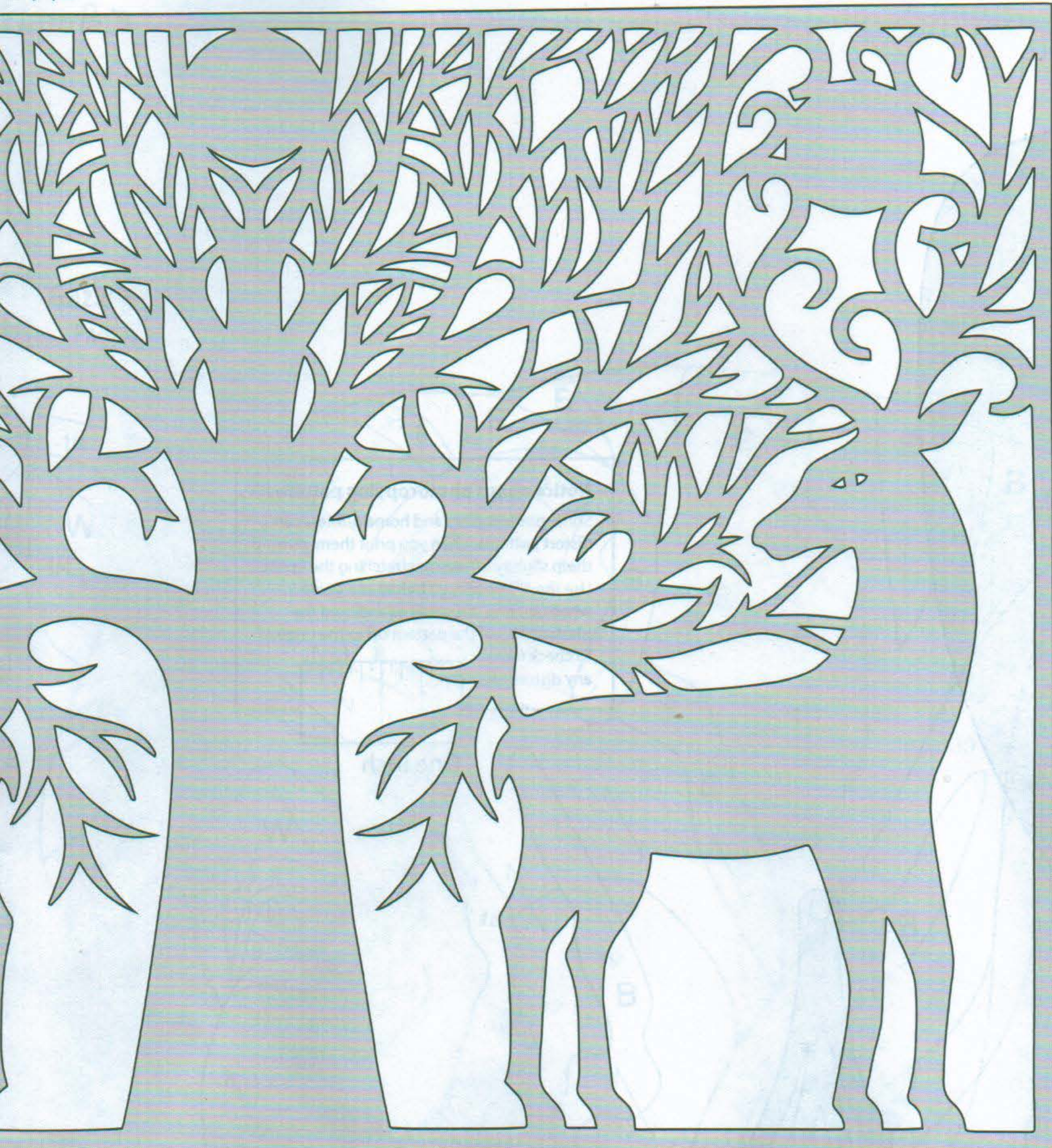
bearwood.com/safety



Learn More: Call **1-800-565-5066** or visit **www.bearwood.com**







Center
1/2" thick

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

All patterns on this pullout section: © 2021 Scroll Saw Woodworking & Crafts

Filigree Holiday Ornaments.....	26	Multilayered Fretwork Ornaments.....	56
Jingle Bells Puzzle.....	32	Forest Fretwork Scene	58
Dinosaur Ramp Walker Toys	35	Christmas Ornament Puzzles	60
Winter Luminary	50	Winter Cardinal Scene	62
Intarsia Gingerbread Ornaments	52	Gazing Tiger Intarsia.....	66

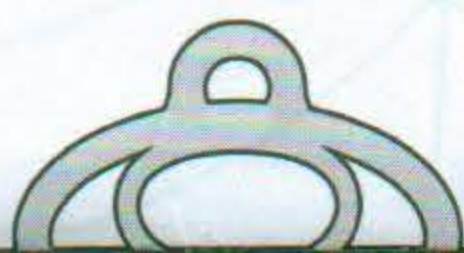
Note to professional copying services. You may make up to ten copies of these patterns for the personal use of the buyer of this magazine.

Filigree Holiday Ornaments

Page 26

SSWC Issue 85

Designer: Keith Fenton



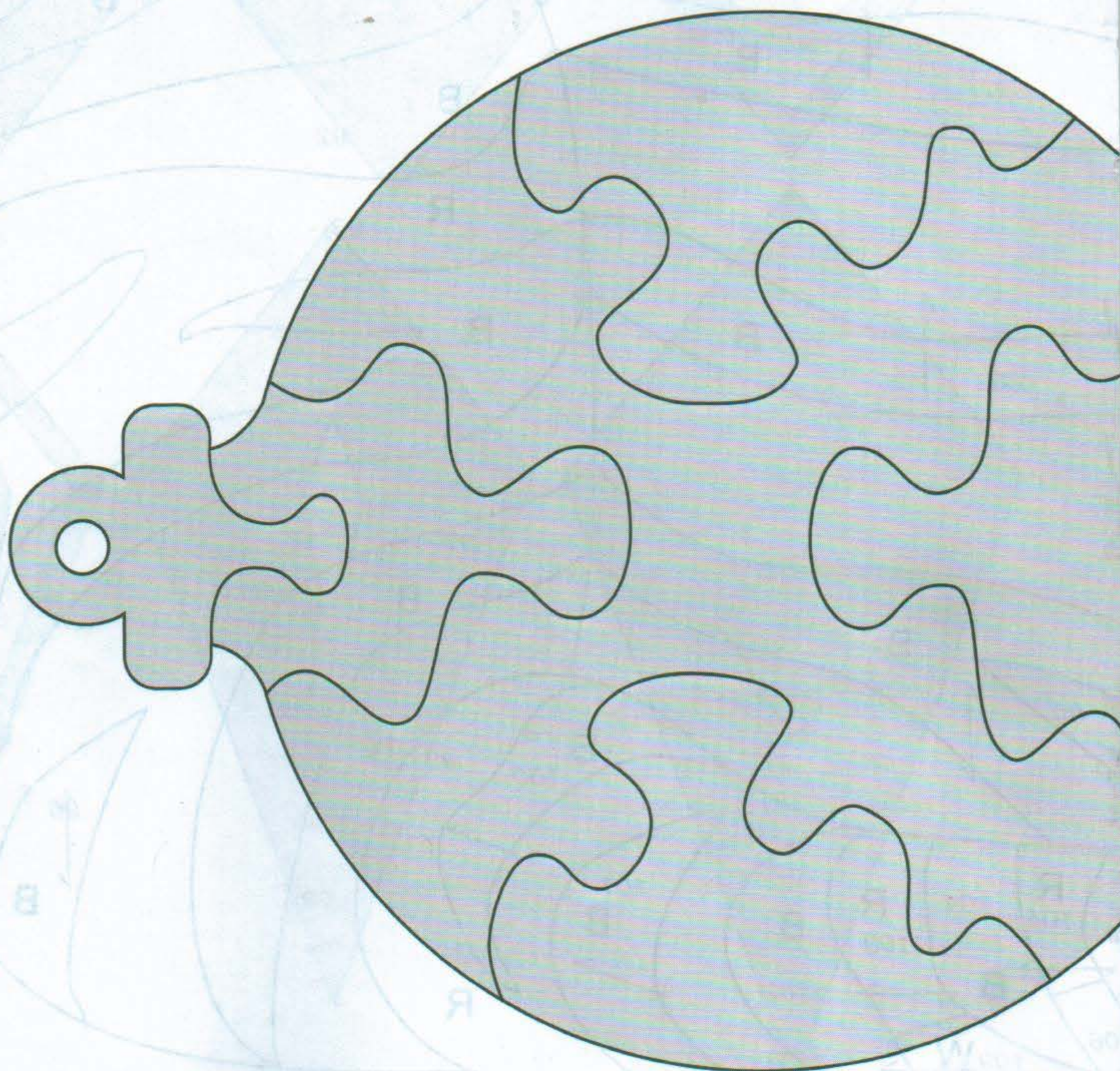
A5



Winter Cardinal Scene

Page 62 - SSWC Issue 85

Designer: Anatoly Obelets



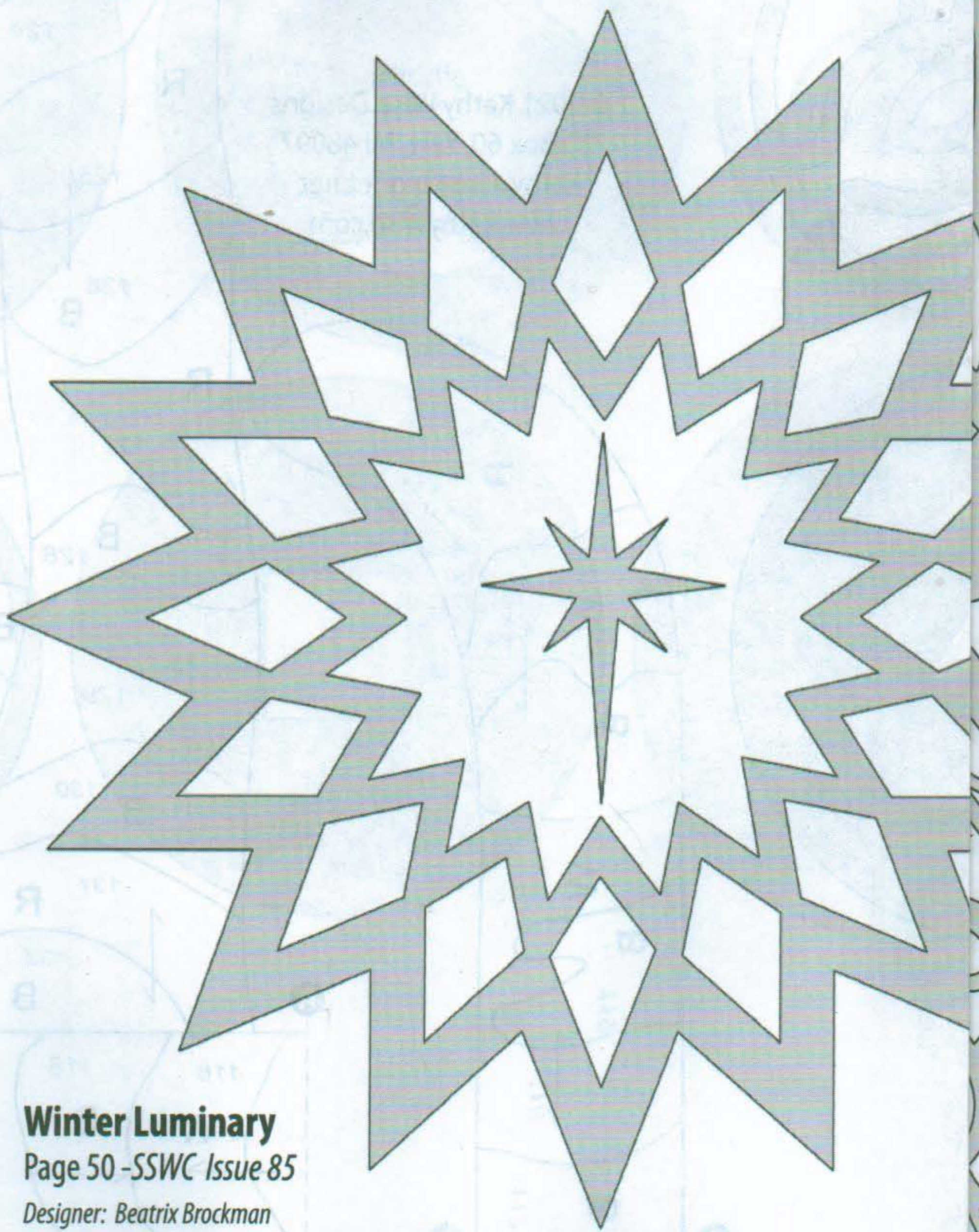


A6

8...
R...
M...
W...
Y...
-N...
+A...

1/4"-diam
hol

**Christmas
Ornament Puzzles**
Page 60 - SSWC Issue 85
Designer: Sarah Lyn Chamberlain



Winter Luminary
Page 50 - SSWC Issue 85
Designer: Beatrix Brockman

A7

Side
Cut 2 - 1/2" thick



meter
e

17/64"-diameter
hole

Rear Leg
1/2" thick

Foot
Cut 2 - 1/2" thick

Dinosaur Ramp Walker Toys

Page 35

SSWC Issue 85

Designer: Paul Fellay

Center
1/2" thick

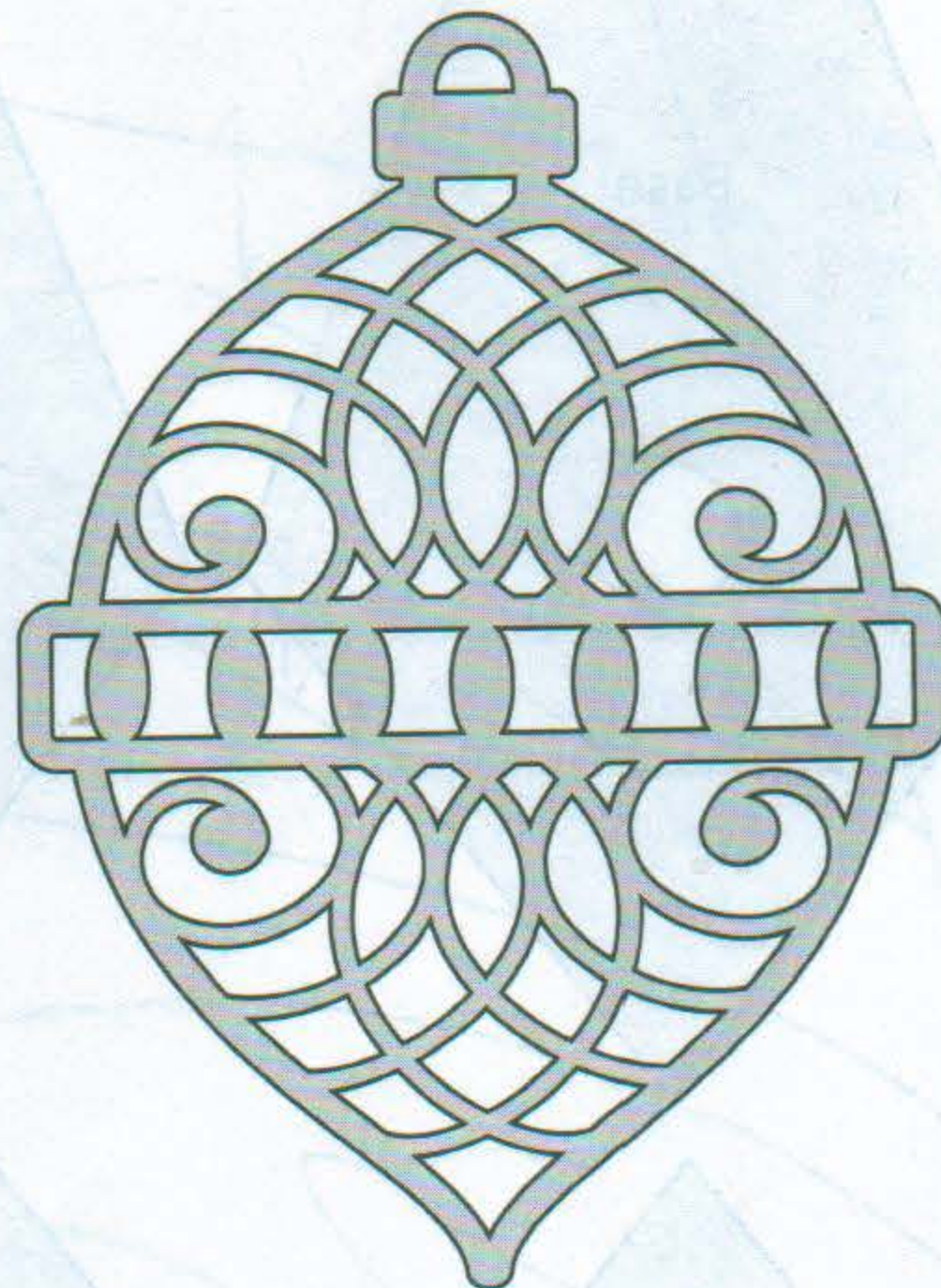
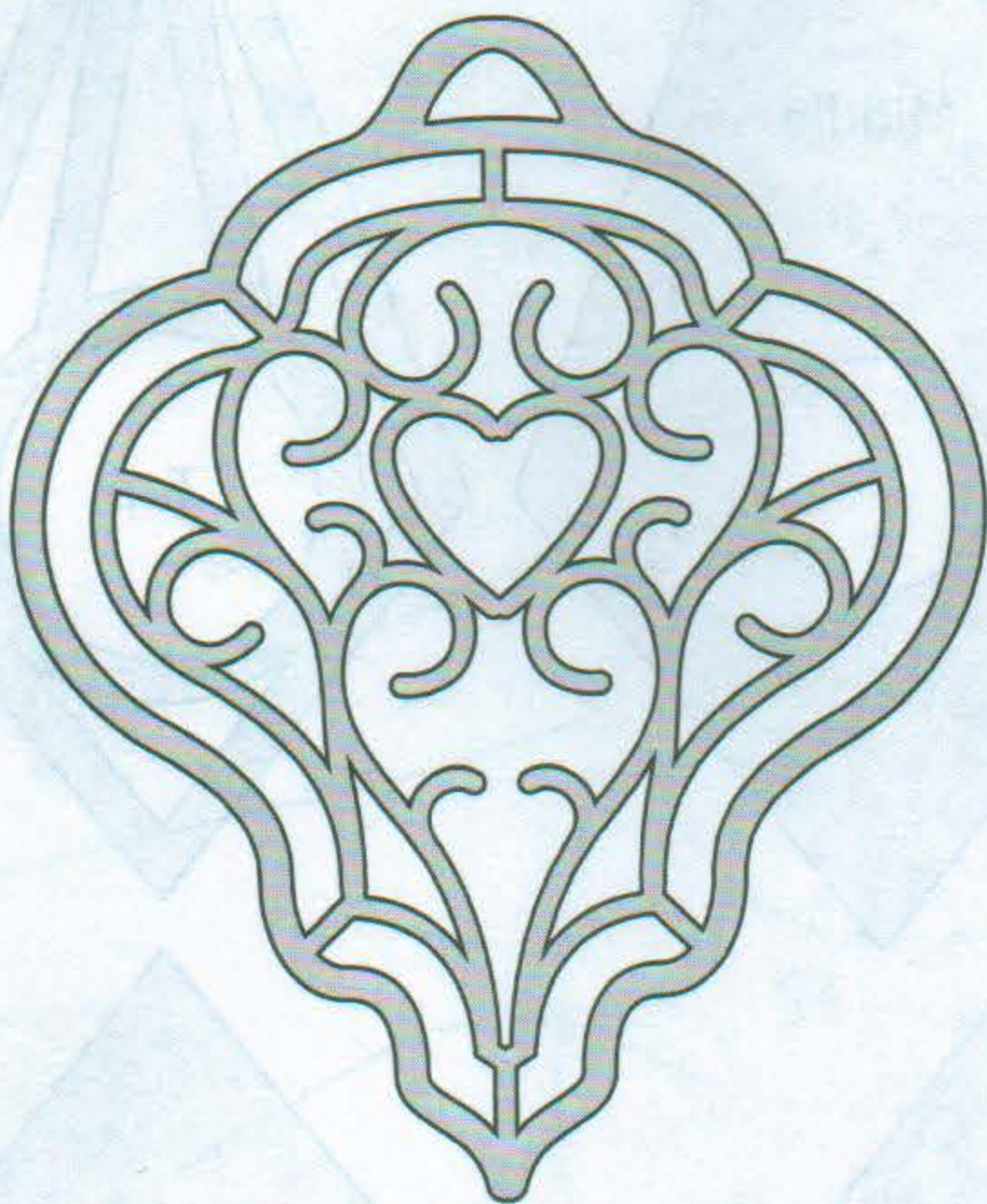
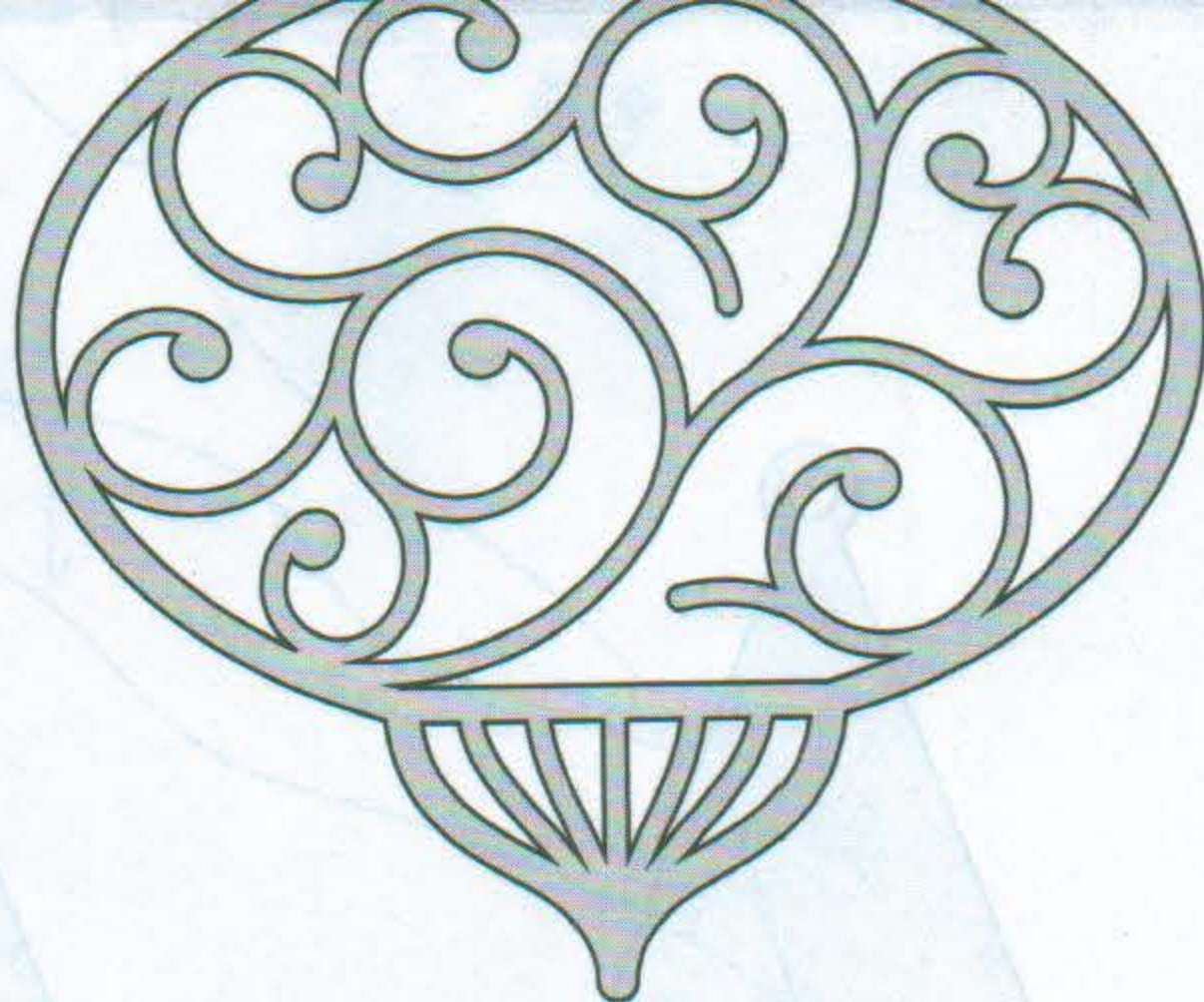
Foot
Cut 2 - 1/2" thick

Side
Cut 2 - 1/2" thick

1/4"-diameter
hole

17/64"-diameter
hole

Rear Leg
1/2" thick

**Notice about photocopying patterns**

Some 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 any distortion.

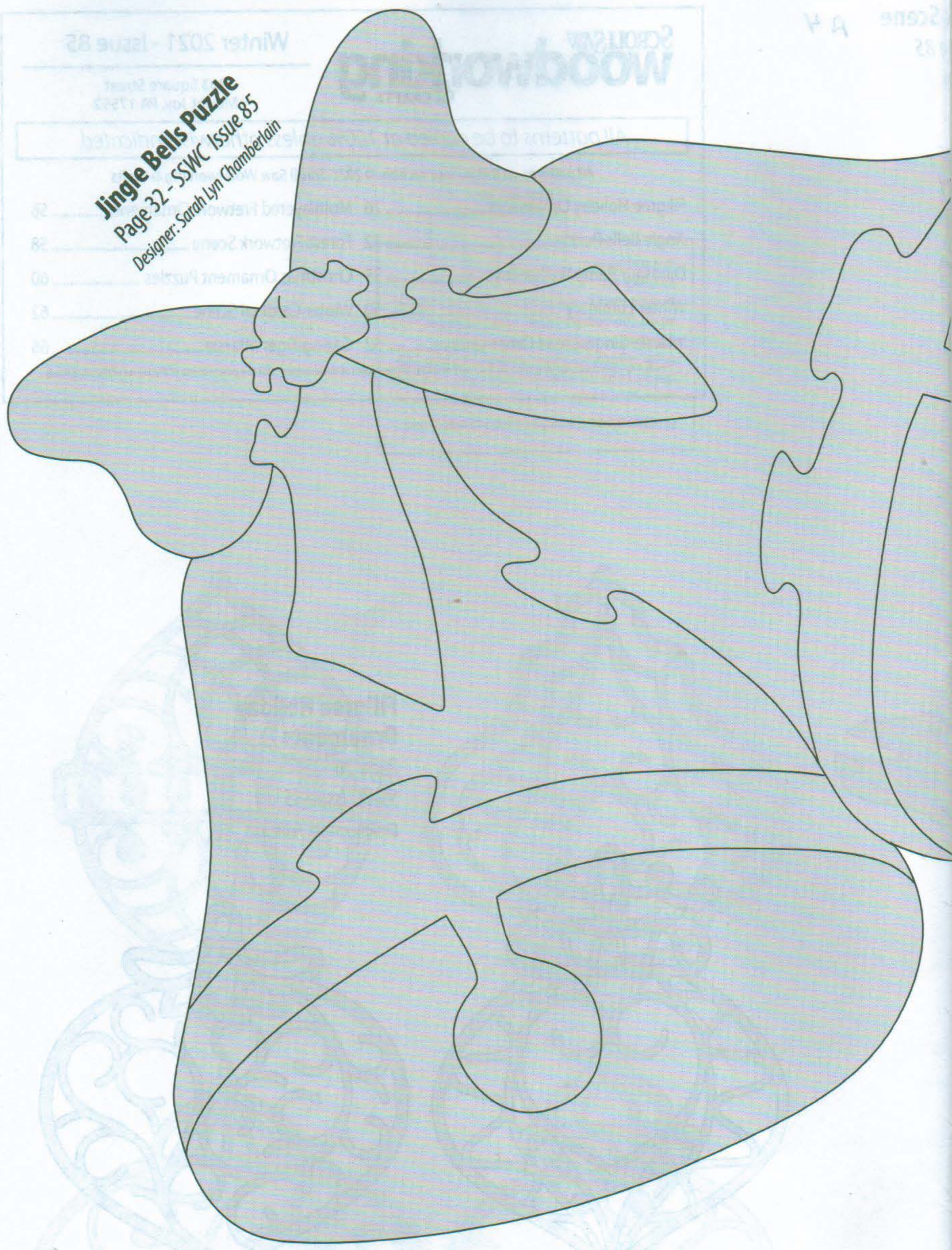


One inch

B1

Winter 2021 - Issue 85

Jingle Bells Puzzle
Page 32 - SSWC Issue 85
Designer: Sarah Lyn Chamberlain



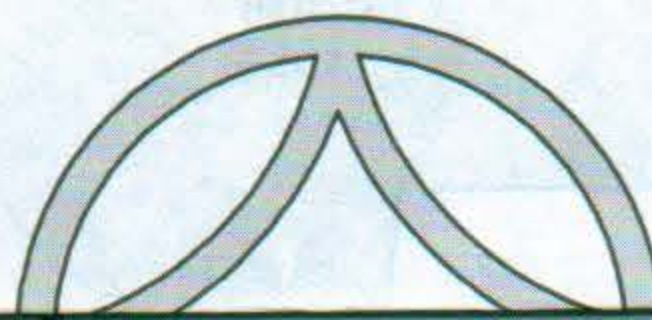
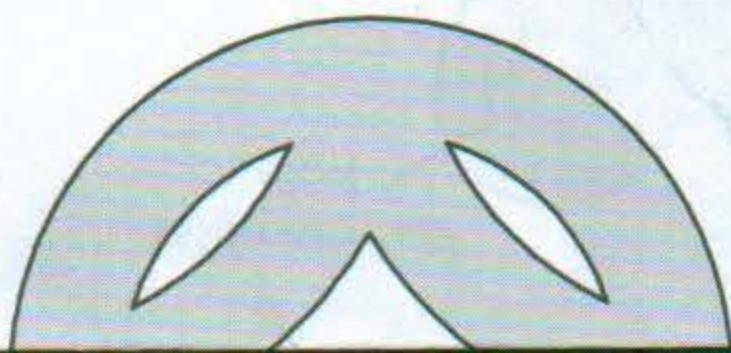
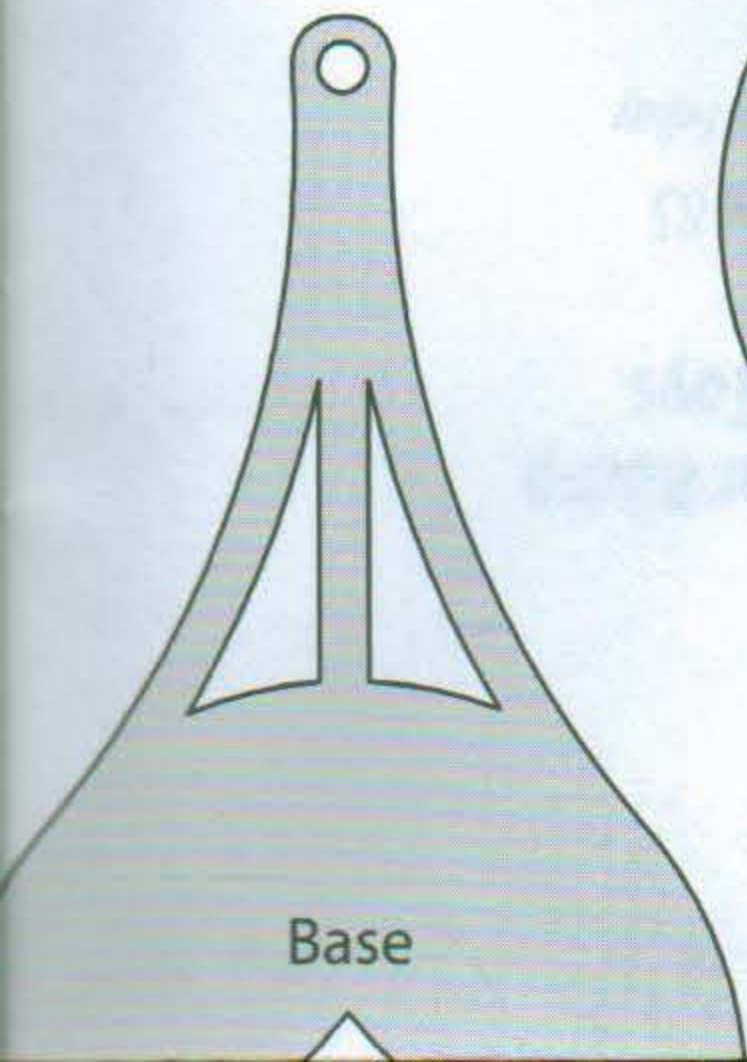
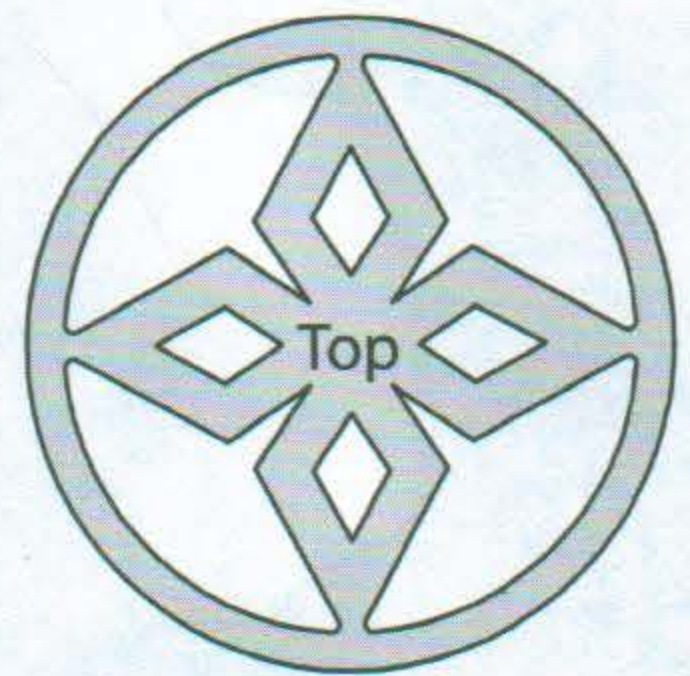
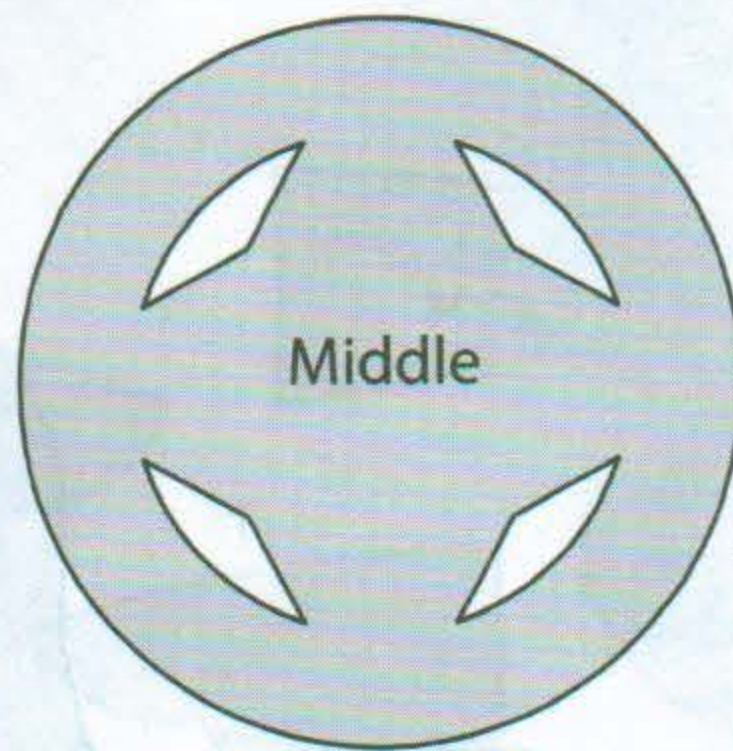
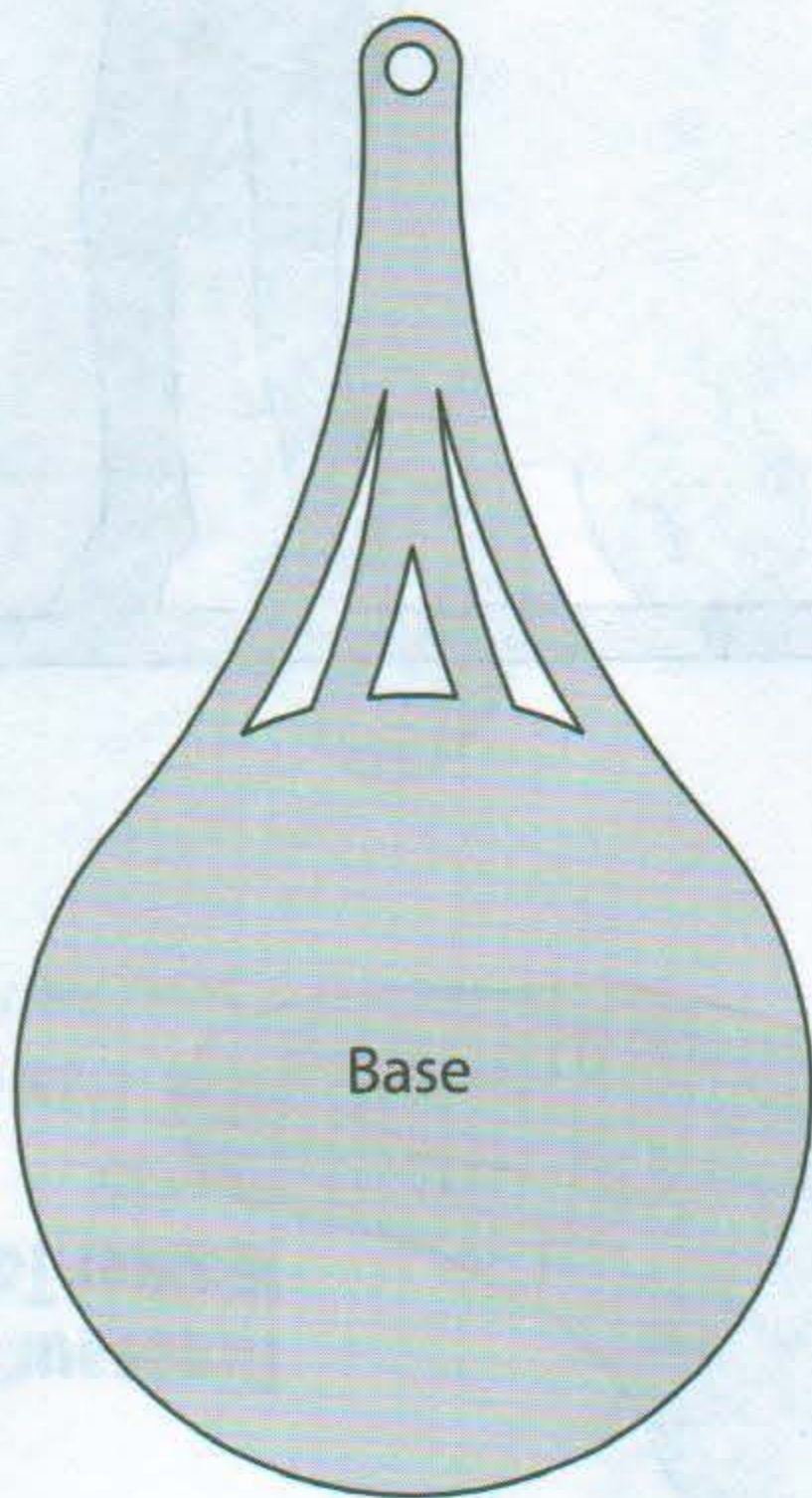


Notice about photocopying patterns

Some 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 any distortion.



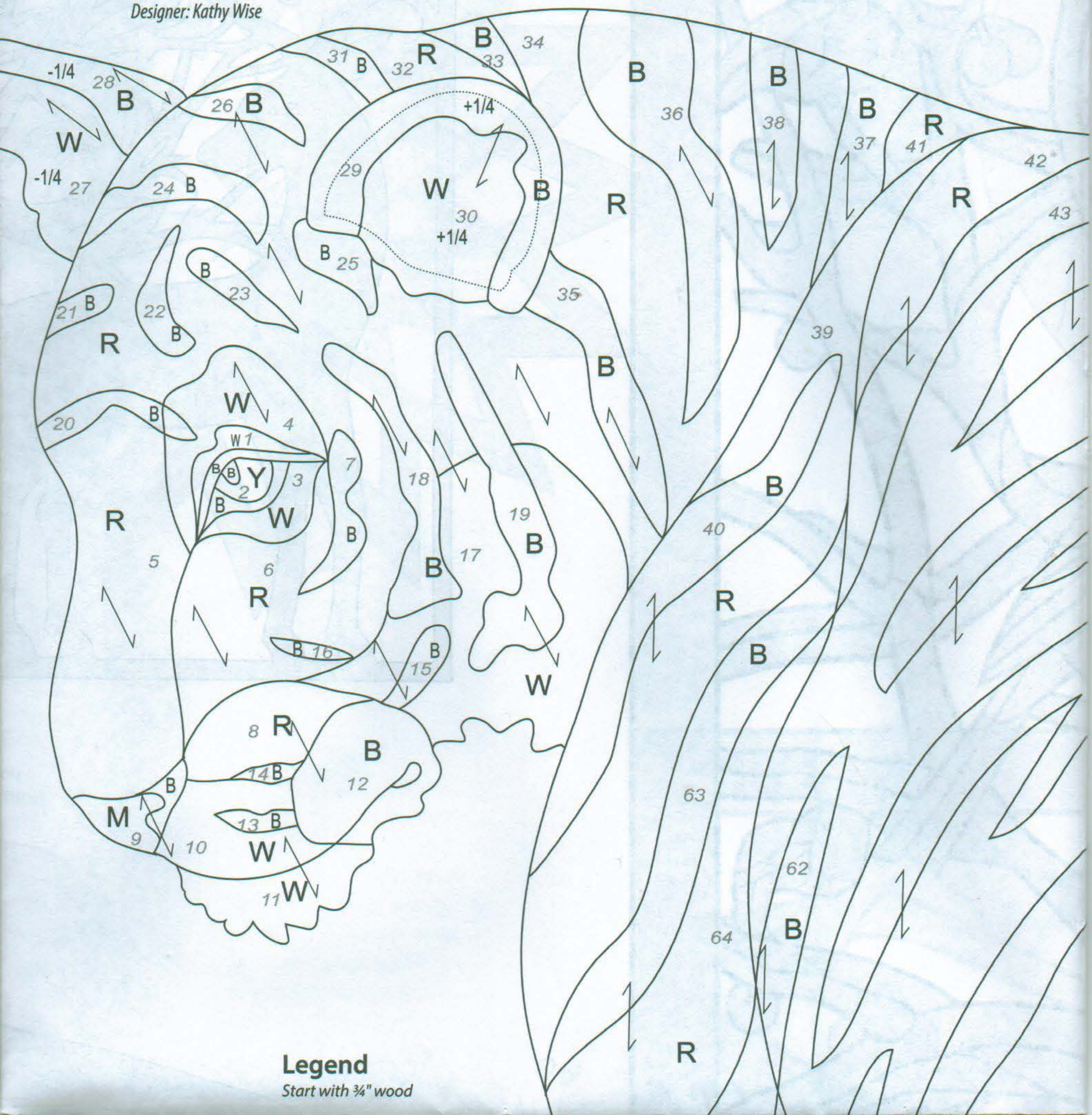
One inch



Gazing Tiger Intarsia

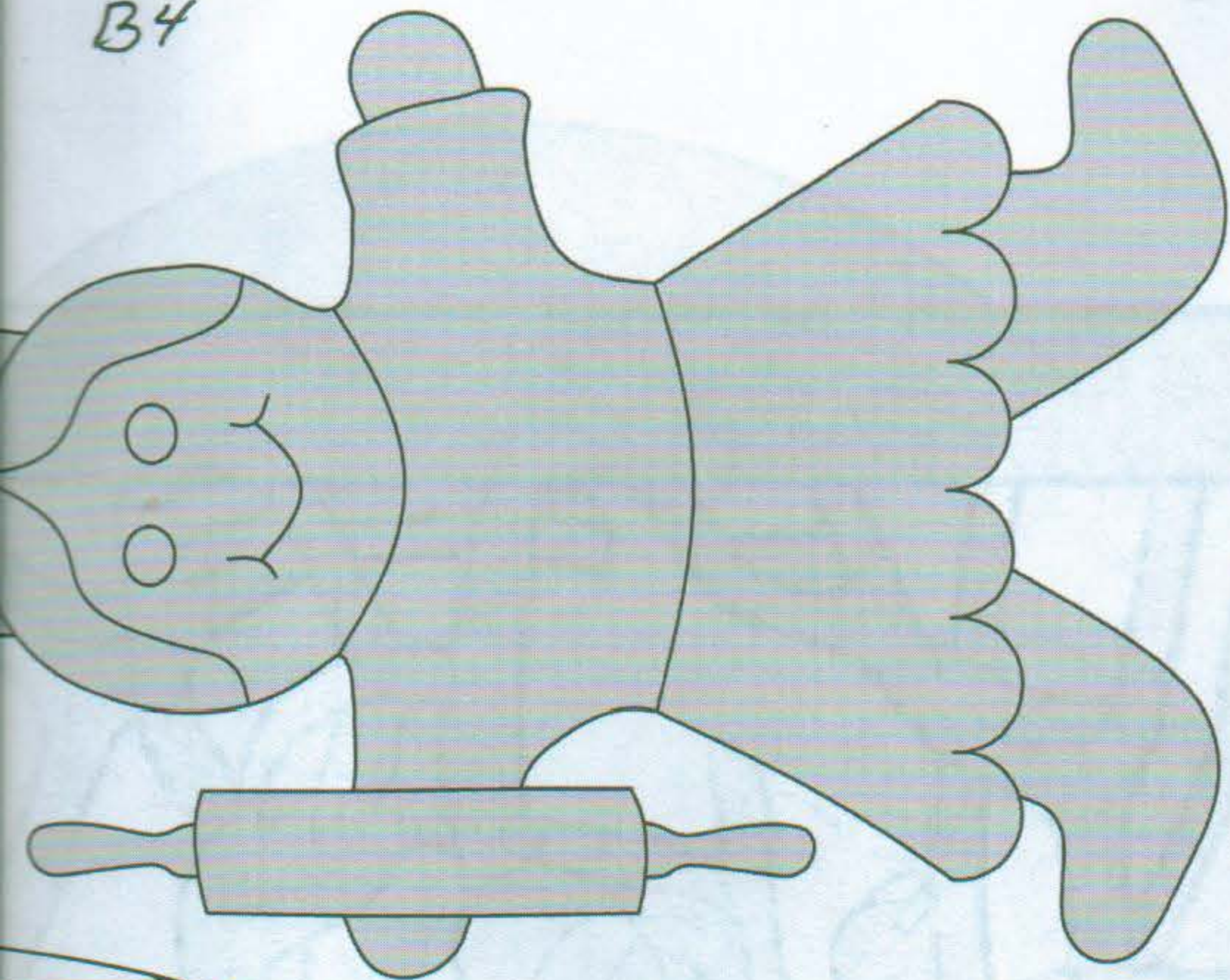
Page 66 - SSWC Issue 85

Designer: Kathy Wise



Legend

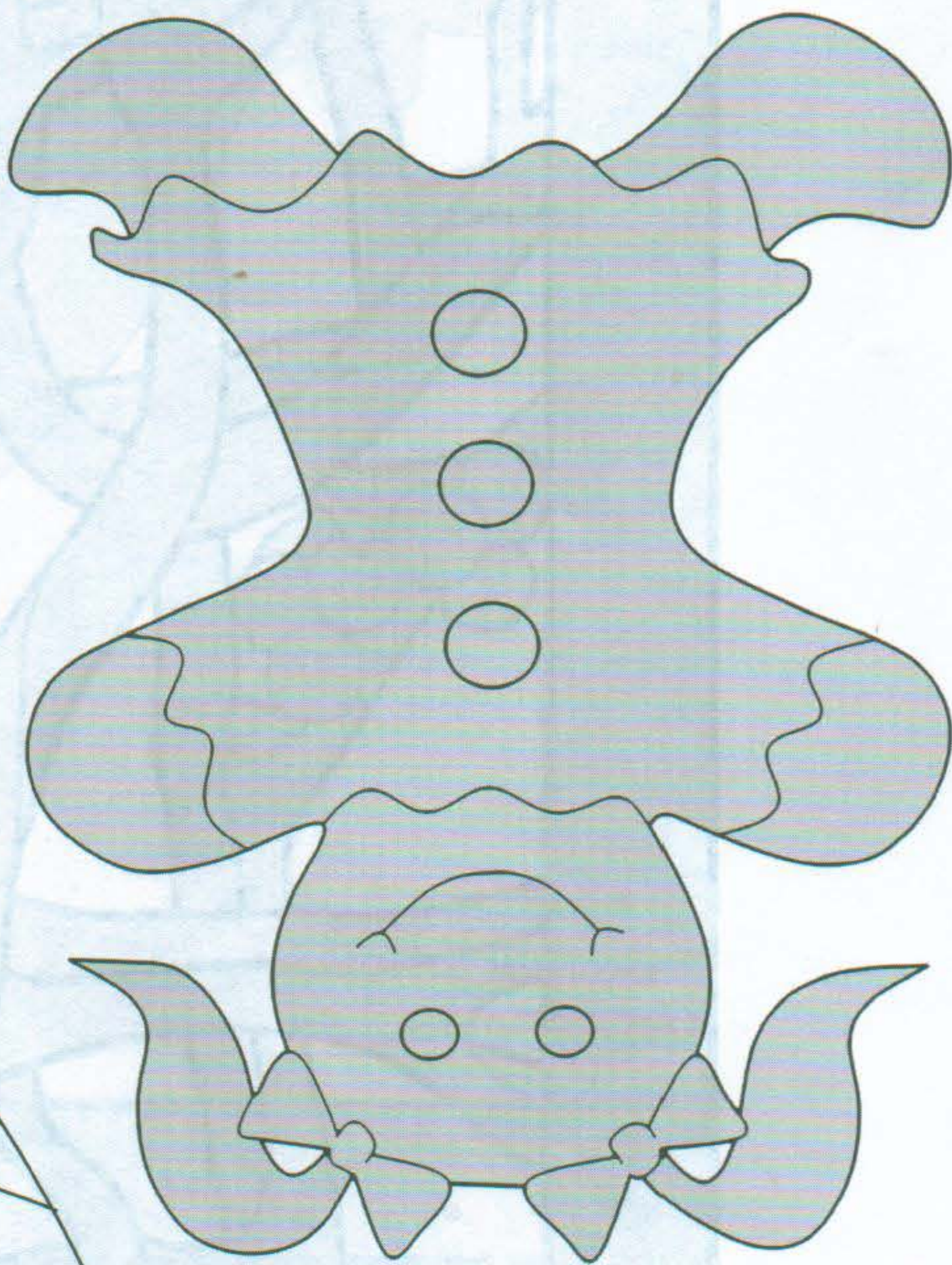
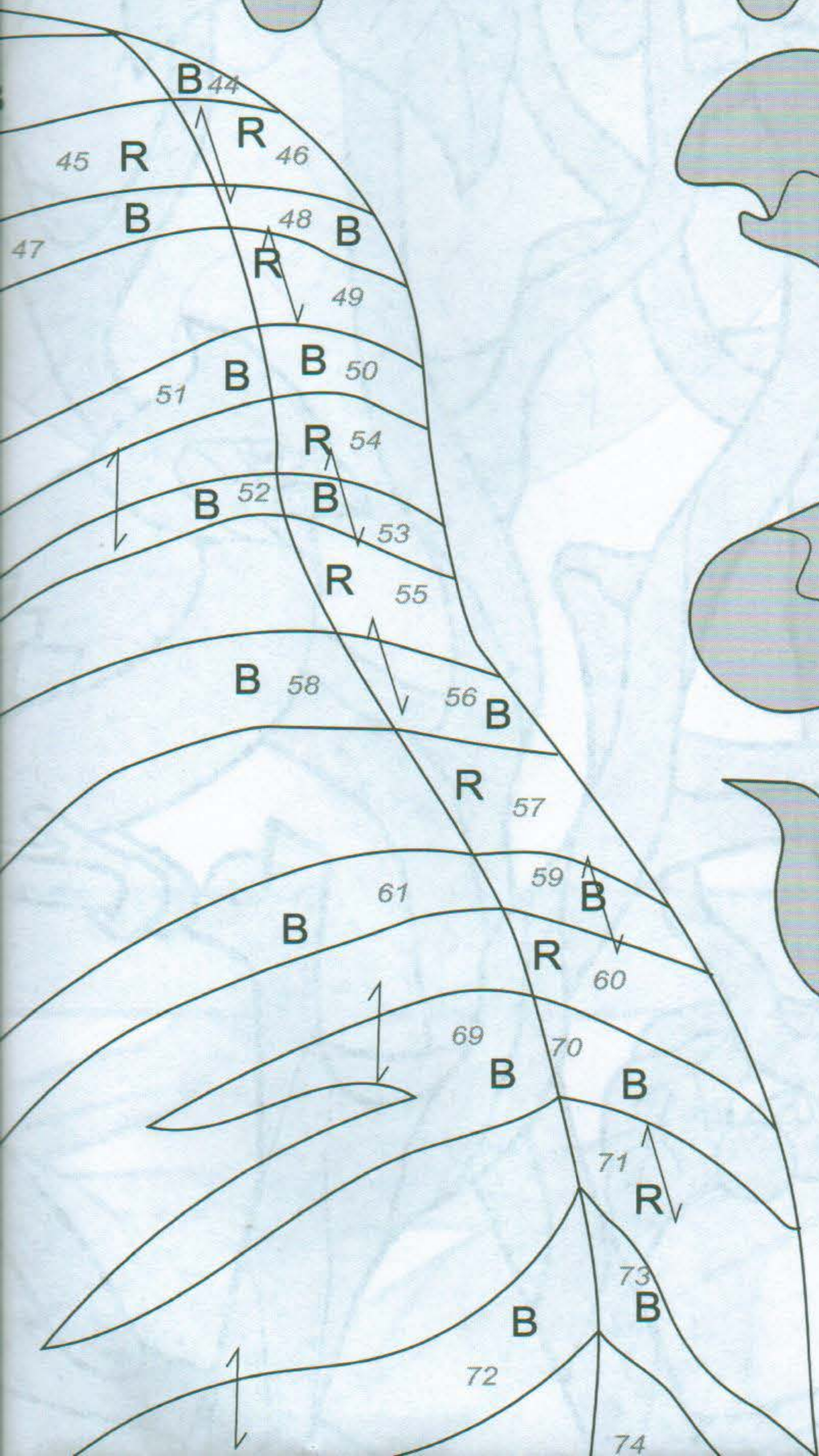
Start with 3/4" wood

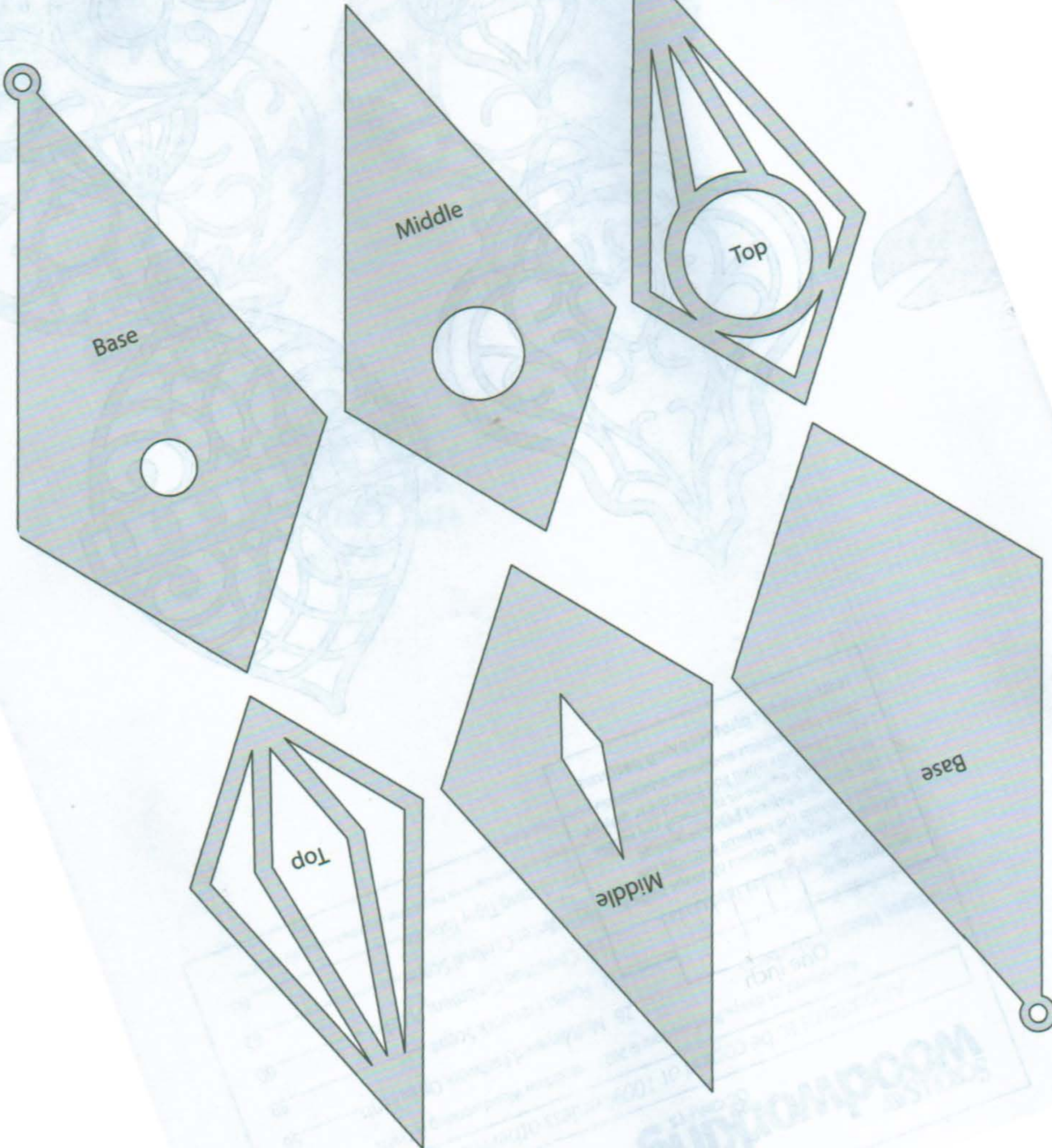


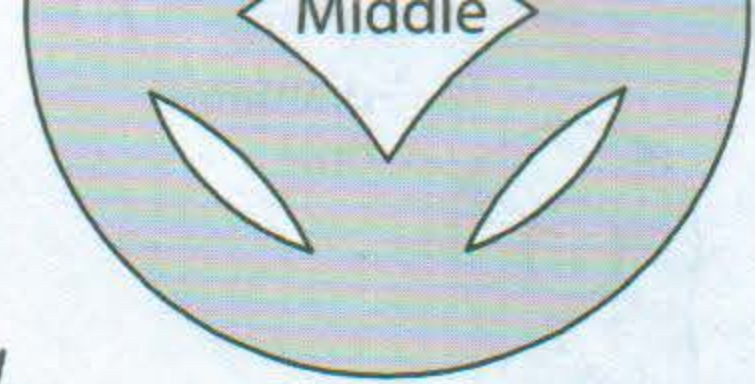
Intarsia Gingerbread Ornaments

Page 52 - SSWC Issue 85

Designer: Janette Square



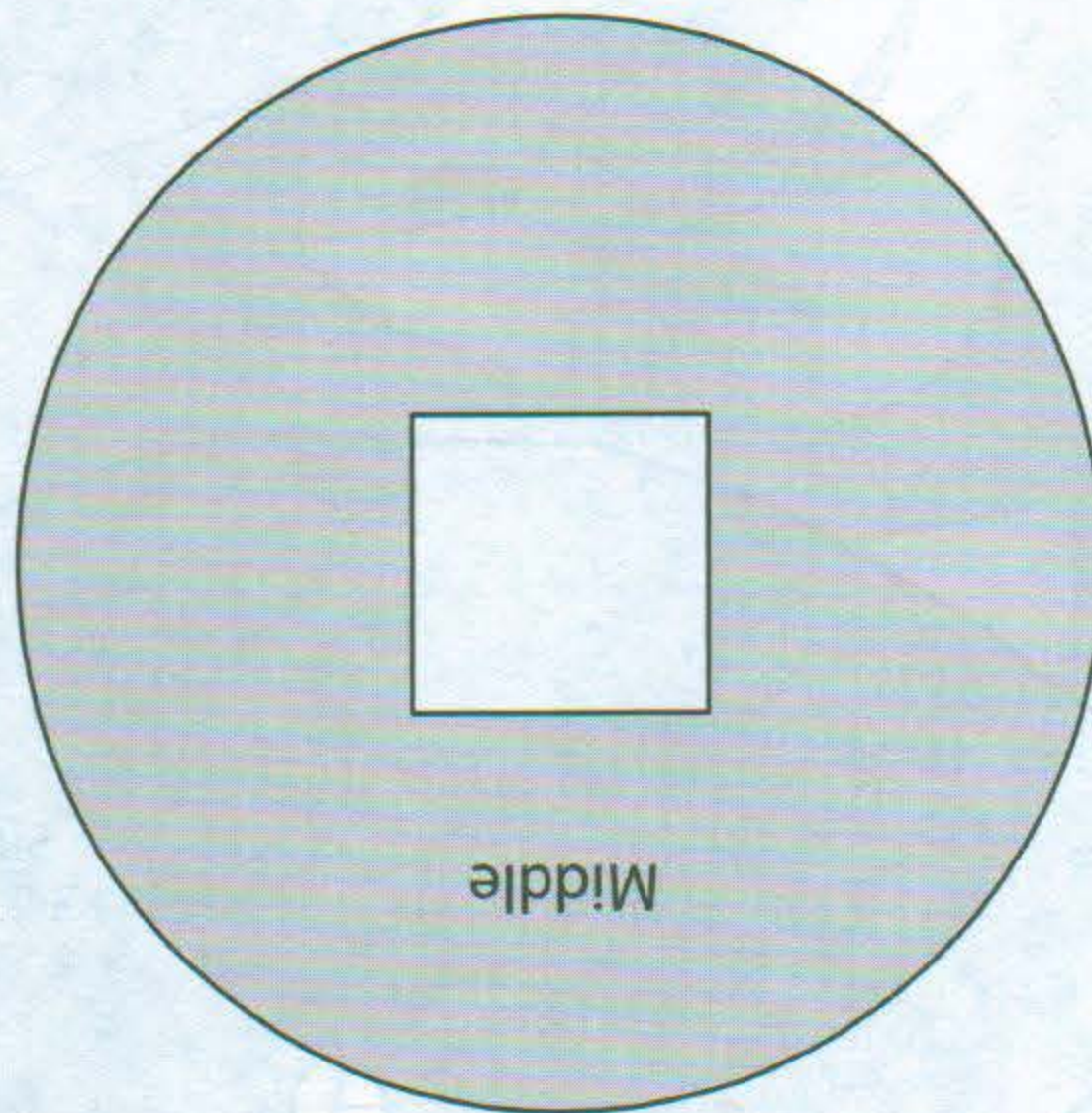
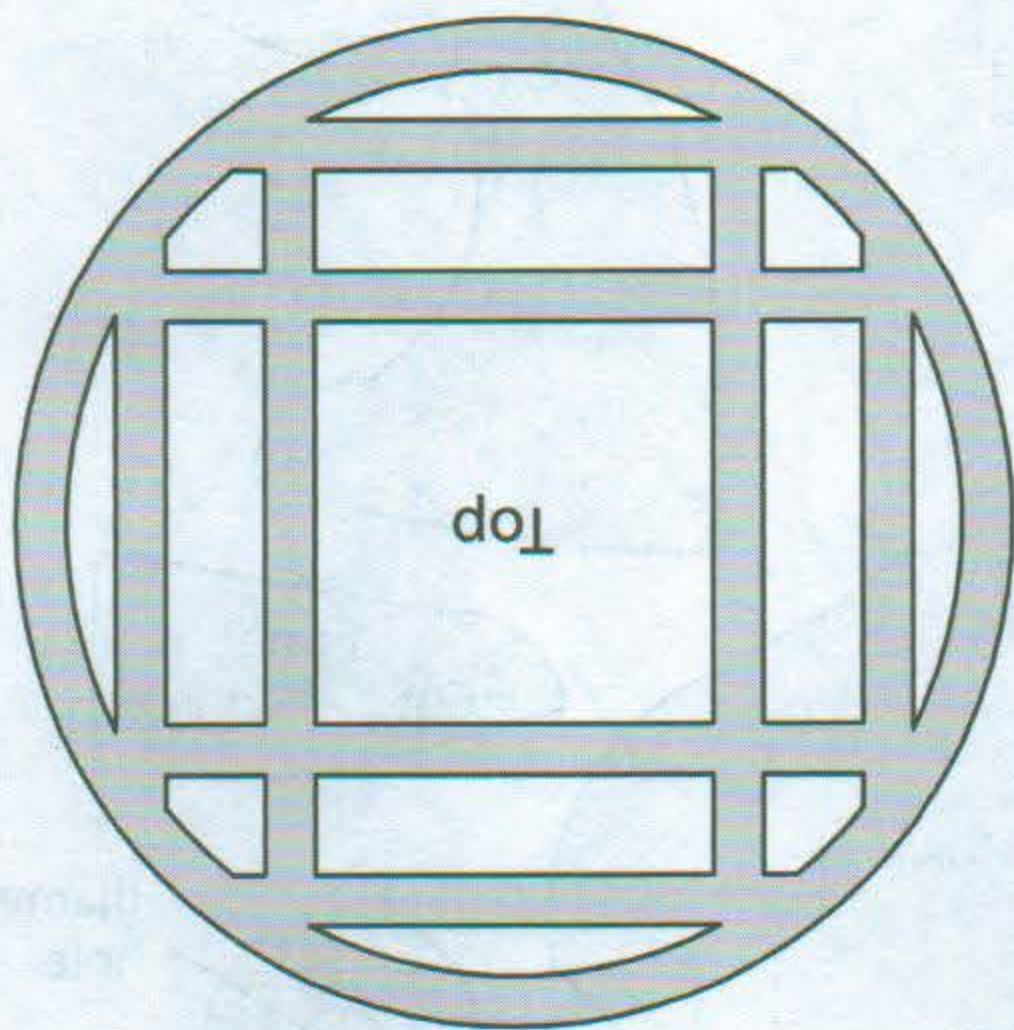
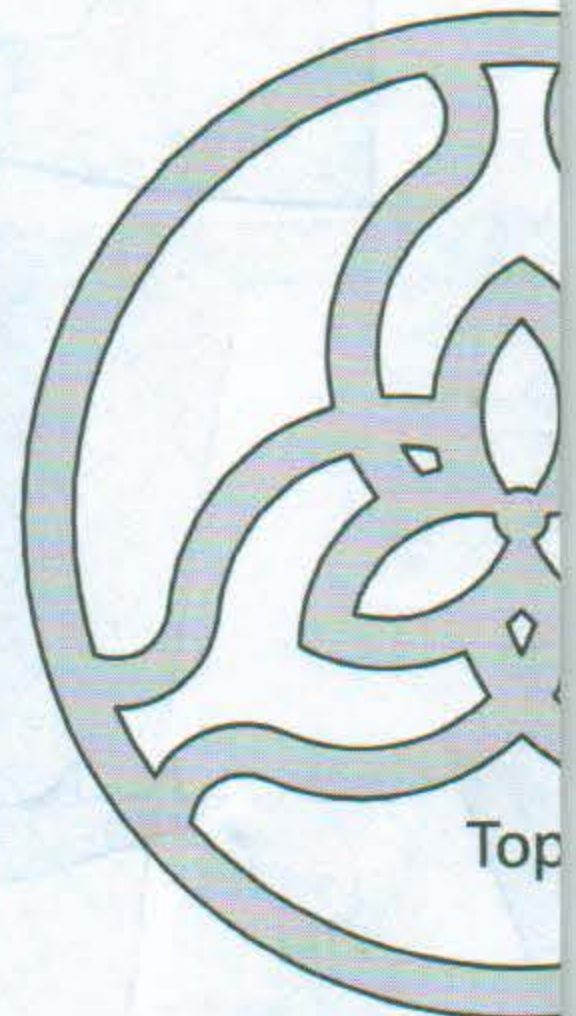
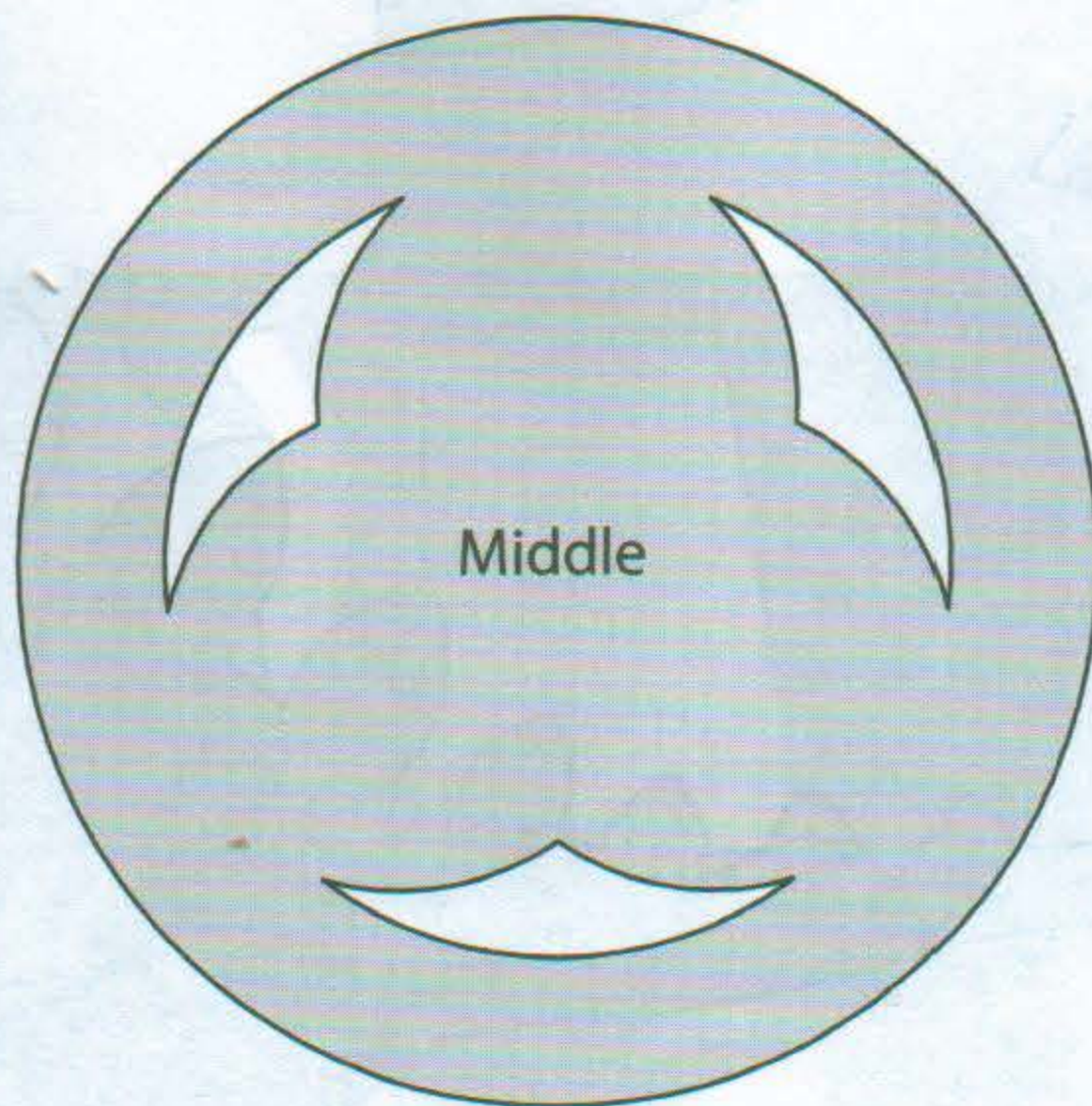
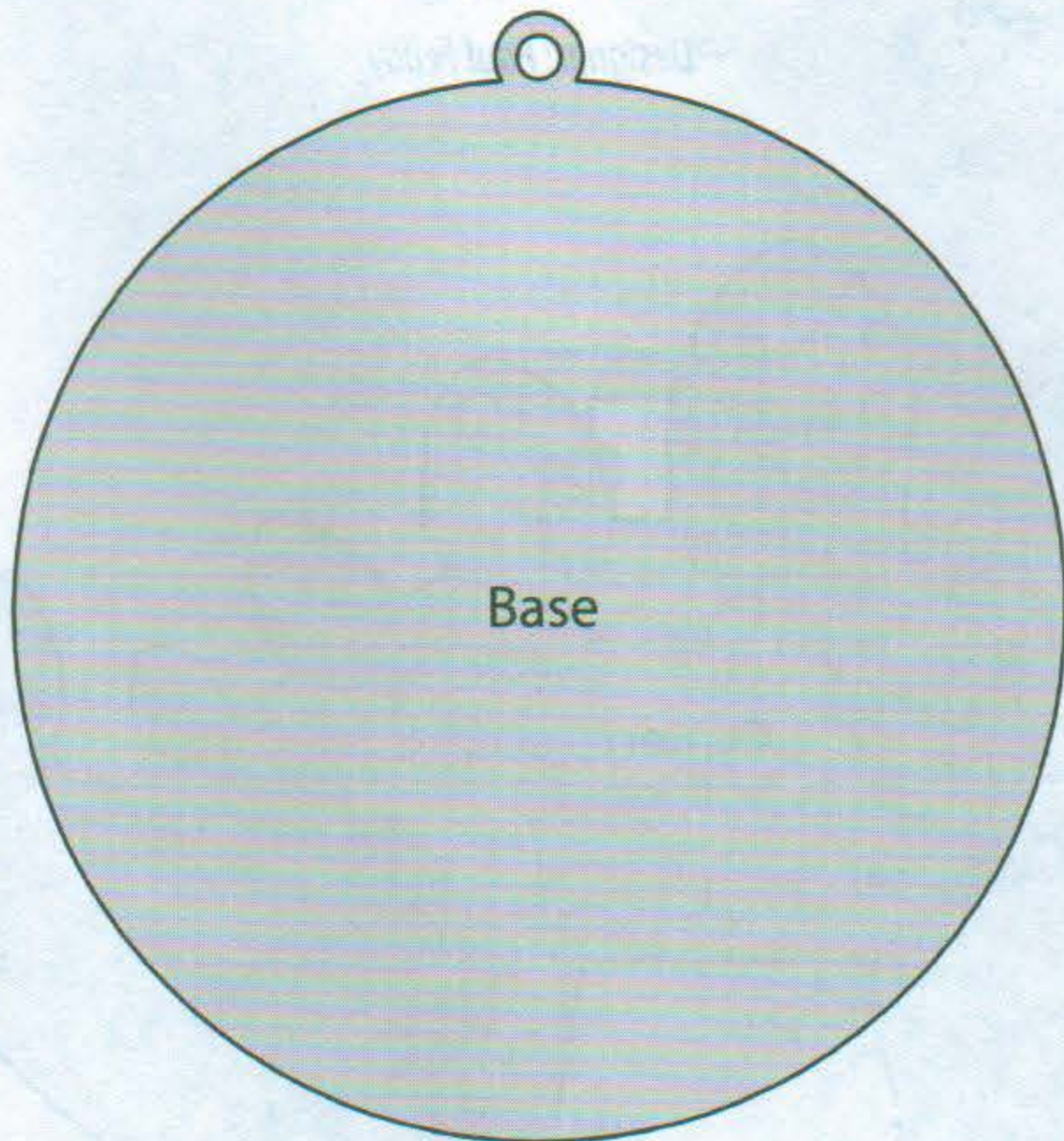




B6

d Fretwork

ens



- grain direction
- B..... Black Ebony / Darkest Shade
 - R..... Orange / Red Shade of Wood
 - MD.... Medium Dark Shade of Wood
 - M.....Medium Shade of Wood
 - W..... Any White Wood
 - Y..... Yellowheart or Stain
 - 1/4..... Sand or Plane down 1/4"
 - +1/4.... Use 1/4" Thicker Wood

1/4" Riser

© 2021 Kathy Wise Designs
PO Box 60, Yale, MI 48097
kathywise@bignet.net
www.kathywise.com

