NEW Technique: Intarsia Puzzles

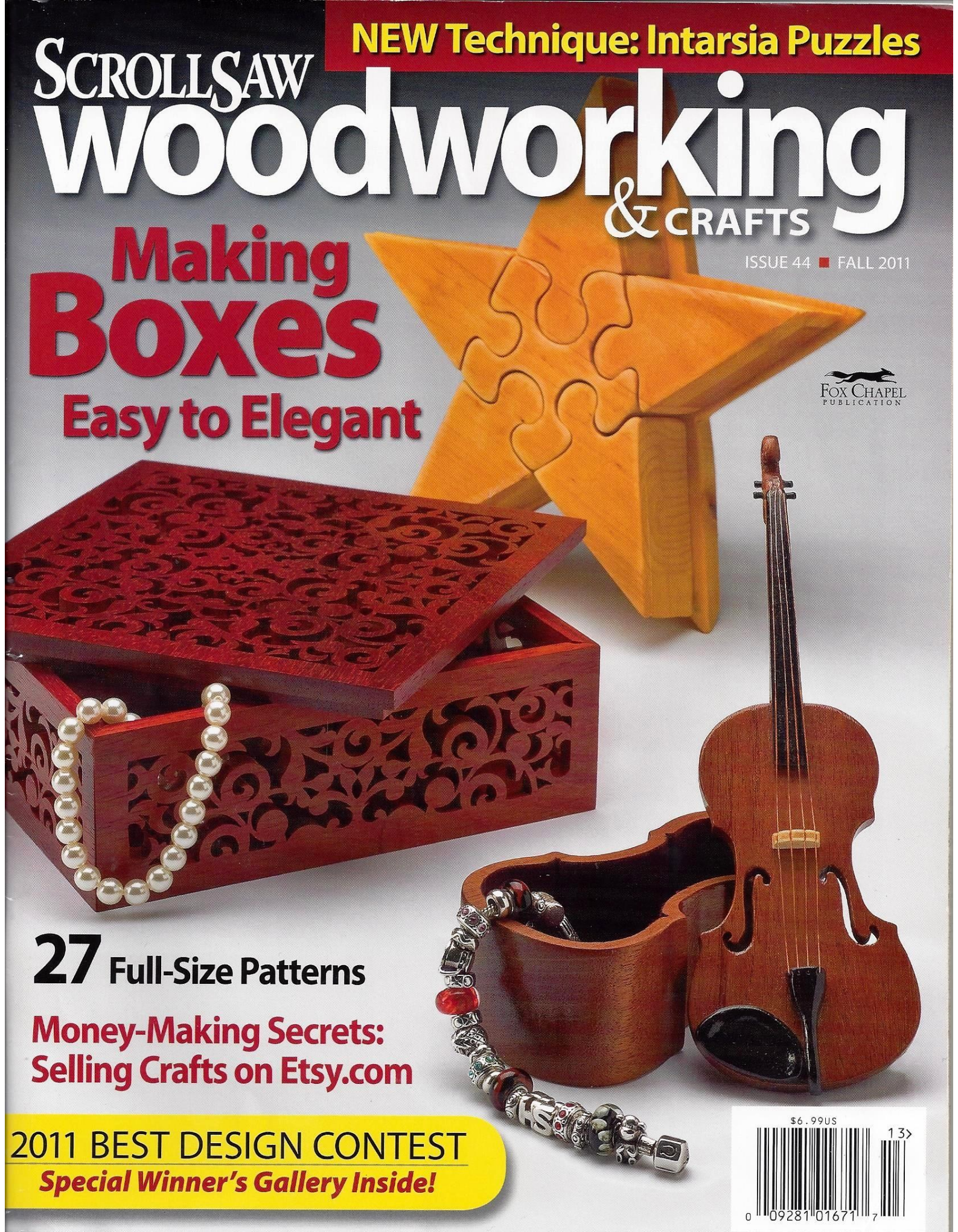
Scroll Saw Woodworking & Crafts

ISSUE 44 ■ FALL 2011

Making Boxes

Easy to Elegant

Fox Chapel Publication



27 Full-Size Patterns

Money-Making Secrets: Selling Crafts on Etsy.com

2011 BEST DESIGN CONTEST

Special Winner's Gallery Inside!

$6.99US

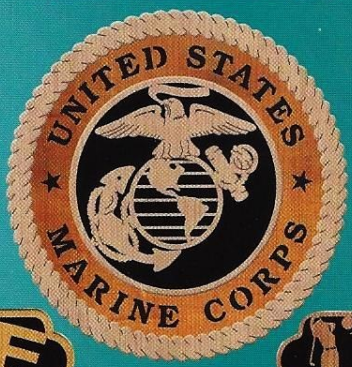
13

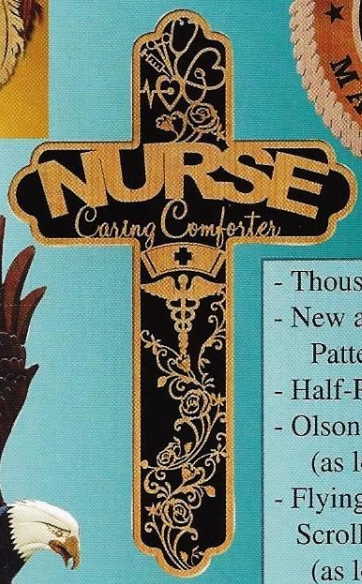
0 09281 01671 7

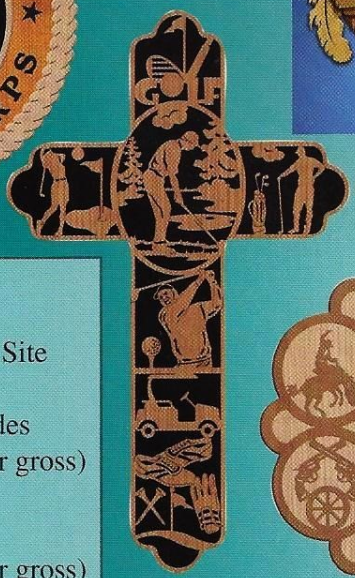
Independently Owned and Operated

THE WOODEN TEDDY BEAR COLLECTION

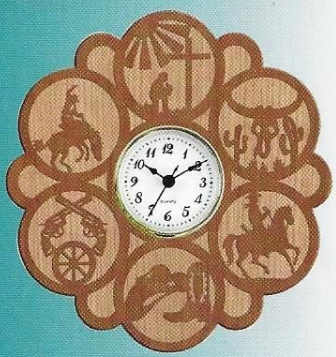
In Business Since 1995





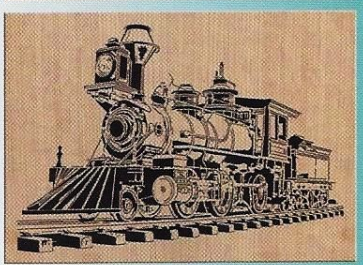


- Thousands of Patterns
- New and Discounted Patterns on the Web Site
- Half-Price Section.
- Olson Scroll Saw Blades (as low as $19.92 per gross)
- Flying Dutchman Scroll Saw Blades (as low as $23.50 per gross)
- Olson Band Saw Blades
- Forstner Bits
- Woodburning Tools
- Clock Fit-Ups
- Acrylic
-Small Wood Parts



Patterns, Plans, & Supplies for the Woodworker.

Free Catalog
1-888-762-9149



THE WOODEN TEDDY BEAR, INC.

P.O. Box 33917
Portland, OR 97292-3917
www.woodenteddybear.com

EXCALIBUR TILTING HEAD SCROLL SAWS by GENERAL INTERNATIONAL

"Absolute scroll sawing pleasure"

EX-16

EX-21

EX-30

CALL SEYCO AT 1-800-462-3353 For Current Pricing & Specials or Visit Our Website at: http://www.seyco.com

- Finger Operated Blade Clamps • Large Tables (EX-16 = 12" X 18 1/2") (EX-21 = 13 1/2" X 23 1/2") (EX-30 = 14" X 32 1/2")
- 2" Thickness Capacity • 21" & 30" Throat Depths • Smooth Operating Rack & Pinion Tilt • Easy Access Controls
- Excaliburs brilliantly engineered "Parallel Link" Drive design • Seyco's Satisfaction Guarantee • General's Lifetime Warranty

PLUS Seyco's Complete Customer Support Services - backed by over 25 years of Excalibur Scroll Saw experience.

SDM-02 .....$79.95
Seyco's Magnifier Worklamp

Excalibur's unique Top Arm Lift (both 21 & 30)

Head tilts full 45 degrees Left & Right*
(*with minor clamp knob adjustment)

Adjustable Height stands available for all 3 saws.

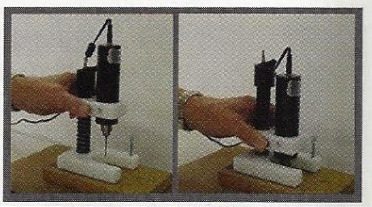
CALL SEYCO AT 1-800-462-3353 FOR More Information or Visit Our Secure Website at: http://www.seyco.com

SEYCO'S FANTASTIC NEW SCROLLERS DRILL

NEW

View Video Demo at
http://www.seyco.com

Scrollers can finally be free from the throat depth restrictions of a standard drill press and be able to drill perfect 90 degree holes ! A simple adjustment screw provides precise angles from 90 degrees to approximately 30 degrees - *even in the center of a 8' sheet of plywood !* This compact Scrollers Drill comes complete with a heavy duty DC power supply that plugs directly into your standard AC wall plug. Built-in overload protection - 1 year replacement warranty. Comes with a drill index and 20 small bits size #61 through #80.

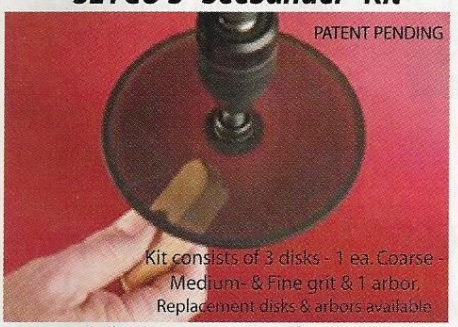


#SSD-1 ..... Reg. $149.00 ... Introductory Special 129.00
#XB-SET ..... Set of 20 bits #61 thru #80 w/indexed case 9.75
Extra Bits .....10 Pack choice of #50, #60 or #70.....6.75

UNIQUE "WOOD SHAPING" ACCESSORIES

You will find these tools perfect for Intarsia; Carving; Gunstocks; Canes and all other "wood shaping" projects !

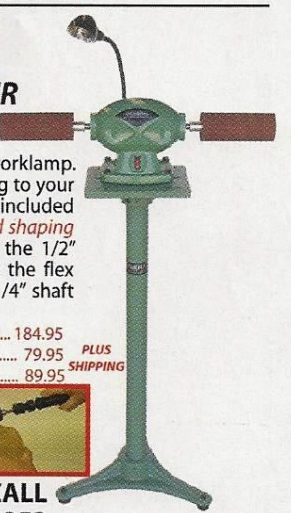
SEYCO'S "SeeSander" Kit



See your work clearly as you remove the precise amount of material to form your desired shape in wood, plastic, metals, etc. Sharpen chisels & cutting tools. Fits 1/4" or larger chuck in a drill press, hand drill, etc. with 3,500 maximum RPM.

STD-06 .....Kit w/3 disks and arbor $23.95*
**Plus Shipping*

SEYCO'S "FLEX DRUM" SANDER



#GWSC-01 DUAL DRUM SANDER KIT.
Comes completely pre-wired including the worklamp. Base has rubber pad feet and holes for mounting to your workbench or stand. 2 DS-01 Flex Drum kits are included with the motor. *For added versatility to this wood shaping center,* ask about optional accessories such as the 1/2" Chuck with adapter on the right side and use the flex shaft option to support use of STD-06; small 1/4" shaft sanding drums; polishers; rotary cutters, etc.

#GWSC-01.....(Without Stand)..... 184.95
#GWSC-ST.....STAND..... 79.95 *PLUS SHIPPING*
#FXQ-40 ..... Flex Shaft Kit Complete*..... 89.95

*Flex Shaft Kit is our Heavy Duty 56" Flexible shaft with a Quick Connect Chuck on the tool end; a 1/4" hex adapter on the motor end; & a Quick Connect Chuck for the motor shaft.

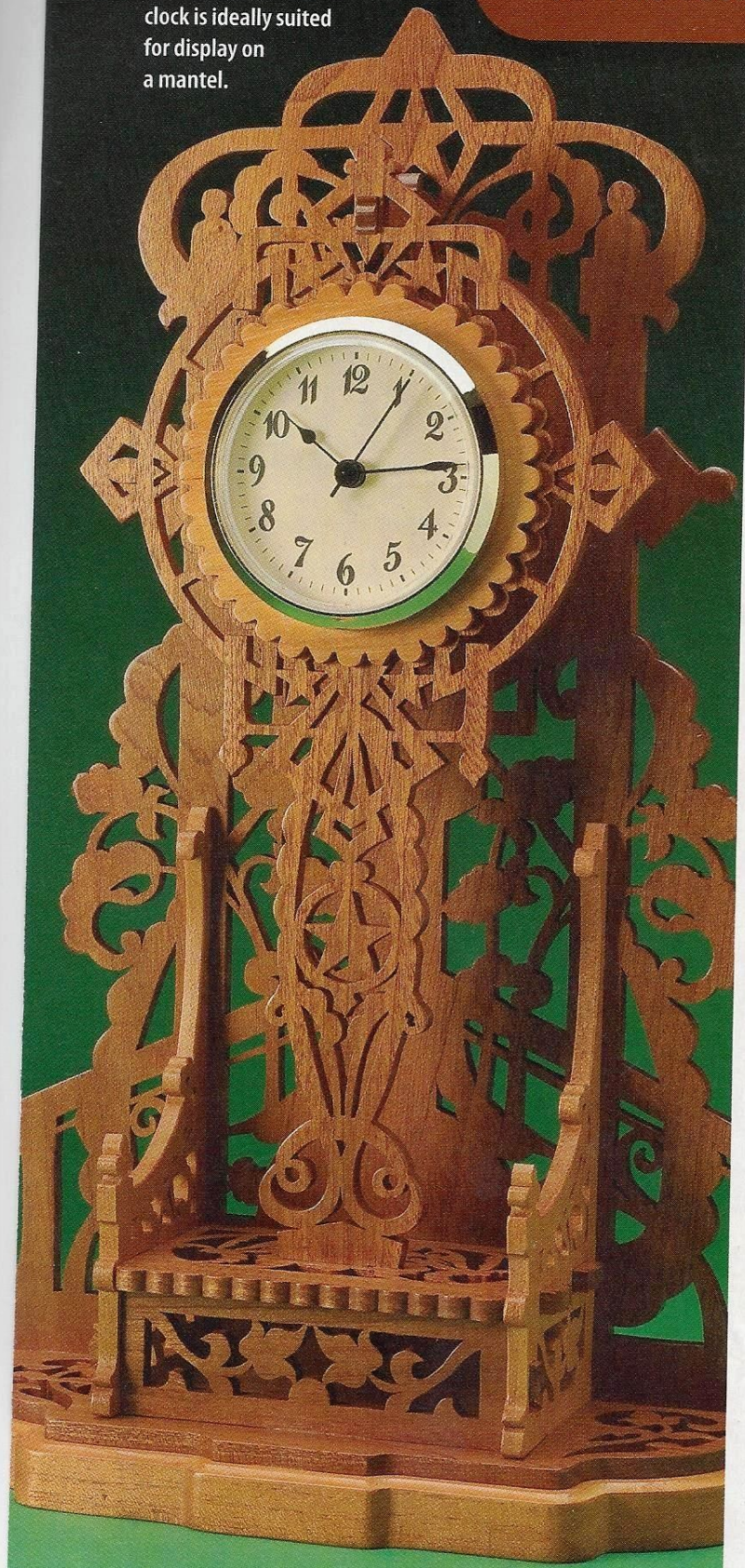
Seyco — The Scroll Saw Specialist — (800)462-3353

TO ORDER CALL
1-800-462-3353
On the web at... http://www.seyco.com
P.O. BOX 1900 • Rockwall, Texas 75087

SCROLL SAW woodworking & CRAFTS
FALL 2011 ■ ISSUE 44

■ IN THIS ISSUE

44
Freestanding fretwork clock is ideally suited for display on a mantel.



FEATURES

DEPARTMENTS

PATTERNS

TECHNIQUES

METHODS

ON THE WEB WWW.SCROLLSAWER.COM

Exclusive Photography Videos
Selling Handmade Work with Etsy, p. 26
Series of how-to videos makes it easy to take professional-quality photos of your artwork.

Bonus Chalkboard Pattern
Creating Custom Chalkboards, p. 60
Free crab chalkboard design is a fun way to display the catch of the day.

Convenient Downloadable Font
Making Personalized Sports Plaques, p. 48
Download the font for quick and easy personalization of the plaques.

Additional online features: ***• community forum • scroller galleries • tips • article index • free patterns • product reviews • subscriber services***

Two Exciting Changes

I'm delighted with *Scroll Saw Woodworking & Crafts'* foundation of loyal readers and dependable contributors. I'm also energized by the potential of the magazine and reminded of Pauline R. Kezer's quote: "Continuity gives us roots; change gives us branches, letting us stretch and grow and reach new heights."

In order to grow, change is required. The first change at *Scroll Saw Woodworking & Crafts* is a logo makeover. The goal of this change is to attract woodworkers who don't necessarily think of themselves as scrollers. The scroll saw doesn't get the credit it deserves in many woodshops. We want the opportunity to show woodworkers just what this versatile tool is capable of doing. Rest assured, the magazine will continue to focus on scroll saw projects.

The second change is the addition of a new staff member. Mindy Kinsey is the former editor of *Teddy Bear and Friends* and *Doll Reader* magazines. Mindy brings fresh ideas to the mix, and I'm eager to grow the magazine to new heights with her assistance. Bob Duncan continues to serve as technical editor and go-to guy on the website. Scott Kriner is our studio photographer and Jon Deck is the person responsible for the look of the magazine (as well as hiding that darn fox).

Being a creature of habit, it's not always easy for me to embrace change, but I'm excited by the opportunities these additions create. With the continued support and feedback from dedicated readers like you, I know the the magazine will continue to blossom and grow.

Shannon Flowers

Shannon Flowers
Shannon@FoxChapelPublishing.com

***Scroll Saw Woodworking & Crafts'* staff: (back row, left to right) Shannon Flowers, Bob Duncan, Jon Deck, (front row) Scott Kriner, and Mindy Kinsey.**

SCROLL SAW woodworking & CRAFTS

Printed in the USA

FALL 2011
Volume 12, Number 3, Issue 44

1970 Broad Street, East Petersburg, PA 17520
Phone: 717-560-4703 Fax: 717-560-4702
Website: www.ScrollSawer.com

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

Customer Service for Subscribers
Visit www.ScrollSawer.com, call 888-840-8590, or write:
Scroll Saw Woodworking & Crafts, Subscriber Services,
1970 Broad Street, East Petersburg, PA 17520

Newsstand Distribution: Curtis Circulation Company
Circulation Consultant: National Publisher Services

Subscription rates in US dollars:
One year $19.95
Two years $39.90

Canada
One year $22.50
Two years $45.00

International
One year $27.95
Two years $55.90

Display Advertising/Classifieds
Please call or e-mail Cindy Fahs, (ext. 26) for rates and/or a media kit. Cindy@FoxChapelPublishing.com

Wholesale/Distribution
Scroll Saw Woodworking & Crafts is available to retailers for resale on advantageous terms. Contact Paul McGahren (ext. 42) for details.

Identification Statement: Scroll Saw Woodworking & Crafts, vol.12, no. 3 (Fall 2011) (ISSN#1532-5091) is published four times a year in the months of January, April, July & October by Fox Chapel Publishing Co. Inc., 1970 Broad Street, East Petersburg, PA 17520. Periodical Postage paid at East Petersburg, PA and additional mailing offices. POSTMASTER: Send address changes to Scroll Saw Woodworking & Crafts, 1970 Broad Street, East Petersburg, PA 17520.

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

George Mons customized this doll cradle with a fretwork design.

Embellishing a Cradle with Fretwork

Thanks for the inspiration I found in *Scroll Saw Woodworking & Crafts* Spring 2011 (Issue 42). My granddaughters asked me to make them cradles and Alison Tanner's heart designs on page 20 were the perfect way to make the cradles special.

I cut the hearts on my scroll saw from ½"-thick Baltic birch plywood and painted them pink for a special Valentine's Day present. I designed the cradles myself with the hearts in mind. After insetting the hearts into the ends of the cradles, I added each girl's initial to the center.

George Mons
Via e-mail

Hiding Blade-Entry Holes

I was intrigued when I saw the logscapes by Dean Larson in *Scroll Saw Woodworking & Crafts* Summer 2001 (Issue 3). However, I didn't follow up on this interest until last year when I found a poplar log cut down and debarked by a beaver near my cottage. I just had to develop a beaver pattern to turn the blank into a logscape. I made a blue gradient with a graphics program, printed it out, and pasted it on the back before gluing the pieces together to create a colorful background.

I had some problems with the veining cuts, because they require a blade-entry hole that is bigger than the kerf left by the blade. It would appear the only solution is to use spiral blades, but I have not yet developed that expertise. I would appreciate any suggestions to solve this problem.

Keith Marriott
Winnipeg, Canada

Use smaller bits or a spiral blade to disguise blade-entry holes.

Editor's Note:

To disguise blade-entry holes on veining cuts, use the smallest possible drill bit. Most scroll saw blade manufacturers have a suggested drill size (usually a numbered drill bit) for each blade.

A spiral blade does produce a wider kerf, which helps disguise the entry hole. Some people cut along the line with a flat blade, and then go back and cut along the line with a spiral blade. The first cut makes it easier to follow the line with the more-difficult-to-control spiral blade.

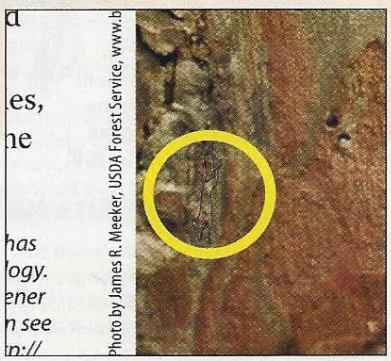
Another option is to incorporate the hole into the line. Make a sweeping free-hand cut along the edges of the blade-entry hole, tapering the hole into the line. While this technique makes the veining line a little wider, it isn't as noticeable as the hard separation of a blade-entry hole.

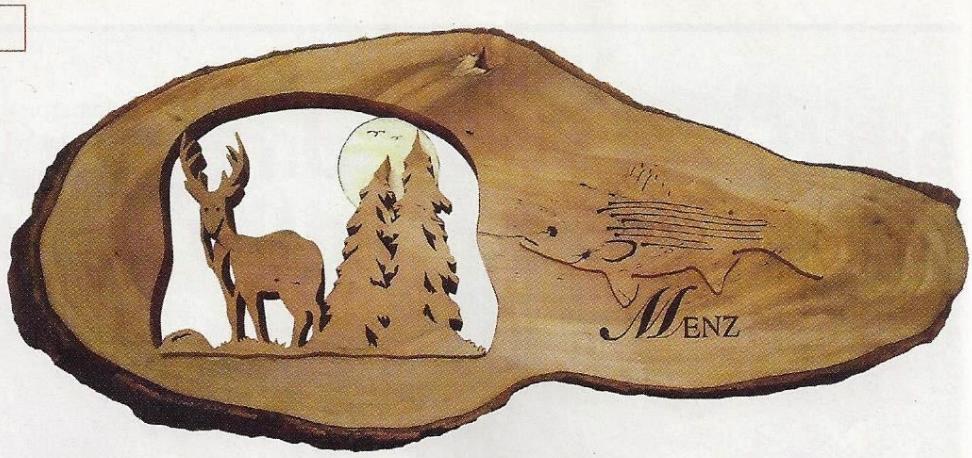
Fox Hunt

E.W. Dodds of Northumberland, England, and Michael Roth of West Carrollton, Ohio, were randomly drawn from the participants who located the fox in our last issue (Summer 2011, Issue 43). The fox was in the photo of the bark beetle on page 19.

Find the fox in this issue, contact us, 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 August 30, 2011 to be eligible. *NOTE: The contest fox is an outline drawing that would face left if his feet were on the "ground" (other foxes appearing in* SSW&C *don't count).*

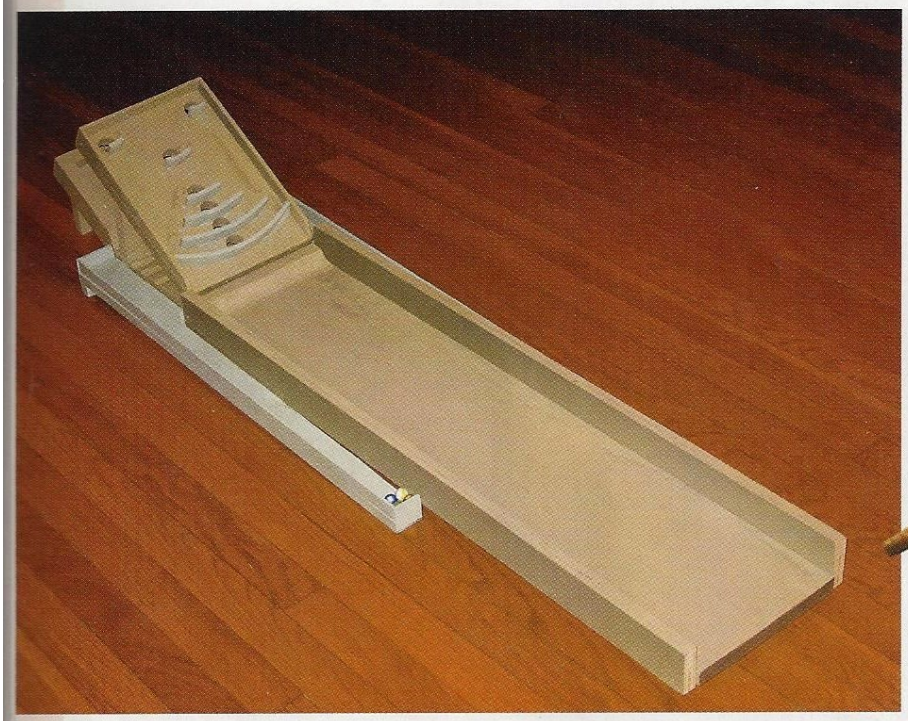
Send your entry to *SSW&C*, Attn: Find the Fox, 1970 Broad St., East Petersburg, Pa., 17520, or enter online at www.ScrollSawer.com.





Restaurant Sign ▶

Joseph Tomeo of Bear, Del., created this sign for the Menz restaurant. Joseph combined a deer silhouette pattern designed by Lora S. Irish with the fish logo from the Menz restaurant to create the sign.



◀ Miniature Skeeball Game

Matt Carter of Ft. Loramie, Ohio, enjoys playing skeeball in arcades, so he designed this miniature skeeball game to play at home. Matt created the project from oak and poplar in his high school woodshop class. The working skeeball game uses marbles instead of the standard wooden balls.

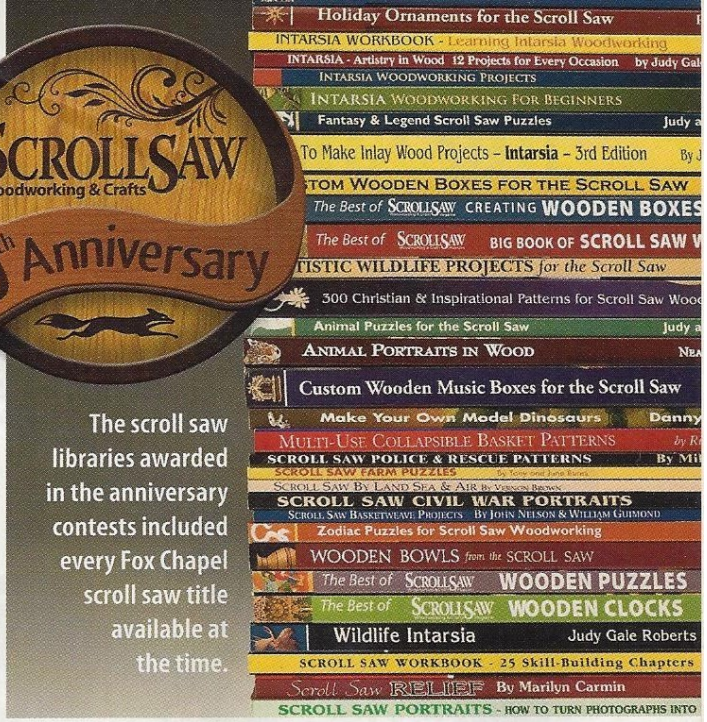
Intarsia Elk ▶

Duane Martin of Newfields, N.H., created this elk intarsia based on a design by Kathy Wise. Duane modified the head slightly and shaped the mane differently than Kathy's original. Duane made the piece from oak, walnut, mahogany, maple, black limba, aspen, and poplar.

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 woods and materials used. Send to Bragging Page, *Scroll Saw Woodworking & Crafts,* 1970 Broad Street, East Petersburg, Pa., 17520 or e-mail Duncan@FoxChapelPublishing.com.

Scroll Saw Woodworking & Crafts Magazine Awards Four Complete Scroll Saw Libraries

To commemorate ten years in print, *Scroll Saw Woodworking & Crafts* launched a yearlong celebration in the fall of 2010. The festivities included four contests, each one boasting a fantastic prize consisting of a complete Fox Chapel Publishing scroll saw library worth more than $1,000.



The scroll saw libraries awarded in the anniversary contests included every Fox Chapel scroll saw title available at the time.

CONTEST #1

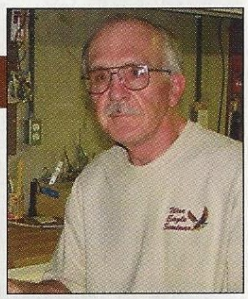
Premiere Subscribers

Michael Rodgers

To start things off with a bang, one name was randomly selected from all the subscribers who have been with the magazine since the very first issue. Michael Rodgers of Berlin, Md., was chosen as the lucky winner of the very first scroll saw library. Sixty-five pounds of books were packed in our East Petersburg, Pa., office and delivered to Michael's doorstep.

CONTEST #2

Reasons You Love Scrolling

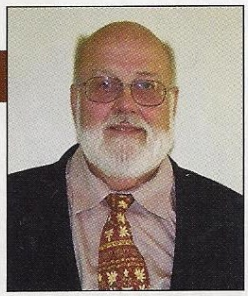


David Ledure

For the next contest, readers were asked to share the top ten reasons they love scrolling and *Scroll Saw Woodworking & Crafts* magazine. We received a variety of responses ranging from inspirational to humorous. Readers shared how they love the sense of accomplishment they get when they complete a project as well as how much fun they have searching for that darn fox. David Ledure of Jackson, Mo., was the winner randomly selected from everyone who submitted his or her top ten reasons.

CONTEST #3

Favorite Project or Article

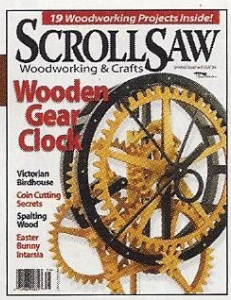


Guy Shealy

For the third contest, we asked readers to share their favorite project or article from the magazine. Intarsia projects were a popular response. Readers also shared that they look forward to the Christmas issue each year. Many readers said it wasn't possible for them to choose a favorite project because there were so many good ones. One reader said if it makes his wife smile, it's his favorite. Guy Shealy of Leesville, S.C., was the winner of the third Fox Chapel scroll saw library.

CONTEST #4

Favorite Cover

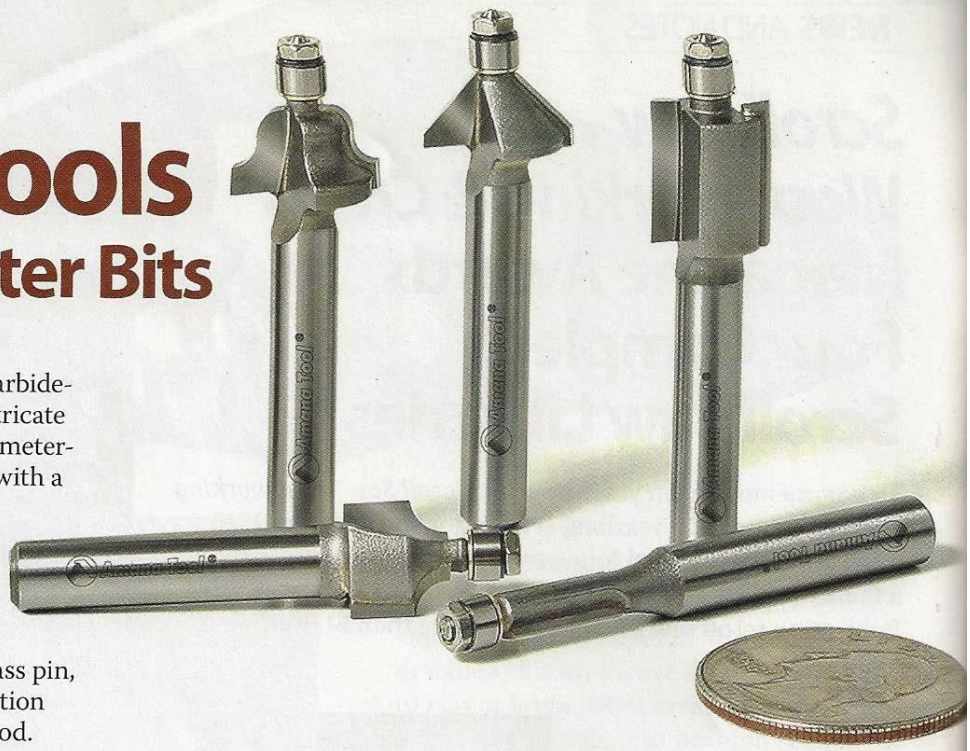


Sherry Finn's photo was not available.

To wrap up the celebration, readers voted for their favorite *Scroll Saw Woodworking & Crafts* cover. The Spring 2007 (Issue 26) cover, featuring Mark Tovar's wooden gear clock, was selected as the readers' favorite. A close runner-up was the Fall 2005 (Issue 20) cover, which featured a tiger segmentation by Neal Moore. Sherry Finn of Ocala, Fla., was randomly selected from all participants in the favorite cover contest. She became the fourth recipient of the scroll saw library valued at more than $1,000.

By Bob Duncan

Amana Tools
Miniature Router Bits



Amana Tools offers a set of miniature carbide-tipped router bits that are perfect for intricate scroll saw projects. These ¼" (6mm)-diameter-shaft edge-shaping bits come complete with a 3/16" (5mm)-diameter ball bearing.

For bits designed to shape the edges of a blank, manufacturers add ball bearings, which ride on the edges of the wood and control the depth of the cut. Most miniature router bits use a brass pin, which absorbs the heat generated by friction while the bits cut and can scorch the wood. The bearings on the Amana Tools bits reduce the chance of scorching.

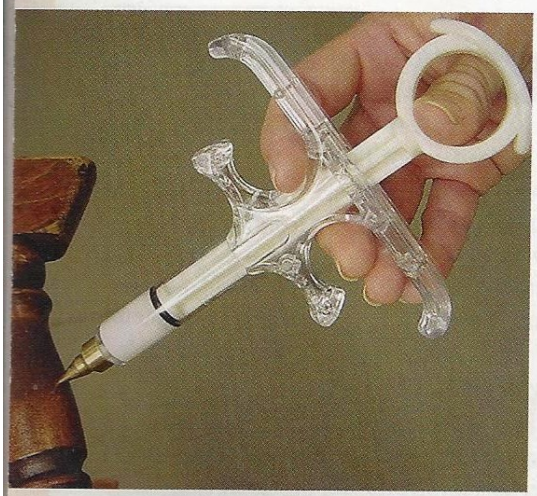
Five profiles are available: a 7/32" (5.5mm)-radius rabbet bit, a 3/32" (2.5mm)-radius flush-trim bit, a 9/32" (7mm)-radius Roman-ogee bit, a ⅛" (3mm)-radius bevel-trim bit, and a 3/16" (5mm)-radius corner-rounding bit.

Combining the small profiles, carbide tips, and ball bearings, these bits are ideal for scrollers working on small projects. They fit into the smaller and easier-to-control trim routers and allow you to shape and profile thin delicate stock. The carbide points stay sharp, which reduces the chance of burning the wood. I used the miniature flush-trim bit with a router table to quickly match parts and shapes in pieces I couldn't stack cut.

The bits range in price from $18.90 for the flush-trim bit to $25.50 for the corner-rounding bit. Call 800-445-0077 or visit www.AmanaTool.com to order or to find a local retailer.

Miniature router bits from Amana Tools are ideal for scrollers working on small projects.

MaxMetrix Glue Injector



Use the Max Metrix Glue Injector to apply glue with precision.

The MaxMetrix Glue Injector lets you put a thin bead or tiny drop of glue exactly where you want it every single time.

The injector, designed to inject glue under high pressure into failing joints, gives you a great deal more control than ordinary glue bottles. The small knurled-brass tip lets you put precise amounts of glue along the edges of thin fretwork pieces or tiny intarsia or segmentation pieces. This precision reduces the amount of glue squeeze-out, which speeds up your assembly and cleanup processes. The injector comes with a 1/32" (1mm)-diameter tip for precise glue placement, but a larger 1/16" (2mm)-diameter tip, which allows you to apply more glue with less precision, is available.

The overall shape of the injector, vaguely reminiscent of a vintage medical syringe, gives you a great deal of control not only over the placement of the glue, but how much you apply. The entire plunger is removable to make cleanup simple. Use water-based wood glue such as Titebond or Elmer's wood glue.

The MaxMetrix Glue Injector is available for around $25. Call 480-998-3503 or visit the company's website at www.maxglueinjector.com to find a local retailer.

Sanding Irregularly Shaped Objects

This shopmade jig holds a variety of shaped pieces for surface sanding.

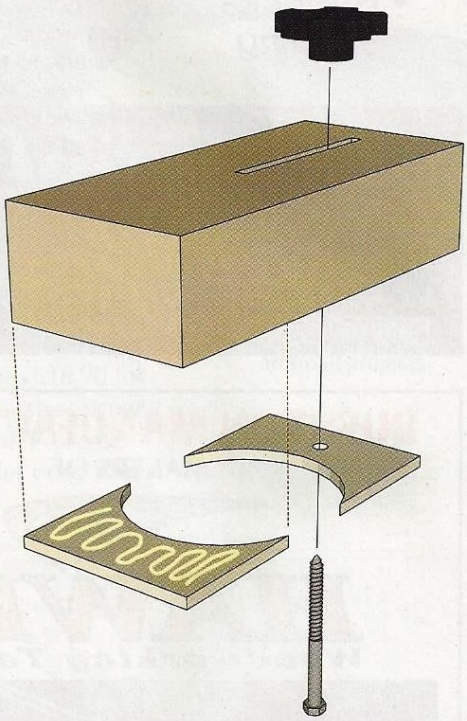
TOP TIP

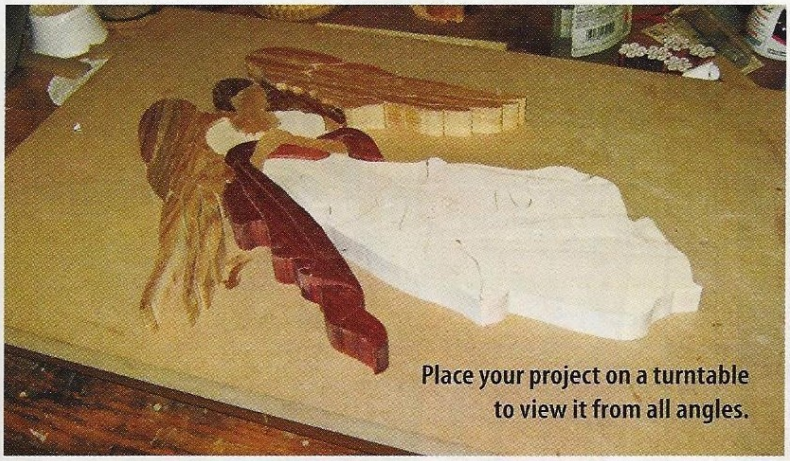
It can be difficult to safely sand thin projects, especially if the project is oddly shaped. I designed a fixture to hold both round and irregularly shaped objects so I can sand them with a random orbital sander or a stationary belt sander.

The basis of the fixture is a piece of 2" by 4" lumber. A stationary guide is glued to one end of the block and interchangeable inserts are held in place on the other end with a bolt or a flat head stove bolt. Using the drawing as a guide, drill holes on either end of the slot and drill the hole through the sliding insert. If you use a standard bolt, you may want to drill a countersinking hole for the bolt's head. Then, cut the slot. I created inserts with round and triangular cutouts, which hold many shapes, but you can create a custom-shaped insert. Trace the shape of the item you want to hold onto a piece of thin stock and cut just outside the lines with a scroll saw.

Position the project against the stationary guide. Thread the bolt through the slot and slide the insert snugly against the project before tightening the bolt. Hold the large block to keep your fingers safely out of the way when using a belt sander. Clamp the block securely when using a random orbital sander.

Donald Nichols
San Antonio, Tex.



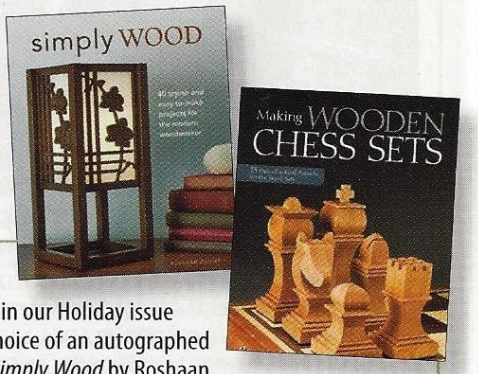


Place your project on a turntable to view it from all angles.

360° Viewing

Assemble your intarsia on a piece of plywood attached to a lazy Susan. This allows you to rotate the piece when sanding and shaping to make sure the piece looks good from all angles. The lazy susan also makes it easy to ensure even and total coverage when applying a finish.

Jerry Blair
Duncanville, Tex.



TOP TIP in our Holiday issue wins a choice of an autographed copy of *Simply Wood* by Roshaan Ganief or *Making Wooden Chess Sets* by Jim Kape. Send your tips or techniques to Bob Duncan, 1970 Broad Street, East Petersburg, PA 17520, or Duncan@FoxChapelPublishing.com

FREE with Every Order of $35 or More!

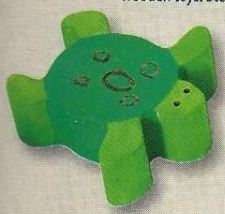
New Book Preview
Hot Off the Presses for Fall 2011

Pre-Order TODAY!

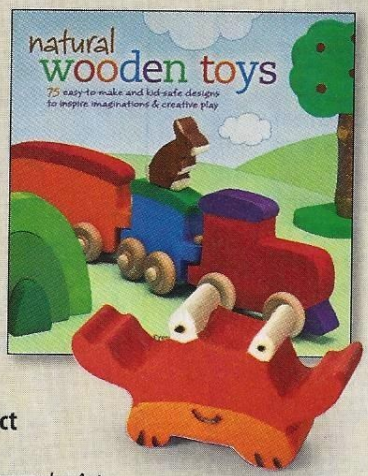
Natural Wooden Toys
75 Easy-To-Make and Kid-Safe Designs to Inspire Imaginations & Creative Play

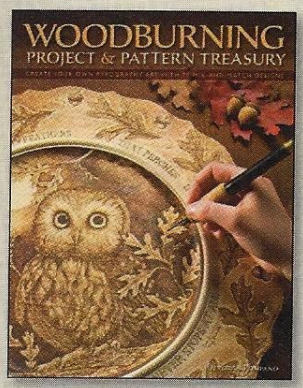
By Erin Freuchtel-Dearing

Learn how to make safe, colorful, and irresistible imagination-building wooden toys. Step-by-step instructions show you how to make 75 charming designs, and how to create natural, non-toxic finishes.



$19.95 • Code: 5243
Available in November



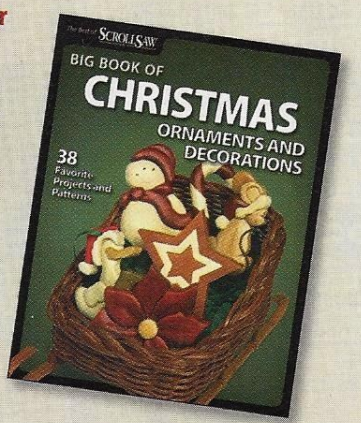


Woodburning Project & Pattern Treasury
Create Your Own Pyrography Art with 70 Mix-and-Match Designs

By Deborah Pompano

A fresh take on the craft of woodburning focusing on the drawing, lettering, and design elements that when learned will add dimension and composition to any pyrography project.

$24.95 • Code: 4826
Available in October

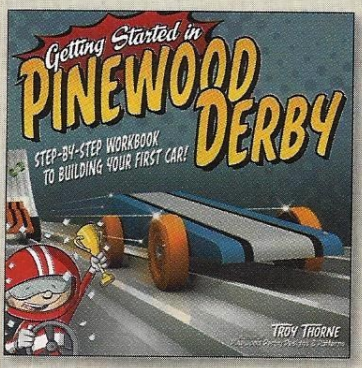


Big Book of Christmas Ornaments
37 Favorite Projects and Patterns

By Editors of Scroll Saw Woodworking & Crafts

Create holiday masterpieces for the home, family and friends with these tried-and-true scroll saw projects and patterns featuring fretwork, compound-cuts, intarsia, inlay, and more.

$19.95 • Code: 6066 • Available in December

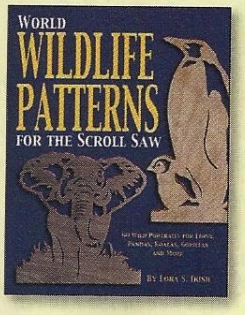


Getting Started in Pinewood Derby
Step-By-Step Workbook to Building Your First Car

By Troy Thorne

First time building a Pinewood Derby car? This book will help you plan this activity so that you and your child have fun, learn a thing or two about friction and gravity, and end up with a car you are both proud of.

$12.95 • Code: 6172
Available in November



World Wildlife Patterns for the Scroll Saw
60 Wild Portraits for Lions, Pandas, Koalas, Gorillas and More

By Lora S. Irish

Scroll animals from each of the 7 continents. More than 50 patterns for lions, tigers, elephants, koalas & more.

$12.95 • Code: 1775

Use code **ssw44** to get your free item. If ordering online place free products in cart. Limit one coupon per customer. **Offer ends 9/30/11.**

Be sure to check out **Lora S. Irish's** cute Halloween projects on page 46.

NOW Available on CD

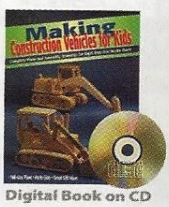
Digital Book on CD

Realistic Construction Models You Can Make
Complete Plans and Assembly Drawings for Eight Models

By Luc St-Amour

Learn to make eight display models that mimic real construction vehicles.

~~$15.95~~ **SPECIAL $9.99**
Code: 152XCD



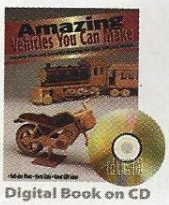
Digital Book on CD

Making Construction Vehicles for Kids
Complete Plans and Assembly Drawings for Eight Toys That Really Move

By Luc St-Amour

Built to last, these wooden toys with over-sized parts for little hands make the perfect gift.

~~$15.95~~ **SPECIAL $9.99**
Code: 1511CD



Digital Book on CD

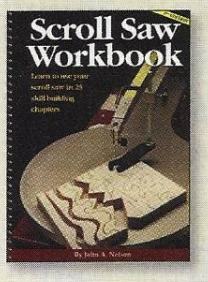
Amazing Vehicles You Can Make
Complete Plans and Assembly Drawings for Eight Different Models

By Luc St-Amour

Learn how to create wooden trains, planes, motorcycles and trucks with step-by-step instruction and cutting templates. **Available on CD only.**

~~$15.95~~ **SPECIAL $9.99**
Code: 1503CD

More Great Books From... *John Nelson, Lora S. Irish, and Kathy Wise*



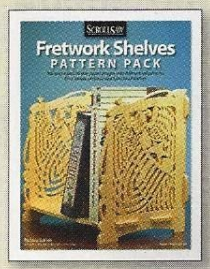
Scroll Saw Workbook 2nd Edition

Learn to Use Your Scroll Saw in 25 Skill-Building Chapters

By John Nelson

Learning to scroll has never been easier! The best beginner's technique book with 25 skill-building, progressive chapters and expert instruction to guide you every step of the way.

$14.95 • Code: 2070



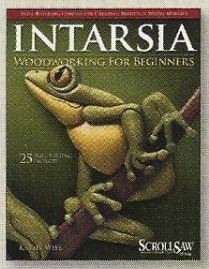
Lora Irish Fretwork Shelf Pattern Pack

Mix and Match Fretwork Shelf Patterns with Complementary Rail Styles

By Lora S. Irish

Includes 18 designs for shelf sides with multiple choices for complementary rail styles. Side designs include eagles, floral, southwest, hot air balloons, and deer.

$9.99 • Code: ppli01



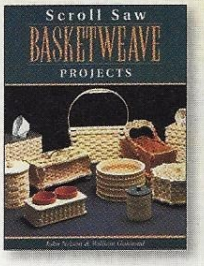
Intarsia Woodworking for Beginners

Skill-Building Lessons for Creating Beautiful Wood Mosaics: 25 Skill Building Projects

By Kathy Wise

Learn the art of intarsia with this skill building guidebook filled with step-by-step instructions, basic lessons and concepts, and helpful techniques.

$19.95 • Code: 4420

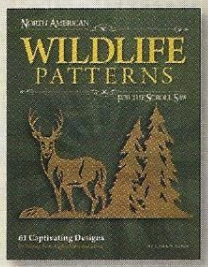


Scroll Saw Basketweave Projects

By John Nelson and William Guimond

Fool your friends with these intriguing baskets! Features twelve never-before-published projects and step-by-step instructions.

$9.95 • Code: 1031



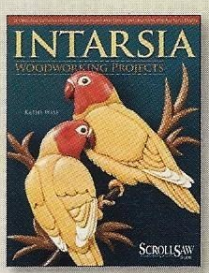
North American Wildlife Patterns for the Scroll Saw

61 Captivating Designs for Moose, Bear, Eagles, Deer and More

By Lora S. Irish

Choose from more than 50 ready-to-cut patterns that include everything from squirrels to moose.

$12.95 • Code: 1651



Intarsia Woodworking Projects

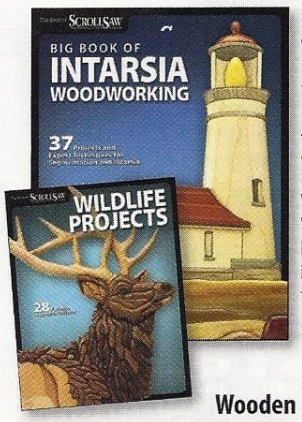
21 Original Designs with Full-Size Plans and Expert Instructions for All Skill Levels

By Kathy Wise

Perfect for those new to intarsia or serving as a quick refresher for more seasoned crafters.

$19.95 • Code: 3393

Best of Scroll Saw Woodworking & Crafts



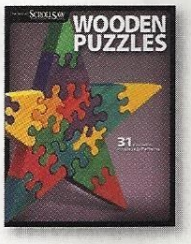
Big Book of Intarsia Woodworking

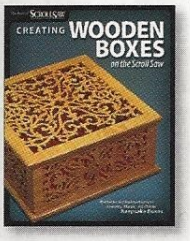
37 Projects and Expert Techniques for Segmentation and Intarsia

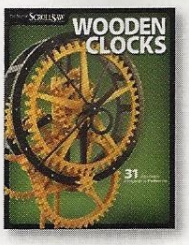
By Editors of Scroll Saw Woodworking & Crafts

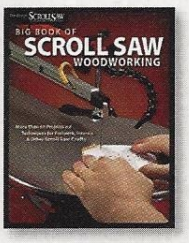
Whether you are a beginner or have been scrolling for years, you'll be inspired by the unique designs of these popular intarsia projects.

$24.95 • Code: 5502









Wildlife Projects

28 Favorite Projects and Patterns

By Editors of Scroll Saw Woodworking & Crafts

$19.95

Code: 5021

Wooden Puzzles

31 Favorite Projects and Patterns

By Editors of Scroll Saw Woodworking & Crafts

$17.95

Code: 4291

Creating Wooden Boxes on the Scrollsaw

Patterns and Instructions for Jewelry, Music, and Other Keepsake Boxes

By Editors of Scroll Saw Woodworking & Crafts

$19.95

Code: 4444

Wooden Clocks

31 Favorite Projects & Patterns

By Editors of Scroll Saw Woodworking & Crafts

$24.95

Code: 4277

Big Book of Scroll Saw Woodworking

More than 60 Projects and Techniques for Fretwork, Intarsia & Other

By Editors of Scroll Saw Woodworking & Crafts

$24.95

Code: 4260

Simply Wood

40 Stylish and Easy To Make Projects for the Modern Woodworker

By Roshaan Ganief

Breathe new life into your scroll saw projects with unique, modern designs that will add beauty and flair to your home decor.

$19.95

Code: 4406

See how Scrollers like Roshaan Ganief sell successfully on etsy.com – page 26.

Special Issue

Making Wooden Toys

By Editors of ScrollSaw Woodworking & Crafts

This special issue is filled with kid-approved, shop-tested projects, from classic board games to race cars, these heirloom quality toys are as much fun to make as they are to play with.

$9.95

Code: SIPTOY

Scroll Saw Woodworking & Crafts

By Phone: 800-457-9112 • Direct 717-560-4703
Fax: 717-560-4702
Online at: www.FoxChapelPublishing.com
By Mail: Send Check or Money Order to
Fox Chapel Publishing
1970 Broad St.
East Petersburg, PA 17520

US CAN

# Item	Shipping Rate	
1 Item	$3.99	$8.98
Each Additional	.99	$3.99

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

Attaching Patterns

Temporary-bond spray adhesive is the most common method used to attach patterns to stock. Photocopy the pattern. Spray the adhesive on the back of the copy of the pattern, wait a few seconds, and then press the pattern down onto the blank. Rubber cement or glue sticks work similarly.

You can also use graphite or carbon transfer paper. Place the pattern on the blank and slip a sheet of transfer paper in between the pattern and the blank. Use a few pieces of painter's tape to hold the pattern and transfer paper in place. Trace around the pattern with a red pen (so you know where you have traced). Choose a light-colored transfer paper for darker woods. Carbon paper costs less than graphite paper, but must be sanded off before finishing.

Removing Patterns

Dampen a glued paper pattern with mineral spirits to aid in removal. Commercial adhesive removers work as well. A quick wipe of mineral spirits will remove most adhesives left behind on the wood.

Blade-entry Holes

Some patterns have blade-entry holes marked. If the pattern doesn't, place the holes near a line to be cut to prolong the blade life, but don't place the hole on a curving line or inside corner (if possible). Drill the hole perpendicular to the blank. Use a drill press if you have one; otherwise, use a hand drill and make the holes as vertical as possible. Drill through the blank into scrap wood to prevent tear out on the back side of the blank.

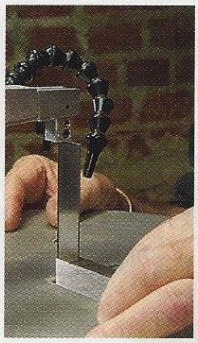
If you have the space, use a larger bit—it will make it easier to thread the blades through. For thin veining cuts, use the smallest bit the blade will fit through.

Blade Tension

Before inserting a blade, completely remove the tension. Clamp both ends of the blade into the blade holders and adjust the tension. Push on the blade with your finger. It should flex no more than ⅛" (3mm) forward, backward, or side to side.

A blade that does not have enough tension will wander. It will also flex from side to side, making for irregular or angled cuts. If you press too hard on a loose blade, it will usually snap.

A blade that has too much tension is more susceptible to breaking and tends to pull out of the blade holders. In general, it is better to make the blade too tight rather than too loose.

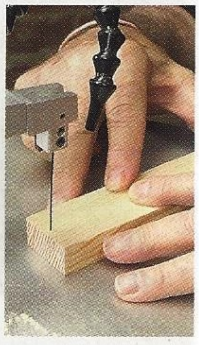


Squaring Your Table

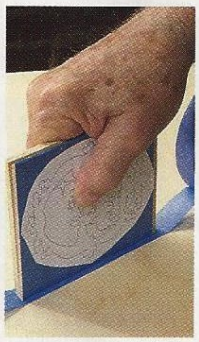
Most scroll saws have an adjustable table that allows you to make cuts at different angles. There are times when you want the saw set at an angle, but most cutting is done with the blade perpendicular to the table. If the table is even slightly off-square, the cuts will be angled. This interferes with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

The most common method for squaring a table uses a small metal square, or right angle tool. 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 ¾" (19mm) thick and check the angle of the cut using a square. Adjust the table until you get a perfectly square cut.



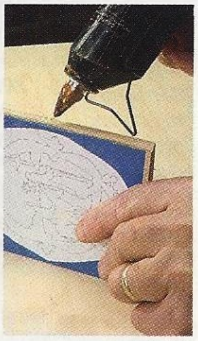
You can also use the kerf-test method. Take a 1¾" (44mm)-thick piece of scrap wood and cut about 1/16" (2mm) into it. Stop the saw, back the blade out, and spin the wood around to the back of the blade. If the blade slips easily into the kerf, the table is square. If it doesn't slide into the kerf, adjust the table and perform the test again until the blade slips in easily.



Stack Cutting

Stack cutting lets you cut several pieces of a project—or even several projects—at one time. Essentially, you attach several blanks together and cut them as one unit.

One way to attach blanks is with tape. Line all the layers up and wrap a layer of tape around the outside edge. You can also wrap the whole stack in tape for extra stability. Use masking tape, painter's tape, or clear packaging tape.



Hot-melt glue is another option. Glue the blanks together with a dot of hot-melt glue on each side.

You can also join pieces by driving brads or small nails into as many waste areas as you can. Cut off any overhanging nails as close to the surface as you can, and then sand them flush to avoid scratching or catching on the table.

To avoid repetitive instructions, this page is included in each issue to assist novice scrollers with basic scrolling techniques.

Simply the Best

Presenting the winners of the 2011 Best Project Design Contest

By Mindy Kinsey

Each year, the editors of *Scroll Saw Woodworking & Crafts* are impressed by the beautiful designs and skilled craftsmanship displayed by the entries in the Best Project Design Contest. The designs, materials, and inspirations vary, but the results are always admirable, and it's a pleasure to share them with you. Our thanks to the artists who submitted their entries, as well as the readers who participated in the online voting.

BEST IN CONTEST

PEOPLE'S CHOICE

Nature's Majestic Creatures

by Rita Williams Armstrong, New Castle, Ind.

Rita Armstrong said her winning piece, *Nature's Majestic Creatures*, is "a culmination of all the wonderful things my parents gave me—the love of animals and nature from my father, and the desire and the artistic ability to create things of beauty from my mother." Rita began carving about eight years ago after her mother gave her a set of knives and a blank, and they joined a local carving club together. Scrolling naturally followed.

Rita learned to cut three-dimensional sculptures on the scroll saw by following a pattern. She applied the technique to a photo of a rearing horse to design her own pattern for this project. She used walnut for the horse. "Coming from a carving background, it was only natural for me to take my carving tools to each individual piece to add detail and definition," said Rita. She added muscle tone by lightly burning the wood with a small pencil torch. Rita says that gluing the pieces together was her greatest challenge. "Each piece must align precisely—very nerve-racking!"

Rita wasn't sure how to display the horse until she turned a piece of root upside down and realized it looked like a tree. "The tree helped create the balanced effect I was seeking, but [the scene] was still missing something," she said. That's when Rita came up with the reason for the horse to be rearing—the eagle in the tree.

BEST IN CONTEST

EDITOR'S CHOICE

Flower Cabinet

by Duane F. Martin, Newfields, N.H.

The editors admired this blanket chest for its simple Shaker-style design paired with the lovely high-relief intarsia flowers.

Duane Martin made the cabinet for his wife as a home for the many treasures given to her by their five grandchildren. Duane is experienced at making raised-panel cherry cabinets, but said the idea of substituting intarsia for the front panels is new. His wife chose the flowers—California poppies and black-eyed Susans—and Duane based the designs on photos and line drawings. He made the poppies from osage orange, yellowheart, and poplar, and made the black-eyed Susans from yellowheart, purpleheart, and poplar; both are on cherry backgrounds.

"I'm very happy with the concept of inserting intarsia work in my raised-panel cabinets," said Duane. "I intend to include them in the entertainment center I will be making in the near future. The finished cabinet is truly a treasure chest, as both my wife and our grandchildren cherish its contents."

People's Choice

TRADITIONAL FRETWORK

Solid Celtic Cross

by Ron Tremback, Killaloe, Ont.

Ron Tremback and his wife, Patti Robertson, learned to make Celtic patterns to honor Patti's Scottish ancestry. Patti worked out the technique on paper and then applied it to fretwork patterns while Ron experimented with cutting the knots. He explained, "I decided to see what the piece would look like if I cut out the intermediate pieces as well as the knots. I was completely surprised that the finished piece looked so three-dimensional." Ron made this *Celtic Cross* from white ash and finished it with a combination of boiled linseed oil and citrus thinner. Said Ron, "Of all the pieces of fretwork we have made, this stands out as one that sent tingles down my spine when I finished with it."

INTARSIA

Seahawk

by Randy Anderson, Peoria, Ariz.

Randy Anderson wanted his sculpture to soar. "Each feather is hand-shaped for its particular position in the design. More than just simply rounding the sides, I attempted to cut each feather into more of a three-dimensional shape," he said. "I wanted the *Seahawk* to appear that it was flying off the wall." Randy incorporated something special into the materials as well by using Mount St. Helen's maple. "Mount St. Helen's maple is from trees that pulled some of the [volcanic] ash into their grain when they started recovering from the volcano," Randy explained. He inlaid the maple with walnut to add detail to the feathers. He also used oak, African paduk, and pine in the project.

FRETWORK PORTRAIT

Rust-o-ration

by Kerry Hallam, Sumter, S.C.

"I came across this photo while searching for old cars on the web," said Kerry Hallam of the image that inspired *Rust-o-ration.* He secured permission from the photographer to use the photo and began cutting. Kerry stack-cut three portraits at once, using oak and Baltic birch plywood. The portrait consists of 474 individual cuts.

GENERAL

Cana Island Lighthouse

by Donna Baltz, Waukesha, Wis.

Donna Baltz was originally planning to make a one-dimensional fretwork version of her photo of Cana Island Lighthouse in Door Country, Wis. However, she was experimenting with vector software and, with the help of a tutorial on the *Scroll Saw Woodworking & Crafts* forum, learned how to make a layered project. Said Donna, "I sketched out a simple pattern on the computer and went back to the saw. I was amazed with my first attempt, so with a little sanding, the lighthouse was complete." The background and trees are fretwork carved with a Dremel. Donna made the frame and fretwork trees from black walnut and cut the lighthouse from balsa. The project is lit by a battery-operated Christmas light and is housed in a custom-made shadow box.

Editor's Choice

GENERAL

Keep It Simple

This year, the editors noted a subtle theme woven among many of the entries: simplicity. It's not that there weren't impressively intricate entries; there were, and many of them are recognized as People's Choice award winners. But we also saw artwork that was elegant in the artists' restrained approach to design, materials, and finishes. We admired the clean lines and thoughtful details of these pieces, which also highlighted their flawless workmanship. Many hours in the shop have taught us that you have to work hard to make something look that easy. In the General category, we chose to award two woodworkers for their outstanding examples of beauty in simplicity.

Trivet Set

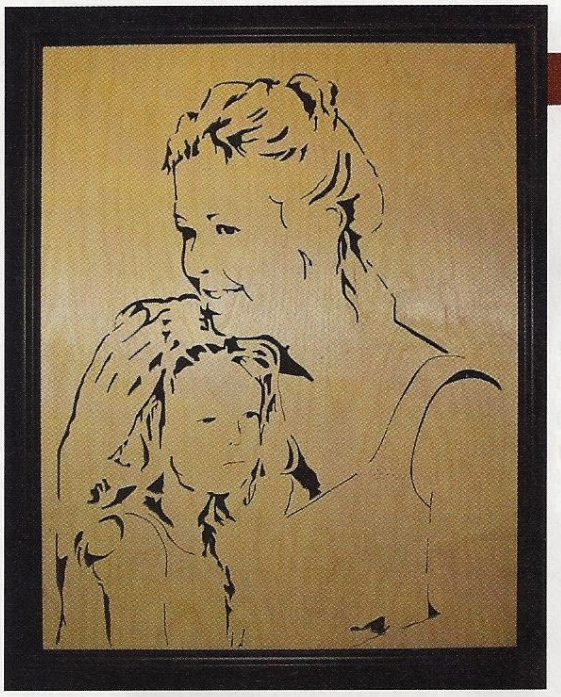
by Joseph Treadwell, Fontana, Calif.

We enjoyed the well-balanced, aesthetically pleasing design of Joseph's trivets, as well as the sly two-for-one usefulness of the set. Joseph made the *Trivet Set*, 7" by 7", from one piece of bird's eye maple, using one blade-entry hole. He designed the set to be used as one or two pieces, and stained the center piece for contrast. Joseph finished the trivets with spray gloss polyurethane.

Turtle Box

by Kip Travis, Southport, N.C.

The design of Kip's turtle is sleek and sparse, focusing on the beautiful wood and well-fitted inlay. We appreciate that this box is useful as well as decorative. Kip made the box from maple and walnut, and finished it with lacquer.



FRETWORK PORTRAIT

A Mother's Touch

by Jay Hammerle, Houston, Tex.

The editors admired the restraint evident in Jay Hammerle's portrait of his wife and daughter. It is very evocative, but uses just a few well-placed cuts. Jay used two computer programs to create the pattern for *A Mother's Touch*, which is based on a photograph taken by his son, Clayton Hammerle of Hammer Photography. Jay originally cut the portrait from oak. "There was a true letdown when the grain took over the finished product and I realized that I would have to change the material and re-cut the whole thing again to make it look right." He switched to Baltic birch plywood for its softer, less-distracting grain. Jay said, "I feel good knowing that the portrait of my wife and daughter came out well enough that others like and recognize who they are in it. This inspires me to do other portraits and try to get better at scrolling."

INTARSIA

3-D Intarsia Fish

by Bill Warren, Anchorage, Alaska

"I have enjoyed intarsia for several years now," said Bill Warren. "I also enjoy fly-fishing and admire carved fish." Bill created his *3-D Intarsia Fish* by making two identical fish bodies from maple and two shades of western red cedar and gluing them together. "During the shaping, there was enough curve to the fish that one side of the blank tapered out and the other side showed through," he noted. After making the blank, Bill shaped the body, added fins, and made rocks out of scrap wood.

The editors enjoyed the smooth fit of the pieces in Bill's sculpture, as well as the sculpted curve of the fish's body and the use of grain to evoke scales.

TRADITIONAL FRETWORK

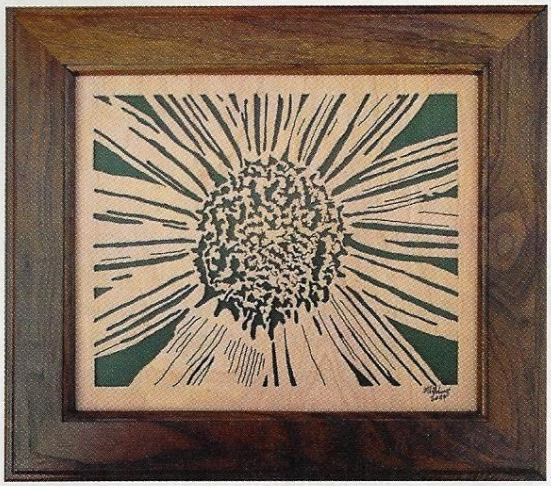
Table

by Jordan Veshoski, Struga, Republic of Macedonia

"The inspiration to create this little table most probably came out of my poetic soul," said Jordan Veshoski. Jordan noted that he spent a month "planning and creating the little table in my mind" and another month making it. "The design itself was created simply line by line, a creation of my mind drawn from a memory of the perception of the earthly goods seen through my eyes." Pragmatically, he chose beech for the table because it was available and easy to work.

Jordan's table is very pretty. Both the fretwork and the overall design are well-balanced and appealing.

Honorable Mention



***Flower* by Mike Fehring, Ridgecrest, Calif.**
Mike Fehring's exuberant flower is bold and basic at the same time. The simplicity of the subject and delicate cuts combine in an attention-grabbing image with the strong graphic elements creating a delightful contrast.

***Noah's Ark* by Janice Smith, Albuquerque, N.M.**
Janice Smith's darling design features a smart use of layered wood for the ark as well as appealing animals and fun details.

***North Pole: Santa's Village* by Richard Wood, Smyrna, Tenn.**
Richard Wood did a great job of using intarsia to portray the North Pole in this delightful hinged scene that opens to reveal a lighted Christmas tree.

***Motorcycle* by Nick Sabetti, Ottawa, Ont.**
Nick Sabetti's bike is simple but includes all of the essential details. The pieces are well-fitted, and the overall impression is sleek and well-proportioned.

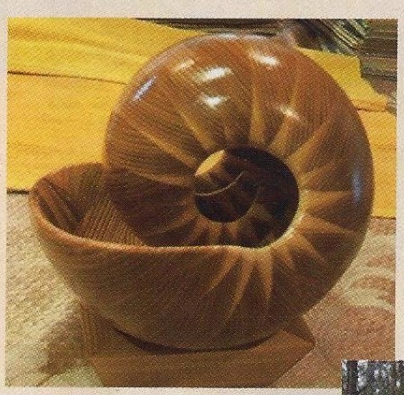
***To the Moon* by Rob Caplan, Redmond, Wash.**
The cleverly shaped pieces and upright rocket of Rob Caplan's puzzle add play value to something that would normally be a display piece.

***Wayside Inn Grist Mill* by Duane F. Martin, Newfields, N.H.**
Featuring a nice use of grain, texture, and color, Duane Martin's grist mill displays a likable folk-art style.

Laureen's Quest **by L. Kim Braa, Ocean Springs, Miss.**
Using a muted palette of natural wood colors, Kim Braa successfully creates the illusion of vibrancy and motion.

Green Sheep **by Deborah Nicholson, Hernando Beach, Fla.**
Deborah Nicholson's comical sheep is the perfect mascot for any scroll saw workshop—the designer formed the wool from scrap wood leftover from cutting clocks.

EDITOR'S NOTE:
Because there was only one entry, the compound category was eliminated and the entry was moved to the general category.



Spencer Bloom's *Shell* was adapted from Steven Garrison's technique. It is made of Western cedar and is approximately 5" in diameter.

Steven Garrison developed the shell-making method during the 1990s. This version is made of cedar. See more of Steven's shells at his website, www.stevengarrison.com.

Giving Credit

One popular entry in this year's contest was Spencer Bloom's *Shell*. Made of Western cedar and approximately 5" in diameter, the shell is a lovely and intriguing work. Spencer learned the technique from Steven Garrison, who originated the shell design and published an e-book describing his method. Although Spencer adapted the process in making his own shell, such variations on existing designs are not allowed by the contest rules. Therefore, Spencer's shell should not have been presented for people's choice voting. However, because the shell garnered a lot of attention from voters, we wanted to acknowledge Spencer's work as well as Steven's design.

Another well-lauded entry was Jim Dabney's charming *Sunset* intarsia project, based on a Norman Rockwell painting from 1926. Unfortunately, the Rockwell image is still under copyright protection, which disqualifies Jim's project from consideration. We did not discover the discrepancy until voting had closed.

Jim Dabney's *Sunset* consists of 689 pieces and contains twenty species of wood, each piece finished in its natural color. The piece is based on a Norman Rockwell image.

Selling Handmade Work with Etsy

Earn money and get exposure with this popular Internet marketplace

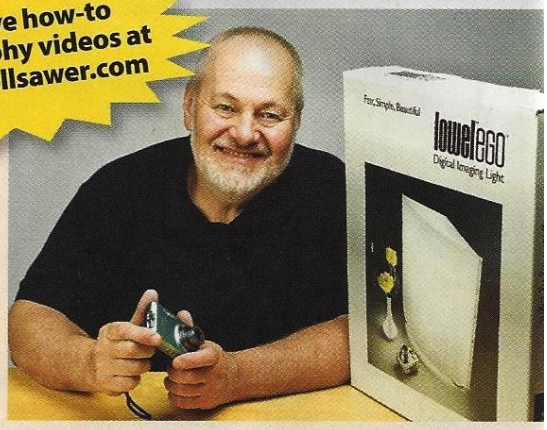
By Bob Duncan

One of the most successful and economical ways for artists to get exposure for their work is through community-based websites, such as Etsy. In contrast to the regional limitations and high entry costs of craft shows, community-based websites have broad reach and fees are typically set up on a commission basis.

In 2005, members of the Etsy community sold approximately $166,000 worth of merchandise. By 2010, sales had reached $314.3 million. With buyers and sellers in more than 150 countries, Etsy.com logs more than 1 billion page views per month and offers more than 8.5 million items for sale.

It's easy to sell items on Etsy. After you register and set up the free shop, it costs $0.20 U.S. to list an item for four months. When you sell an item, Etsy charges 3.5% of the total sale price, excluding the shipping. Etsy e-mails you a bill on the last day of the month, which you can pay with the credit card used to set up your shop or via PayPal. You can manually pay your account balance at any time.

Exclusive how-to photography videos at www.scrollsawer.com



Maximize Sales with Photography

Successful Etsy shop owners cite good photography as the number one way to increase online sales. Join the *Scroll Saw Woodworking & Crafts* studio photographer in a series of free videos as he explains how to take professional-grade photographs of your work using a point-and-click camera in your home. Series of twenty-three videos available at www.scrollsawer.com.

Sample of Potential Income with Typical Etsy Fees

Number of items	Price per Piece	Total Sales	Listing Fee	Commission	Total Etsy Fee	Income	Fee as % of Sale
10	$20.00	$200.00	$2.00	$7.00	$9.00	$191.00	4.5%
5	$50.00	$250.00	$1.00	$8.75	$9.75	$240.25	3.9%
1	$500.00	$500.00	$0.20	$17.50	$17.70	$482.30	3.54%

For less than the cost of a table at many flea markets, you can list your work on Etsy.com and develop a loyal client base who will purchase your work online or drive across the state to see your entire line at an art show. And if the item doesn't sell, your only cost is the listing fee.

Scroll Saw Woodworking & Crafts authors share their Etsy success stories

Roshaan Ganief: Mokajadedesigns

Roshaan's most memorable sale:
I sold about fifty "Year of the Rat" bookmarks to a customer in Hawaii. She gave them away as mementos at a family reunion.

With Etsy, your audience and customer base grow exponentially. The fees are reasonable and it sure beats the costs of travelling to craft shows. As soon as I visited the website, I instantly knew this was the next venue for me to sell my goods.

One of the key reasons Etsy is different from similar sites is because they have a great community of artists and crafters to keep you motivated. I belong to local teams that meet in person at least once a month to exchange ideas and do fun crafty things together.

> **"I instantly knew this was the next venue for me to sell my goods."**

The key to a successful Etsy posting is to have great photos of your work. Use all the available spots and show all the possible angles. If people can't see the finer details, they won't give your work a second glance. A good solid write-up of your work will also get you noticed. List items frequently and always keep your page fresh and updated.

I consider my book, *Simply Wood*, the greatest success directly related to my exposure on Etsy. Etsy is a great site to get your name out there so people can really see what you are all about.

Erin Freuchtel-Dearing: Imaginationkids

Erin's busiest holiday season:
Last year, we sold more than $7,500 worth of toys in less than six weeks. We stopped taking Christmas orders the first week of December.

I did some research after a friend suggested Etsy and was impressed with the website's focus on handmade goods and the artists who make them. I quickly decided I wanted to be a part of the Etsy community.

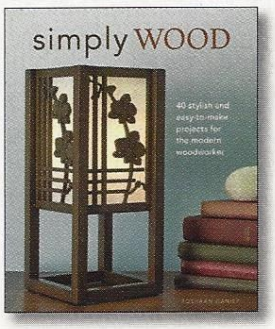
The market that Etsy attracts is the right fit for our toys. Etsy has a user-friendly platform—setting up a shop and making it functional is simple. I have tried other online handmade marketplaces and they just don't generate the same amount of buying traffic.

Because customers can't handle the toys, the most essential part of an Etsy listing is the pictures. Well-lit clear pictures from several different vantage points are imperative. Accurate and concise descriptions are important as well. Include all the pertinent information, such as dimensions, types of woods and finishes, and any special care instructions.

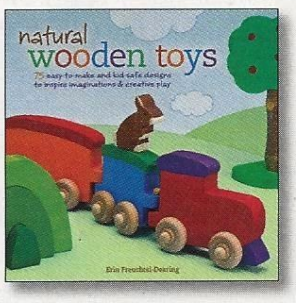
Since my husband and I started selling toys on Etsy in 2009, our business has grown by leaps and bounds. Our shop's income tripled in two years and our home has been taken over by a thriving home-based business.

> **"Our shop's income tripled in two years."**

We had intended to sell our natural wooden toys at farmer's markets and craft fairs, but we have a hard time keeping up with the increasing demand on Etsy.



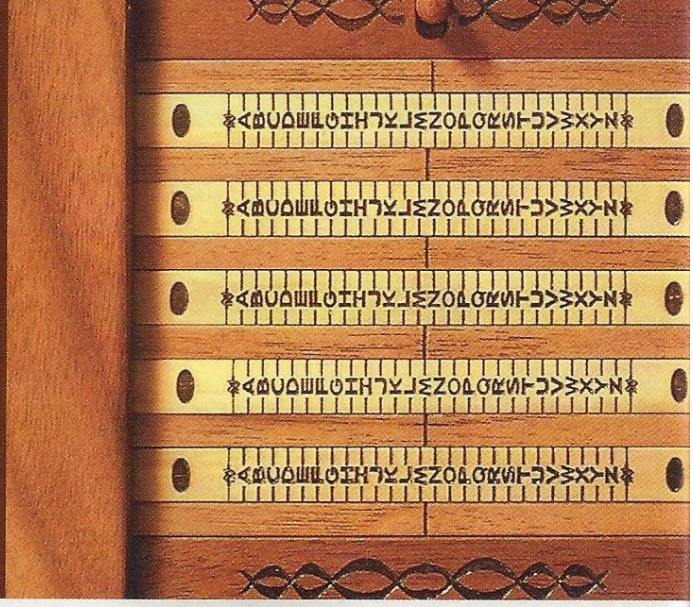
Fox Chapel editors discovered Roshaan's elegant home decor and Erin's naturally finished wooden toys on Etsy. The artists were quickly contacted to see if they were interested in sharing their techniques in a book. **See page 14 to order your copies today!**



Randal Gatewood's Artistic Puzzle Boxes

Beautiful and challenging boxes are inspired by ancient Japanese traditions

By Kathleen Ryan



Centuries ago, Japanese artisans handcrafted beautiful boxes to secure valuables and secret documents. Because there were few visible means of opening the boxes, only those who knew the secret could get inside. Methods for making the boxes were closely guarded and passed verbally from master to apprentice. Japanese craftsmen still make traditional puzzle boxes, but there is a new breed of puzzle box artisans.

Randal Gatewood is one of a handful of artists in the world dedicated to handcrafting original puzzle boxes. He combines artistic workmanship with fine-tuned precision mechanisms to bring a new level of expertise and intrigue to the art form.

The Road to Making Puzzle Boxes

Randal became interested in puzzle boxes after receiving one as a gift more than thirty years ago. In a way, his career prepared him to become a box-maker. After serving in the Army, Randal, who lives and works outside Athens, Texas, worked as a machinist and learned about precision workmanship with required tolerances of only .001". He then ran the productions facility at an industrial coatings factory. During his free time, Randal was a woodworker and made furniture. Later, he took a job in the aircraft industry, where he spent fifteen years building and refurbishing cabinetry for private business-class jets.

In 2002, the company Randal was working for went out of business. "That's when I decided to try something I had wanted to do for years, which was building puzzle boxes of my own designs," he said. Randal established Quagmire Puzzle Boxes™.

Designing Puzzle Boxes

Randal's goal is to create complex functioning boxes that are as challenging to open as they are beautiful to look at. "A good puzzle box should provide the tasks of logical reasoning, manipulation, dexterity, and even a little luck at times," Randal explained. "Some of the very high-end puzzle boxes require from ten to 200 or more moves to open the box. I want to intrigue the puzzler with as much challenge as the design will possibly allow."

> **"I want to intrigue the puzzler with as much challenge as the design will possibly allow."**

The artisan quickly learned how complicated a task he had set for himself. It took him months to complete his first prototype and months more to produce the boxes. Designing these intricate puzzle boxes involves hours of contemplation, imagination, sketching, fabricating, jig building, and prototyping. "For me, the process of mind to manifestation is the ultimate challenge and the fun part," said Randal. "The whole creative process is what motivates me most. I usually start with an idea of what I want the box to look like, and then I let that dictate what mechanical options are available to make it all work."

Made in editions ranging from sixty to 120 boxes each, these boxes are crafted from hand-culled exotic hardwoods selected to accentuate the design and theme. "Wood is a wonderful palette for creativity because each type has its own properties—color, density, grain structure, and overall workability," said Randal. "As puzzle boxes are mechanical, they require very close tolerances to be maintained. I always look for a wood with a good straight grain and veer away from knotty woods and erratic grains—especially for making moving parts."

One of Randal's most difficult designs to date is his newest—*Ultimate Cryptex Puzzle Box*, which features a total of 17,210,368 possible combinations.

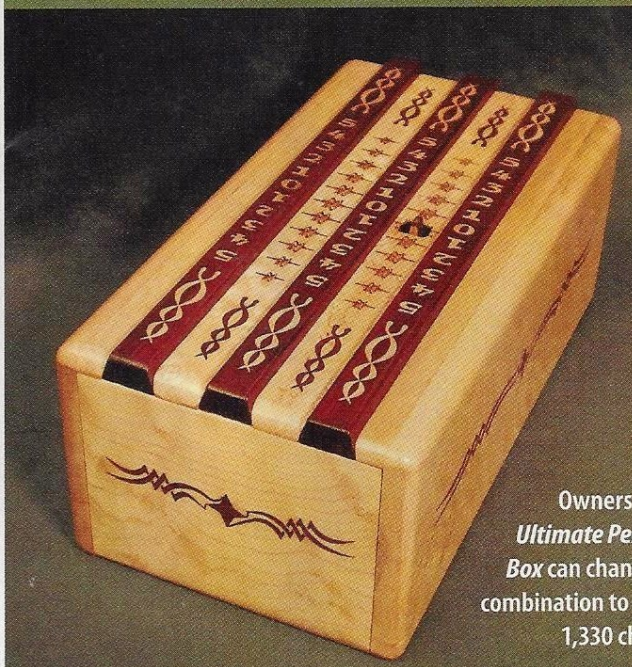
The *Yin Yang Puzzle Box* utilizes a multi-component dial mechanism that includes a cam lock and wooden spring.

According to Randal, accuracy is the key to making puzzle boxes with moving parts. "Because wood is hygroscopic, it expands and contracts with atmospheric conditions. So it is crucial to make allowances for that movement and to produce parts with consistent accuracy. Combined with good wood and grain selection, this will ensure proper operation for a long time."

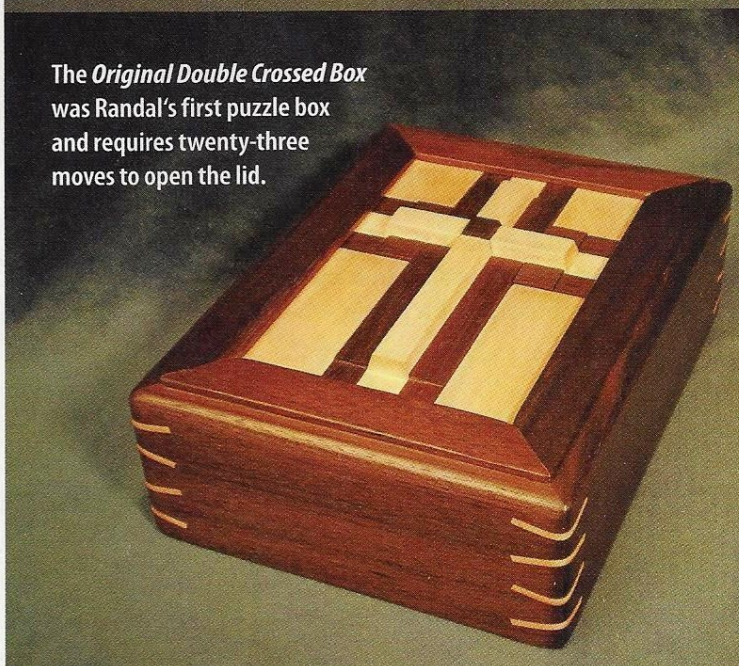
Even after years of experience, creating these boxes takes so much time that, working full time, Randal can only make a couple hundred complex boxes per year. That production limitation makes the boxes rare and plays a big part in making the art form collectible. His creations are sought by collectors in at least sixteen countries around the world. "Boxes that I created just a few years ago have sold at auction between collectors for five to six times their original purchase price," said Randal. Many of his new designs sell out within days of completion. Collectors sign up for Randal's newsletter on his website to receive notice of upcoming releases.

Randal plans to continue to elevate the art of designing and building totally unique and original puzzle boxes well into the foreseeable future because it's not just a job, it's his passion. "I very much consider inventing new puzzle box designs like creating art—what I like to call working art, because puzzle boxes are something that you can really interact with as well as display for their aesthetic value. The artist in me hopes that others will receive the concept of my artistic gesture. The craftsman in me hopes that it will be touched and appreciated. Every box I make is made with the ambition for heirloom quality that will last for many years to come."

For more information, visit Randal Gatewood's Website at www.quagmirepuzzleboxes.com. Please note that Randal does not offer or sell his puzzle box plans.



Owners of the *Ultimate Personal Box* can change the combination to one of 1,330 choices.

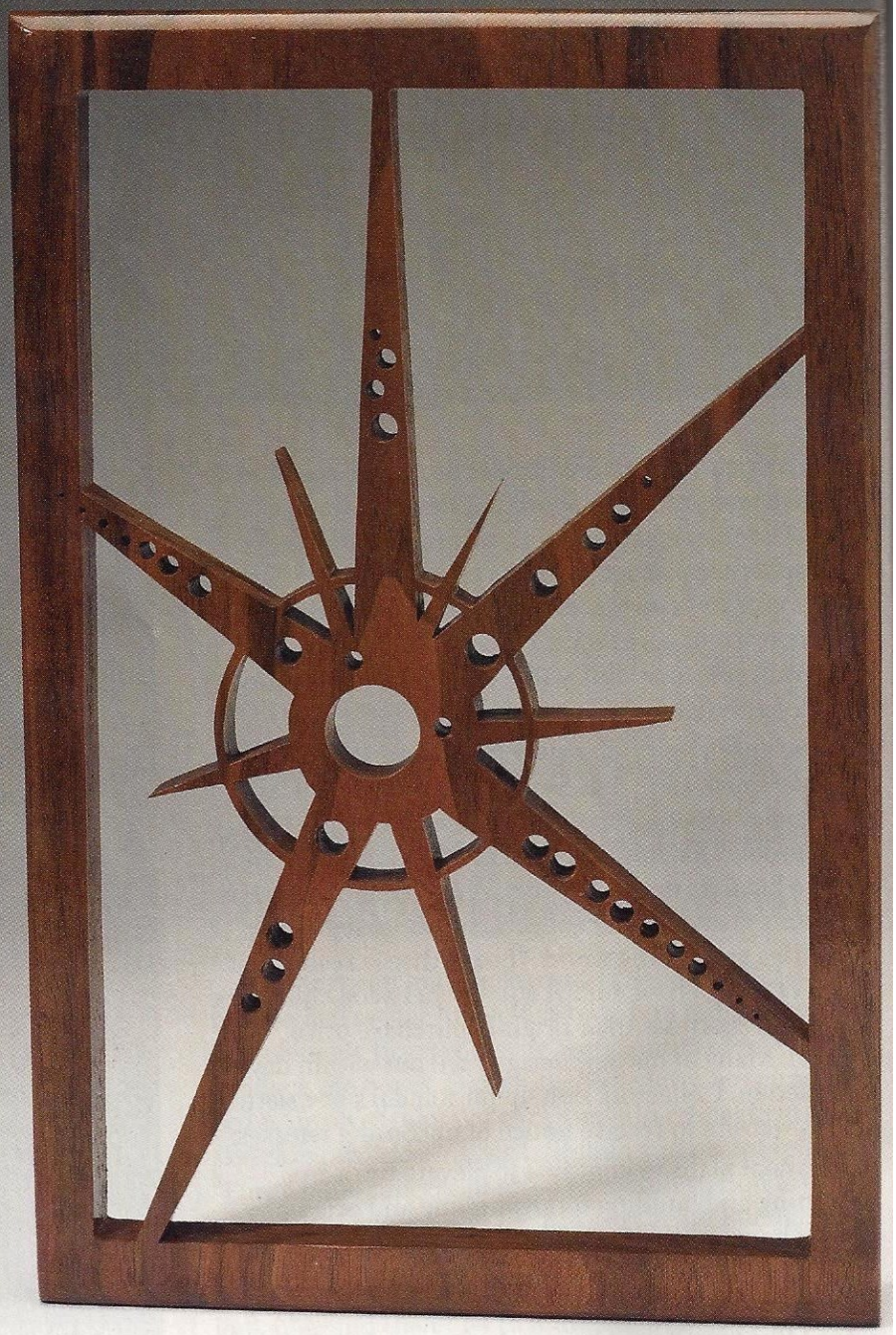


The *Original Double Crossed Box* was Randal's first puzzle box and requires twenty-three moves to open the lid.

Starburst Fretwork

Abstract fretwork makes striking display

By Frederick P. Arndt
Cut by TJ Brown

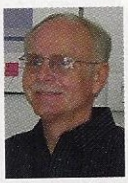


I enjoy designing fretwork with the mid-century modern look that was popular during the 1940s and 1950s. At that time, design and architecture often featured natural materials, clean lines, and geometric shapes, and reflected the public's interest in outer space and space travel. I tried to incorporate all of those elements in my single starburst pattern.

Attach the pattern to your blank, and cover the pattern with clear tape. Drill the holes using a drill press and variously sized bits. Then, cut the fretwork, being careful to cut the lines straight.

TJ Brown cut the project from ½"-thick walnut and dipped the finished cutting in a 50:50 mixture of clear shellac and denatured alcohol. When dry, TJ sanded the fretwork and then sprayed it with a coat of gloss polyurethane finish.

This design scales well and is striking at larger sizes, giving you many display options. I added a picture hanger to the back and use it as a wall hanging, but you could also exhibit it on a shelf using a plate stand. You can add a colored backing board if you prefer.



Frederick P. Arndt of Saginaw, Mich., is a retired automotive engineer with a passion for the arts, architecture, and mid-century modern style. He designs original fretwork, sculptures, mobiles, and furniture. His work can be found in select galleries and studios across the United States. Contact Frederick at fparndt@aol.com.

Materials & Tools

Materials:

- Walnut: ½" x 7¾" x 11¾" (13mm x 197mm x 298mm)
- Rubber cement
- Sandpaper
- Clear tape
- Clear shellac
- Denatured alcohol
- Spray gloss polyurethane finish

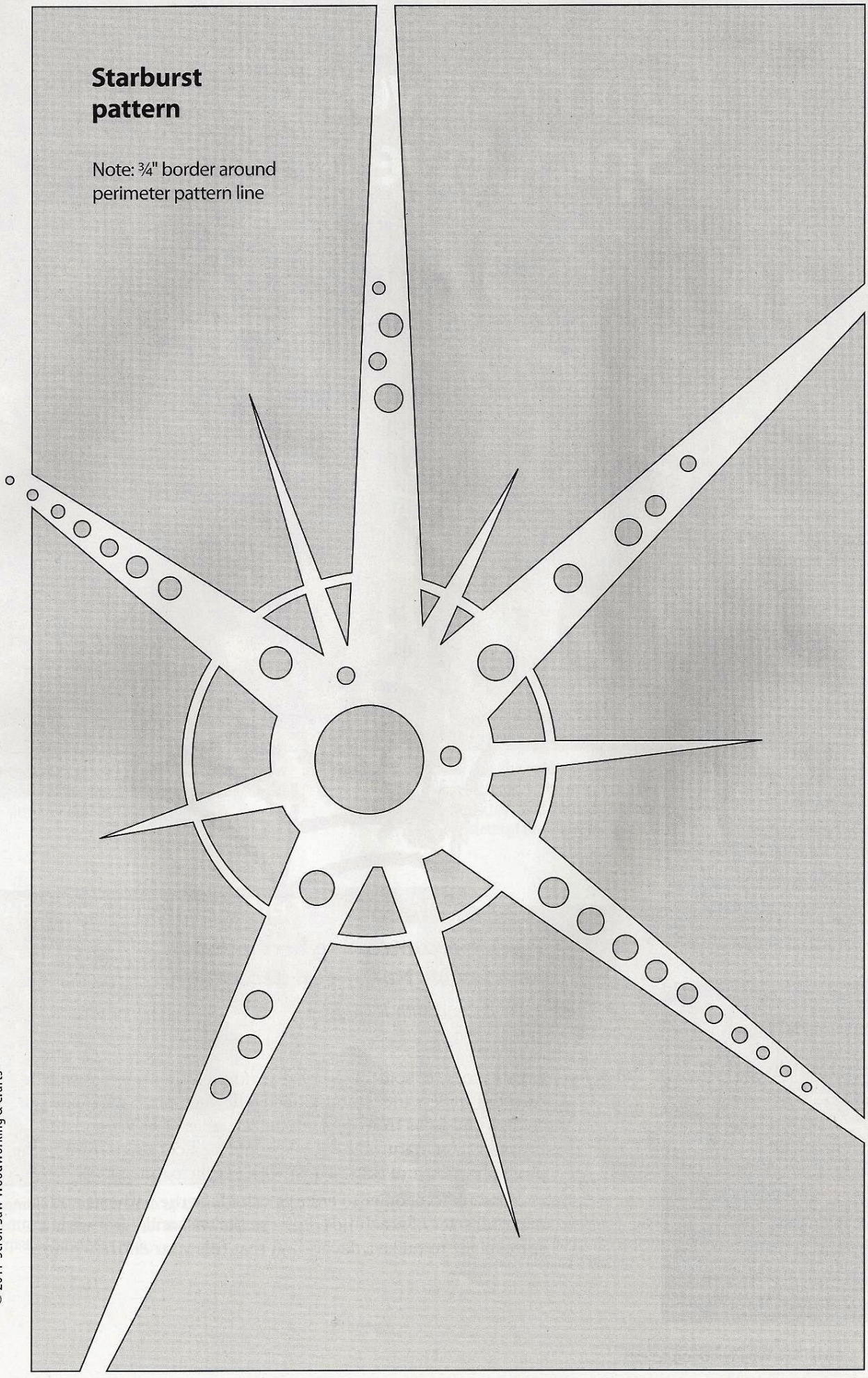
Tools:

- Ultra-reverse scroll saw blades: #5
- Drill and bits: various sizes

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

Starburst pattern

Note: ¾" border around perimeter pattern line



Fun Fretwork Spiderweb

Attach hardware to individual spiders for quick and easy pins.

Cut the spiders from a solid color for a different look.

Stack-cut contrasting hardwoods for a festive Halloween decoration

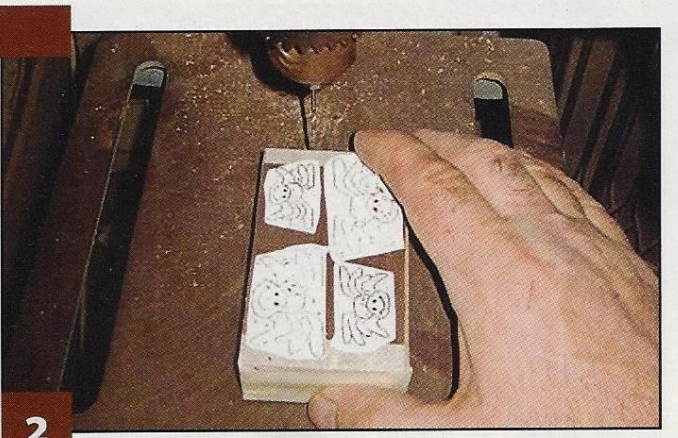
By Daniel and Ruth Johnson

Create a nest of spiders to crawl around on the fretwork web or turn the spiders into stand-alone Halloween pins. We made the spiders and webs from contrasting varieties of hardwood and finished them naturally, but you could also cut them from Baltic birch plywood and finish them with acrylic paint.

Use a photocopier to enlarge or reduce the patterns and make all sizes of arachnids. Enlarge the web and cut it with a spiral blade to make a decoration that fills your entire window.

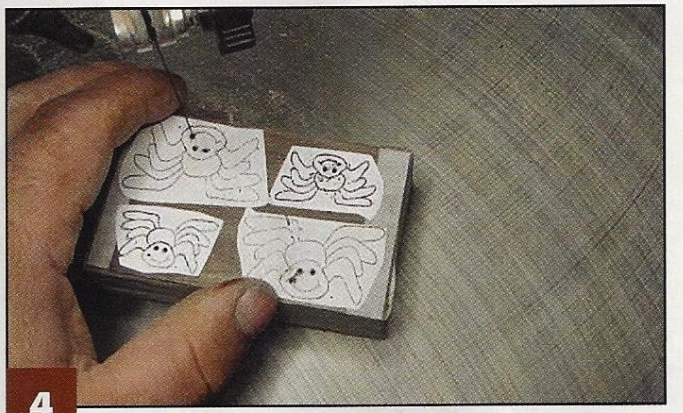
SPIDERWEB: CUTTING THE PIECES

1 **Preparing to cut.** Stack the wood for the webs and securely wrap the stack in masking tape. Spray the back of the pattern with temporary-bond spray adhesive and apply the pattern to the top of the stack. Repeat with the wood for the spiders.



2 **Drill the blade-entry holes.** Drill 1/16" (2mm)-diameter blade-entry holes in the webs and spiders. Use the same bit to drill the spiders' eyes.

3 **Cut the webs.** Use a #5 skip-tooth blade. Cut the inside frets first, and then cut the perimeter of the web. Remove the pattern and separate the webs.



4 **Cut the spiders.** Carefully cut the spiders' mouths. Then, cut each spider into five pieces: two pairs of front legs, two pairs of back legs, and the body. Alternatively, just cut the mouth and perimeter of the spider for solid-color spiders.

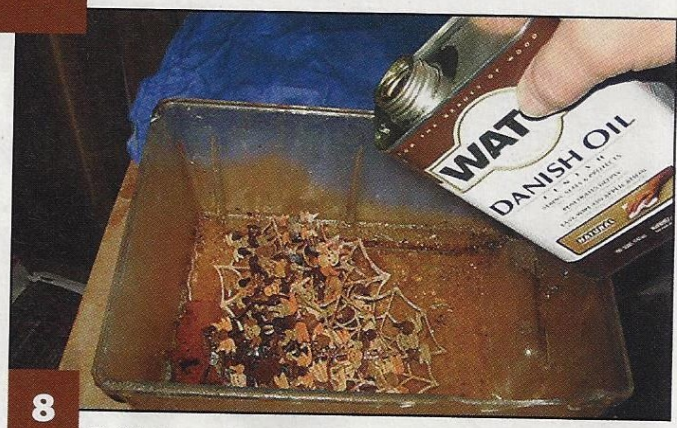
SPIDERWEB: FINISHING THE PROJECT

5 **Assemble the spiders.** Mix up the spider legs to make colorful critters. Using a toothpick and small dabs of wood glue, glue the spiders together. Let dry.

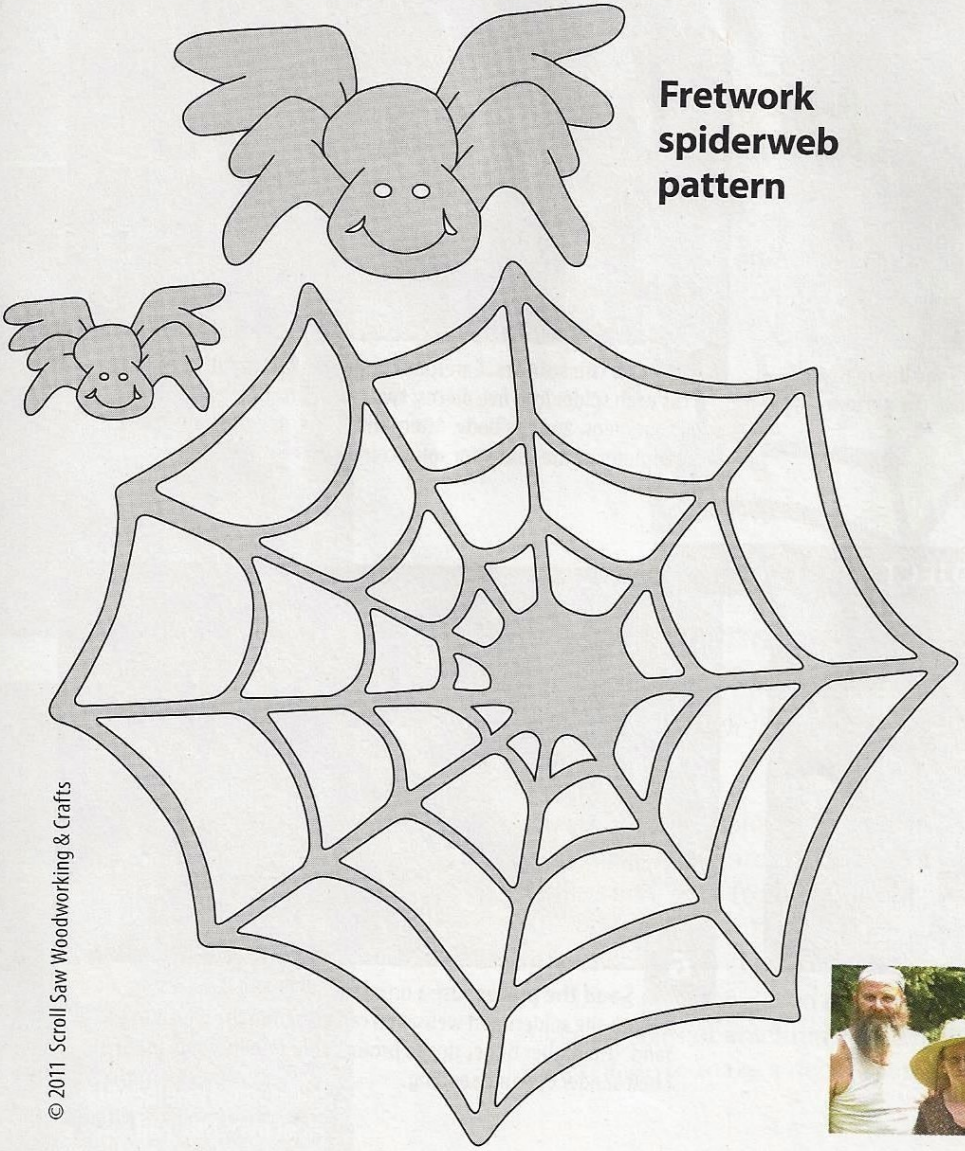
6 **Sand the pieces.** Use a drum sander or belt sander to smooth the spiders and webs. You can also sand the pieces by hand. Use rubber finger tips to protect your fingers while using a belt sander or hand-sanding.

SPIDERWEB: FINISHING THE PROJECT

7 **Glue the spiders to the webs.** Use a small amount of wood glue to attach the spiders to the web. Attach as many spiders as you wish. Clamp and let dry.



8 **Finish the project.** Dip the webs in Danish oil, wipe off the excess, and let dry. Hang the decorations with string, hemp, or fishing line. Glue pin or earring backs to individual spiders to form spooky accessories.



Fretwork spiderweb pattern

Materials & Tools

Materials:

- Contrasting hardwood (three spider webs): 3 each 3/16" x 5" x 5" (5mm x 127mm x 127mm)
- Contrasting hardwood (twelve spiders): 3 each 1/8" x 2" x 3" (3mm x 51mm x 76mm)
- Masking tape
- Temporary-bond spray adhesive
- Toothpicks
- Wood glue
- Sandpaper: 220-grit (if hand-sanding)
- Danish oil
- Lint-free cloth
- Hemp, string, or fishing line
- Pin or earring backs (optional)

Tools:

- Pebeco skip-tooth blades: #5
- Drill and bit: 1/16" (2mm)-diameter
- Drum or belt sander (optional)
- Clamps
- Rubber finger tips (optional)

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

Daniel and Ruth Johnson live with their many dogs, cats, and pot-bellied pigs in south-central Indiana between the Brown County State Park and the Hoosier National Forest. They participate in many art shows each year in Indiana, Illinois, and Ohio. Daniel has been making a living as a woodworker since 1994.

Mother's Caress
Elephant Puzzle

Stack-cut contrasting colors of wood to create a pair of puzzles

By Dayle Sullivan-Taylor

Marine mammals and African animals are among my favorite animals. I work for a small zoo in a cold region, so we don't have elephants. I enjoy visiting other zoos to see models for my nature photography and puzzle-making hobbies.

To make this puzzle, I stack-cut the elephant profiles from two pieces of contrasting wood and then swap the calves to create more definition in each puzzle. This also gives me more bang for my buck, because I complete two puzzles in the time it normally takes to make one.

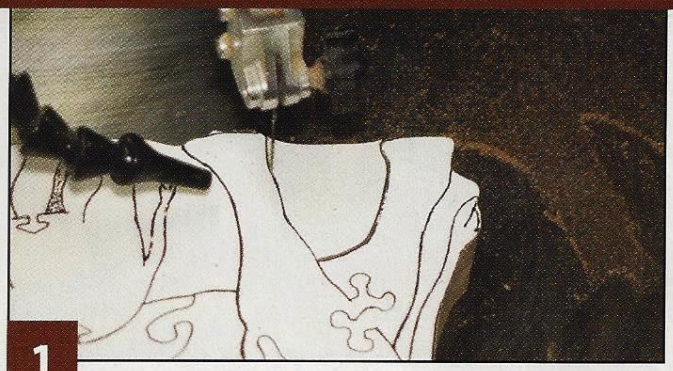
You'll need three or four contrasting colors of wood for this project. I chose black walnut and pink dogwood for the elephants and aspen for the tusks. I used black limba for one puzzle background and cherry for the other. The bases and stands are cherry and Caribbean rosewood.

Preparing the Blanks

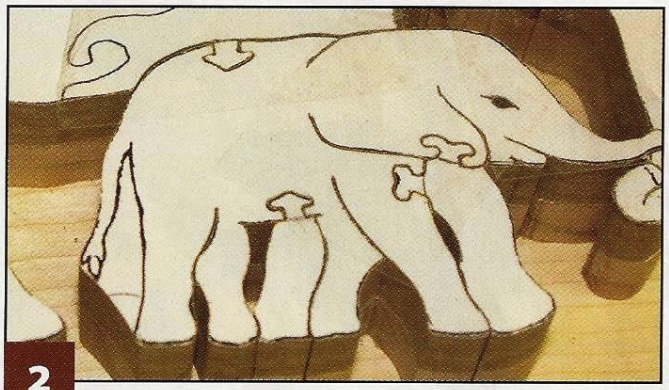
I plane down the dense hardwood to ½" to ¾" (13mm to 19mm) thick to make cutting easier. You can leave softer woods a little thicker. Prepare the planed wood by running it through a drum sander with 220-grit paper and then hand-sanding it with 320-grit paper.

When stack-cutting puzzles, it is important to bind the pieces together securely. If the pieces move during cutting, the puzzles will not fit together. To connect the wood, lightly spray the fronts of two pieces of contact paper with spray adhesive. Press the two fronts together for a minute, and then peel the liner off one piece and attach it to the back of one board. Peel off the remaining liner and press the contact paper onto the front of the second board. Next, wrap the stacked boards with clear packing tape, covering the front and back. The tape secures the boards together, lubricates the blade, and helps prevent burning on the cut edges.

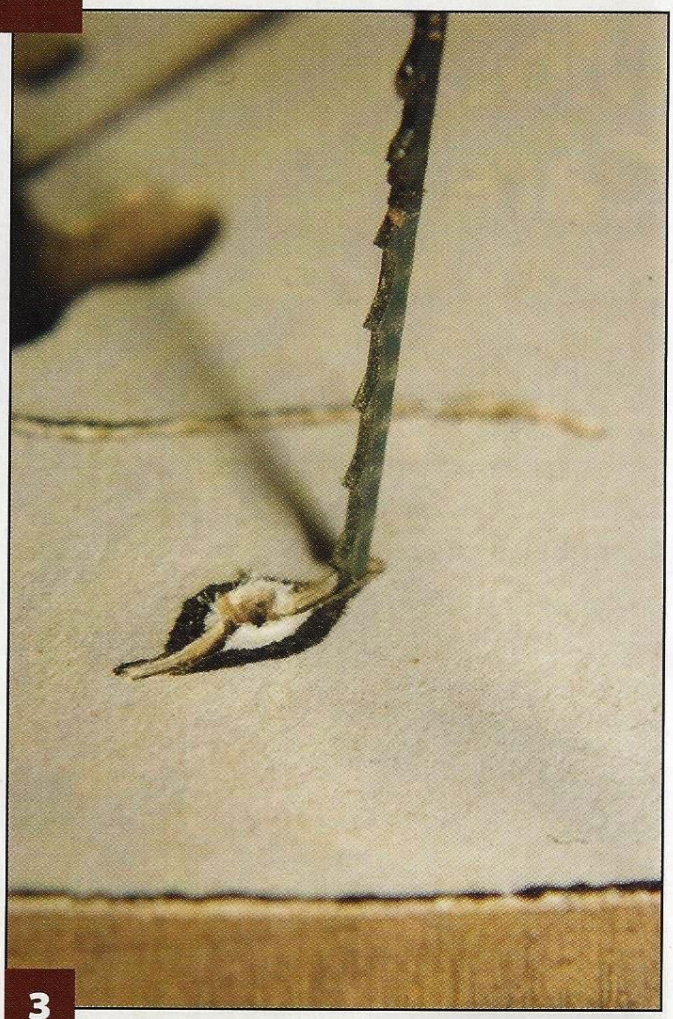
ELEPHANTS: CUTTING THE PUZZLE



1 **Cut the outline.** Using a large blade, such as a #12 reverse-tooth blade, cut the puzzle outline. Cut slowly and without forcing the wood, which can bend the blade and prevent a proper fit. Cut the box around the tusk—you'll cut the tusk later. Cut, but don't remove, the pieces between the tails and legs. The tails are fragile and the waste adds support while you're working.



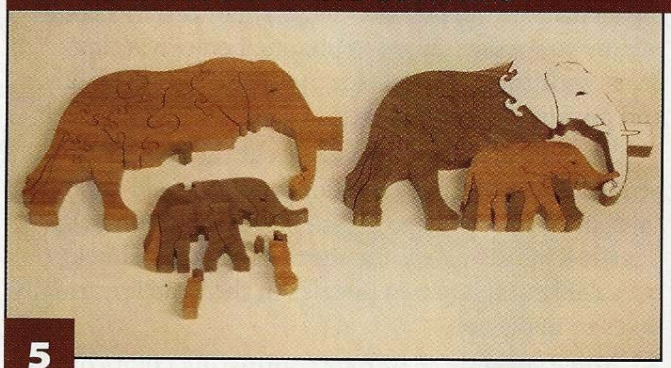
2 **Cut the calf.** Make sure the saw table is square to the blade. Use a smaller blade, such as a #7 reverse-tooth blade. Drill blade-entry holes as necessary, and then cut the individual pieces and the detail lines on the calf. Do not cut the dotted lines on the puzzle keys. Take your time and don't push the wood too hard, which could bow the blade.



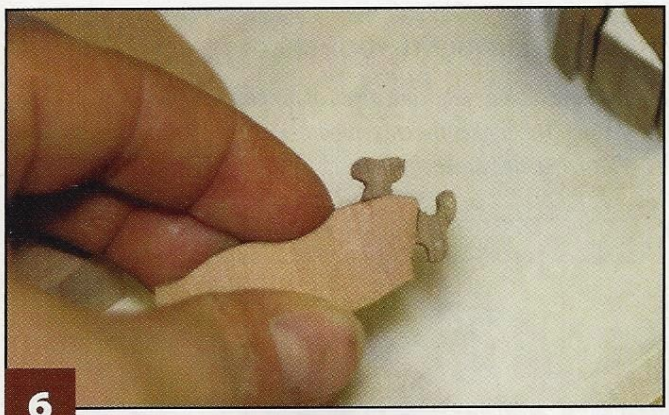
3 **Cut the eyes.** For perfect eyes, first drill a small blade-entry hole in the center of the eye. Place a #7 reverse-tooth blade in the hole and make a horizontal cut from the hole to one corner. Back the blade out, reposition it, and cut to the other corner of the eye. Back the blade out to the hole and then back it into one of the corner cuts (either one). Cut the eye perimeter.

4 **Cut the keys.** Put the calf back in place and use clear packing tape to secure it. Cut straight across the keys in the calf, following the dotted lines. Set the keys and calf aside. Cut the puzzle pieces and detail lines in the mother elephant. Do not cut the tusk area.

ELEPHANTS: CREATING CONTRAST

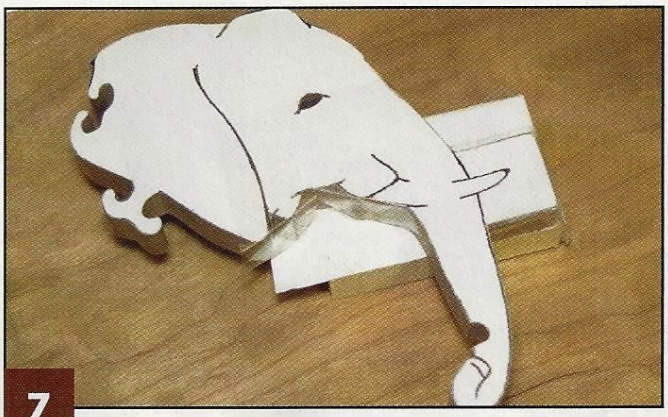


5 **Swap the elephants.** Carefully pull the stacked pieces apart and remove the contact paper and adhesive. Remove the patterns from all but the large head piece. Keep the waste pieces in place to support the tail areas. Swap the calves, but not the mother's legs. Match the keys to the correct calf by color. Assemble the puzzles, ensuring the keys and legs are correctly matched.



6

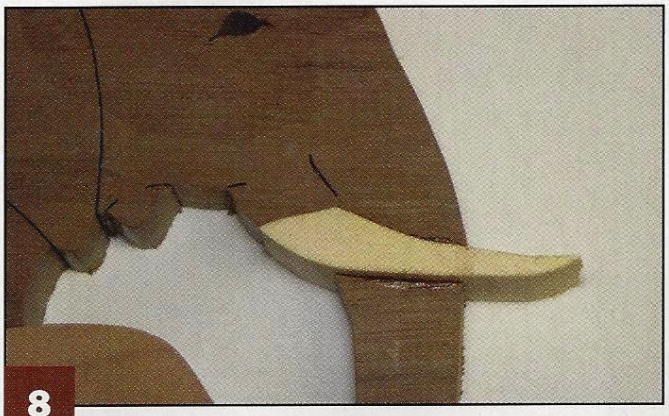
Glue the keys. Using thick cyanoacrylate (CA) glue and working carefully, glue the keys and corresponding body or leg pieces together. Remove any glue squeeze-out immediately. Replace the pieces within the puzzles before the glue sets to make sure they align correctly. I use old blades as shims to hold the keys in place within the puzzles. Let the glue dry.



7

Cut the tusks. Stack and tape the large elephant head piece to a small, slightly thicker piece of aspen. Cut the tusk. Attach a copy of the pattern to the second large elephant head, stack and tape it to the aspen, and cut a second tusk. Separate the stacks and remove the patterns and tape

ELEPHANTS: FINISHING THE PUZZLE



8

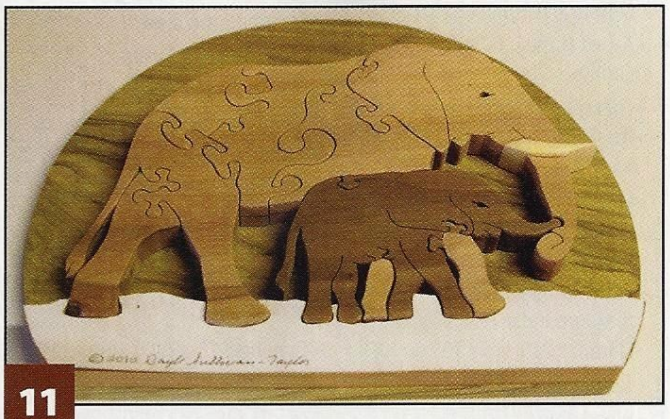
Attach the tusks. Discard the original tusks and replace them with the white tusks. Assemble the puzzles, ensuring the elephants align perfectly. Using CA glue, glue the new tusks in place. Let the glue dry. Then, sand the tusks by hand so they are flush near the mouths and round toward the tips.

9

Align the base. Assemble the puzzle and tape it together, paying special attention to the bottom pieces. Place the elephants onto the base pattern and align the pieces with the pattern. Use a mechanical pencil to trace the puzzle edge onto the pattern. Attach the base pattern to the base wood.

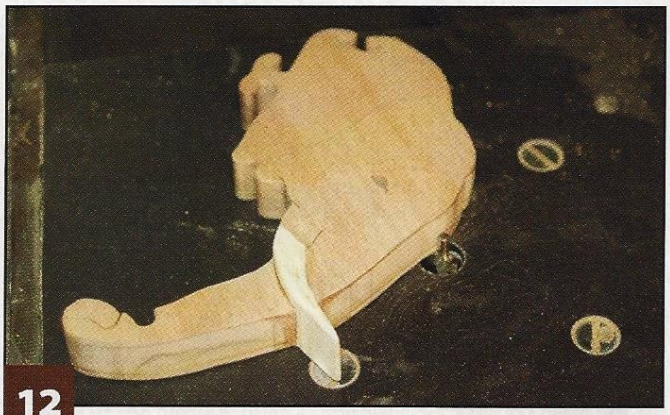
10

Cut the base. First, cut straight across the legs on the pattern, following the top line on the base. Then, go back and cut out the legs, following the traced lines where applicable. Work slowly and carefully to ensure the puzzle will fit properly once completed.



11

Cut the background. Use contact paper and tape to stack and secure the wood for the background. Cut the background piece. Be sure the outside edges of the base match the edges of the background piece. Use a disk sander to smooth the edges of the background.



12 **Sand the puzzle.** Using a rotary tool with a small round-over router bit in a router table, smooth the front and back edges of the puzzle pieces. Be careful around the tail, and avoid the glued key pieces. Use a sanding star attached to a drill press to polish the pieces. Do not over-sand, which will cause the pieces to fit loosely. Repeat the process for the front of the base and both sides of the background. Glue the base to the background, clamp, and let dry overnight. Use a disc sander to sand the edges flush. Repeat Steps 10 through 13 for the second puzzle.

Making Stands

Measure the width of the finished bases and backgrounds, and adjust each stand pattern to fit the puzzle. The stand needs to fit tightly, so it is better to cut the inside notch slightly smaller than needed and sand it to size. Finish the stands with the rotary tool and sanding star.

I finish the puzzles and displays with Watco Danish oil in natural to let the beauty of the wood shine through.

Materials & Tools

Materials:

- Black walnut and pink dogwood (elephants): 9/16" x 7½" x 10" (14mm x 191mm x 254mm)
- Aspen (tusks): ¾" x 2" x 2" (19mm x 51mm x 51mm)
- Cherry and Caribbean rosewood (bases): ½" x 2½" x 11" (13mm x 64mm x 279mm)
- Cherry and Caribbean rosewood (stands): ¾" x 1½" x 3" (19mm x 38mm x 76mm)
- Black limba and cherry (backgrounds): ½" x 9" x 12" (13mm x 229mm x 305mm)
- Sandpaper: 320-grit
- Wood glue
- Thick cyanoacrylate (CA) glue
- Danish oil: natural
- Contact paper: white
- Spray adhesive
- Clear packing tape
- Olson blade lubricant
- Mechanical pencil

Tools:

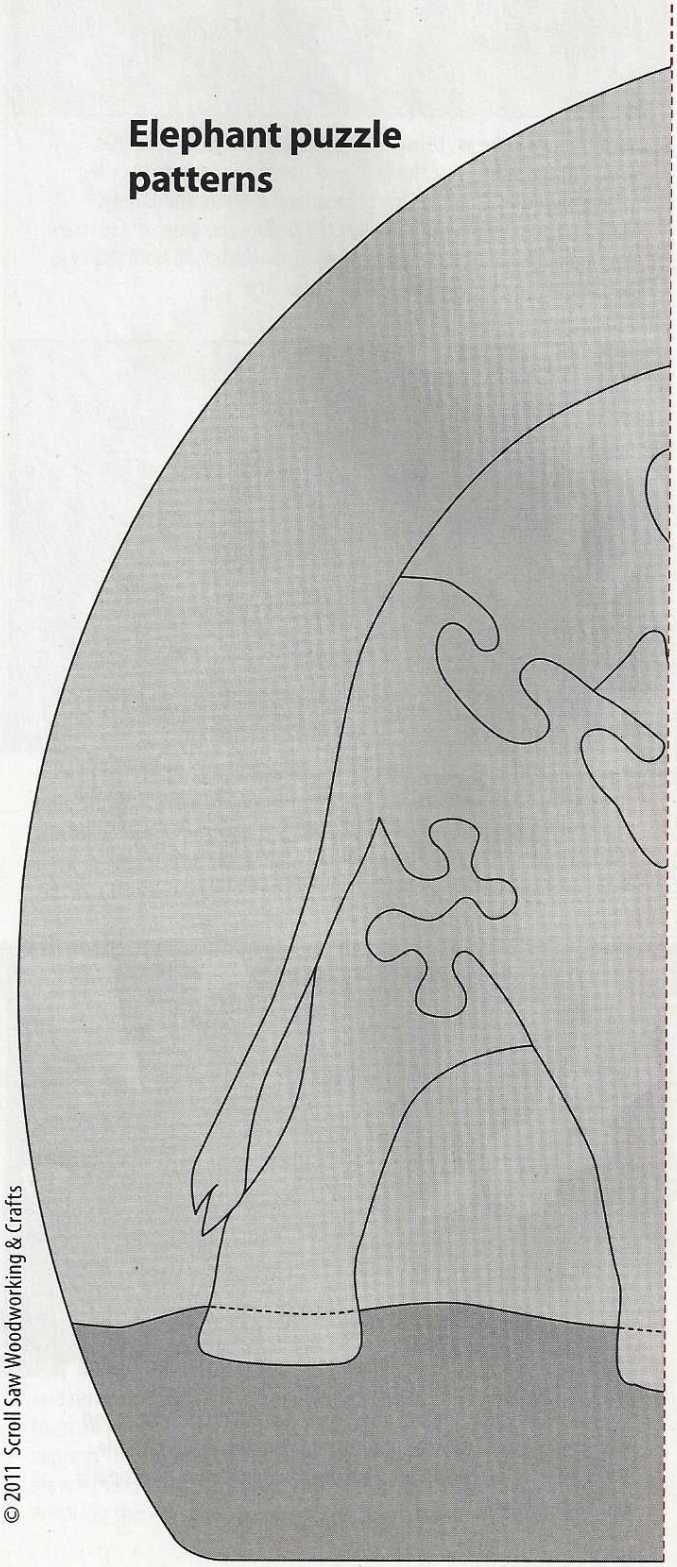
- Reverse-tooth blades: #12 and #7
- Drill press and bit: 1/16" (2mm)-diameter
- Disc sander
- Dynabrade Sanding Stars: 220-grit
- Rotary tool, 615 round-over router bit, and 6" x 6" (152mm x 152mm) router table
- Clamps

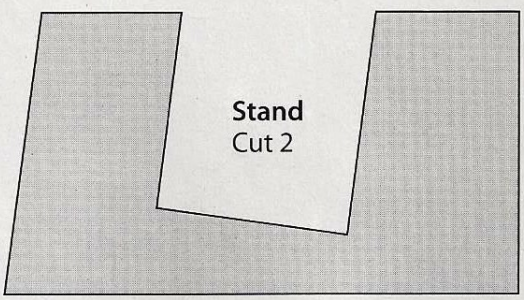
The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.

TIPS **LUBRICATE YOUR BLADES**

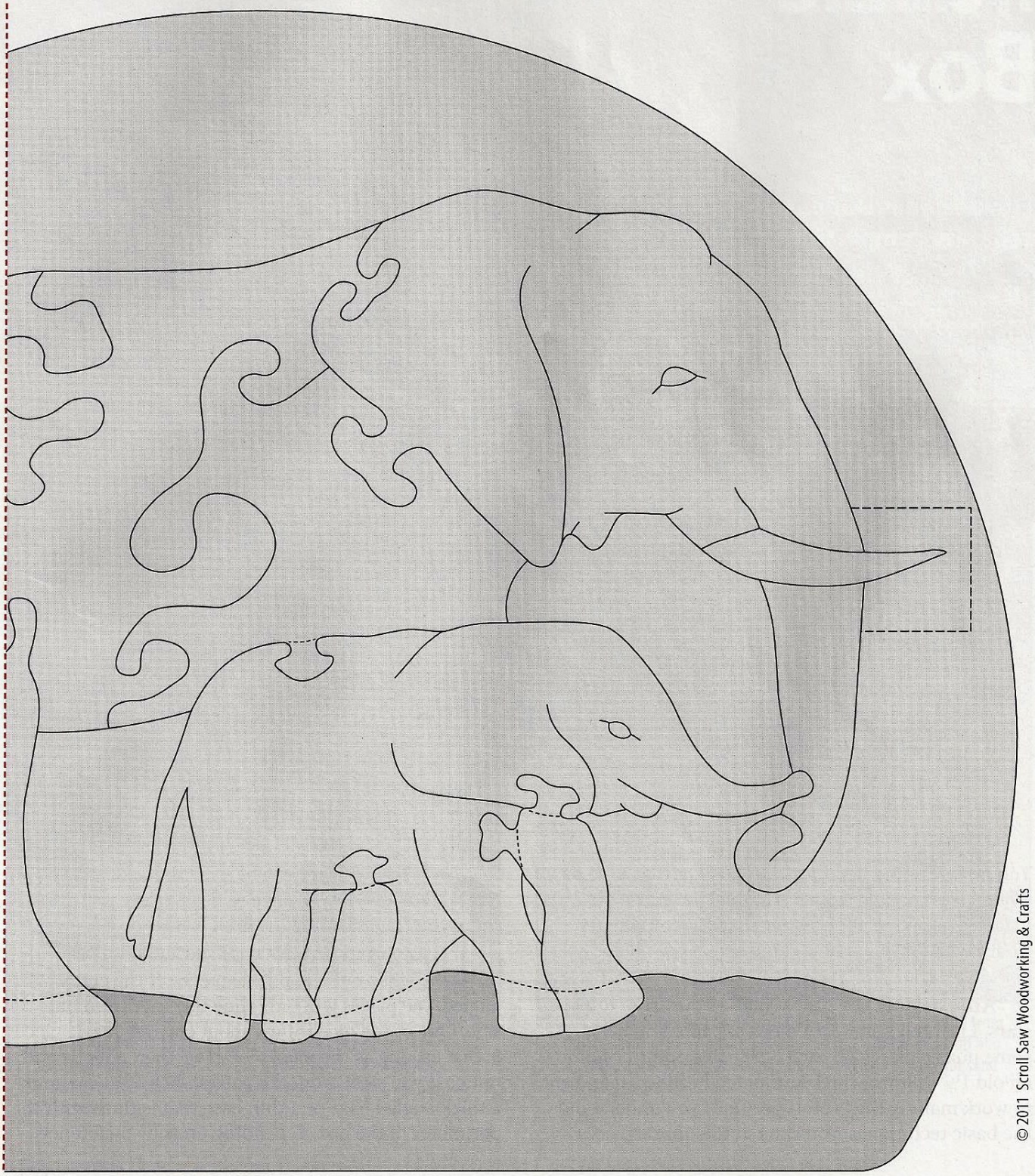
I use Olson blade lubricant on all of my blades before cutting. This makes the cuts smoother, keeps the blade sharper longer, and helps prevent burning.

Elephant puzzle patterns





Dayle Sullivan-Taylor lives in Tewksbury, Mass. She became captivated with wildlife while living in Alaska as a child. Dayle worked for sixteen years as a whale-watch naturalist and captain at the New England Aquarium in Boston, Mass. In 2005, she became a senior zookeeper at Zoo New England, where she works with all types of animals. Dayle is also an avid wildlife photographer, and enjoys designing and cutting animal puzzles. Visit her websites at www.jobemacstudios.com, Facebook, and Etsy.



Making a Star-Shaped Puzzle Box

Fun design includes five separate compartments

By Dave Danchuk

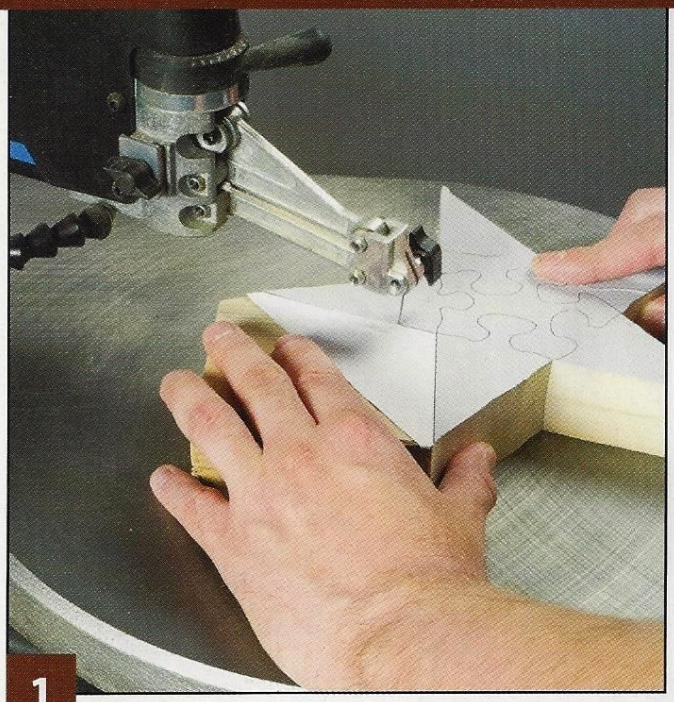
Decorative painting by Donna Lloyd

You never know when inspiration will strike. One day, while I was making simple rectangular puzzle boxes, I started thinking about other shapes I could make. That's when my daughter came and asked me for help drawing stars.

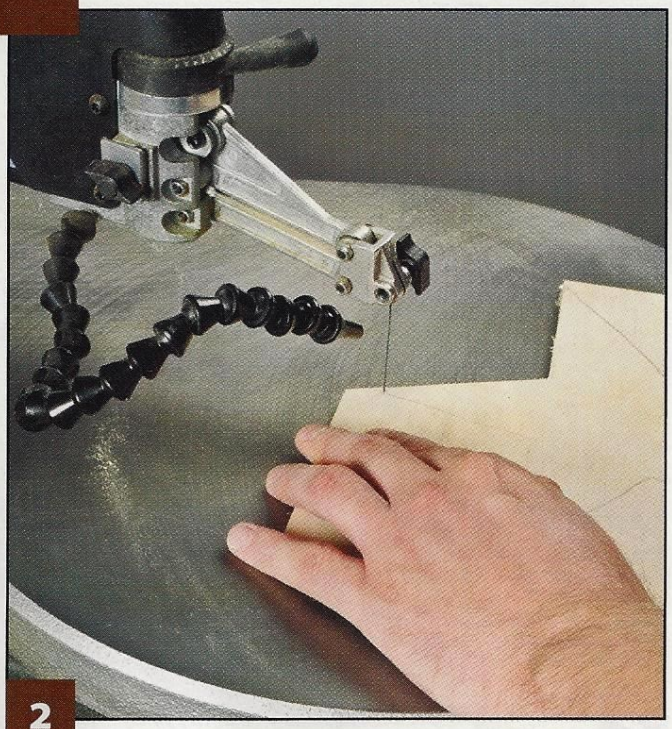
After helping her almost master the art of drawing stars, I printed a star on a piece of paper and drew some puzzle pieces on each of the five points. I found an old 1½" (38mm)-thick laminated headboard and got to work making the prototype. Once you understand the basic techniques, you can cut the puzzle pieces freehand. The concept can be used to make puzzle boxes from a variety of shapes. Stop by my website to share your own designs inspired by this project.

It is important to have your saw table square with the blade when cutting puzzle pieces. If the cut is angled, the pieces will only slide together from one side. One of the nice things about cutting puzzle pieces is that as long as the pieces lock together, nobody will notice if you stray from the pattern line. You can make a thick angled base or a thin base that is flush with the perimeter of the box, depending on your preference.

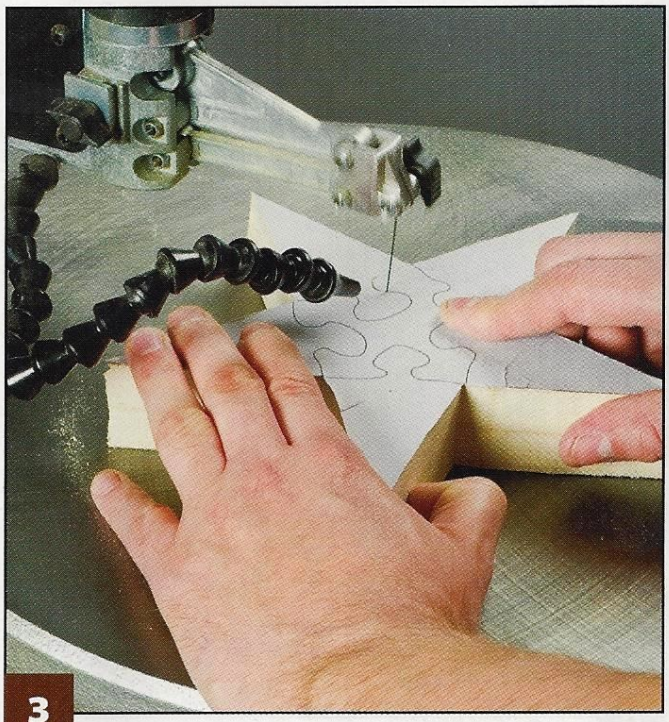
PUZZLE BOX: CUTTING THE PIECES



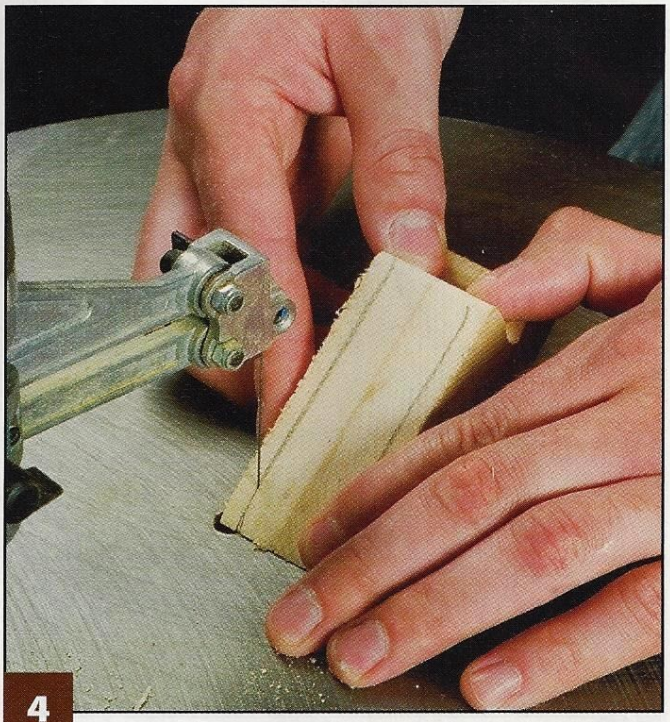
1 **Cut the perimeter of the star box.** Use your method of choice to attach the pattern to a 1½" (38mm)-thick blank. Cover the blank with masking tape before attaching the pattern or cover the attached pattern with clear packing tape to help lubricate the blade. Then, cut the perimeter using a #5 skip-tooth blade.



2 **Cut the base.** Trace the cut star onto the blank for the base. Use ¼" (6mm)-thick stock to make a thin base flush with the box. Use ¾" (19mm)-thick stock to make an angled base. Tilt the saw table 15° and cut along the traced line so the wood flares out wider than the traced line.

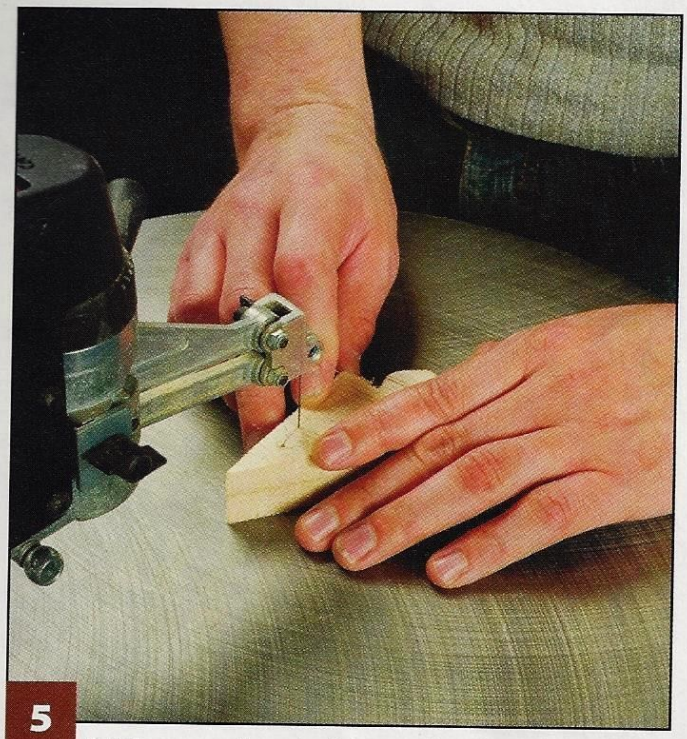


3 **Cut the puzzle pieces.** Make sure your saw table is square with the blade. Cut the five points free from the center section. Take your time so the blade doesn't bow and cause an angled cut. If the pieces slide out in only one direction, make that side the top of the box.



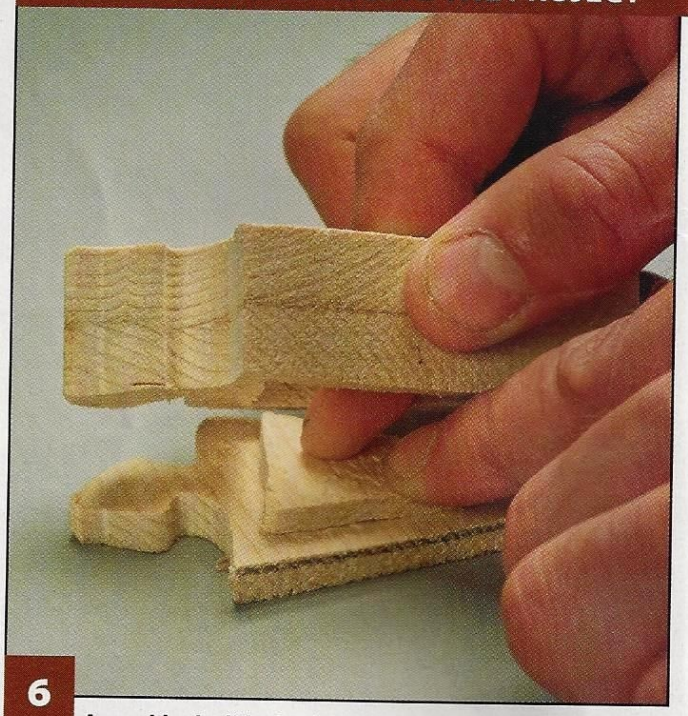
4 **Cut the box bottoms and lids.** Draw a line ¼" (6mm) from the top and bottom on each point of the star. Cut the slices off and label the parts so you can re-assemble them in order. Do not sand any of the pieces.

PUZZLE BOX: ASSEMBLING THE PROJECT



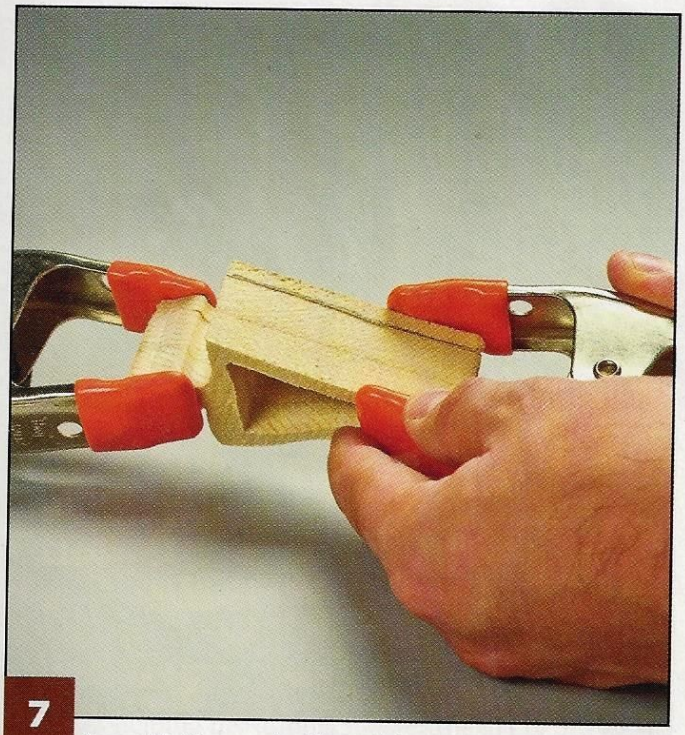
5

Cut the compartments. Make a cardboard template of the box opening and trace it onto the center section of each point. Drill a blade-entry hole at the point and cut the compartments. Slice a ⅛" (3mm)-thick section from each center section to act as a lid liner. Keep the lid liner matched with the appropriate point.



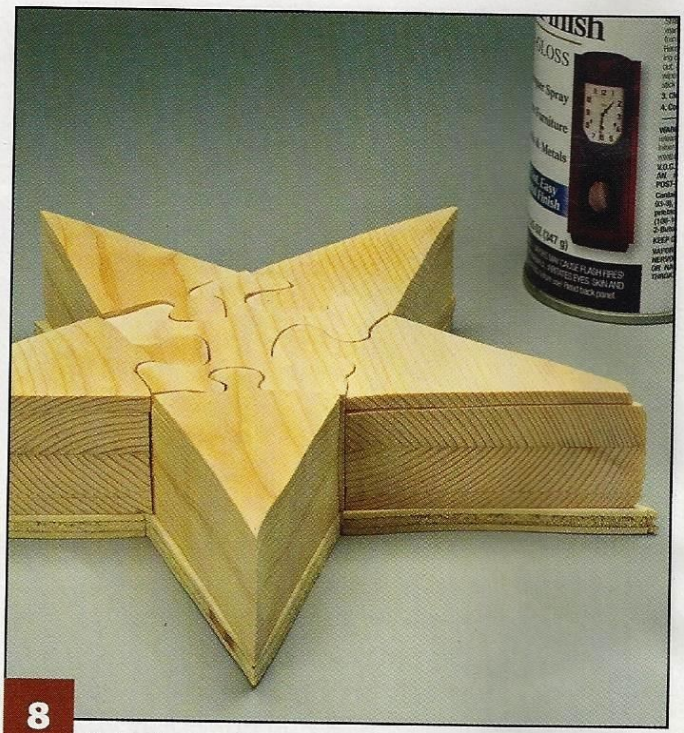
6

Assemble the lids. Sand the tip of the lid liners to remove the blade-entry-hole area. Place the top slice of the point face down and use the box sides to align the lid liner as you glue the liner to the bottom of the top slice. Repeat the process for all five points to create the compartment lids.



7

Assemble the puzzle. Glue and clamp the bottom slices to the matching box sides. When dry, assemble the five points and the center section on the base. Remove the points and mark the location of the center section. Glue and clamp the center section onto the base.



8

Finish the puzzle. Sand the sides of the boxes smooth so all layers are flush with each other. Stain or paint the completed puzzle as desired. You can line the compartments with felt or flock the inside of the compartments if desired.

Materials & Tools

Materials:

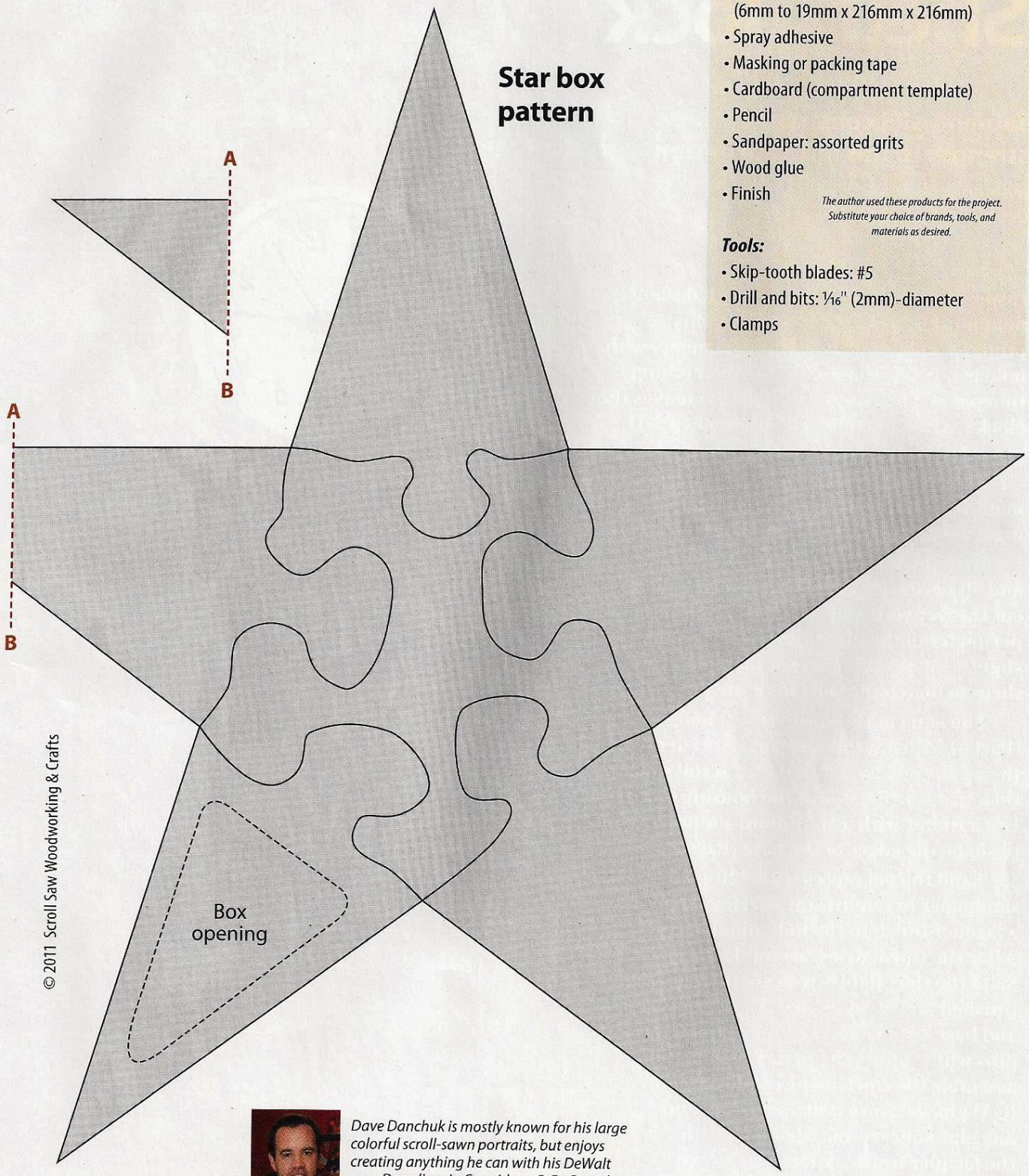
- Pine (puzzle): 1½" x 8½" x 8½" (38mm x 216mm x 216mm)
- Pine (base): ¼" to ¾" x 8½" x 8½" (6mm to 19mm x 216mm x 216mm)
- Spray adhesive
- Masking or packing tape
- Cardboard (compartment template)
- Pencil
- Sandpaper: assorted grits
- Wood glue
- Finish

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

Tools:

- Skip-tooth blades: #5
- Drill and bits: 1/16" (2mm)-diameter
- Clamps

Star box pattern

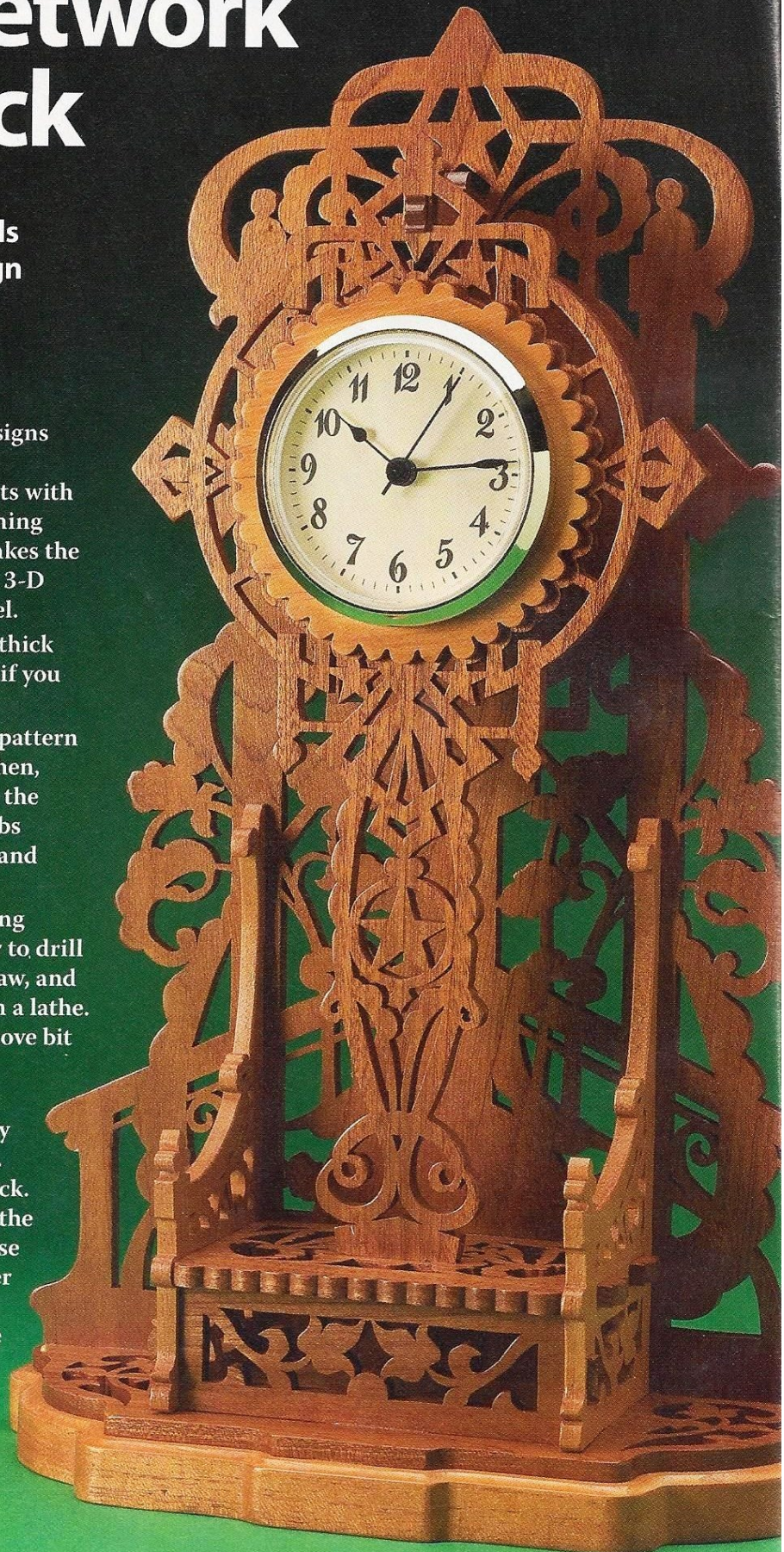


Dave Danchuk is mostly known for his large colorful scroll-sawn portraits, but enjoys creating anything he can with his DeWalt saw. Dave lives in Coquitlam, B.C., Canada with his wife and two young children. To see more of Dave's work, visit his website at www.amazedcreations.com.

Italian Fretwork Shelf Clock

Tab-and-slot construction adds strength to this intricate design

By John A. Nelson
Cut by Rolf Beuttenmuller



Inspired by the Victorian fretwork designs popular in Italy in the late 1800s, this project combines classic floral elements with bold geometric shapes for an eye-catching timepiece. The tab-and-slot design makes the clock easy to assemble and produces a 3-D project ideal for display on your mantel.

The pattern is sized for ¼" (6mm)-thick material. Adjust the width of the slots if you use an alternate material thickness.

Drill the holes as indicated on the pattern and all necessary blade-entry holes. Then, cut the fretwork and slots. Cut around the perimeter of the pieces last. Cut the tabs slightly outside the pattern lines and sand them to match the slots for a snug fit.

You can cut the entire insert housing (Part 8) with a scroll saw, but it's easier to drill the center hole, or cut it with a scroll saw, and then turn the outside of the housing on a lathe. Use a router with a 3⁄16" (5mm)-radius cove bit to shape the edges of the base (Part 1).

Sand the cut pieces with 220-grit sandpaper to remove any fuzzies. Apply a lacquer finish to the individual parts. After the finish dries, assemble the clock. Sand the slots lightly to accommodate the finished tabs if necessary. Align the base and base trim using ⅛" (4mm)-diameter pins while gluing the pieces together. I assemble the clock using cyanoacrylate (CA) glue because it dries quickly and any glue squeeze-out blends in with the lacquer finish. Attach felt feet to the bottom of the base to protect the surface of your mantel or furniture.

Assembly drawing

1. Base
2. Base trim
3. Pin
4. Back
5. Brace
6. Front trim
7. First floor
8. Insert housing
9. Front
10. Spacer
11. Support

Materials & Tools

Materials:

- Spanish cedar (base): ¾" x 4¼" x 11¼" (19mm x 108mm x 285mm)
- Mahogany (base trim, back, front): ¼" x 11" x 30" (6mm x 279mm x 762mm)
- Mahogany (brace, first floor, spacer, front trim): ¼" x 6½" x 10" (6mm x 165mm x 254mm)
- Spanish cedar (support): ⅛" x 4½" x 4½" (3mm x 114mm x 114mm)
- Dowels (pins for base): 2 each ⅛"-diameter x 2⅜"-long (3mm x 60mm)
- Mahogany (insert housing): 1½" x 4" x 4" (38mm x 102mm x 102mm)
- Clock insert: 3⅜" (98mm)-diameter
- Felt discs: 4 each ½" (13mm)-diameter
- Sandpaper: 220-grit
- Lacquer
- Cyanoacrylate (CA) glue

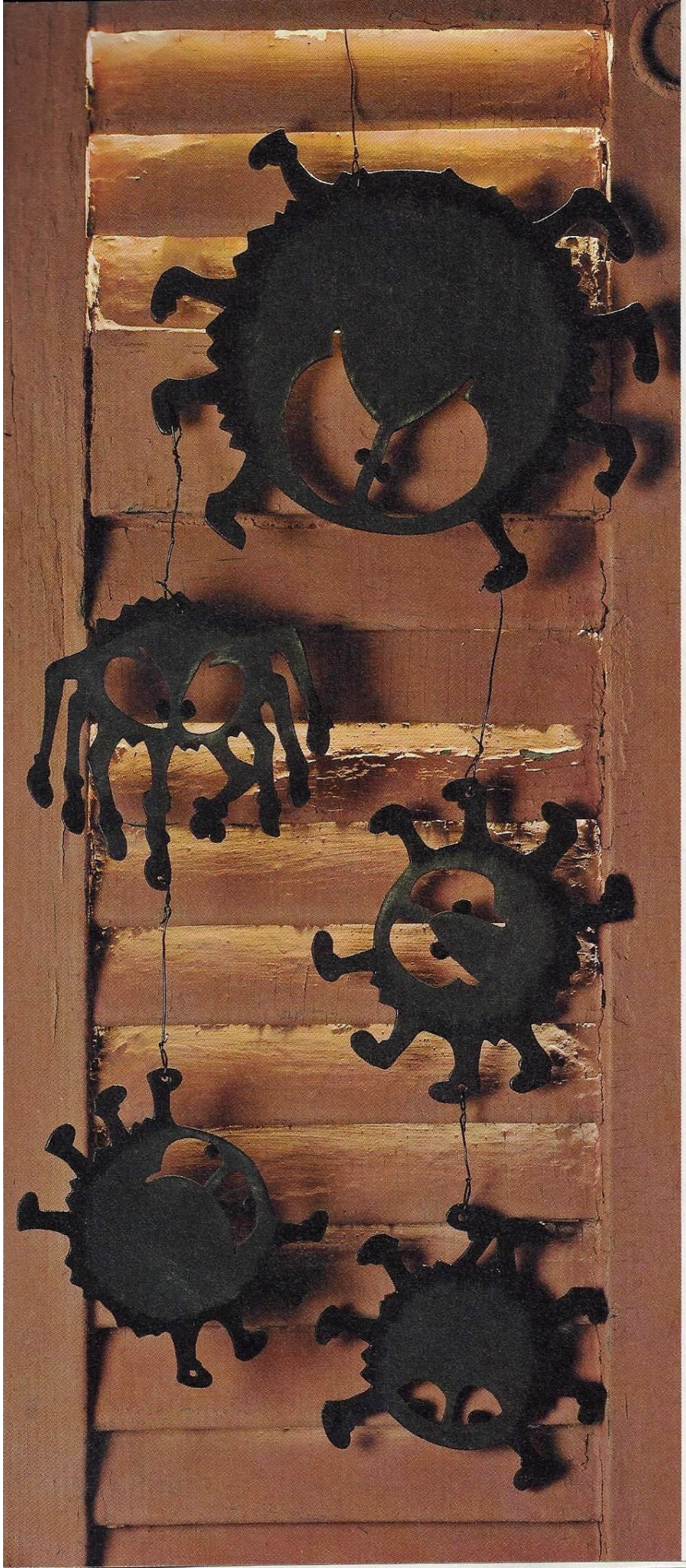
Tools:

- Reverse-tooth blades: #3
- Drill and bits: assorted small
- Router and bits: 3/16" (5mm)-radius cove bit
- Lathe (optional)

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

Patterns for the ***ITALIAN FRETWORK SHELF CLOCK*** are in the pattern pullout section.

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



Super-Simple Halloween Silhouettes

Scroll and paint these whimsical decorations

By Lora S. Irish
Cut by Rolf Beuttenmuller

These fun Halloween bats and spiders look great hanging in windows, from trees, or on your wall. Cut them from thin wood, or sandwich a stack of black construction paper between thin plywood and wrap the stack tightly with masking tape to make a bunch of decorations in one shot.

Your painting can be as simple or as challenging as you want. They look great painted with a semi-gloss black spray paint, but you can add more details using acrylic paint. Cut an assortment and let your kids or grandkids decorate them. Hang the completed silhouettes with monofilament fishing line in your windows to have the spookiest house on the block.

Materials & Tools

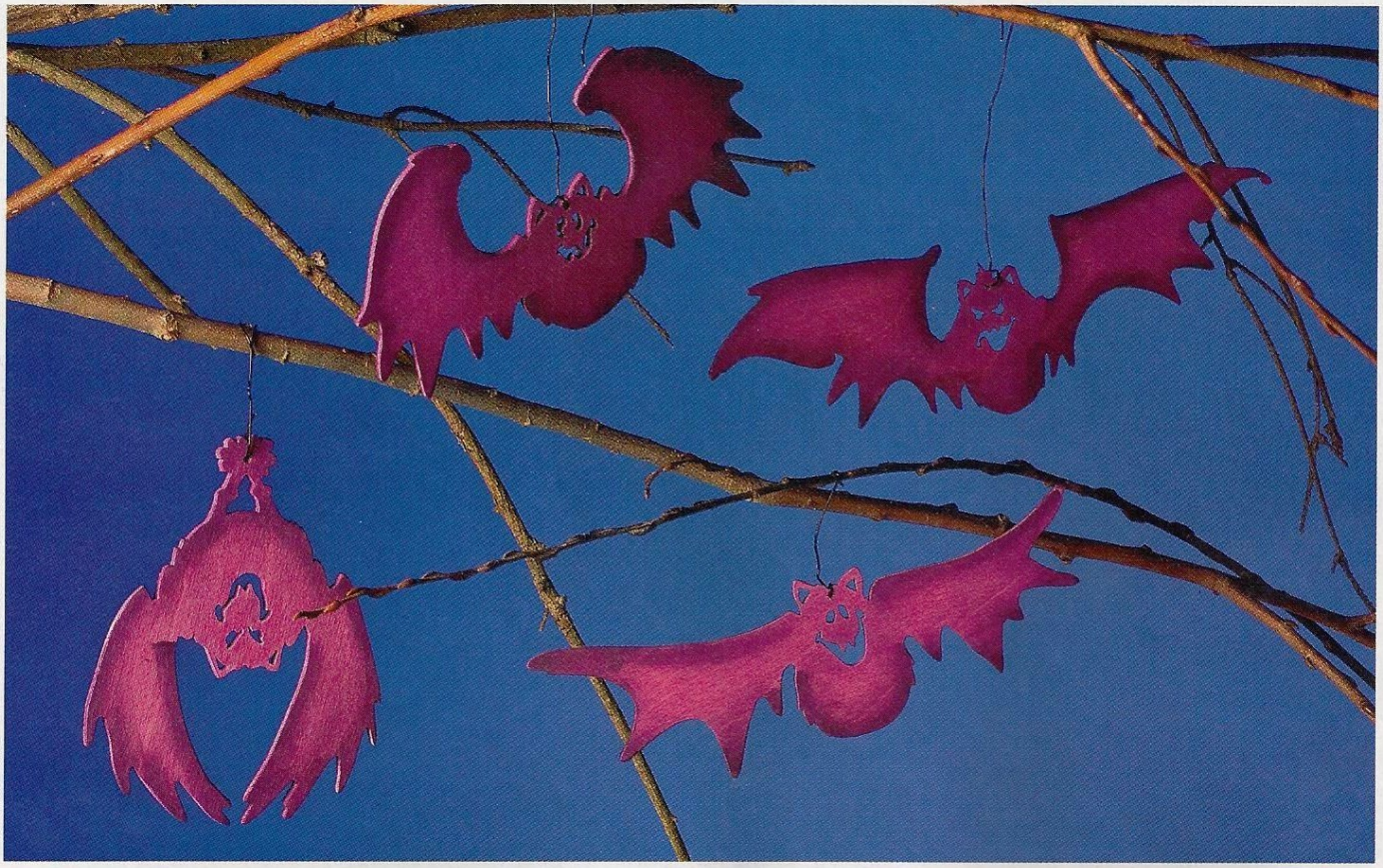
Materials:

- Baltic birch plywood (small bats): assorted pieces ranging from ⅛" to ¼" x 4" x 6" (3mm to 6mm x 102mm x 152mm) up to ⅛" to ¼" x 3" x 8½" (3mm to 6mmm x 76mm x 216mm)
- Baltic birch plywood (per small spider): ⅛" to ¼" x 4" x 4½" (3mm to 6mm x 102mm x 114mm)
- Baltic Birch plywood (momma spider): ⅛" to ¼" x 6" x 7" (3mm to 6mm x 152mm x 178mm)
- Spray adhesive
- Sandpaper: assorted grits
- Spray paint: semi-gloss black
- Acrylic paint (optional)

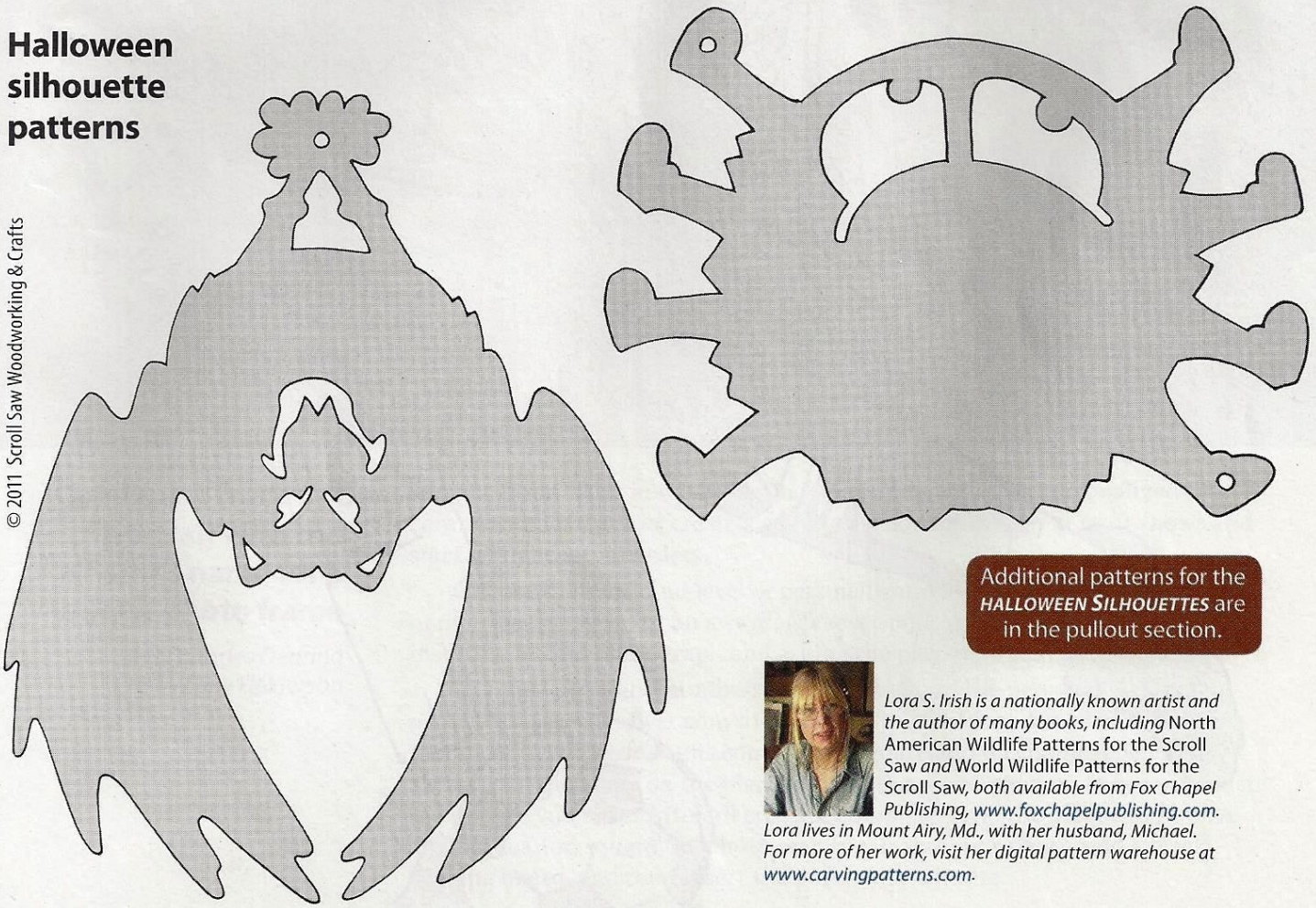
Tools:

- Reverse-tooth blades: #3
- Drill and bits: assorted small bits
- Paintbrushes (optional)

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



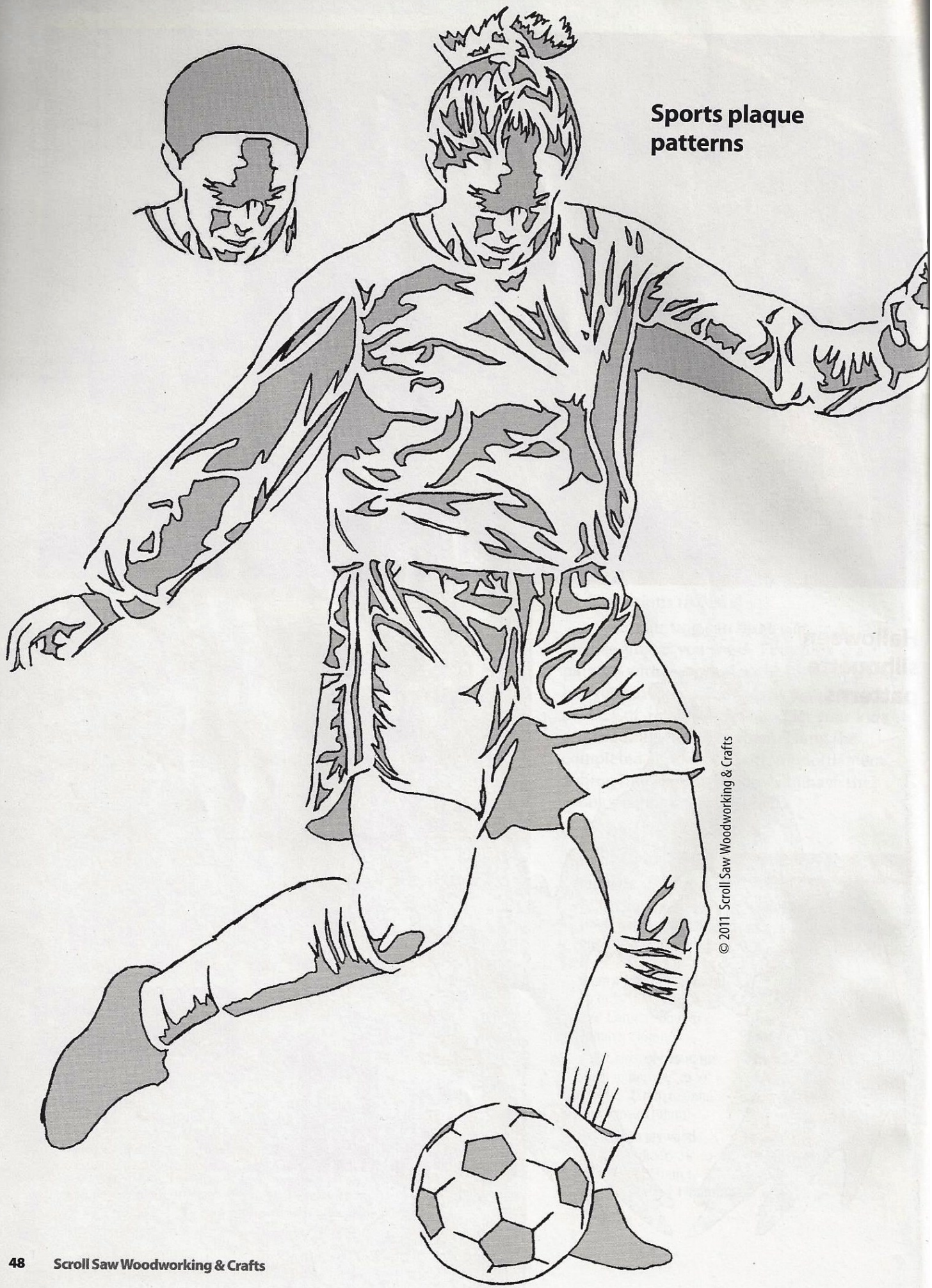
Halloween silhouette patterns



Additional patterns for the ***HALLOWEEN SILHOUETTES*** are in the pullout section.

Lora S. Irish is a nationally known artist and the author of many books, including North American Wildlife Patterns for the Scroll Saw *and* World Wildlife Patterns for the Scroll Saw, *both available from Fox Chapel Publishing, www.foxchapelpublishing.com. Lora lives in Mount Airy, Md., with her husband, Michael. For more of her work, visit her digital pattern warehouse at www.carvingpatterns.com.*

Sports plaque patterns



Making Personalized Sports Plaques

Combine a fretwork portrait with the all-star's name for a unique photo frame

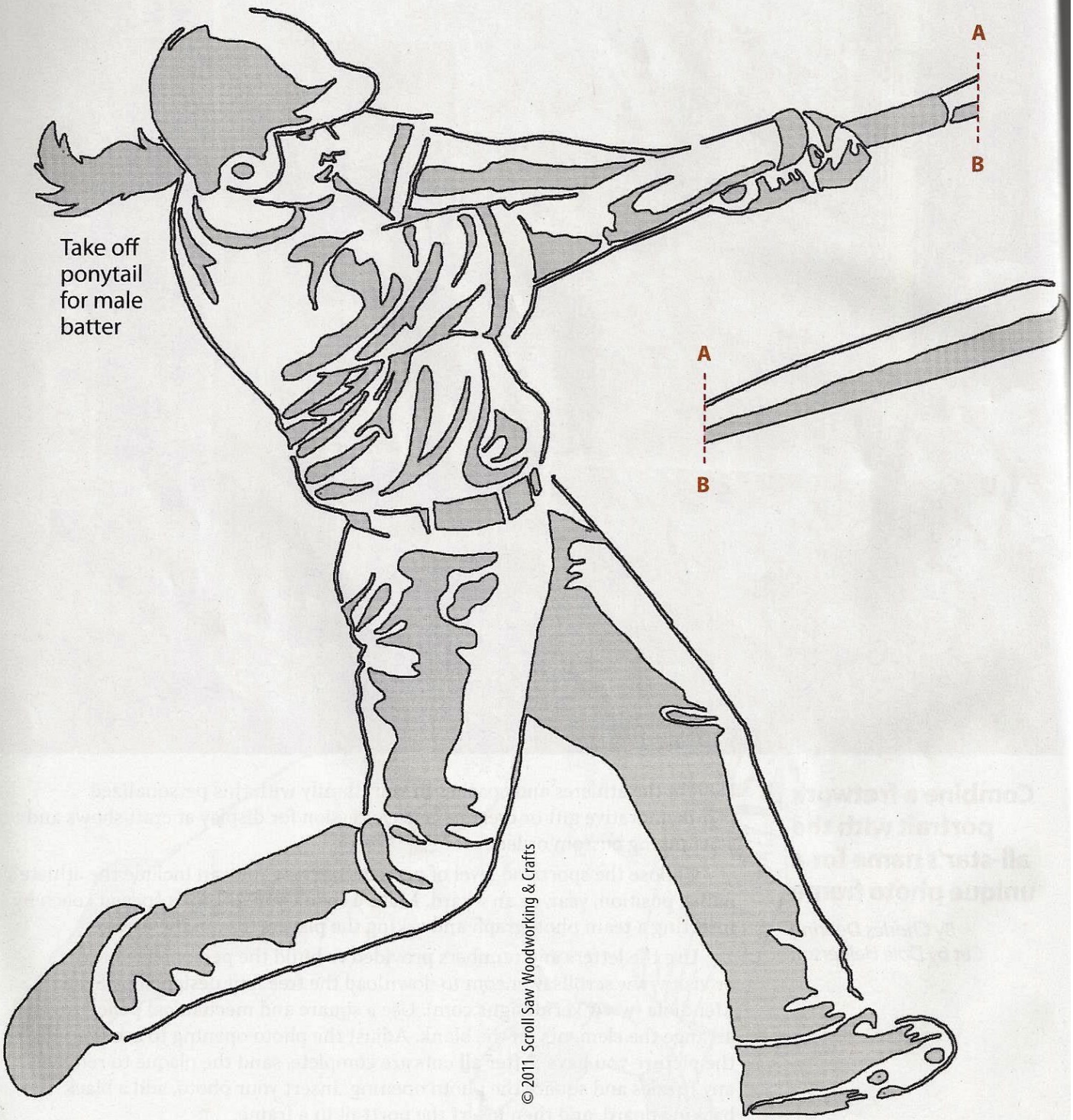
By Charles Dearing
Cut by Dale Helgerson

Delight the athletes and coaches in your family with this personalized commemorative gift or create a generic version for display at craft shows and start taking custom orders.

Choose the sport and level of personalization. You can include the athlete's name, position, year, or an award. Make a thank-you gift for a special coach by inserting a team photograph and asking the players to sign the plaque.

Use the letters and numbers provided to build the personalized text or visit www.scrollsawer.com to download the free font designed by Sylvia Mendiola (www.kerfdesigns.com). Use a square and mechanical pencil to arrange the elements on the blank. Adjust the photo opening to accommodate the picture you have. After all cuts are complete, sand the plaque to remove any fuzzies and square the photo opening. Insert your photo, add a black backing board, and then insert the portrait in a frame.

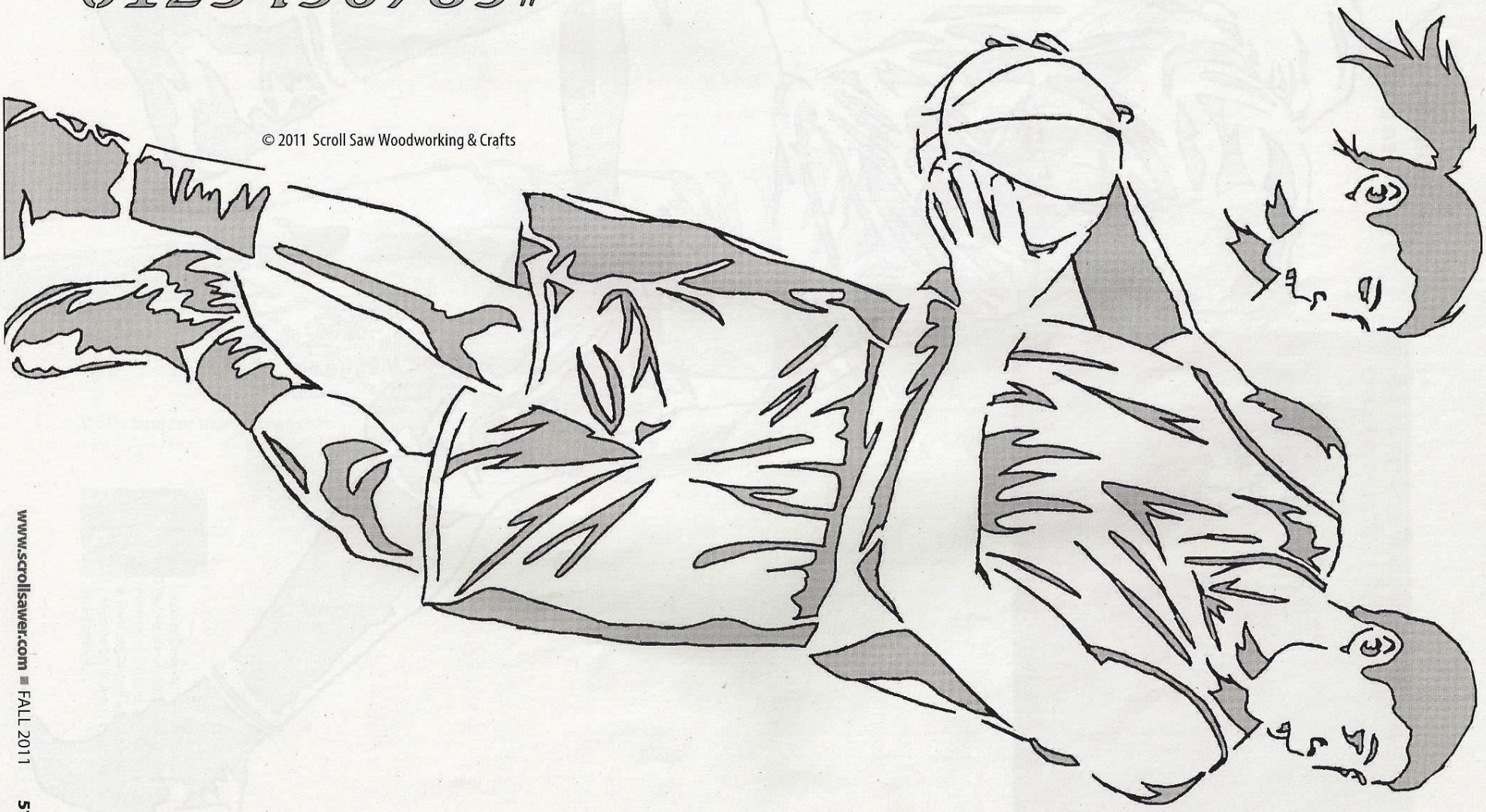
Sports plaque patterns



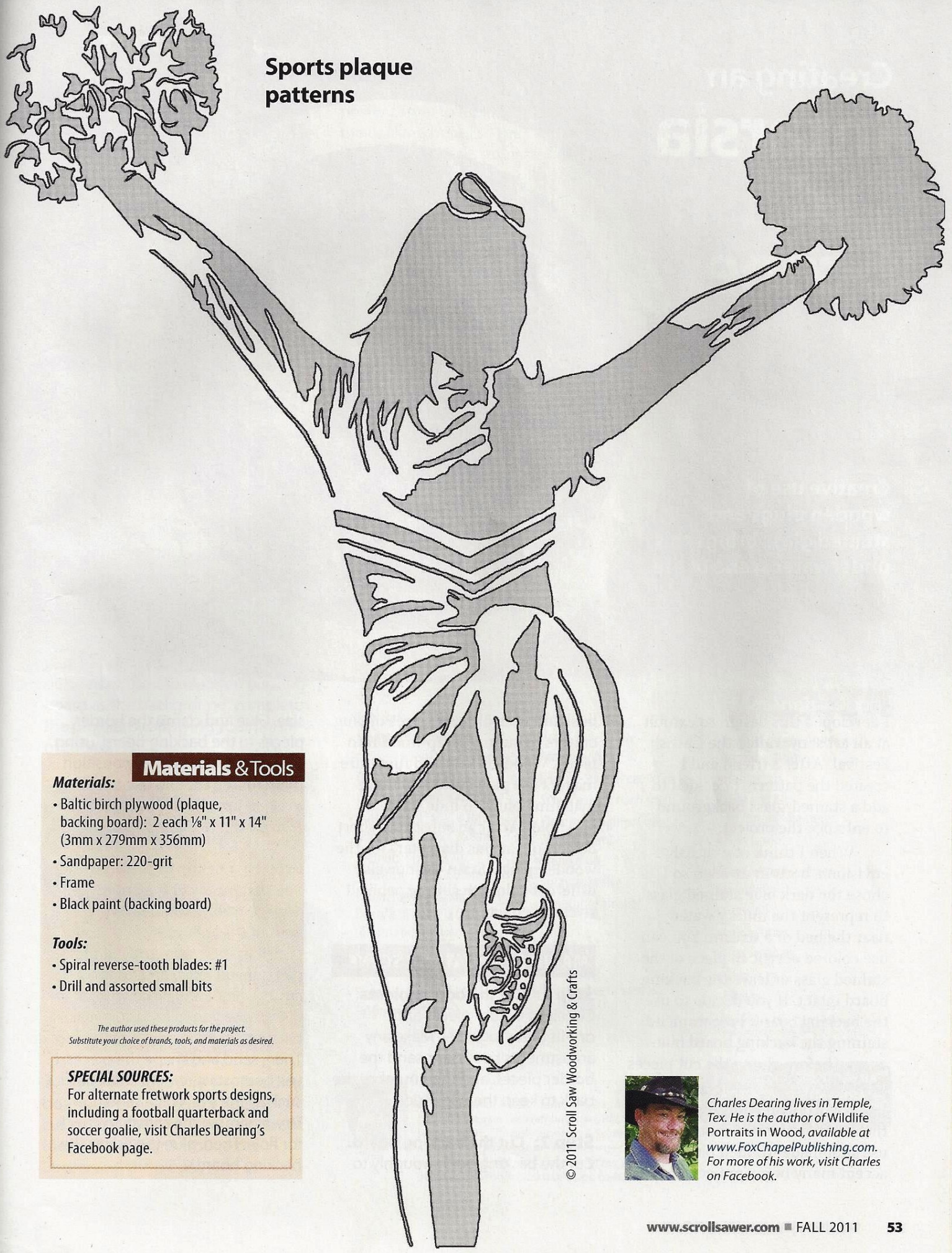
ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

0123456789#



Sports plaque patterns



Materials & Tools

Materials:

- Baltic birch plywood (plaque, backing board): 2 each ⅛" x 11" x 14" (3mm x 279mm x 356mm)
- Sandpaper: 220-grit
- Frame
- Black paint (backing board)

Tools:

- Spiral reverse-tooth blades: #1
- Drill and assorted small bits

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

SPECIAL SOURCES:
For alternate fretwork sports designs, including a football quarterback and soccer goalie, visit Charles Dearing's Facebook page.

Charles Dearing lives in Temple, Tex. He is the author of Wildlife Portraits in Wood, *available at www.FoxChapelPublishing.com. For more of his work, visit Charles on Facebook.*

BEST PROJECT DESIGN CONTEST ENTRY
Scroll Saw Woodworking & Crafts

Creating an Intarsia Catfish Scene

Creative use of wooden plugs and stained glass brings this underwater scene to life

By Cindy Lutian

I developed this design to exhibit at an art show called the Catfish Festival. After a friend and I created the pattern, I decided to add a stained-glass background to enhance the project.

When I think of a catfish, I envision a bottom dweller, so I chose the dark blue stained glass to represent the murky water near the bed of a stream. You can use colored acrylic in place of the stained glass or leave the backing board intact. If you decide to use the backing board, I recommend staining the backing board blue or gray before gluing the cut pieces in place.

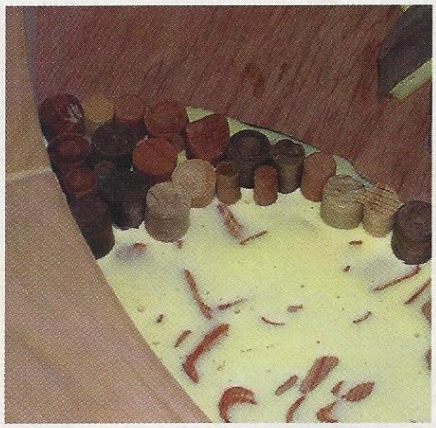
The wooden plugs represent the rocks on the river bottom. I use shopmade wooden plugs to accent many of my projects. My husband uses different sizes of plug cutters to cut my scrap wood into plugs. Woodworkers and furniture makers use plug cutters to make matching plugs to hide screw or nail holes. You can substitute short dowels of various diameters for the wooden plugs. Stain the dowels different colors to get the pebbled riverbed effect.

MAKING THE CATFISH SCENE

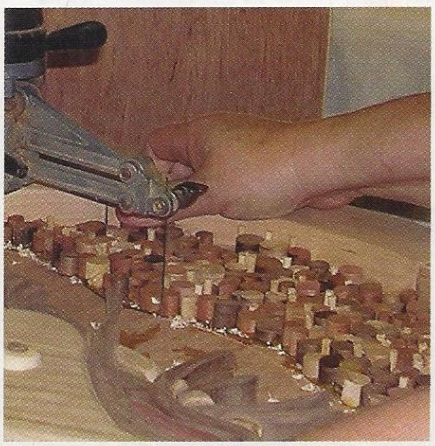
Step 1: Cut the border pieces. Cut eight border pieces and dry-fit them together. Make any adjustments necessary, sand the border pieces, and then number the back to keep them in order.

Step 2: Cut the backing board. Cut the backing board roughly to size. Glue and clamp the border pieces to the backing board, using the numbers to properly position them for the best fit. Use a wet rag to clean up any glue squeeze-out. Trim off the excess backing board.

Step 3: Cut the intarsia. I use one pattern to cut the entire project. Apply adhesive to the back of the area you want to cut, stick it to the wood, and cut the piece. If you make an error on a cut, the adjoining piece will still fit because you follow the initial cut. Cut all of the pieces of the fish. Then, sand and shape the pieces. I use hemostats to hold small parts, such as the eye, while sanding. Dry-assemble the catfish to check for flow. Then, glue the fish to the backing board.



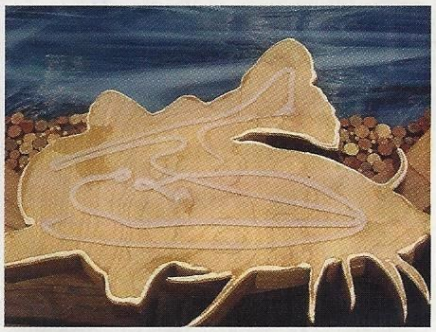
▲ **Step 4: Add the plugs.** Draw a line indicating the area for the riverbed. Spread glue over a small area and place the plugs in position one at a time. I cut the backing board away so I'm not concerned with glue squeeze-out. If you are using the backing board as the finished project, use the glue conservatively. Keep the colors and sizes of the plugs random. Fit them as closely together as possible. Apply more glue and plugs as you work your way across the project. Glue the catfish in place. Allow the glue to dry overnight. If you have decided to use the wooden backing board as the background, complete the project by applying your finish of choice.



▲ **Step 5: Cut away the backing board.** Drill blade-entry holes and cut around the fish. Then, cut away the backing board around the border and the plugs.

Step 6: Finish the frame and fish. Use a sanding drum in a rotary-power carver to taper the edges of the backing board so the backing board is not visible from the front. Sand the outside edges with 150-grit sandpaper in a palm sander. Use a vacuum to remove as much dust as possible from the frame and fish, and then wipe the pieces with denatured alcohol. Add your logo or sign the frame and apply four coats of polyacrylic finish.

▲ **Step 7: Cut the stained glass.** It is possible to cut the stained glass yourself, but it requires some practice and special tools. An easier way is to take your assembled intarsia to a stained-glass shop and let a professional cut the glass to size. Leave enough of a border so you can attach the screw eyes in the wood.



▲ **Step 8: Attach the glass to the project.** Use silicone glue or caulk to attach the glass to the back of the project. Run a bead of silicone around the perimeter. Then, cover the edges of the glass with silicone as a safety precaution. Let the silicone dry overnight before turning the project over. Attach the fish to the glass with silicone and let the silicone dry. Then, attach the screw eyes and hanging wire to the back of the frame.

Materials & Tools

Materials:

- Maple: 1" x 3" x 10" (25mm x 76mm x 254mm)
- Cedar: 1" x 3" x 3" (25mm x 76mm x 76mm)
- Butternut: 1" x 2" x 10" (25mm x 51mm x 254mm)
- Walnut: 1" x 2" x 10" (25mm x 51mm x 254mm)
- Lauan plywood (backing board): ¼" x 26" x 26" (6mm x 660mm x 660mm)
- Wood plugs: assorted diameters and colors
- Stained glass: 24" x 36" (610mm x 914mm)
- Polyacrylic finish: Minwax gloss
- Silicone glue or caulk: clear
- Screw eyes: 2 each small
- Picture-hanging wire: 30" (762mm)
- Wood glue
- Spray adhesive
- Denatured alcohol

Tools:

- Belt sander
- Reverse-tooth blades: #7 and #9
- Rotary-power carver with sanding drum
- Hemostats
- Drill and bit: ¼" (6mm)-diameter
- Palm sander

Glass-cutting supplies (optional):

- Glass oil
- Glass cutter
- Glass nippers
- Rasp
- Gloves

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

Cindy Lutian of Merrit Island, Fla., has been creating intarsia with her husband, Bill, for several years. The pair travels to Arkansas annually to get all the wood they need for that year. For more of Cindy's work, visit her website at www.TheWoodchuckWorkshop.com.

Patterns for the ***INTARSIA CATFISH*** are in the pattern pullout section.

Creating an Elegant Violin Box

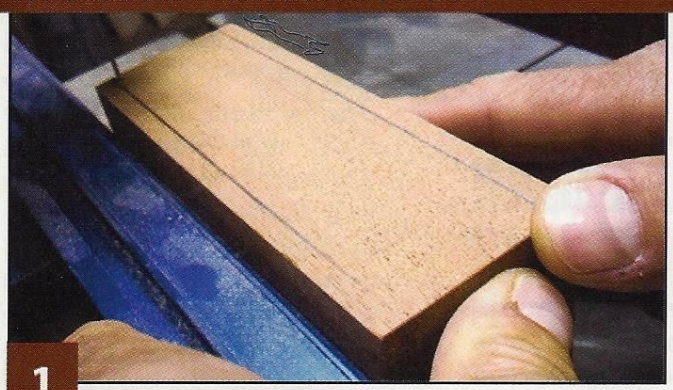
Realistic details add character to this beautiful hardwood box

By Steve Renard

Wooden boxes are fun to make and can be tailored to suit any occasion. Use a cat or dog silhouette to craft a box for an animal lover or choose a house shape to make a gift for newlyweds. My daughter asked me to make her music teacher an end-of-the-year gift because she was moving on to high school, so I made a small violin box.

You can make this box as a simple violin silhouette, or add embellishments and details to make it a one-of-a-kind gift. The strings are challenging to install, but you can omit them and the box still looks fantastic.

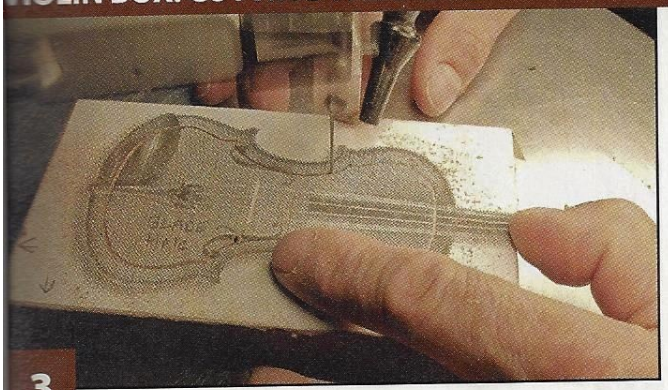
VIOLIN BOX: PREPARING TO CUT



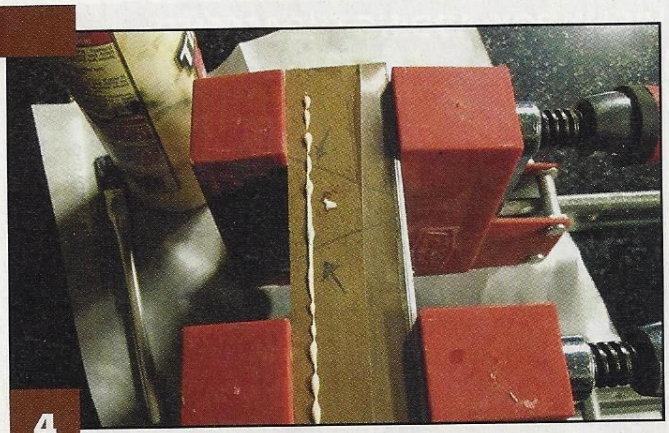
1 **Prepare the blank.** To help with alignment later, cut the blank to size and draw a large triangle on one side. Label the top and bottom, and then mark and cut ¼" (6mm)-thick slices off the top and bottom of the blank. The slices will be the box bottom and lid. I use a band saw to make the cuts.

2 **Prepare the pattern.** Apply spray adhesive to the back of the pattern and attach the pattern to a piece of contact paper. Cut the contact paper and pattern to the size of the blank. The contact paper makes it easy to reuse the pattern later.

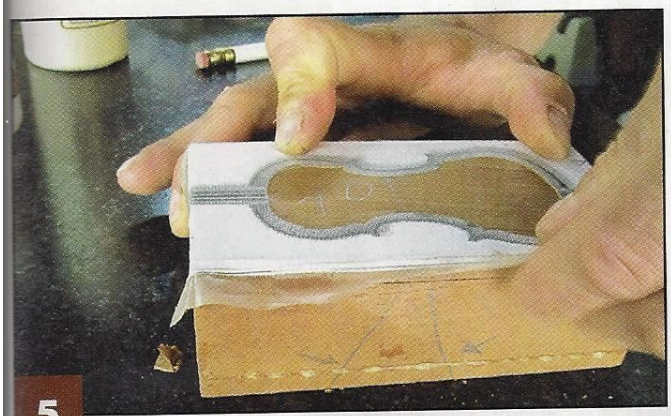
VIOLIN BOX: CUTTING THE SIDES



3 **Cut the middle section.** Attach the pattern to the top of the thick middle section, aligning the edges of the pattern with the edges of the blank. Drill a blade-entry hole and cut along the dashed line. Save the center waste piece to use as a lid liner. Clean up the inside of the box with a drum sander in a rotary-power carver or a spindle sander.



4 **Attach the bottom to the sides.** Glue the box bottom to the middle section. This assembly becomes the main part of the box. Use the triangle drawn on the side to make sure the pieces are aligned properly. Clamp the pieces until the glue is dry.

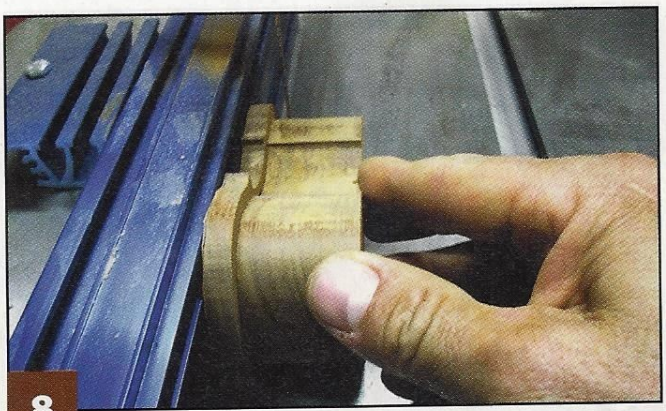


5 **Cut the perimeter.** Remove the pattern from the middle section. Tack the lid blank to the middle section with a drop of cyanoacrylate (CA) glue in each corner. Use the triangle drawn on the side to make sure the layers are aligned properly. Attach the pattern to the top and cut around the perimeter of the box. Save the waste piece.

VIOLIN BOX: MAKING THE LID

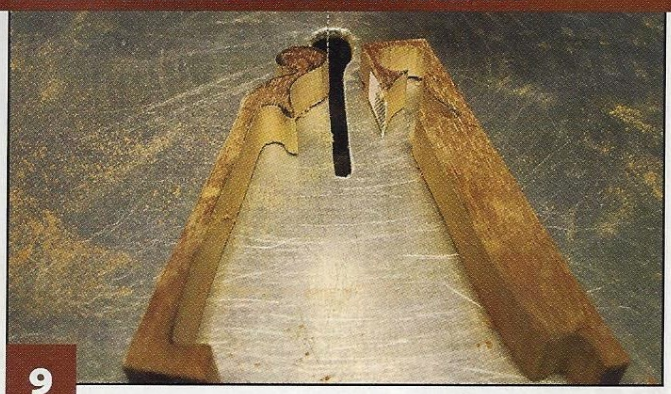
6 **Cut the sound holes.** Separate the lid from the main box. Remove the center pattern from the waste cut in Step 3 and attach the pattern to the lid, aligning it inside the center of the existing pattern. Drill ⅛" (3mm)-diameter blade-entry holes and cut the sound holes in the lid.

7 **Attach the lid liner.** Place the box sides inside the waste section from Step 5 and drop the center waste from Step 3 into the box sides. Add CA glue to the center waste section only and press the lid in place. The outside waste section ensures the pieces are perfectly aligned.

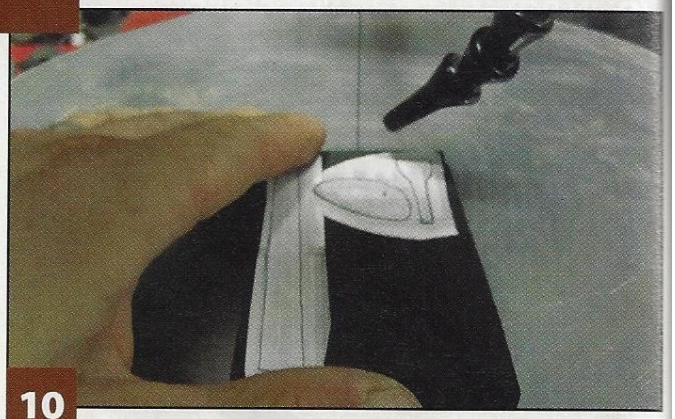


8 **Trim the lid liner.** Press down on the lid until the CA glue sets, and then lift the lid and attached scrap section. Use a band saw to trim the excess scrap from the lid liner so the liner is approximately ¼" (6mm) thick.

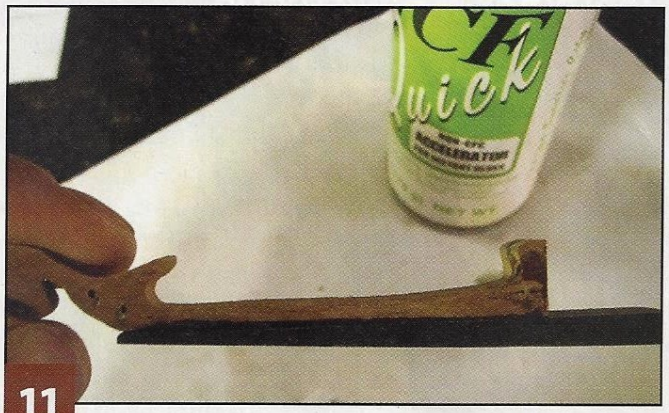
VIOLIN BOX: ADDING THE ACCENTS



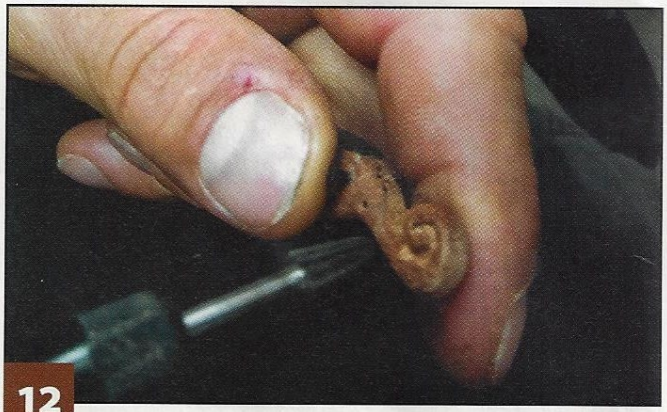
9 **Make the neck.** Cut a ½" (13mm)-thick blank from the waste section cut in Step 5. Drill 1/16" (2mm)-diameter holes through the blank for the string tuners. Then, cut the perimeter of the neck piece.



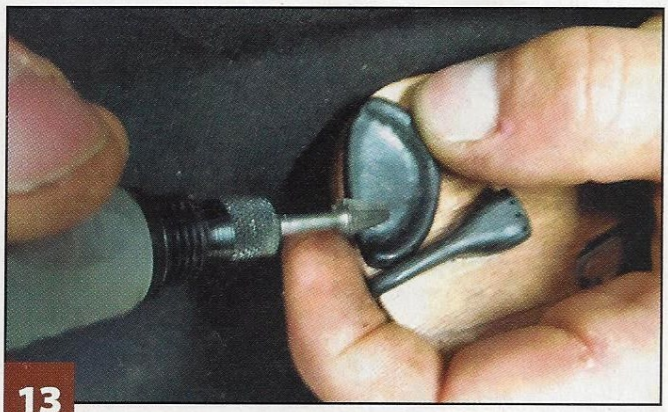
10 **Make the trim pieces.** Attach the patterns for the fret board, the chin rest, and the stringboard to the blank. Drill the string holes with a #55 bit and cut the pieces using a #2 blade.



11 **Add the fretboard to the neck.** Sand the neck with 150-grit sandpaper attached to a flat surface. Make sure the area where the fretboard attaches to the neck is flat. Then, sand the fretboard into a gradual taper and attach it to the neck using CA glue. The fretboard extends ¾" (19mm) beyond the flat end of the neck.



12 **Shape the neck.** Sand the fretboard and neck so the assembly is widest where it attaches to the violin and tapers slightly toward the other end. Taper the top of the fretboard to blend with the neck. Drill ⅛" (3mm)-deep string holes in the neck with a #55 bit. Round the neck and carve the curl on both sides of the neck with a carving bit in a rotary-power carver.



13 **Attach the accents.** Round the chin rest and stringboard using a carving bit in a rotary-power carver. Attach the neck, chin rest, and string board to the lid with CA glue. Fine-tune the chin rest with the rotary-power carver.

14 **Make the tuner pins.** Sharpen a piece of wood in a pencil sharpener. Put a drop of CA glue on the sharpened tip and insert it in one of the holes drilled in the neck. Cut the wood off ⅛" (3mm) from the neck. Remove the excess glue with a hobby knife. Repeat the process to create the other pins.

VIOLIN BOX: FINISHING THE BOX

15 **Finish the box.** Sand the box with 250-grit sandpaper. Cut emery boards to fit in tight areas, such as around the tuner pins and in the sound holes. Apply several coats of tung oil. Buff between coats with steel wool. Let the finish dry.

16 **Add the strings (optional).** Cut the bridge from ⅛" (3mm)-thick plywood. Put a drop of CA glue in a hole in the string board and insert the wire or floss. When the glue is dry, pull the string tightly up the neck and use CA glue to lock it in the appropriate hole in the neck. Repeat for all four strings. Slip the bridge under the strings and pop the strings into the slots. Then, glue the bridge in place.

17 **Add flocking to the inside of the box (optional).** Cover the rim of the box with masking tape and cut along the inside edge of the box with a hobby knife. Apply flocking glue to the inside of the box, and then apply the flocking. When the glue is dry, remove the excess flocking material.

Materials & Tools

Materials:

- Mahogany (box): 1⅞" x 3" x 4½" (48mm x 76mm x 114mm)
- Ebony (details): Scraps of ¼" (6mm)-thick
- Baltic birch plywood (bridge): Scrap of ⅛" (3mm)-thick
- Thin copper wire or dental floss (strings, optional)
- Cyanoacrylate (CA) glue
- Contact paper
- Spray adhesive
- Tung oil
- Sandpaper: assorted grits up to 250-grit
- Steel wool: fine grit
- Masking tape (optional)
- Flocking glue (optional)
- Flocking (optional)

Tools:

- Band saw or table saw
- Skip-tooth blades: #5
- Reverse-tooth blades: #3
- Rotary-power carver with assorted bits
- Drill and bits: 1/16" (2mm)-diameter and #55 bits
- ½" (13mm)-diameter drum sander or oscillating spindle sander
- Hobby knife
- Pencil sharpener

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

Patterns for the ***ELEGANT VIOLIN BOX*** are in the pattern pullout section.

Steve Renard of Farmington Hills, Mich., is a second-generation master plumber by trade, father of four girls, and the husband of Kim. Woodworking became a passion while recovering from a heart attack alongside his 90-year-old grandfather, who was also recovering from a heart issue. Steve's grandfather had every issue of Scroll Saw Woodworking & Crafts *and handed them down to Steve, who is now a subscriber himself.*

Creating Custom Chalkboards

Use specialty paints to make attractive and functional designs

By L. Kim Braa

Chalkboards are fun projects that are easy to customize. You can use virtually any silhouette to complement a kitchen, a kid's bedroom, or an office. Use the chef design or a teapot to keep family members informed of tonight's menu selection. Create a chalkboard in the shape of a company logo, a school mascot, or the family pet.

The simple apple design is a perfect way to get familiar with the technique, and it makes a great gift for that special teacher. You can also make the chalkboard from thin plywood and add magnets to the back for a fun and useful locker accessory. Enlarge or reduce the pattern to suit your needs.

I make my chalkboard out of ¾" (19mm)-thick medium-density fiberboard (MDF) because it is flat and smooth. Cutting or sanding MDF creates a lot of fine dust, so always use a dust mask or ventilator and safety glasses. The surface of MDF paints well, but the raw edges absorb paint like a sponge, which makes them appear duller than the face. To make the raw edges look as bright as the surface, apply a wood filler or sanding sealer to the edges of the cut project before painting. I mix three parts yellow wood glue with one part water and apply this mixture to the raw edges with a disposable glue brush. Apply a full coat of the thinned glue, but do not apply so much of the mixture that the glue puddles on the edges. Remove any excess mixture with the glue brush or your fingers. Let the glue dry thoroughly and apply a second light coat.

If you plan to make the chalkboards from plywood, sand the surface where you plan to write extremely smooth using progressively finer grits of sandpaper.

I use carbon paper to trace the outline pattern and detail lines onto the blank. MDF dulls blades quickly, so cover the lines with clear packaging tape to lubricate the blade. After cutting, remove the packaging tape from the wood. The tape may remove some of the traced detail lines, but enough of the lines should remain to guide you as you carve these areas.

Using fabric paint

I use fabric paints to add color and texture to my artwork. It does require some practice to apply properly, but they are a fun alternative to ordinary acrylic paint.

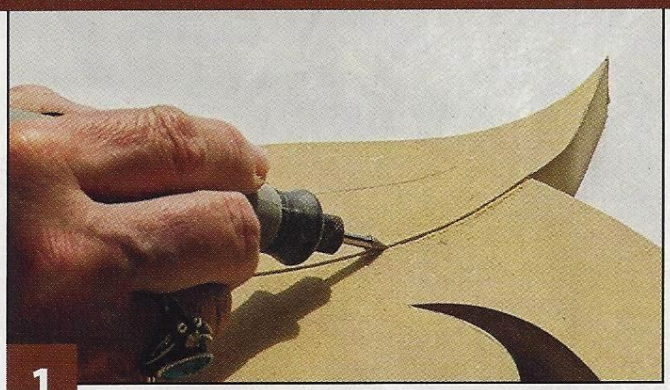
Fabric paints can be purchased at your local discount store, craft store, or online. Fabric paints come in several finishes and various types of packaging. For this project, choose the squeeze bottles that have a narrow tip and a screw-on lid. Do not use the flip-top bottles or the roller-ball pens, and avoid the puffy or glitter type of fabric paint.

Shake the bottle well before applying the paint. Apply a few test drops onto a piece of paper towel first to make sure there is no visible clear liquid. Continue to shake the bottle periodically while using and make a couple test drops after each shake. The bottles can burp and leave air bubbles in your paint. Pop the bubbles with a pin or needle.

There are two methods you can use to remove unsatisfactory paint dots. If paint is still wet, moisten the tip of a small paintbrush or a cotton swab and remove the dot without disturbing any surrounding dots. Make sure the paintbrush or cotton swab is damp, but not saturated in water. Repeat the process until you have removed all of the paint residue. If the paint is dry, use a hobby knife or sharp pointed blade to scrape off the dot. Touch up the base coat with a small paintbrush if necessary, allow the touchup to dry, and then add another dot to that area.

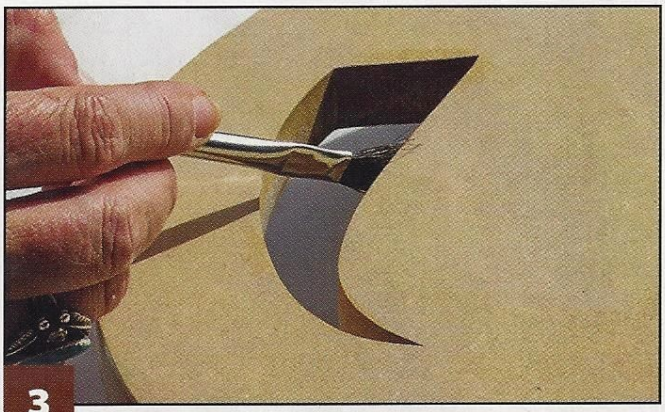

MENU

CHALKBOARD: PREPARING THE PROJECT



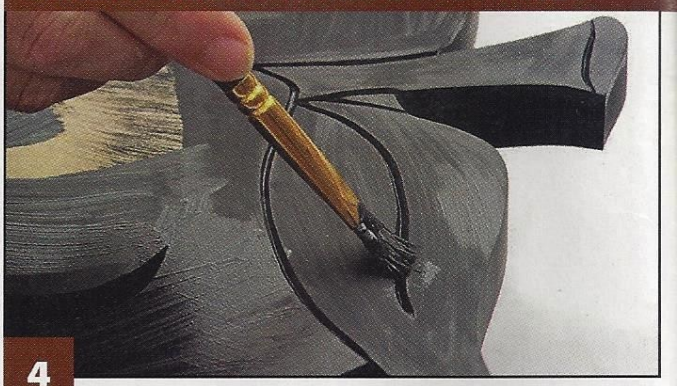
1 **Cut and carve the blank.** Drill blade-entry holes as needed. Make sure the blade is square to the saw table, and then cut the chalkboard. Use a rotary-power carver and a thin tapered diamond bit to carve the detail lines. Make several light passes along the lines until the lines are 1⁄16" to 1⁄8" (2mm to 3mm) deep.

2 **Sand the chalkboard.** Sand the chalkboard with 120-grit sandpaper. Keep the sander as flat as possible on the chalkboard area. Remove any carbon paper residue or burrs. Use the sander to taper the ends of the stem and leaf tip slightly. Hand sand the frets. Then, sand the back to remove any burrs left from cutting.

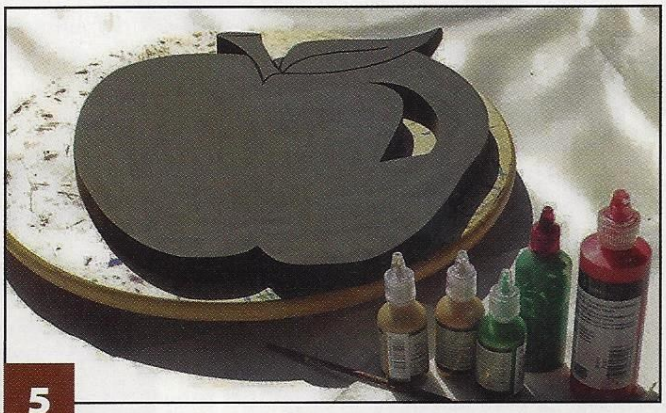


3 **Seal the edges (optional).** Seal the edges with thinned wood glue using a ratio of three parts glue to one part water. Once the glue is dry, remove any glue bumps from the top and bottom surfaces and lightly sand those surfaces, as well as the edges, with progressively finer grits of sandpaper up to 360 grit.

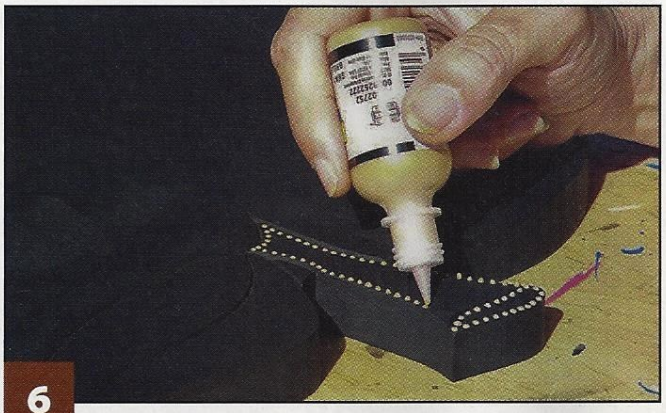
CHALKBOARD: FINISHING THE PROJECT



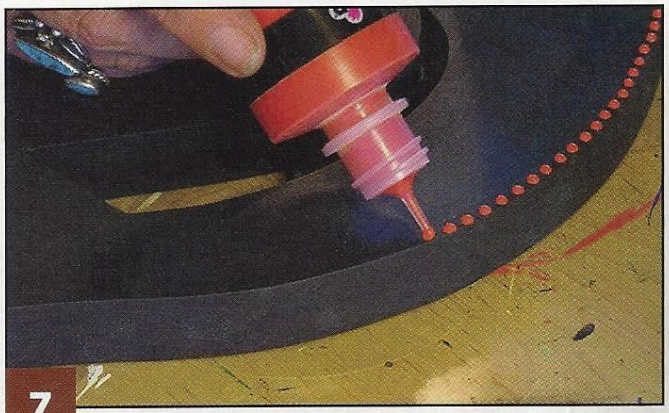
4 **Apply a base coat.** Remove any dust and elevate the project on spray-can caps or a finishing board. Apply a base coat of black acrylic paint. Paint the sides and back, allow the paint to dry for an hour, and then paint the sides and front. Repeat the process. Then, remove any visible brushstrokes in the chalkboard area with 240-grit sandpaper, and remove any dust.



5 **Prepare to add the dots.** Position the chalkboard on a lazy Susan that turns freely. I use fabric paints, but you can use acrylic paints and a paintbrush to apply the dots. Shake the paints well. Practice the dot technique with your chosen paint on a base-coated scrap of MDF. Use a paper towel to keep the tip of the paint bottle clean. Use a pin or needle to clear a clogged tip.

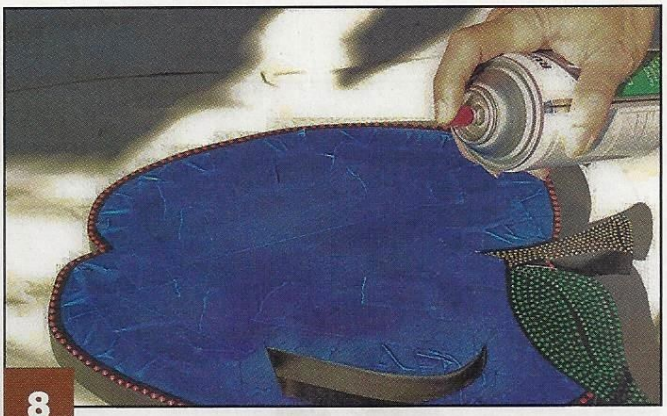


6 **Begin adding the paint drops.** Hold the paint bottle like a pencil and rest your wrist and hand on a dry surface. Hold the bottle at a slight angle, and lower the tip of the bottle to the surface of the project as you lightly squeeze the bottle with your thumb. Quickly release thumb pressure on the bottle and lift the bottle away. Do not touch the tip of the bottle to the chalkboard. The paint will spread a little, so do not apply a heavy dot. Avoid the detail grooves.



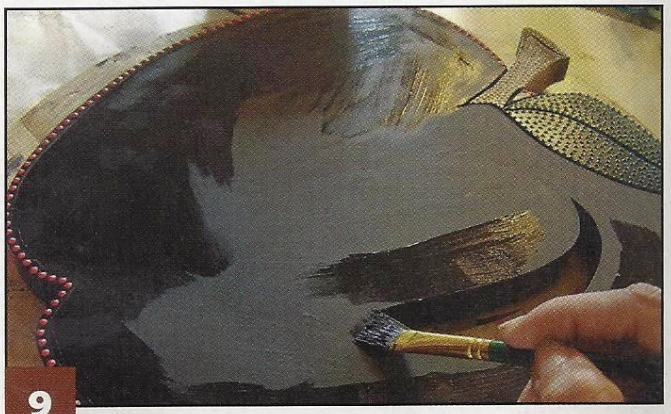
7

Finish adding the dots. Outline the stem and leaf, and then fill those elements with lines of dots. Outline the apple with a single row of large dots. To use acrylic paint instead of fabric paint, dispense a coin-sized pool of paint on a paper plate. Use a good-quality short-haired natural paintbrush to scoop up the paint, creating a pool of paint on the tip of the brush. Lightly touch the paint, not the paintbrush to the surface.



8

Apply a clear finish. Cover the chalkboard area with blue painter's tape. Tear the tape into small pieces and follow the curves of the outside perimeter. Use the factory edge instead of the ripped edge for the border. Do not cover the grooves. Remove any dust and apply several thin coats of high-gloss spray lacquer to the back and sides. Allow the finish to dry, and then apply several coats to the sides and the uncovered areas on the front. Do not sand between coats.



9

Paint the chalkboard area. Remove the tape and touch up the black acrylic if needed. Paint the chalkboard area with chalkboard paint. Position the paintbrush roughly 1" (25mm) from the intended edge and lightly drag the brush to the edge to keep from leaving a ridge in the paint. Feather the paint to the inside area. Do not to fill in the grooves with the thick chalkboard paint. Allow the paint to dry for six hours and apply a second coat.

10

Attach a hanger to the back. Once the final coat is completely dry, prime the chalkboard surface with the side of a piece of school-grade chalk before using. Place the chalkboard upside down on a semi-soft surface to keep from squishing the paint dots. Drill pilot holes for the hanger screws. Do not drill through the chalkboard. Begin installing the screws, add a dot of cyanoacrylate (CA) glue to the threads, and finish installing the screws. Sign the back with a white or silver permanent marker.

Materials & Tools

Materials:

- Medium density fiberboard (MDF): ¾" x 11½" x 13½" (19mm x 292mm x 343mm) (apple) or ¾" x 11" x 22" (19mm x 279mm x 559mm) (chef)
- Carbon paper
- Lightweight clear packaging tape
- Good-quality yellow wood glue
- Disposable glue brush
- Sandpaper: assorted from 120- to 360-grit
- Fabric paint (not puffy or glitter fabric paint): shiny red, dark green, iridescent green, and two shades of tan
- Acrylic craft paint: black
- Painter's tape: ½" to 2" (13mm to 51mm)-wide
- Chalkboard paint
- Paper towels
- Mirror hanger
- Spray lacquer: high gloss
- Cyanoacrylate (CA) glue

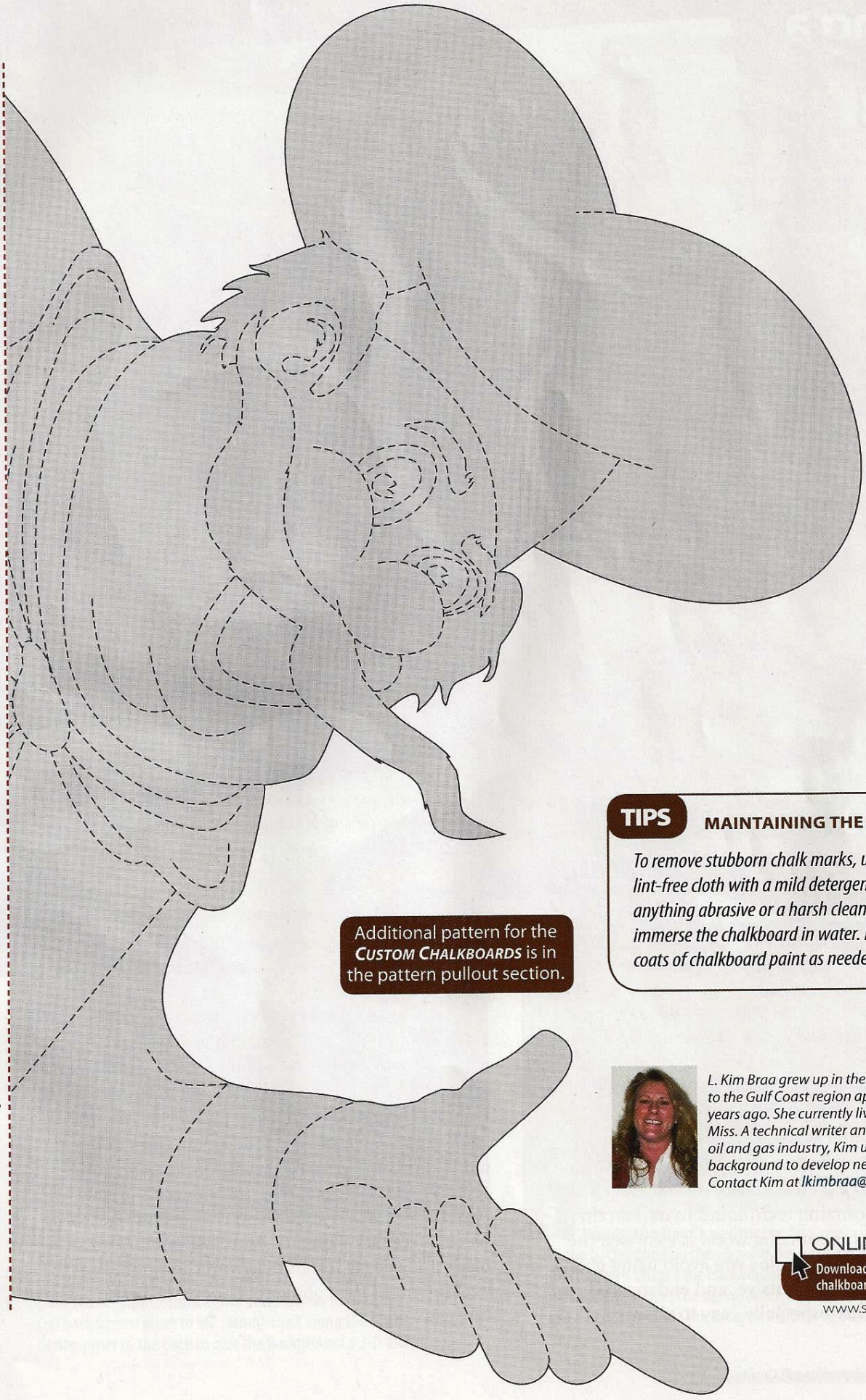
Tools:

- Scroll saw blades: #5 reverse-tooth
- Drill and bits: assorted small bits
- Detail sander
- Rotary-power carver with thin tapered diamond bit
- Natural-hair paintbrushes: ⅜" (10mm), ⅝" (16mm), and 1" (25mm) or larger wash brushes (basecoat)
- Large lazy Susan
- Nylon or polyester-bristle paintbrushes: ⅜" (10mm), ⅝" (16mm), and 1" (25mm) or larger wash brushes (chalkboard paint)
- Screwdriver
- Fine-point paint pen: white or silver

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

Adjust chalkboard to desired length

Detail lines are only a guide. You can add or delete them depending on the desired result and type of pattern used. Make a copy of the word "MENU" and cut the letters from ¼" (6mm) birch plywood. Sand, base coat, dot, and apply finish to the letters. Do not paint or finish the back side of the letters. Finish the chalkboard area according to the apple article instructions. Once it has dried, glue the letters to the chalkboard area, using the pattern as a guide. Use a few drops of a good craft glue and a couple drops of cyanocrylate glue. Apply light pressure, but don't squish the beads of paint, and remove any glue squeeze-out.



Additional pattern for the ***CUSTOM CHALKBOARDS*** is in the pattern pullout section.

TIPS **MAINTAINING THE CHALKBOARD**

To remove stubborn chalk marks, use a damp lint-free cloth with a mild detergent. Do not use anything abrasive or a harsh cleaner. Do not immerse the chalkboard in water. Reapply fresh coats of chalkboard paint as needed.

L. Kim Braa grew up in the Midwest and moved to the Gulf Coast region approximately twelve years ago. She currently lives in Ocean Springs, Miss. A technical writer and illustrator for the oil and gas industry, Kim uses her graphic-arts background to develop new scroll saw designs. Contact Kim at lkimbraa@cableone.net.

ONLINE BONUS

Download an exclusive crab chalkboard pattern online.

www.scrollsawer.com

Making a Bear Cub Puzzle

Easy technique turns traditional intarsia into a fun puzzle

By Kathy Wise

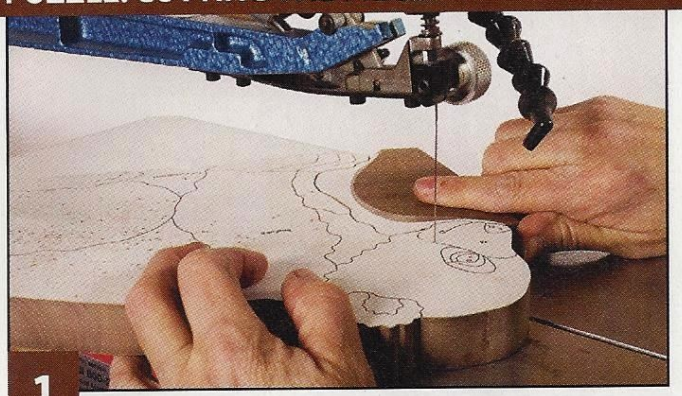
Most people make intarsia pieces for display, but they also make beautiful and challenging puzzles. Practice the technique with this easy bear cub puzzle, and then turn your favorite intarsia pattern into a puzzle. Share your results by sending photos to the magazine or posting them online at www.scrollsawer.com.

Cut the entire puzzle out of one piece of wood or use several colors. I used black walnut, beech, and maple. I used ebonizing techniques to darken the wood for the bear. Ebonizing wood is easy (see the sidebar on page 69) and helps you avoid using ebony, which is hard to cut, expensive, and endangered. Walnut and oak are especially easy to ebonize.

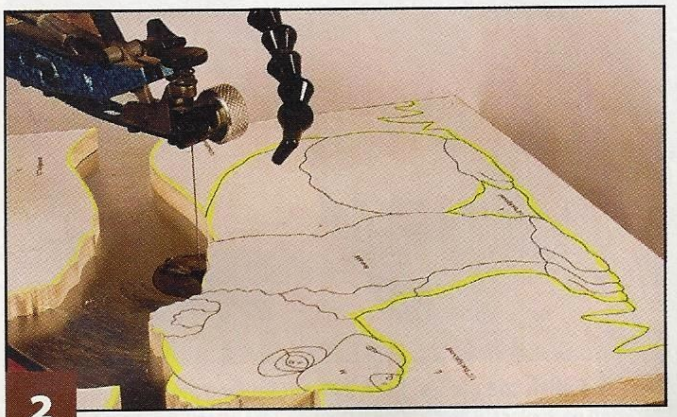
To color the background, I tinted gel varnish with artist's pigment. Tinted varnish is a great way to add color without losing the wood grain. If you don't have a piece of ½" (13mm)-thick wood wide enough for the background, cut it in two sections at the hill line.

To start the project, make four copies of the pattern and separate the background, bear, and muzzle. Spray adhesive on the backs of the three pattern pieces and stick them to the shiny side of a piece of contact paper. Contact paper lubricates the blade and is easy to remove from the wood. Peel the backing off of the contact paper and affix the patterns to the wood.

PUZZLE: CUTTING THE PIECES



1 **Cut the bear.** Using a #5 reverse-tooth blade, cut the perimeter of the bear. Use a #3 reverse-tooth blade to make the inside cuts. It's important to cut the perimeter accurately so it will fit into the background. Cut the muzzle. Mark the bottom of each piece with a pencil.



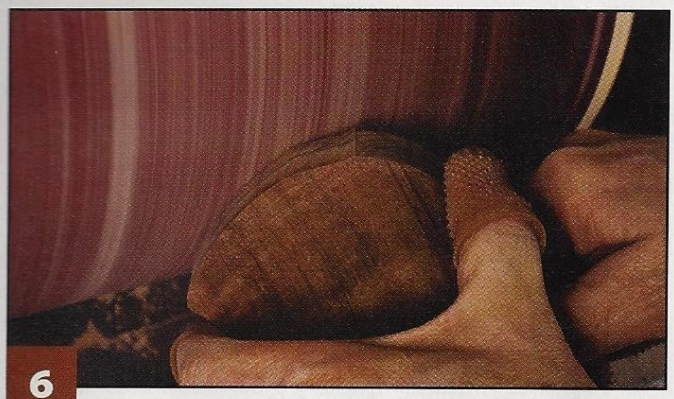
2 **Cut the background.** On the background pattern, highlight the lines you will be cutting: the perimeter of the bear, the grass, and the hills. Cut the pieces, being careful to cut the perimeter of the bear precisely.

3 **Check the fit.** Place a pattern on the backer board and lay the cut pieces on it. Check for fit—the bear pieces should slide in and out of the background easily. Use an oscillating sander to adjust the pieces or background as necessary.

PUZZLE: SHAPING THE PIECES

4 **Sand the background.** Refer to the shaping guide and use a drum sander to sand the shaded areas as indicated. Start with a 150-grit drum and then use a 220-grit drum. Sand the center background pieces to ¼" (6mm)-thick at the bottom next to the grass. Sand the top background piece to ¼" (6mm)-thick along the bottom edge. Gently taper to the back to give the background a 3-D look.

5 **Round the bear's perimeter.** Use a pencil to mark the height of the background on the edges of the bear. Round the edges of the pieces down toward the background, being careful not to sand the pieces thinner than the background. Refer to the shaping guide and use a pencil to shade the areas of the bear to be sanded.

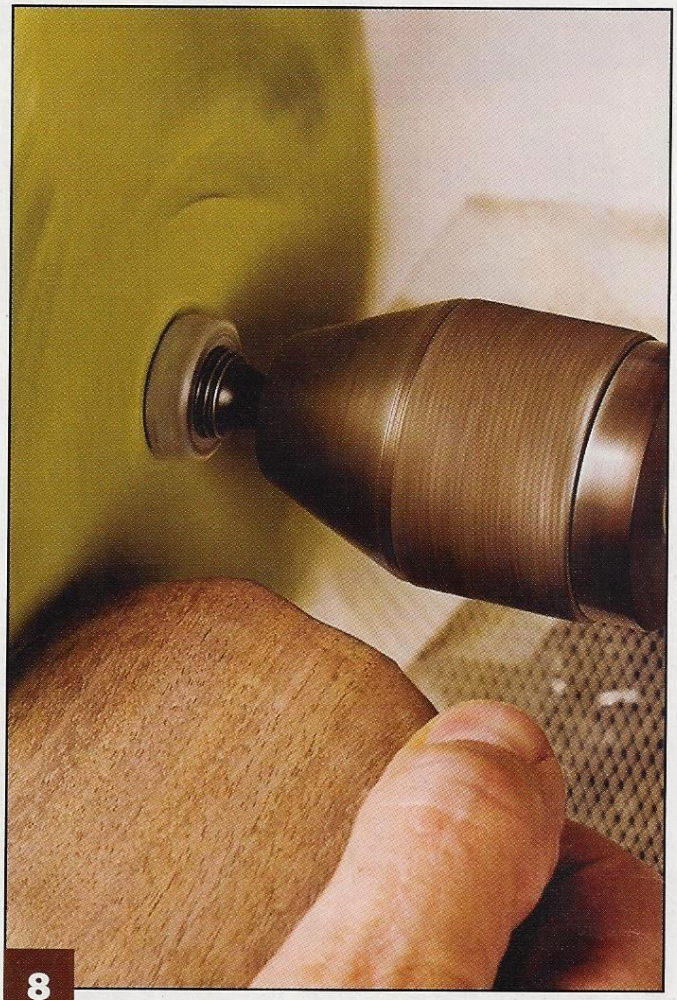


6

Shape the bear's body. First, shape the highest sections: the top ear, front leg, and back leg. Then, shape the lowest pieces: the back ear and rear foot. Round the body and neck. To shape the head, hold the muzzle in place while you sand the edges. Replace pieces into the project often to check your progress and re-mark the shaping guides as needed.

7

Sand the details. Use an oscillating sander with a ½" (13mm)-diameter drum to round the inside edges of small pieces, like the ear and eye. You can also use a rotary tool or air grinder with a small sanding drum or burr for very tight areas. Sand a 45° angle on the edges to enhance the 3-D look. Check the sanding, and make sure the bear fits easily into the background. Sand the bottom of each piece.



8

Polish the pieces. Use a 220-grit sanding mop to finish-sand each piece. The sanding mop gets into all the tight areas, produces a nice sheen, and is much quicker than sanding by hand.

PUZZLE: FINISHING THE PROJECT

9

Glue the pieces. Refer to the gluing guide and use both cyanoacrylate (CA) glue and wood glue to bond the small intarsia pieces into larger puzzle pieces. Leave the inside of the ear, the eye, and the nose unglued until after you ebonize them. Replace the pieces in the puzzle to keep the shapes from shifting, and remove any glue squeeze-out immediately.

10

Tint the background. Mix a small amount of green pigment with ¼ cup (59ml) of clear satin gel varnish. Test the mixture on a sample piece of background until you get a soft grassy green that allows the wood grain to show. Use the mixture to tint the background and let dry.

11 **Ebonize the bear pieces.** Follow the instructions in the sidebar below to make an ebonizing solution. Do not ebonize the inner ear or muzzle. Brush the ebonizing solution on all sides of the remaining pieces as follows: nose and eye, three coats of solution; back leg sections and ears, two coats; all other black walnut pieces, one coat. Let dry overnight. Lightly sand the pieces on the mop sander to add a sheen and remove any raised grain. Glue together the eye, ear, and nose/muzzle pieces per the gluing guide.

12 **Varnish the pieces.** Wipe all sides of each piece with clear satin gel varnish. Wipe the excess off with a clean rag and repeat. Use an air compressor gun to blow gel out of the crevices and wipe the pieces again. Wipe the background with a coat of clear varnish as well. Let dry thoroughly.

Make effective ebonizing solutions from common household ingredients.

Ebonizing Wood

By Stacy Brennan

African ebony is a dense hardwood with a fine even texture and deep black color. Ebony is used for many purposes, including tool, knife, and gun handles, furniture, inlay work, and musical instruments. There are many species of ebony, but only a few types are commercial-grade, so the high demand makes ebony expensive. Ebony is also endangered, because forests are being cut down quickly but are not being replaced.

People have colored less expensive wood to look like ebony for nearly 200 years. Ebonized wood is easier to cut, cheaper, and less difficult to find than ebony. Wood can be dyed using stain, ink, shoe polish, or permanent marker. Chemical ebonizing using a mixture of common household ingredients causes a chemical reaction that changes the color of the wood. Varieties of wood that are high in tannic acid, such as walnut and oak, work best for chemical ebonizing.

Each of the following solutions works well to ebonize wood. Mix the ingredients in a glass jar, let soak as noted, and then paint the solution onto the wood.

- ***Ferric nitrate (½ teaspoon; 2g) and vinegar (1 cup; 237ml):*** This solution works the fastest and makes the darkest color. Control the intensity of the black by changing the amount of ferric nitrate. Order ferric nitrate online from The Science Company, www.sciencecompany.com.
- ***Rusty nails and vinegar (1 cup; 237ml):*** Soak the nails (the rustier, the better) in the vinegar for a few hours or a day; the longer it sits, the more intense the color will be when you apply it to the wood.
- ***Steel wool and vinegar (1 cup; 237ml):*** Cover the steel wool completely with the vinegar. Let soak a few hours or a day; well-soaked solution is more effective. The steel wool tends to break down and leave particles in the solution, so strain the solution before applying it.

PUZZLE: ASSEMBLING THE PROJECT

13 **Cut the backer board.** Assemble the intarsia on the backer board and trace around the perimeter. Cut inside the line and spray the center of the cut backer board with flat black spray paint. Let dry overnight. Glue the background to the backer board using CA glue and wood glue; use accelerator on the backer board. Press down for one minute until the CA glue sets.

14 **Finish the puzzle.** Sand a slight bevel on the edges of the backing board so it's not visible from the front. Apply clear gloss polyurethane to the eye and nose for a lifelike look. Place the bear pieces in the puzzle. Be sure to sign your work and add a personalization if desired.

Materials & Tools

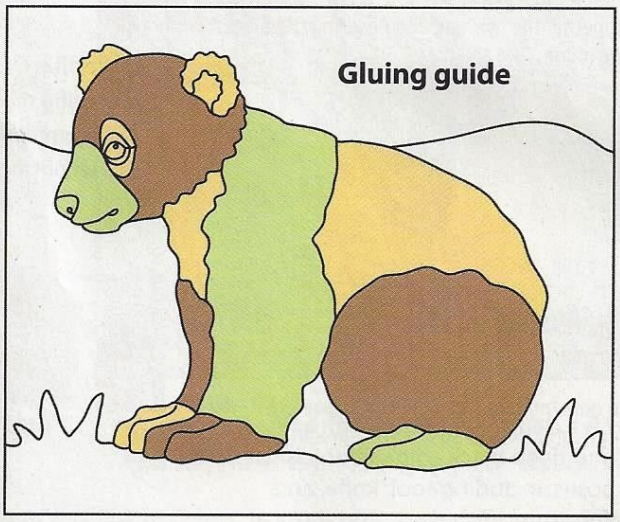
Materials:

- Black walnut (bear body): ¾" x 9" x 12" (19mm x 229mm x 305mm)
- Beech (muzzle): ¾" x 3" x 3" (19mm x 76mm x 76mm)
- Maple (background): ½" x 11" x 14" (13mm x 279mm x 356mm)
- Plywood or masonite (backer board): ¼" x 11" x 14" (6mm x 279mm x 356mm)
- Clear contact paper
- Spray adhesive
- Pencil, highlighter
- Titebond wood glue
- Cyanoacrylate (CA) glue and accelerator
- Varnish: clear satin gel
- Tints-All Colorant: spring green
- Flat spray paint: black
- Polyurethane: clear gloss
- Vinegar (ebonizing solution)
- Rusty nails, steel wool, or ferric nitrate (ebonizing solution)
- Wiping rags

Tools:

- Reverse-tooth blades: #3 and #5
- Drum sander and drums: 150- and 220-grit
- Oscillating sander and drum: ½" (13mm)-diameter
- Rotary tool or air grinder with small sanding burr (optional)
- Air compressor gun
- Paintbrushes

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



Pattern for the ***BEAR CUB PUZZLE*** is in the pattern pullout section.

EDITOR'S TIP

By Bob Duncan

Some types of wood absorb an ebonizing solution unevenly, producing a blotchy finish. Always test the solution on a piece of scrap wood before applying it to your project. To avoid a blotchy finish, apply a glue size to the wood. I mix one part white glue with two parts water. Apply a thin coat of the glue size to the wood. When the size is dry, apply the ebonizing solution.

Nationally acclaimed intarsia artist Kathy Wise has authored two books and more than thirty articles. Her award-winning intarsia mural work has set a new standard for the art of intarsia. Private and semi-private intarsia classes are available. For a free catalog of 450 patterns, contact: Kathy Wise Designs Inc., P. O. Box 60, Yale, Mich. 48097, Fax 810-387-9044, www.kathywise.com, kathywise@bignet.net.

Kitten Puzzle, pattern #420, available from Kathy Wise.

Build a Victorian Fretwork Box

Intricate design highlights your scrolling skills

By Sue Mey
Cut by Norm Nichols

Boxes make delightful gifts. The delicate filigree design featured on this project looks impressive, but is easy to complete if you approach it one fret at a time. Cut this project from hardwood for a beautiful keepsake, or use plywood and stain the assembled project for a more durable box.

The patterns provided use butt joints for assembly. To hide the end grain on the box sides, cut four long sides and cut miters with a table saw or sand a 45° angle on the ends. Cut a solid lid liner from matching or contrasting wood, or create a narrow ring for the lid liner so the top is open and the box can be used for potpourri.

Making the Box

Stack the blanks for the long sides and short sides. Secure each stack using small pieces of double-sided tape. Cover the stacks, as well as the lid blank, with masking tape. Use spray adhesive or a glue stick to attach the patterns.

Use a 3/32" (2.5mm)-diameter bit to drill blade-entry holes. Switch to a 1/32" (1mm)-diameter bit to drill blade-entry holes for the smallest openings. Use a utility knife to remove the burrs created by drilling the holes. Use a #5 reverse-tooth blade for the stacked pieces and a #3 reverse-tooth blade for the lid, lid liner, and box bottom. Cut the frets first, and then cut slightly outside of the perimeter line.

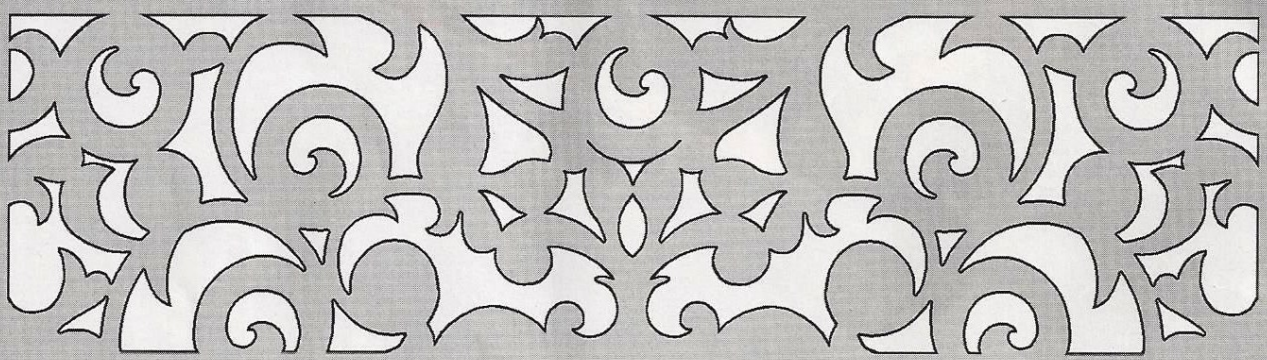
Use a disc sander to sand the straight edges of the pattern pieces up to the pattern lines. Carefully pry apart the stacked blanks by inserting a utility knife blade between the layers. Remove the tape and patterns. Sand the work pieces by hand until smooth. Remove all of the sanding dust using a hard-bristled paintbrush.

Arrange the parts on a flat surface and dry-assemble them to make sure they fit properly. Cut or sand the pieces until all of the pieces fit together properly. Glue and clamp the sides to the outside of the bottom. Remove any glue squeeze-out with a damp cloth or utility knife blade. Reinforce the joints with small brads. The brad holes disappear if you apply an oil finish and immediately sand with 320-grit sandpaper. If you don't want to drive brads through the sides, increase the size of the bottom by 1/4" (6mm) on both sides. Cut a 1/8" (3mm) wide rabbet around the inside bottom of the box, and glue and screw the bottom into the rabbet. Center and glue the liner to the inside of the lid.

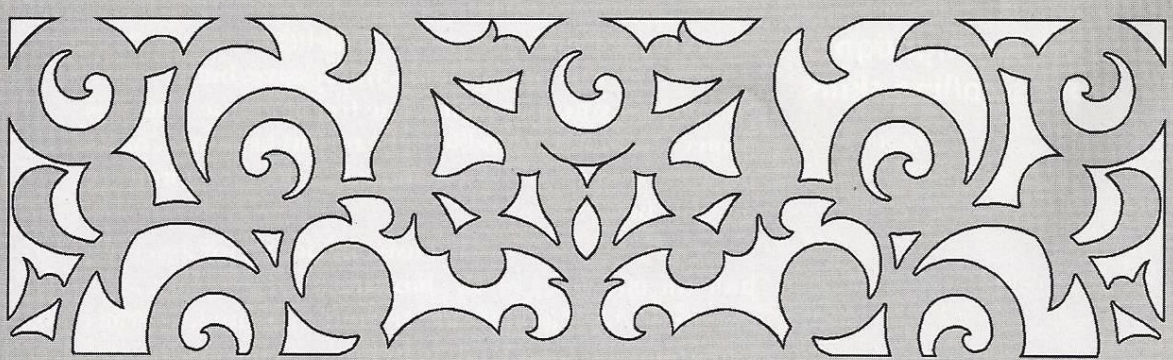
To finish the project, stain any plywood parts, and then apply several thin coats of clear spray varnish to all surfaces of the box.

Victorian box patterns

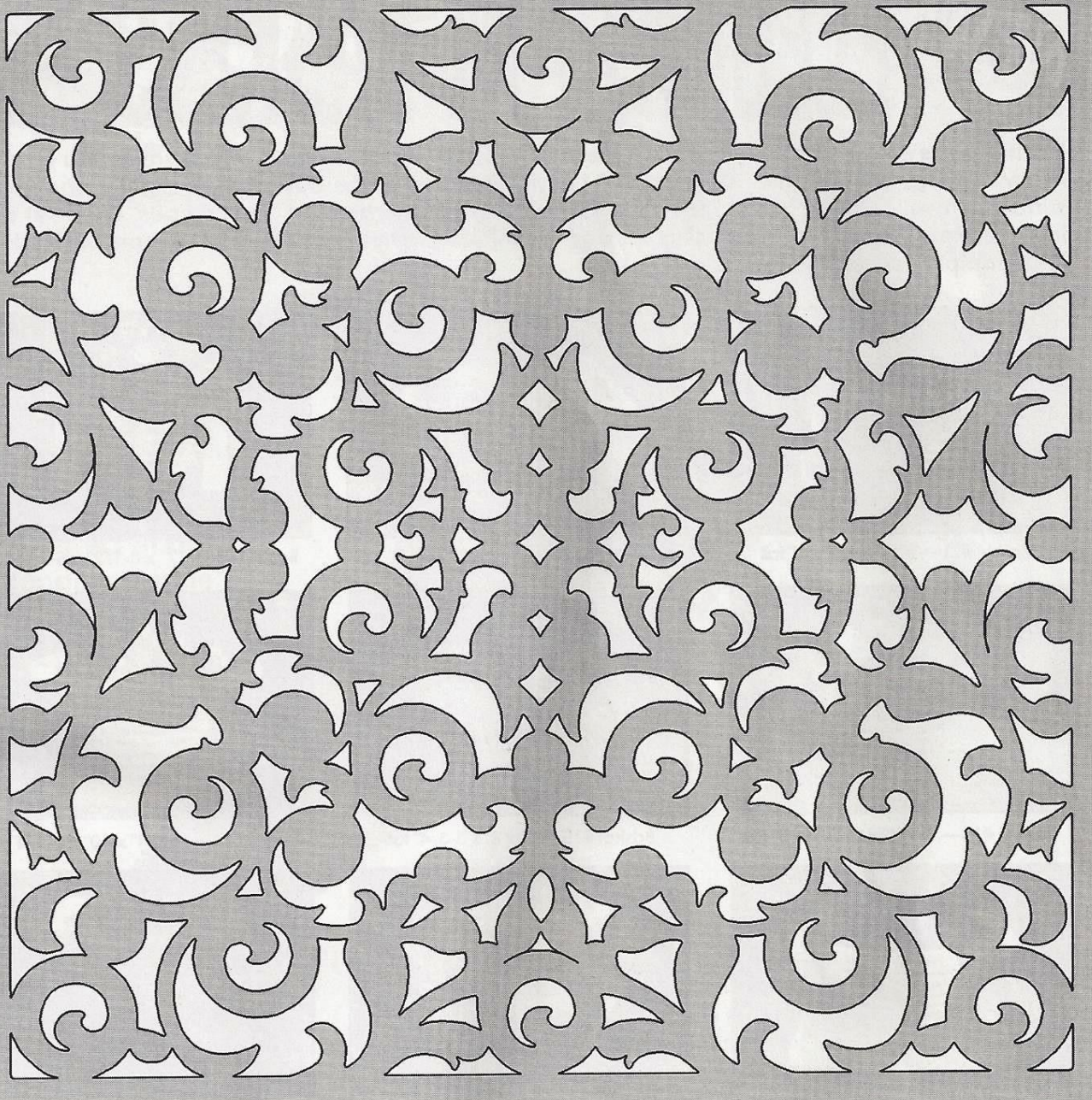
Box side 1 - cut 2



Box side 2 - cut 2



Box lid - cut 1



Materials & Tools

Materials:

- Padauk (lid): ¼" x 7½" x 7½" (6mm x 191mm x 191mm)
- Baltic birch plywood (bottom): ¼" x 7 " x 7 " (6mm x 178mm x 178mm)
- Padauk (lid liner): ⅛" to ¼" x 7 " x 7 " (3mm to 6mm x 178mm x 178mm)
- Padauk (short sides): 2 each ¼" x 2¾" x 7 " (6mm x 70mm x 178mm
- Padauk (long sides): 2 each ¼" x 2¾" x 7½" (6mm x 70mm x 191mm)
- Masking tape
- Temporary-bond spray adhesive or glue stick
- Thin double-sided tape
- Sandpaper: assorted grits
- Wood glue
- Stain or oil finish (optional)
- Small brads or small screws
- Clear spray varnish

Tools:

- Reverse-tooth blades: #3 and #5
- Drill and bits: 1/32" (1mm)- and 3/32" (2.5mm)-diameter
- Utility knife
- Disc sander
- Clamps
- Router and bits: ⅛" (3mm)-radius rabbet bit (optional)

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

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

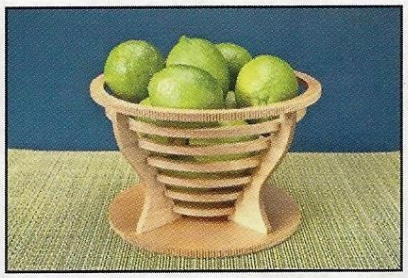
NEW! ELEGANT ART BASKETS SET #2

Ten brand-new, magnificent designs made from just two pieces of wood, which saves you money. Many of these baskets are "suspended;" i.e., the bottom of the basket rests slightly above the surface on which it sits, due to the innovative design of the base or "leg" pieces. Each set also includes Roy King's detailed finishing tips and techniques, to help you get the best possible finish on your completed baskets!

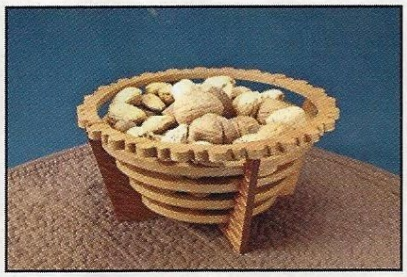
Basket #11 — 8" x 10-1/2" x 5" tall

Basket #12 — 6-1/2" x 9" x 5-3/4" tall

Basket #13 — 7" x 8-1/2" x 5-1/2" tall



Basket #14 — 8-1/4" x 8-1/4" x 5" tall



Basket #15 — 8" x 8" x 3-3/4" tall

Basket #16 — 7-1/4" x 10" x 6-1/4" tall

Basket #17 — 7-1/2" x 10" x 5-1/4" tall

Basket #18 — 7-1/4" x 9-1/2" x 5-3/4" tall

Basket #19 — 8" x 8" x 5-1/2" tall

Basket #20 — 8" x 8" x 5-1/2" tall

Price: All 10 patterns for only $24.95
plus $3.00 Shipping & Handling! *

To Order: Send $27.95 check or money order (and make payable) to All American Crafts, 7 Waterloo Rd., Stanhope, NJ 07874, Attn. R. Becker. By phone -- have credit card ready (Visa, MasterCard, or Amex) and call (973) 347- 6900, Ext. 143. U.S. funds only. * For orders outside North America, call for shipping charges.

Easy Orca Puzzle

Simple details add to the 3-D effect of this freestanding puzzle

By Matthew Jones

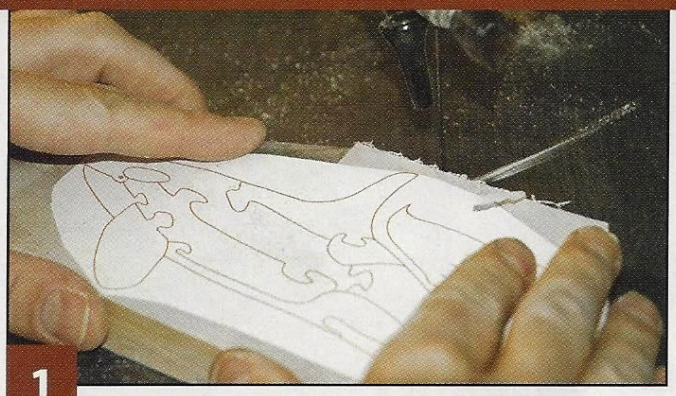
I live in Seward, Alaska, so when I started scrolling, I looked for puzzle patterns of Alaskan animals. I found a few, notably the moose and caribou puzzles by Judy Peterson, but not many other local animals. I decided to use a graphics program to create my own patterns. The first animal I chose was an orca, also known as a killer whale. The whale's lines are simple, and I thought it would make an aesthetically pleasing puzzle.

Orcas are black and white, so it's important to use a light-colored wood, like poplar or maple, that can be stained to create contrasting colors. This puzzle is designed to be self standing, so wood about ½" thick works best.

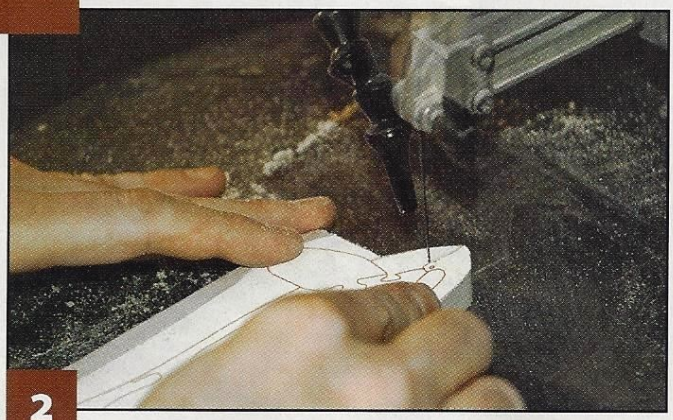
If you plan to cut more than one whale, vary the size of each puzzle. Scale the pattern from 60% to 105% on a photocopier. Any smaller and the puzzle is too hard to cut, and any larger needs oversized paper. When you are finished, you will have a realistic-looking pod of whales—in nature, orcas come in all sizes.

Begin the project by sanding the board, putting a layer of masking tape over the wood, and then gluing the pattern to the tape-covered wood. Align the wood grain parallel to the length of the puzzle.

ORCA: CUTTING THE WHALE



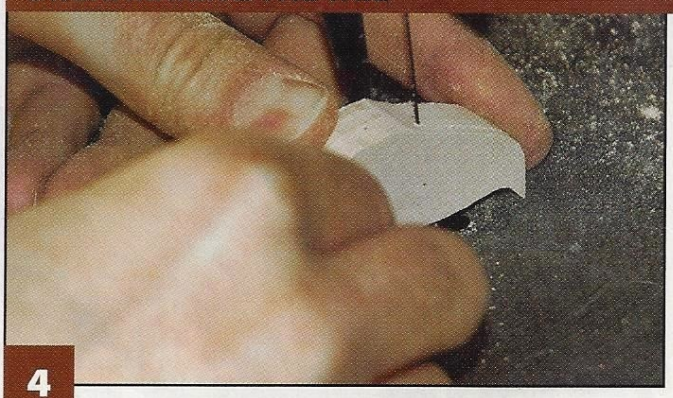
1 **Cut the top edges.** Start cutting at the point of the dorsal (top) fin. Cut toward the tail and then off the edge of the board, removing the scrap. Return to the dorsal fin and cut around the nose; stop at the lower fluke. Turn the blade, cut to the edge of the board, and remove the scrap.



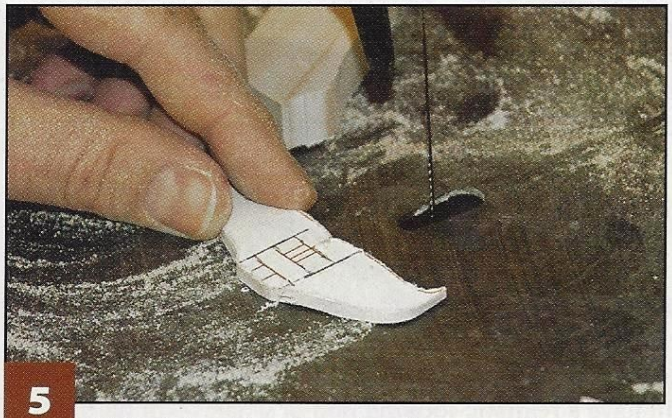
2 **Cut the mouth.** If desired, drill a 1/16" (2mm)-diameter hole for the eye as marked. Cut the mouth, carefully loop around the eye if you drilled it, and continue around the oval-shaped eye patch. Stop the saw, remove the eye patch, and back the blade out of the puzzle.

3 **Finish cutting the puzzle pieces.** Cut the rest of the puzzle pieces, starting with the fluke. Ignore the small rectangle near the tail and the internal rectangle cuts on the tail piece. Stand the fluke piece on edge and cut it widthwise down the center, making two identical pieces.

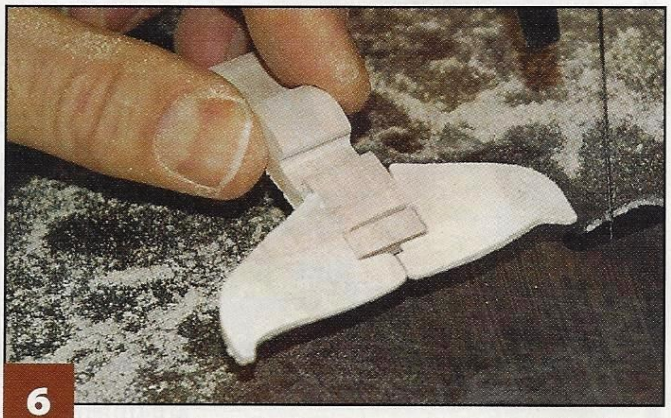
ORCA: MAKING THE TAIL



4 **Split the tail.** Stand the tail piece on edge and cut it widthwise to form a piece that is 1/8" to 3/16" (3mm to 5mm) thick. Discard the remaining thicker piece.

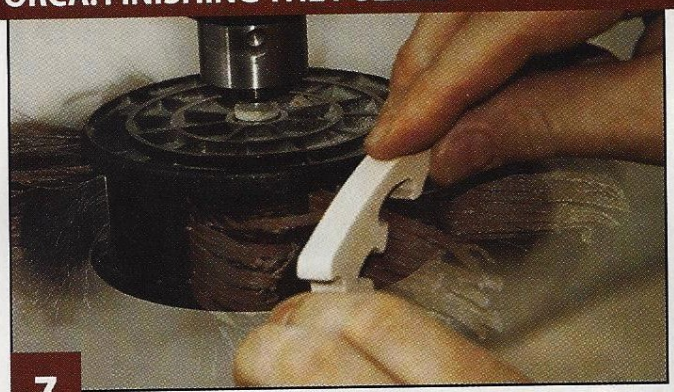


5 **Cut the tail notches.** Use a piece of scrap wood from the main puzzle to adjust the width of the rectangular notches on the tail. Center the width of the scrap wood on the tail and mark the sides to represent the thickness of the board. Draw the rectangles and cut the notches.



6 **Cut the tail notch in the main puzzle.** Use the width of the tail piece to mark the correct depth of the notch in the rear puzzle piece. Cut the notch in the puzzle piece and fit the tail into it, sanding as necessary so the tail sits flush in the puzzle piece.

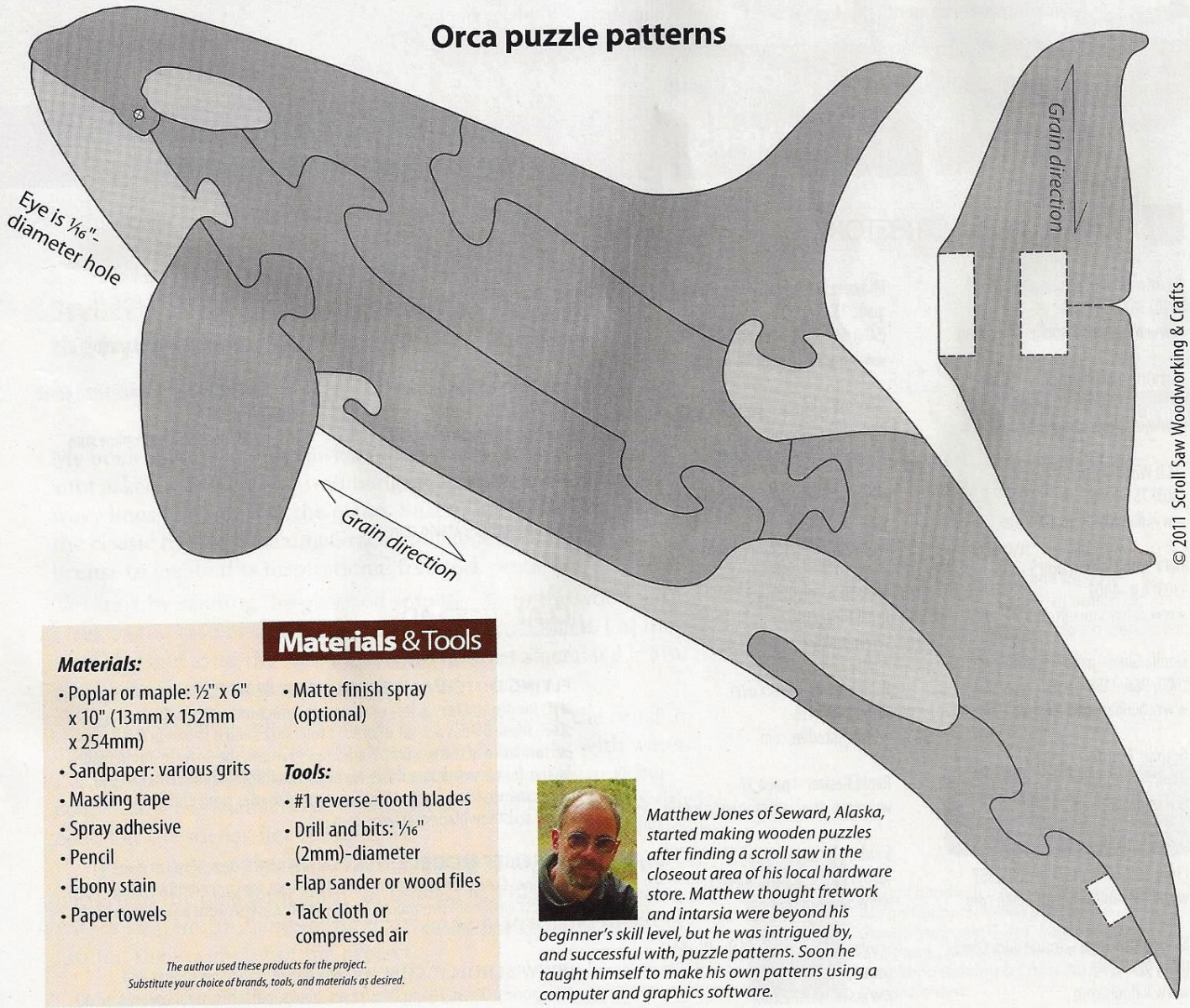
ORCA: FINISHING THE PUZZLE



7 **Sand the puzzle.** Lightly sand the edges of the puzzle pieces using a flap sander or small wood files. Remove any sanding dust with a tack cloth or compressed air.

8 **Stain the puzzle.** Remove and set aside the white pieces. Drop the remaining pieces into a can of ebony stain and stir. Let them soak for a minute, pull them out, and set them on edge on a paper towel to dry. If desired, spray the pieces with matte finish and let dry thoroughly before assembling the puzzle.

Orca puzzle patterns



Materials & Tools

Materials:

- Poplar or maple: ½" x 6" x 10" (13mm x 152mm x 254mm)
- Sandpaper: various grits
- Masking tape
- Spray adhesive
- Pencil
- Ebony stain
- Paper towels
- Matte finish spray (optional)

Tools:

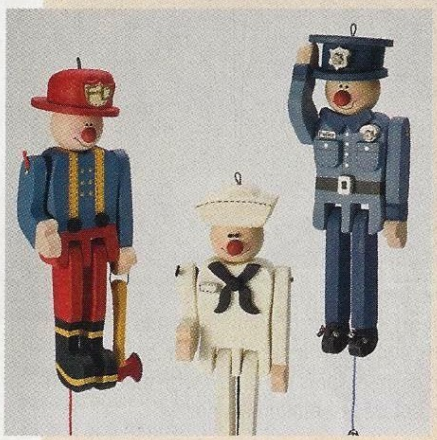
- #1 reverse-tooth blades
- Drill and bits: 1/16" (2mm)-diameter
- Flap sander or wood files
- Tack cloth or compressed air

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

Matthew Jones of Seward, Alaska, started making wooden puzzles after finding a scroll saw in the closeout area of his local hardware store. Matthew thought fretwork and intarsia were beyond his beginner's skill level, but he was intrigued by, and successful with, puzzle patterns. Soon he taught himself to make his own patterns using a computer and graphics software.

COMING FEATURES

In our next issue...



Pull the string to make these adorable ornaments salute

Traditional fretwork Christmas ornaments are a holiday staple

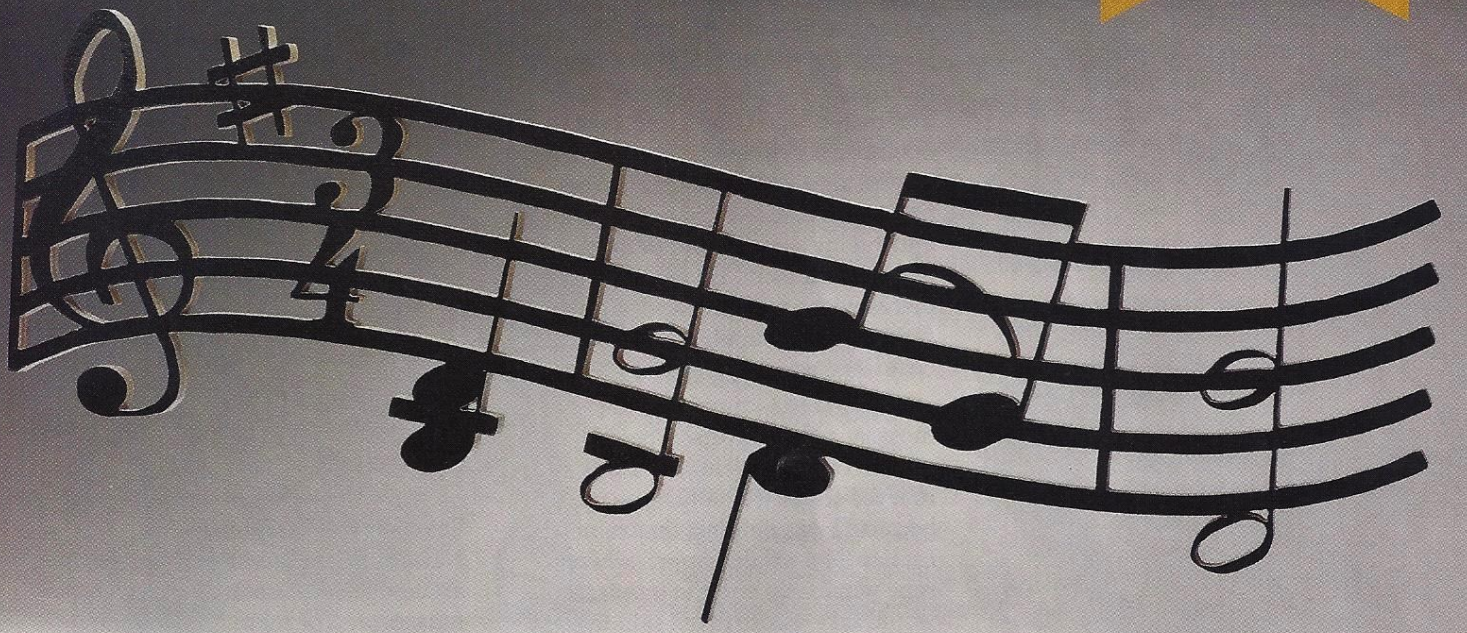
Quick and easy mini cars make wonderful gifts

ADVERTISING DIRECTORY

CLASSIFIED ADS

Cutting a Fretwork Melody

BEST PROJECT DESIGN CONTEST WINNER
Scroll Saw Woodworking & Crafts



Stylized sheet music represents the hymn "Amazing Grace"

By Gloria Chandler

My uncle and his family have a music room in their home. My aunt asked me to make a wall hanging with musical notes and wavy lines to hang over the piano. I used the first few notes from the classic hymn "Amazing Grace" and added a bit of artistic license to create this inspirational fretwork piece.

Start by sanding the plywood smooth. Stain the wood with black water-based leather dye. I use Eco Flo coal black. Let the stain dry and sand the wood lightly to remove any raised grain. Apply another coat of dye if needed.

Apply a coat of shellac with a foam brush. Soak the brush in ammonia for half an hour, and then clean the brush with water. Let the shellac dry. Sand the shellac lightly and apply another coat. Allow the shellac to dry, sand lightly, and then apply a third coat. Let the shellac dry thoroughly.

Then, cover the blank with blue painter's tape. Attach the pattern to the tape with spray adhesive. Drill blade-entry holes with a 1/16" (2mm)-diameter bit. Cut the frets first, and then cut around the perimeter of the project.

Materials & Tools

Materials:

- Baltic birch plywood: 1/4" x 6" x 16" (6mm x 152mm x 406mm)
- Leather dye: Eco Flo coal black
- Sandpaper: 220-grit
- Shellac
- Ammonia
- Blue painter's tape
- Spray adhesive

Tools:

- Drill and bits: 1/16" (2mm)-diameter bit
- Reverse-tooth blades: #5
- Foam brush

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

Pattern for the ***Fretwork Melody*** is in the pattern pullout section.

Gloria Chandler is a native of Philadelphia, Pa., and enjoys scrolling as a hobby. Gloria's "Amazing Grace" fretwork earned an Editor's Choice award in the 2009 Scroll Saw Woodworking & Crafts *Best Project Design Contest.*

Scrolled Sea Monster Recreation

When paleobiologist Evan Nordquist learned that the skeletal remains of a mosasaur had been packed in a box at the University of Saskatchewan for more than fifty years, he was very excited. "I had studied mosasaurs before and spent four summers digging them up in Morden, Manitoba," said Evan. Mosasaurs were fearsome marine lizards that ruled the seas sixty-five million years ago, reaching lengths up to fifty-seven feet.

Even though he'd never done anything like it before, Evan volunteered his services to reconstruct the mosasaur. The job took more than 250 hours and the skillful use of a scroll saw to complete. Evan built the massive front flippers, two back flippers, shoulder and hip elements, more than 100 ribs, and a few backbones from scratch. "I had no idea where or how to start building the missing pieces, and I'd never used a scroll saw before," Evan explained. "But it turned out to be pretty straightforward once I learned how to use the right tools."

Evan located images of the missing pieces, enlarged them to match the exact proportions of the mosasaur, and used them to create cardboard templates. Then, he solicited the help of Jeff Meyers, a University of Saskatchewan fine arts major, who taught him how to operate a scroll saw. "The scroll saw proved very useful for this project because it was fast and accurate at cutting my sketches out of foam board," said Evan. He shaped the pieces with an angle grinder and sandpaper, and applied various hard-coat finishes and paint to each piece.

When Evan completed the mosasaur, the university held an official raising ceremony. "I was so relieved to see it finally hung up, because I was nervous that some catastrophe would happen where a rope would slip and the mosasaur would take a nose dive," said Evan. Evan's completed mosasaur was the first major addition to the Natural Sciences Museum in more than twenty years.

Evan Nordquist used a scroll saw to make the missing "fossils" needed to reassemble an ancient skeleton.

Photos courtesy of *The Star Phoenix*

View the mosasaur at the University of Saskatchewan's Natural Sciences Museum (http://artsandscience.usask.ca/geology/museum/). For more information on the project, contact Evan Nordquist at ekn394@mail.usask.ca.

Plowing Along

For the past twelve years, Jack Lieb, a retired lathe carpenter, has been creating accurate replicas of John Deere tractors based on collectible die-cast models. His highly detailed work is all the more remarkable because Jack has severely limited vision due to Graves' disease. "The glasses help, but I still struggle with the double vision," Jack explained.

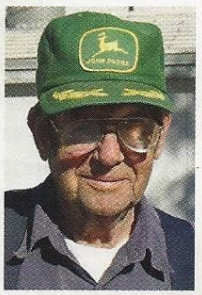
Jack has produced thirty-eight different tractor models out of hardwood. "I like to use oak or maple for the body because I think it cuts better," he said. "Then, I use black walnut for the tires so they'll look darker." Some tractor models he borrows from friends. Others he picks up at garage sales and flea markets. "Every once in a while, if I can't find the one I want to make, I'll buy a model at the local John Deere dealership. When I bring back the finished wooden tractor to show them, they just shake their heads and say they can't believe it—then they take pictures."

The woodworker draws a freehand sketch based on the model and uses it as a pattern to cut the pieces. Then, he sands the pieces until they all fit together. "The hardest part is getting the bent exhaust pipes just right," he said.

Although he does not create the replicas to sell, Jack will, on rare occasions, make two of a particular model and sell the second one. "I've sold three or four of them for $300 a piece," he noted.

Whether for himself or for sale, no tractor is finished until Jack runs it by the local coffee shop for critique. He said, "I show these old farmers what I've done, and they look it over and tell me if I've got it how it's supposed to be."

For more information, contact Jack Lieb at Liebpat2@gmail.com.



Despite his severely limited vision, Jack Lieb creates accurate wooden models of John Deere tractors.

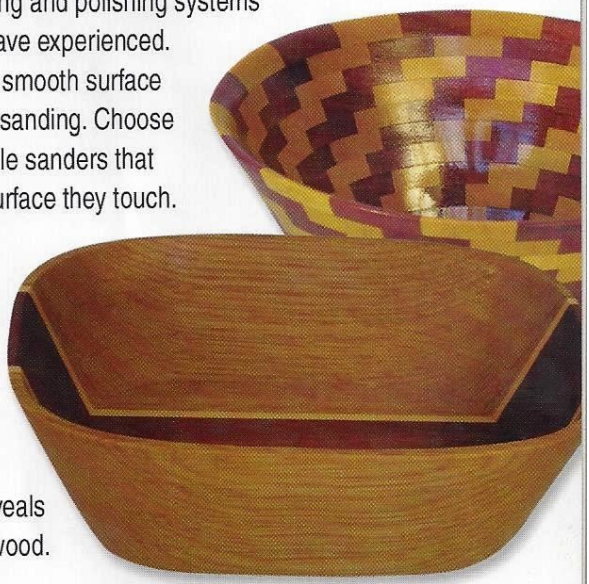
Photos by Brian Sennikoff

Your Vision. Our Tools.

Intarsia by
Judy Gale Roberts
www.intarsia.com

GUINEVERE® patented sanding and polishing systems finish wood like nothing you have experienced. You can easily create a velvet smooth surface ***not even possible*** with hand sanding. Choose from a series of small, inflatable sanders that flex to easily conform to the surface they touch.

You can achieve a flawless, incredibly smooth finish in no time. Follow with the polishing sleeves to apply our food-safe, organic wax to seal and protect the wood. The natural resulting finish reveals the hidden beauty within the wood.



Bowls by Carole Rothman
www.scrollsawbowls.blogspot.com

ACCESSORIES AVAILABLE:

- 4 Inflatable Rubber Sanders *(2"x2" Round Dome, 2"x2" Drum, 3 1/4" x 1" Long and 1 1/4"x 3/4" Short)*
- 4 Grades Cloth-Back Sanding Sleeves
- Brush & Cloth Polishing Sleeves
- Micro Hand Pump
- 52" High Quality Flex Shaft
- Dust Extractor & Extender *(not pictured)*
- Organic, Food-Safe Wax

MOTOR FEATURES:

- Quiet 1/2 HP Motor
- 110 Volt, Fixed Speed 3600 rpm
- 2 Standard Chucks 1/16"–3/8"
- Portable - 6" x 12", 9.5 LB Base
- Custom Made In Sweden

Tools To Bring Your Vision To Reality

Santa's Choice!

KING ARTHUR'S TOOLS®
GUINEVERE®

800-942-1300 • katools.com

SAND-FLEE®

MADE IN U.S.A.

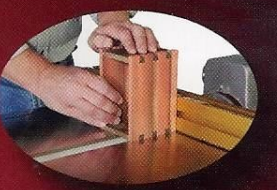
Portable Drum Sander System

A New Revolution for Your Sanding Solution®

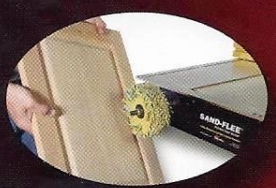
- More Versatile Than an Overhead Drum Sander
- Easier & Safer to Use Than a Belt Sander
- Better Control & Results Than a Palm/Orbital Sander
- Cleaner Than any Other Sander

SCROLL SAW & FRETWORK

RAISED PANELS & OTHER TALL PARTS



DOVETAILS & OTHER JOINERY



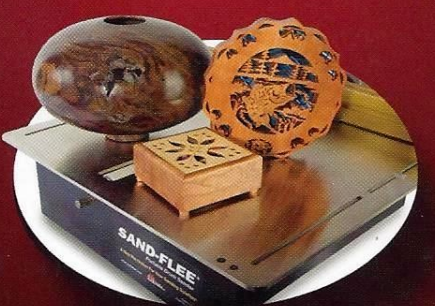
PROFILE SANDING

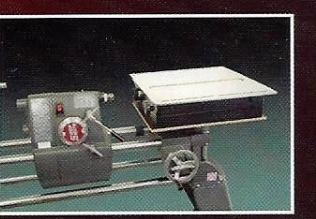
BOWL FINISHING

TAPERS, SEGMENTED FINISHING

MARQUETRY

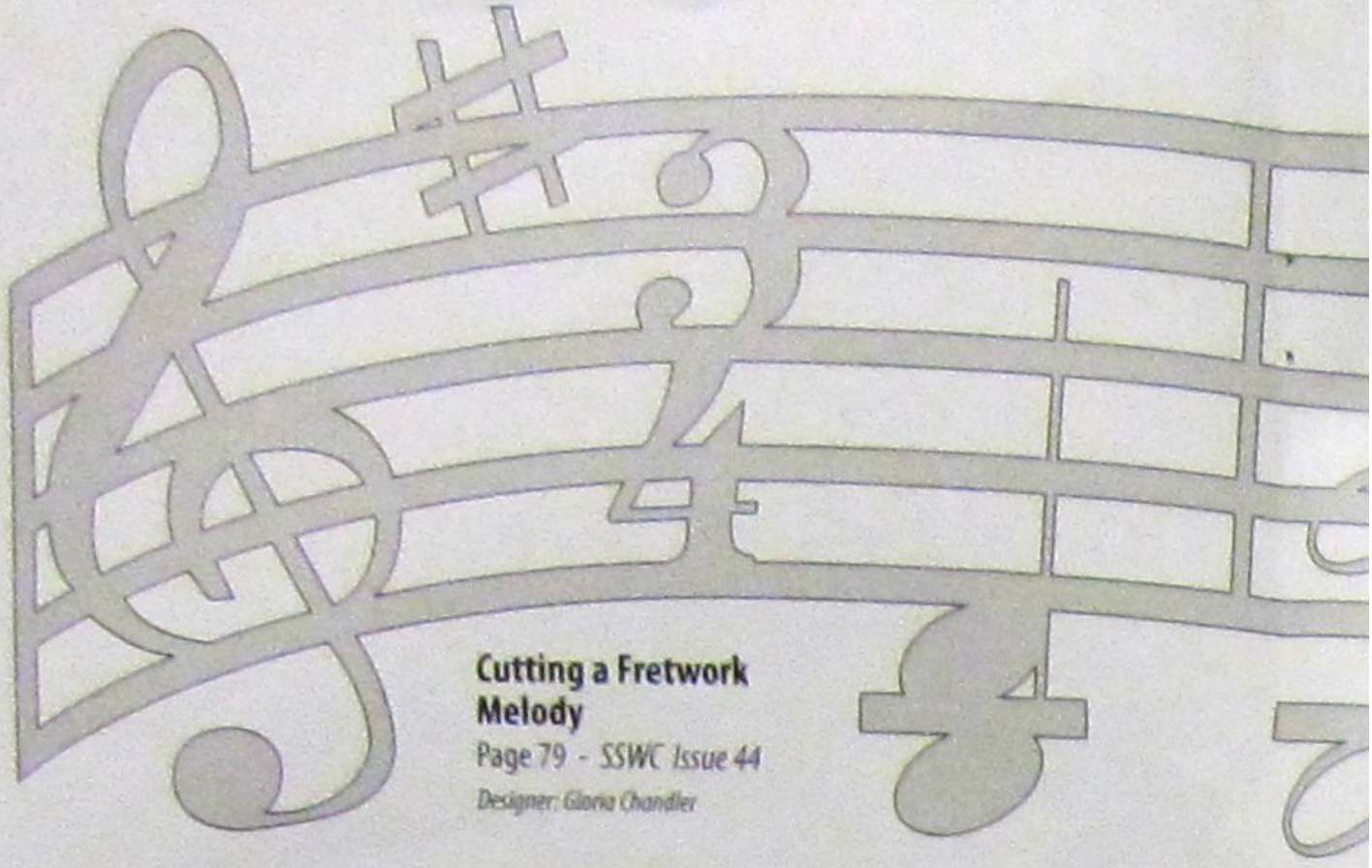
Compact SF-0900 Sand-Flee® Fits Anywhere in Your Shop





Also Available as a Shop Smith Accessory

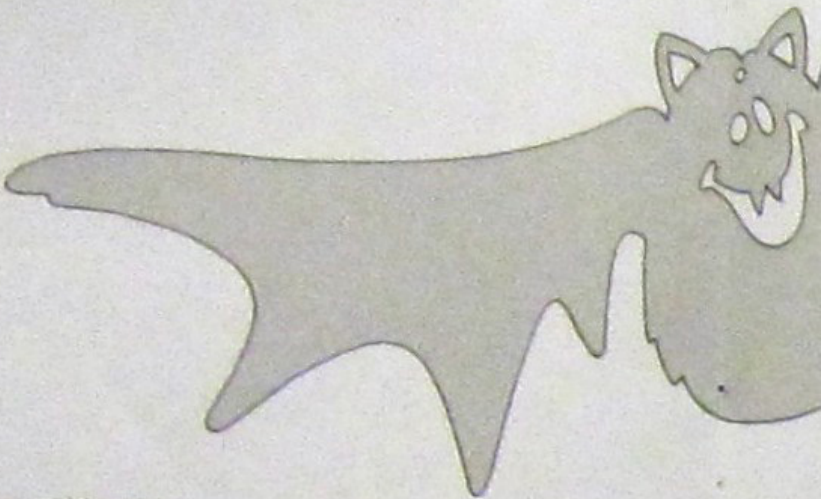
Shop Proven Product by R.J.R. Studios, LLC www.rjrstudios.com 1-609-801-1800



Cutting a Fretwork Melody

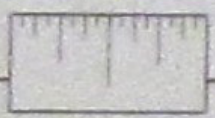
Page 79 - *SSWC Issue 44*

Designer: Gloria Chandler

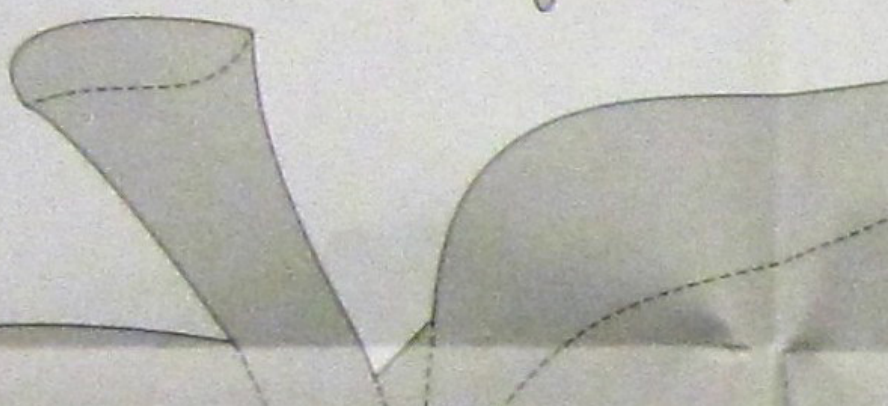


Notice about photocopying patterns

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.



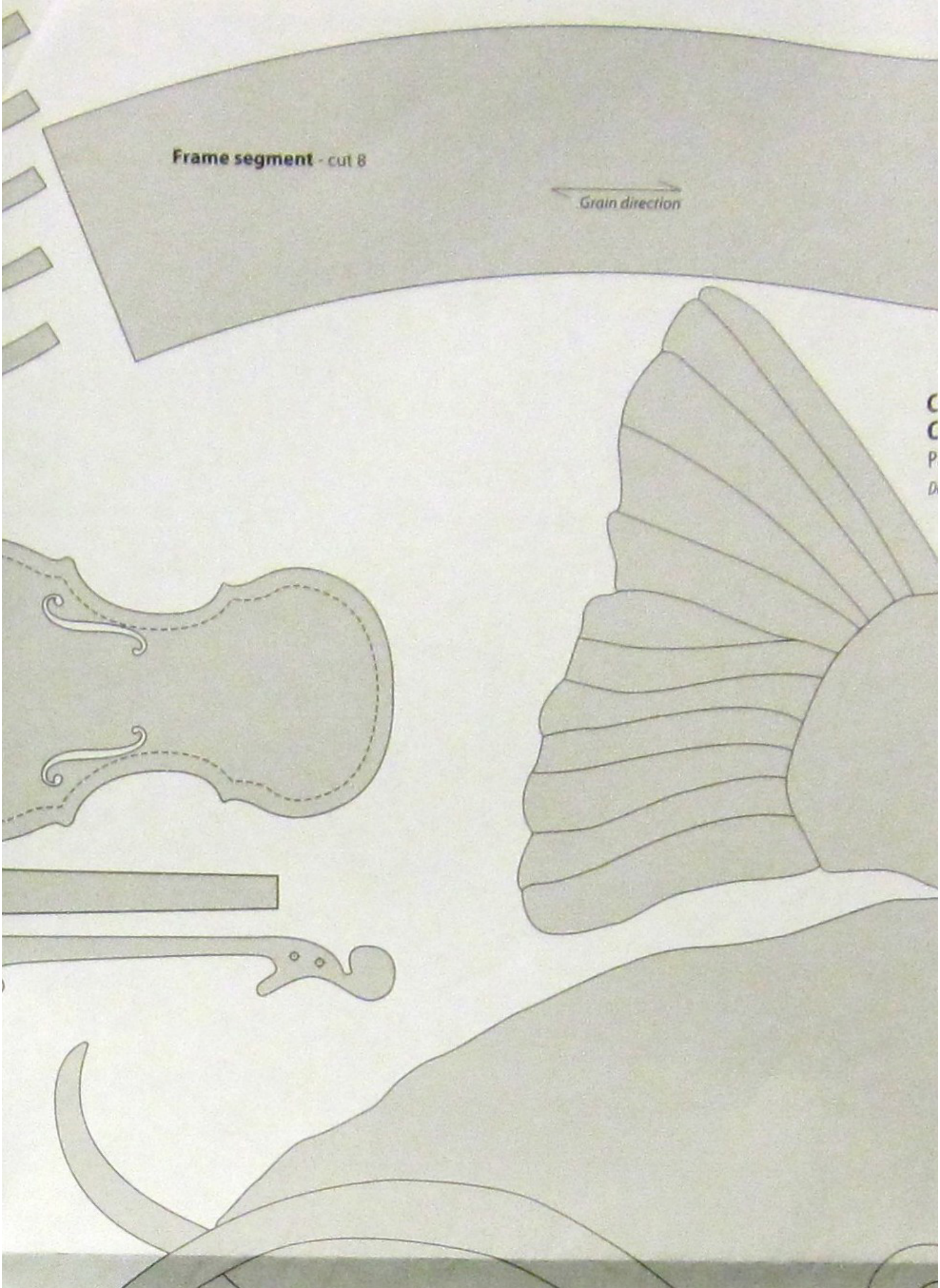
One inch



Creating an Elegant Violin Box

Page 56 - *SSWC Issue 44*

Designer: Steve Renard

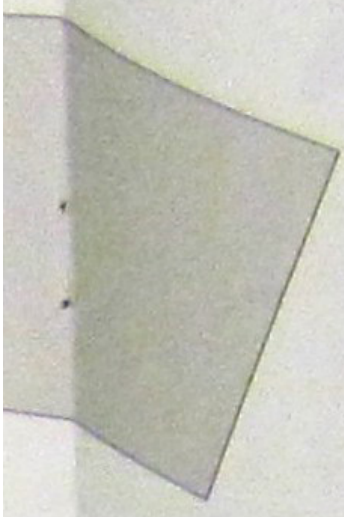

Frame segment - cut 8
Grain direction

SCROLLSAW woodworking & CRAFTS

Fall 2011 - Issue 44

1970 Broad Street
East Petersburg, PA 17520

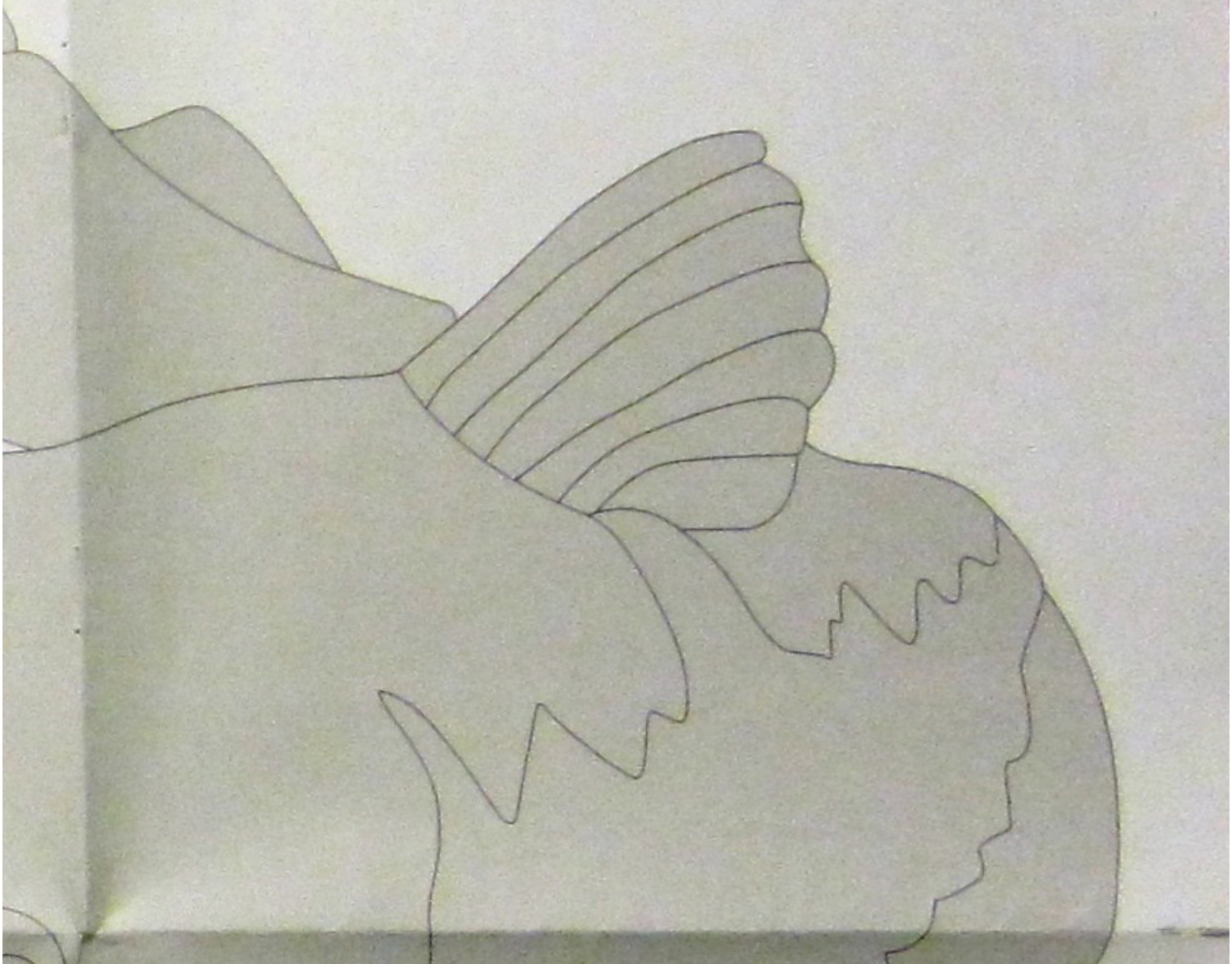
All patterns to be copied at 100% unless otherwise indicated.

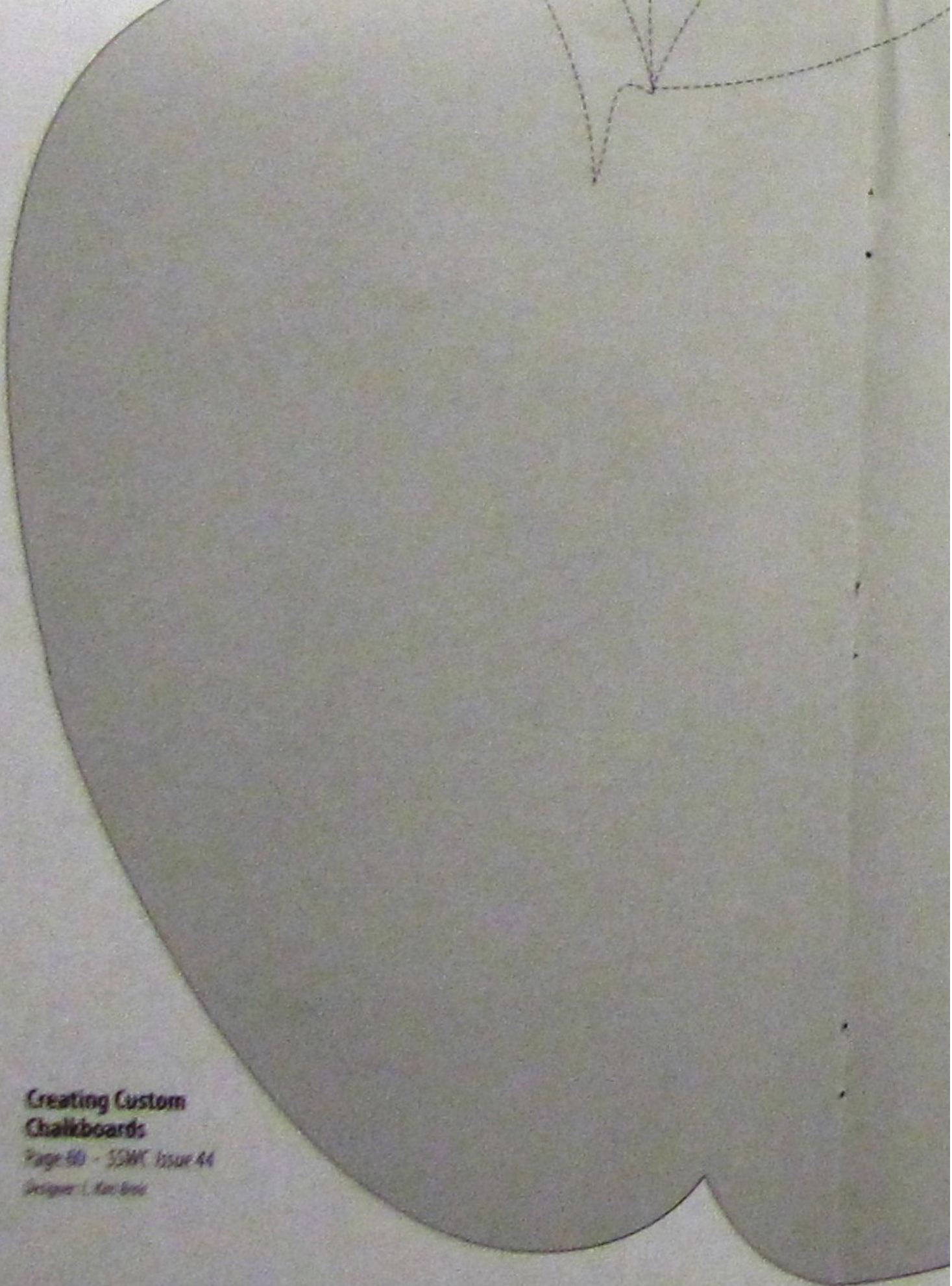


reating an Intarsia
atfish Scene

age 54 - SSWC Issue 44

esigner: Cindy Lution

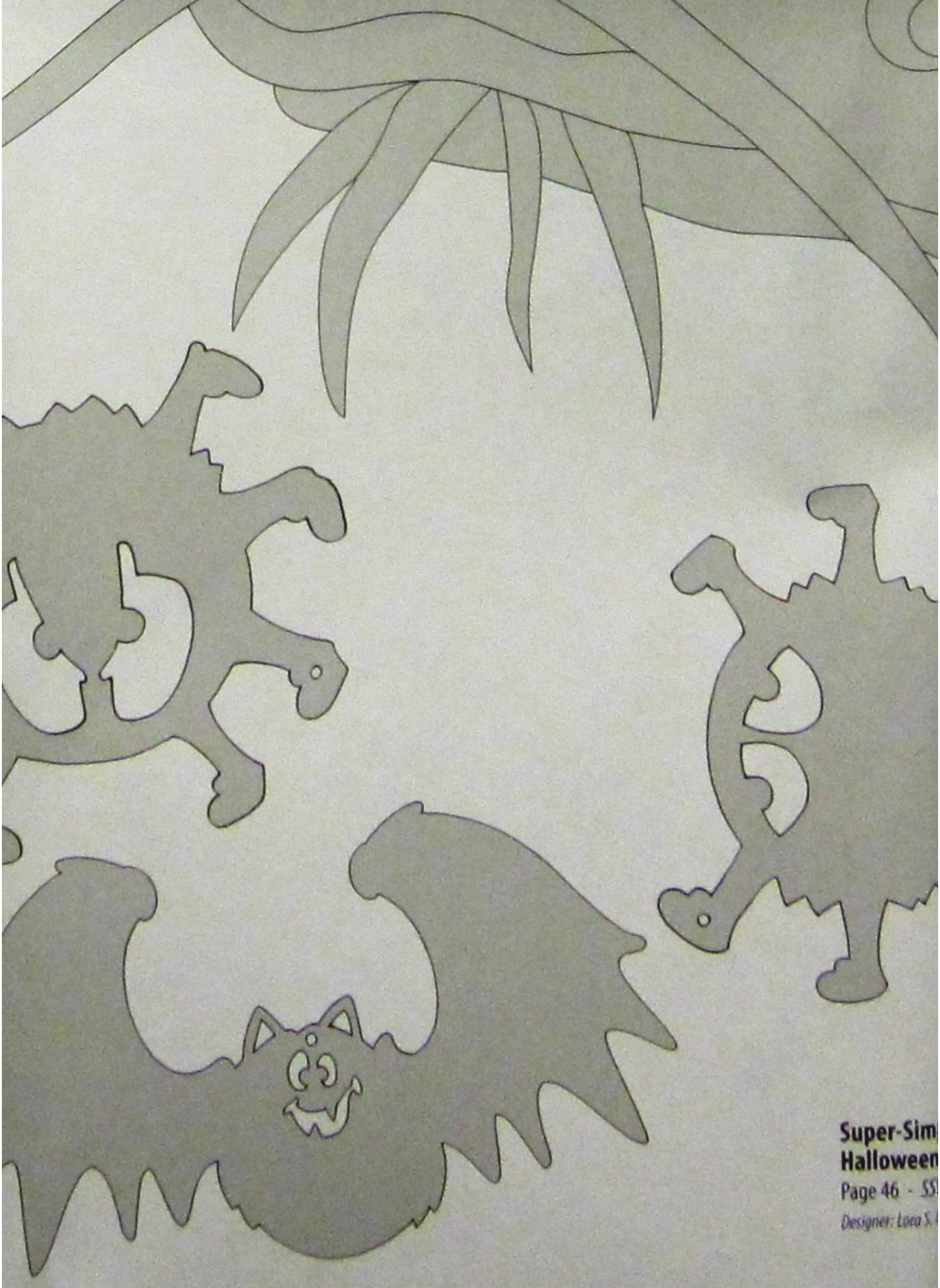




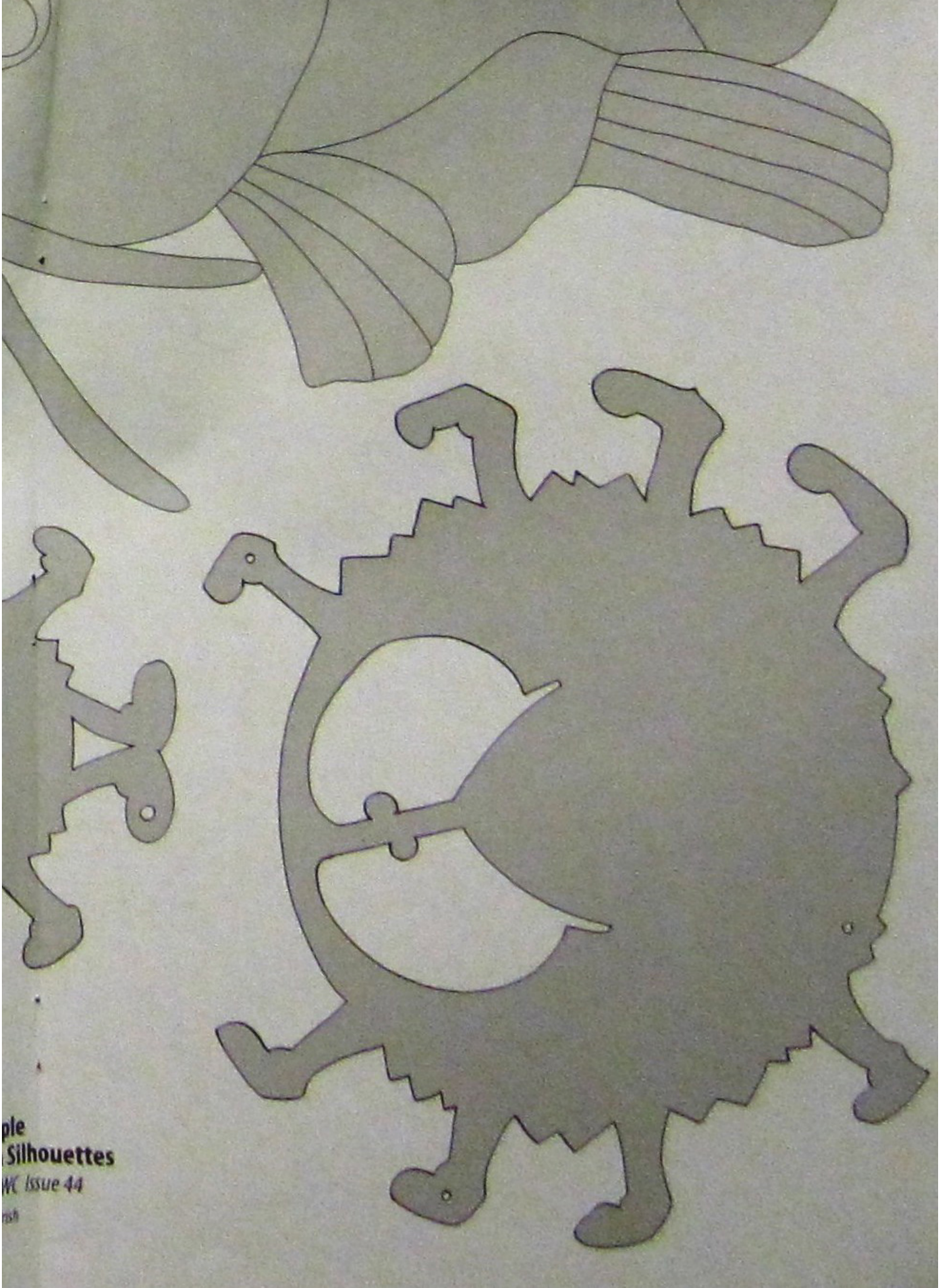
Creating Custom Chalkboards

Page 60 - SSWF Issue 44

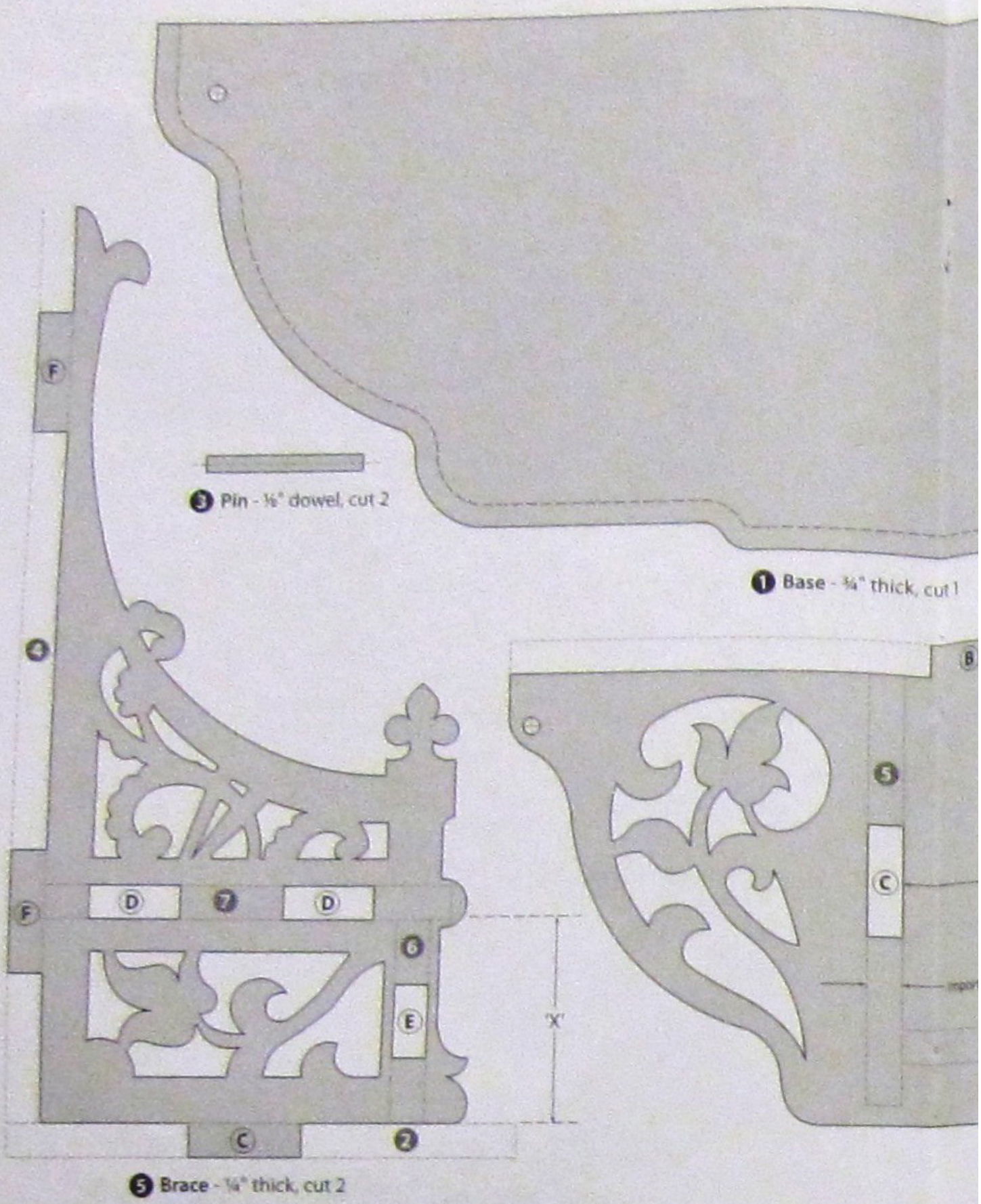
Designer: Kim Bolz

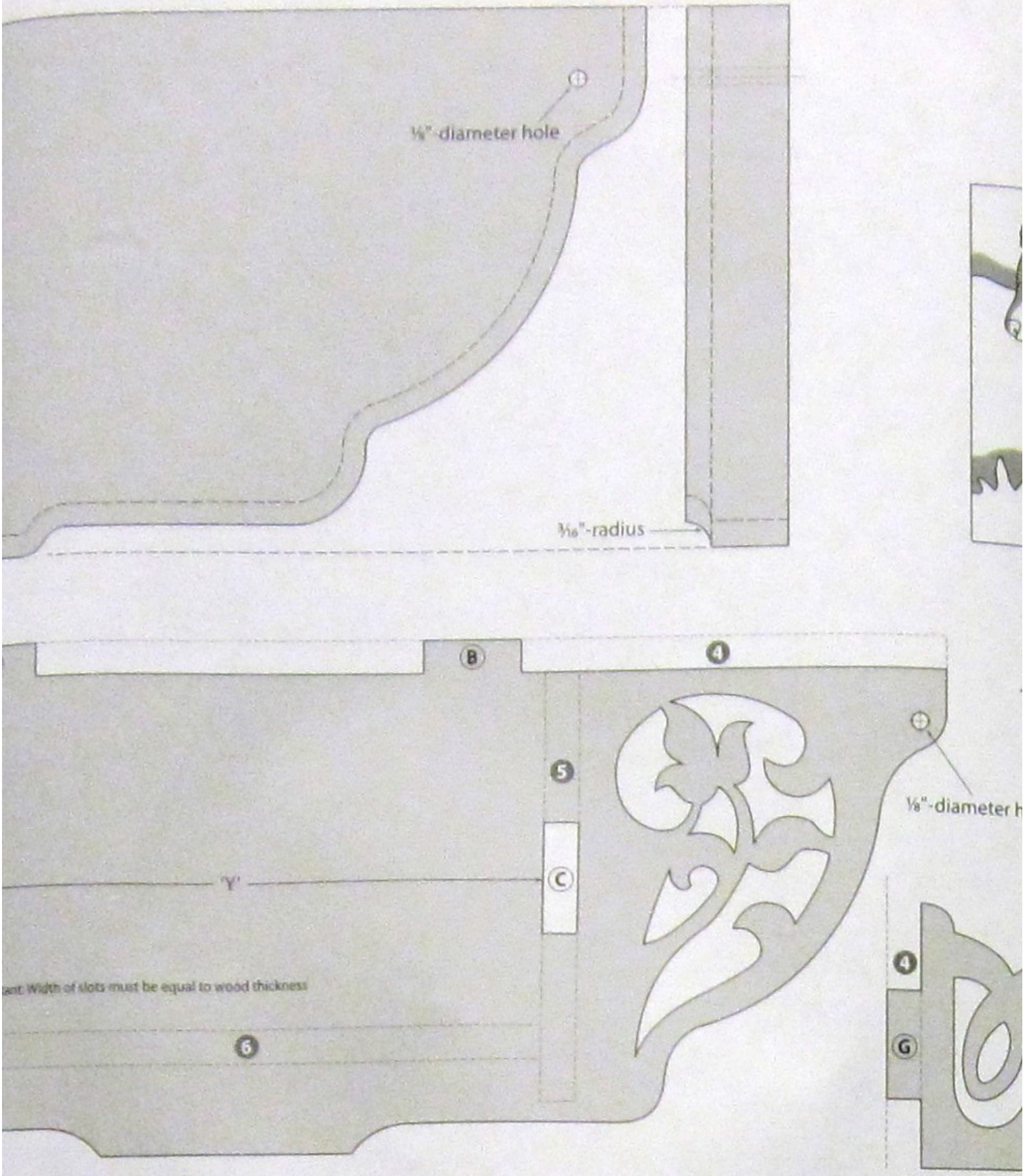


Super-Sim
Halloween
Page 46 - 55
Designer: Lora S.



ple
Silhouettes
WC Issue 44


F
3 Pin - ⅛" dowel, cut 2
1 Base - ¾" thick, cut 1
4
B
5
C
F
D
7
D
6
E
X
C
2
5 Brace - ¼" thick, cut 2



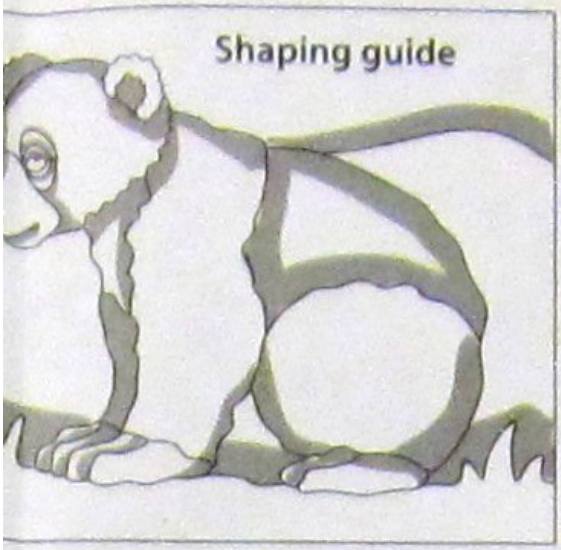
2 Base Trim - ¼" thick, cut 1

10 Spacer - ¼"

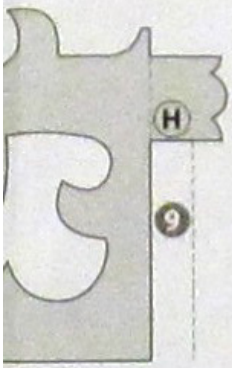
Making a Bear Cub Puzzle

Page 66 - *SSWC Issue 44*

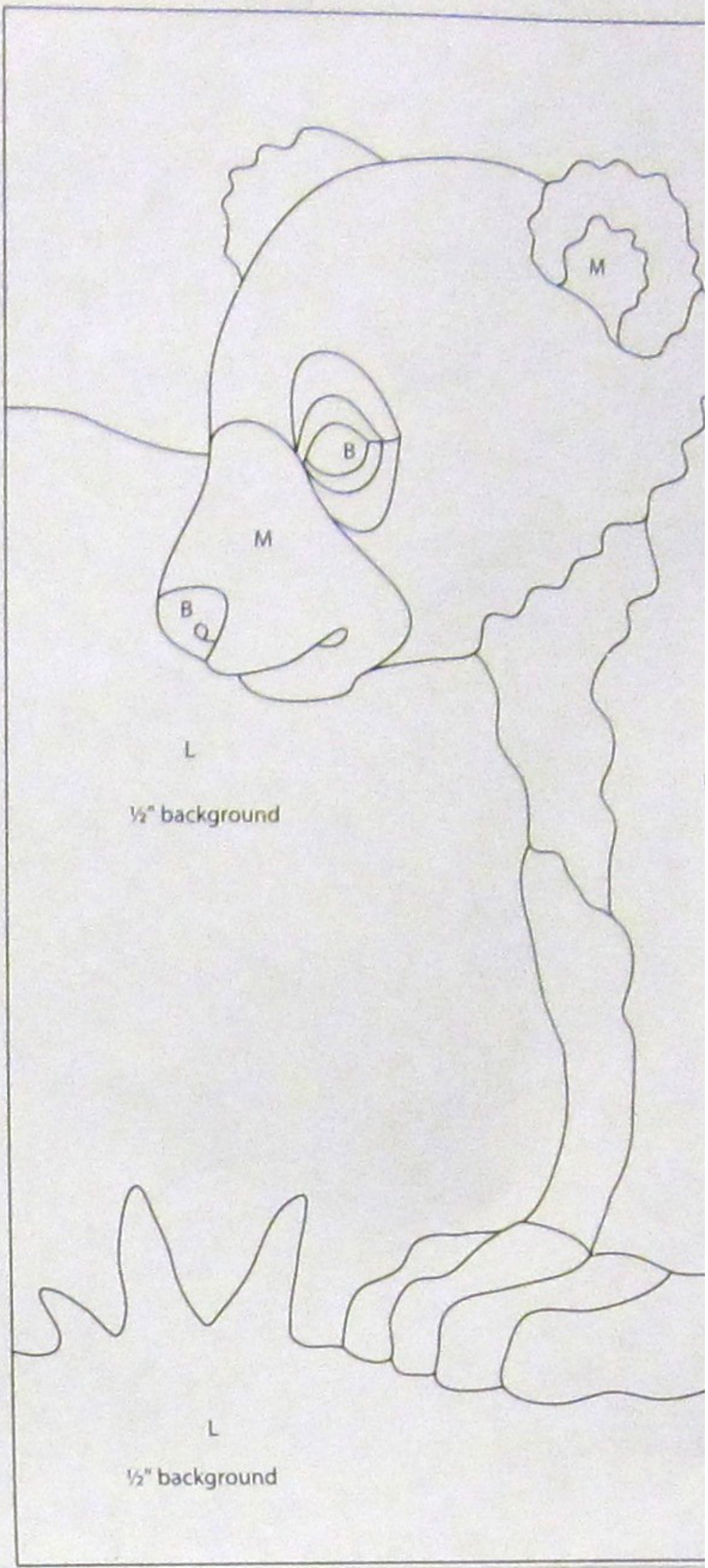
Designer: Kathy Wise

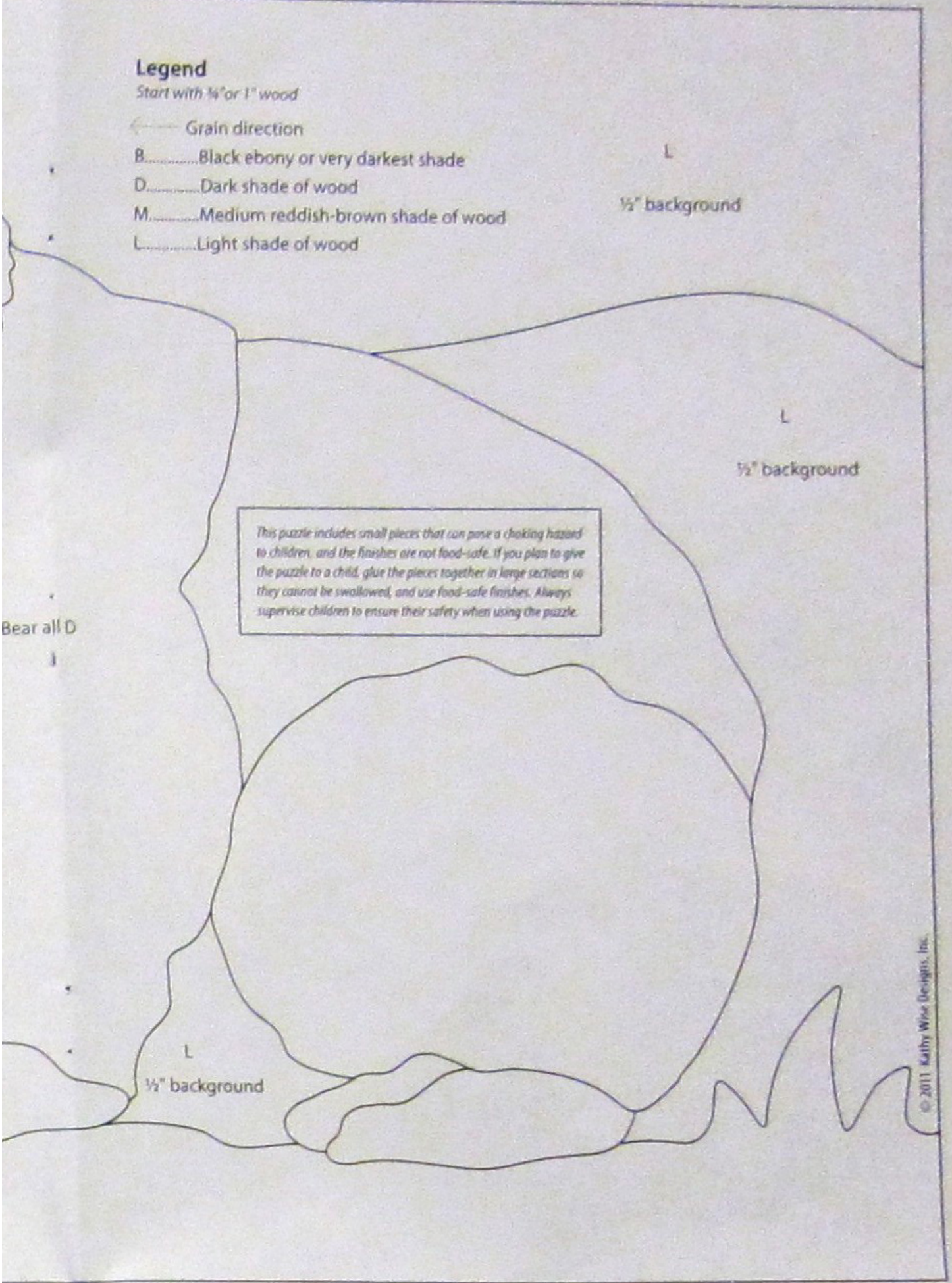


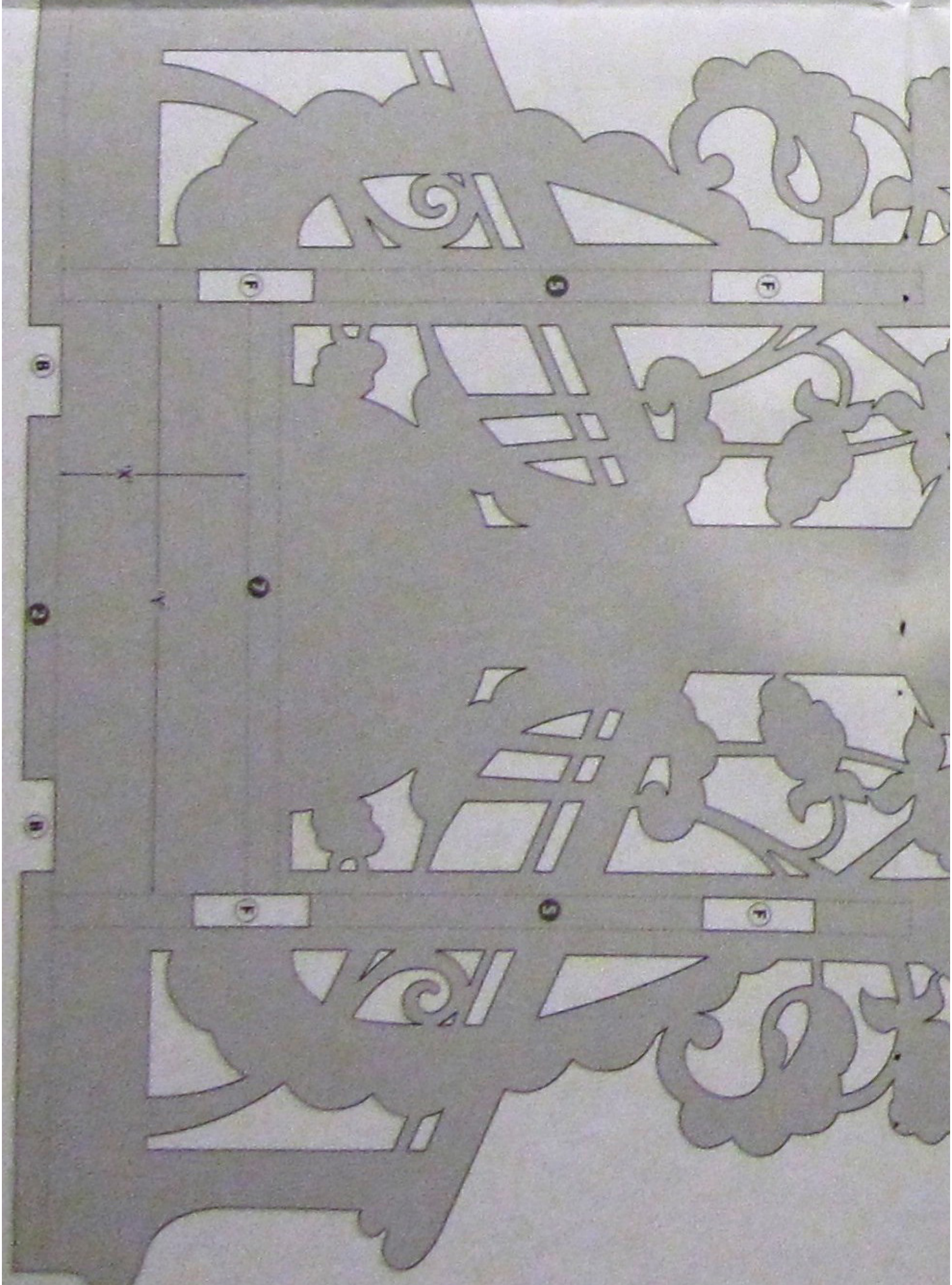
ıole



thick, cut 1



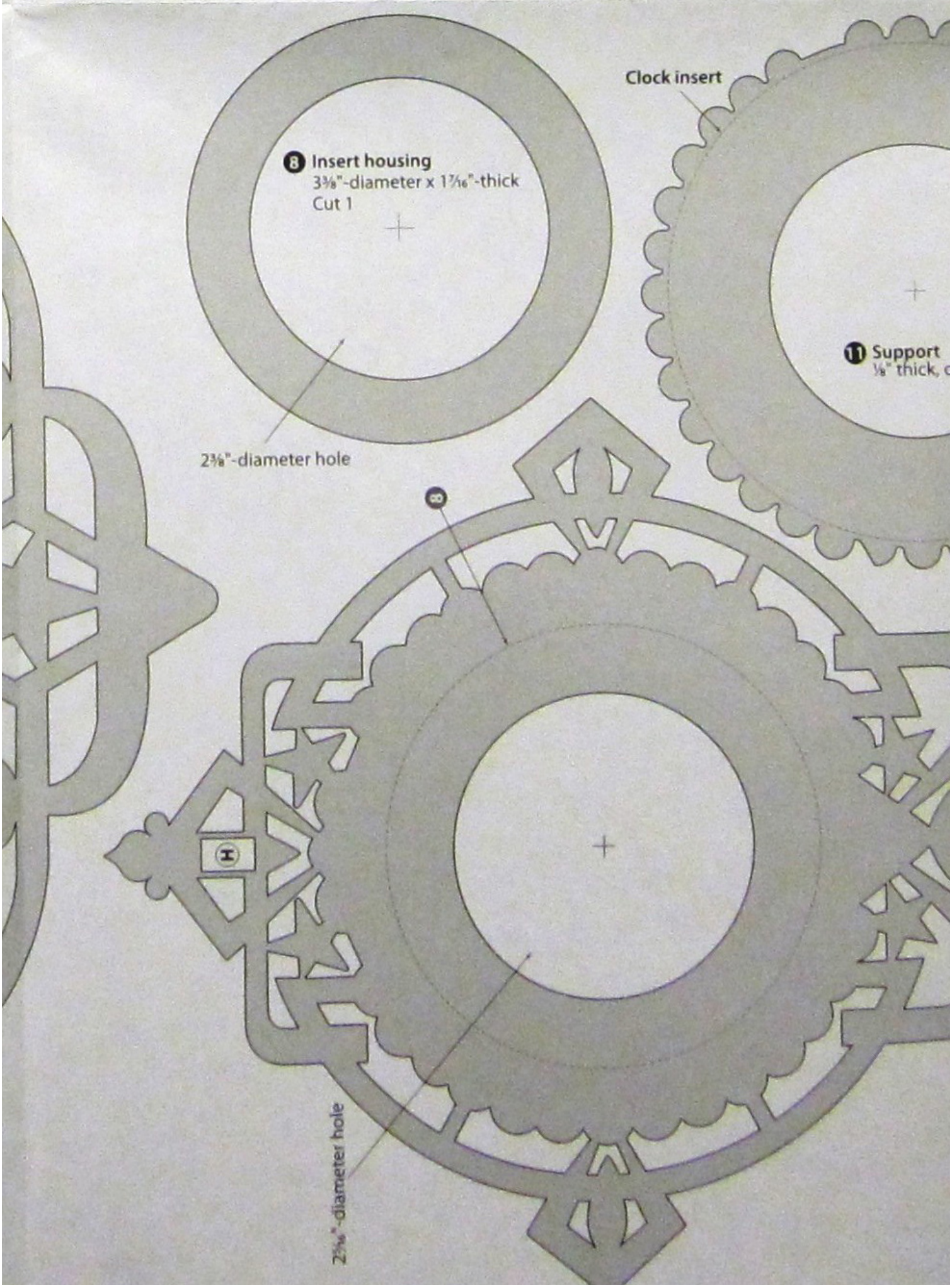

Legend
Start with ¼" or 1" wood
Grain direction
B.....Black ebony or very darkest shade
D.....Dark shade of wood
M.....Medium reddish-brown shade of wood
L.....Light shade of wood
L
½" background
L
½" background
This puzzle includes small pieces that can pose a choking hazard to children, and the finishes are not food-safe. If you plan to give the puzzle to a child, glue the pieces together in large sections so they cannot be swallowed, and use food-safe finishes. Always supervise children to ensure their safety when using the puzzle.
Bear all D
L
½" background
© 2011 Kathy Wise Designs, Inc.

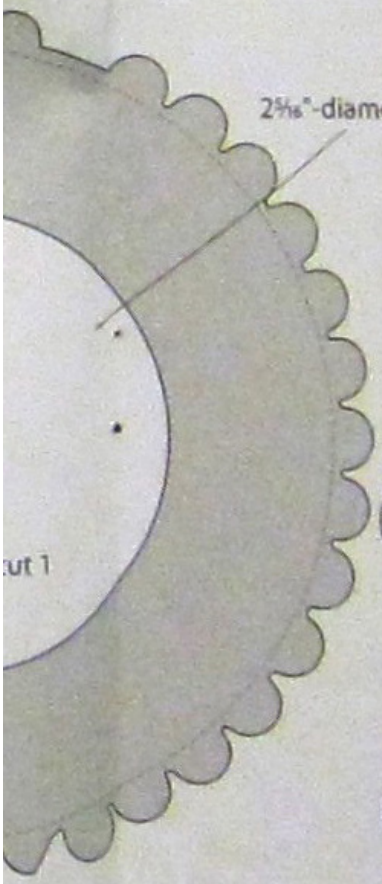


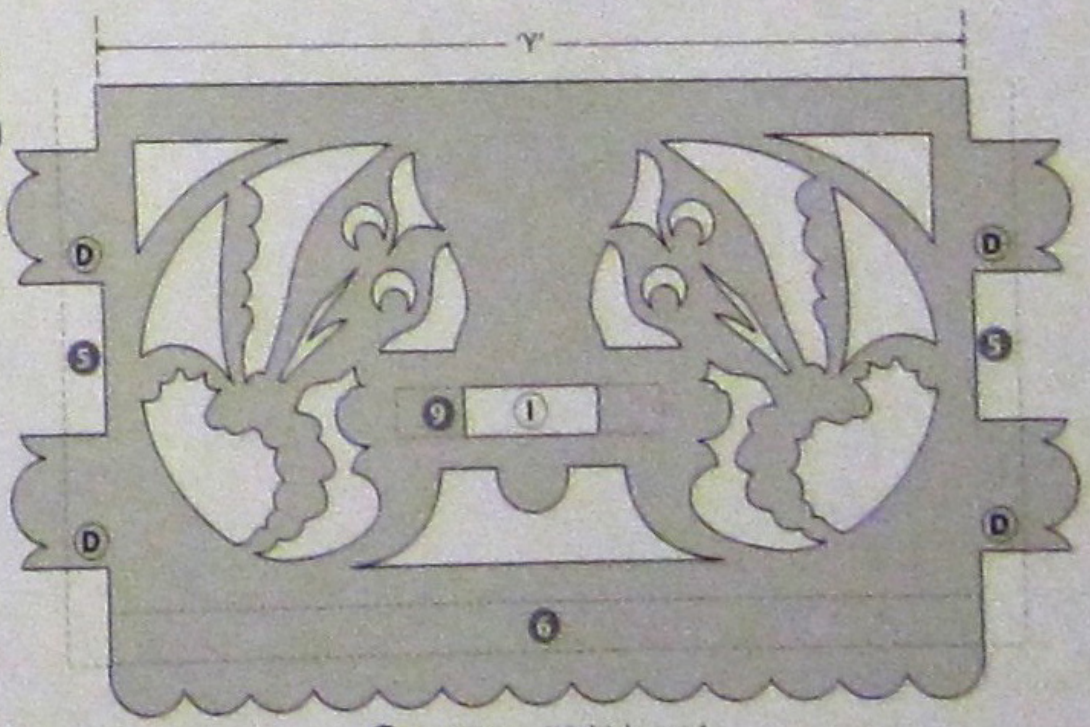
Italian Fretwork Shelf Clock

Page 44 - SSWC Issue 44

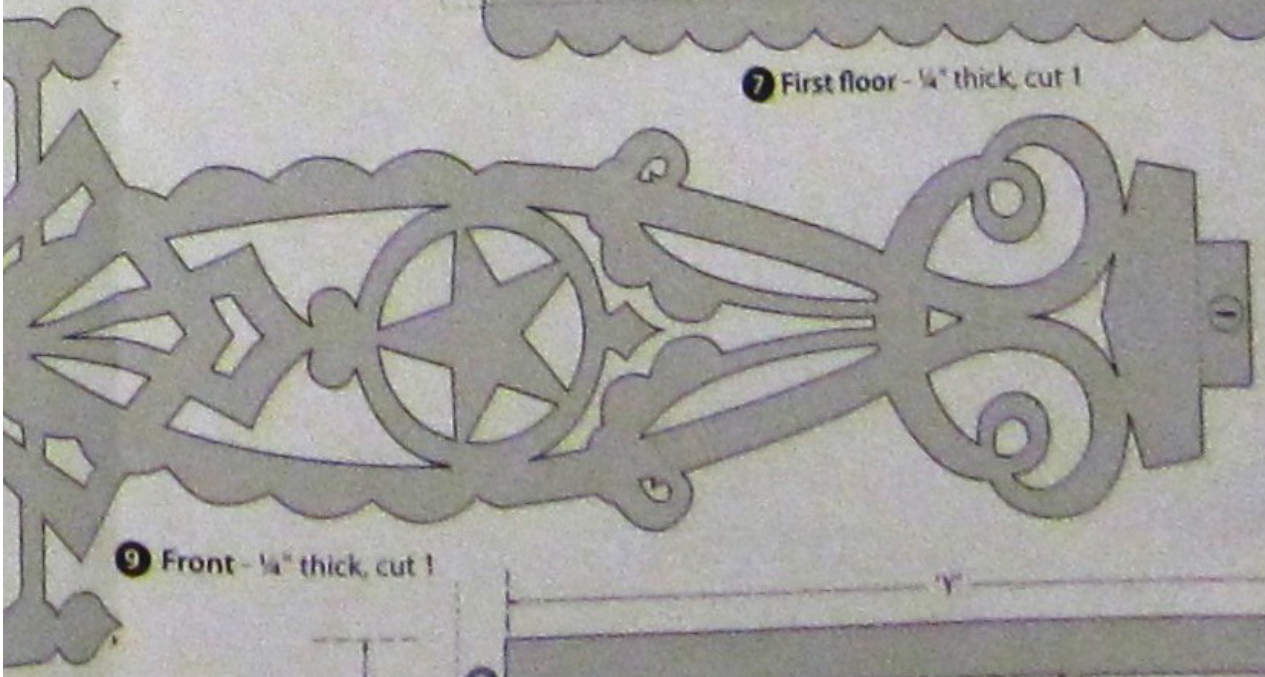
Designer: John A. Nelson


Clock insert
8 Insert housing
3⅜"-diameter x 1 7/16"-thick
Cut 1
11 Support
⅛" thick, c
2⅜"-diameter hole
8
I
2⅜"-diameter hole

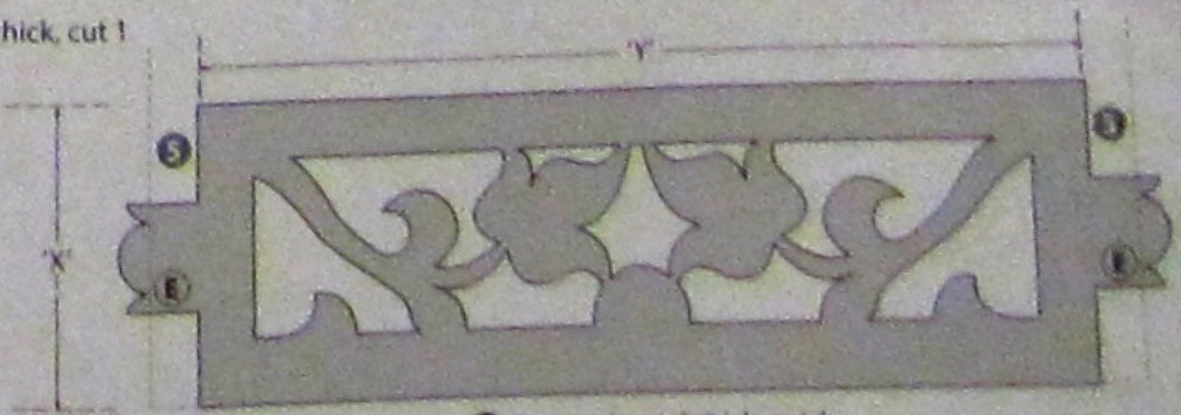




7 **First floor** - ¼" thick, cut 1



9 **Front** - ¼" thick, cut 1



6 **Front trim** - ¼" thick, cut 1

Scroll Saw Woodworking & Crafts
Fall 2011 · Issue 44
1970 Broad Street
East Petersburg, PA 17520

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

Frame segment - cut 8

Grain direction

Cutting a Fretwork Melody
Page 79 · *SSWC Issue 44*
Designer: Gloria Chandler

Creating an Intarsia Catfish Scene
Page 54 · *SSWC Issue 44*
Designer: Chris Salter

Creating an Elegant Violin Box
Page 56 · *SSWC Issue 44*
Designer: Steve Shanesy

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" line printed below as a guide when copying the patterns and hold the printed copies of the pattern up to the original to check for any distortion.

One inch

Creating Custom Chalkboards
Page 60 · *SSWC Issue 44*
Designer: Kim Anno

Super-Simple Halloween Silhouettes
Page 66 · *SSWC Issue 44*
Designer: Lora S. Irish

Making a Bear Cub Puzzle
Page 66 – *SSWC Issue 44*
Designer: Kathy Wise