

Wooden Boxes, Puzzles, Toys & More!

ARTISTIC
TROUT



SCROLLSAW

SUMMER 2015
ISSUE 59

Woodworking & CRAFTS

Workshop Projects

Making your DIY
projects easy
this summer



Wind Chimes

Golfer's Display

Inside Shop Tests:

■ **Dust Collector**

■ **Shop Air
Conditioner**

FOX CHAPEL
PUBLICATION

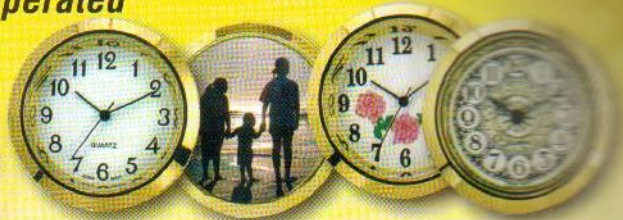
DISPLAY UNTIL JULY 27, 2015

\$7.99



0 71658 01671 2

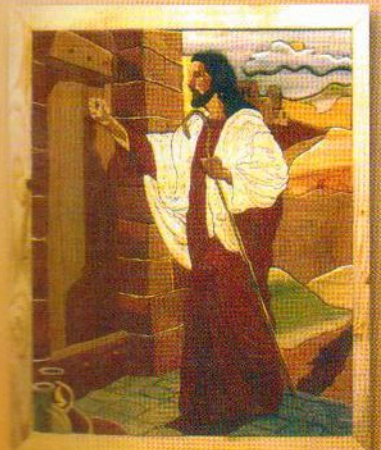
Family Owned and Operated



THE WOODEN TEDDY BEAR COLLECTION

In Business Since 1995

Free Catalog
1-888-762-9149



Peel & Stick Paper



**Patterns, Plans,
& Supplies for
the Woodworker.**

- Thousands of Patterns
- New and Discounted
Patterns on the Web Site
- Half-Price Section (web site)
- Olson Scroll Saw Blades
(as low as \$23.88 per gross)
- Flying Dutchman
Scroll Saw Blades
(as low as \$27.96 per gross)
- Olson Band Saw Blades
- Forstner Bits
- Woodburning Tools
- Clock Fit-Ups
- Acrylic
- Small Wood Parts
- Scroll Saw Tape



Scroll
Saw Tape



THE WOODEN TEDDY BEAR, INC.

P.O. Box 33917

Portland, OR 97292-3917

www.woodenteddybear.com





Invites you to consider **EXCALIBUR**

TILTING HEAD SCROLL SAWS by GENERAL INTERNATIONAL
For "Absolute scroll sawing pleasure"

EX-16



EX-21



EX-30



Excalibur's purchased from SEYCO come with.....

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

- Finger Operated Blade Clamps • Easy Access Controls • 2" Thickness Capacity • 16" - 21" - 30" Throat Depths
- 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") • Blade Storage
- Smooth Operating Rack & Pinion Head Tilt • Excaliburs brilliantly engineered "Parallel Link" Drive design

• **Seyco's Satisfaction Guarantee** • General's Product Warranty

CALL SEYCO AT 1-800-462-3353 For Current Specials or visit our website at: <http://www.seyco.com>



Head tilts
work table
stays flat!

SEYCO

1-800-462-3353

www.seyco.com

Top arm
lifts!
Stand
height
adjusts!



SEYCO'S "FLEX DRUM" SANDER

#GWSC-01 DUAL DRUM SANDER KIT.

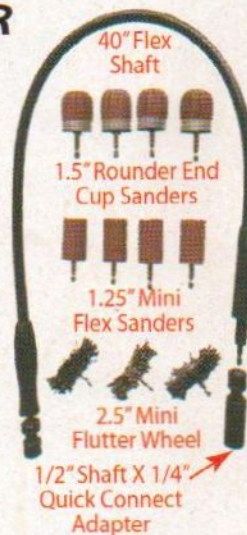
Comes completely pre-wired including the worklamp. Base has rubber pad feet and holes for mounting to your workbench or stand. Use the accessories at right on the right side of the motor with use of the flex shaft option to enhance your sanding and make you sanding tasks so much easier. Order the complete Accessory kit at right or you can order individual items that make up the kit on our website - www.seyco.com. The Cup Sanders and Mini Flex Sanders are 80; 120; 180 & 220 grit and the Mini Flutter Wheels are 120; 180 & 220 grit.

#GWSC-01.....(Dual Flex Drum Sander - No Stand)..... 194.95
#GWSC-ST.....(Stand without Dust Hood)..... 89.95
#GWSC-DH.....(Dust Collector Hood)..... 89.95
#GWSC-AC.....(Complete Accessory Kit at Right).... 179.95
#SFW-06.....(Finger Wheel Finish Sander)..... 64.95

PLUS SHIPPING



Finger Wheel
Finish Sander



40" Flex
Shaft

1.5" Rounder End
Cup Sanders

1.25" Mini
Flex Sanders

2.5" Mini
Flutter Wheel

1/2" Shaft X 1/4"
Quick Connect
Adapter



See Thru Sander Disc

Kit with 3 disc's Coarse - Medium - Fine grits & 1 arbor (1/4"d). Extra disc's are available & extra arbors on our website at [seyco.com](http://www.seyco.com)

STD-06.....27.95 + S/H

SEYCO SCROLLERS DRILL

Complete with 20 bits and heavy duty power supply. Drill straight 90 degree holes with all ease. Built in overload protection and 1 year replacement warranty.

SSD-01.....129.00

Plus Shipping

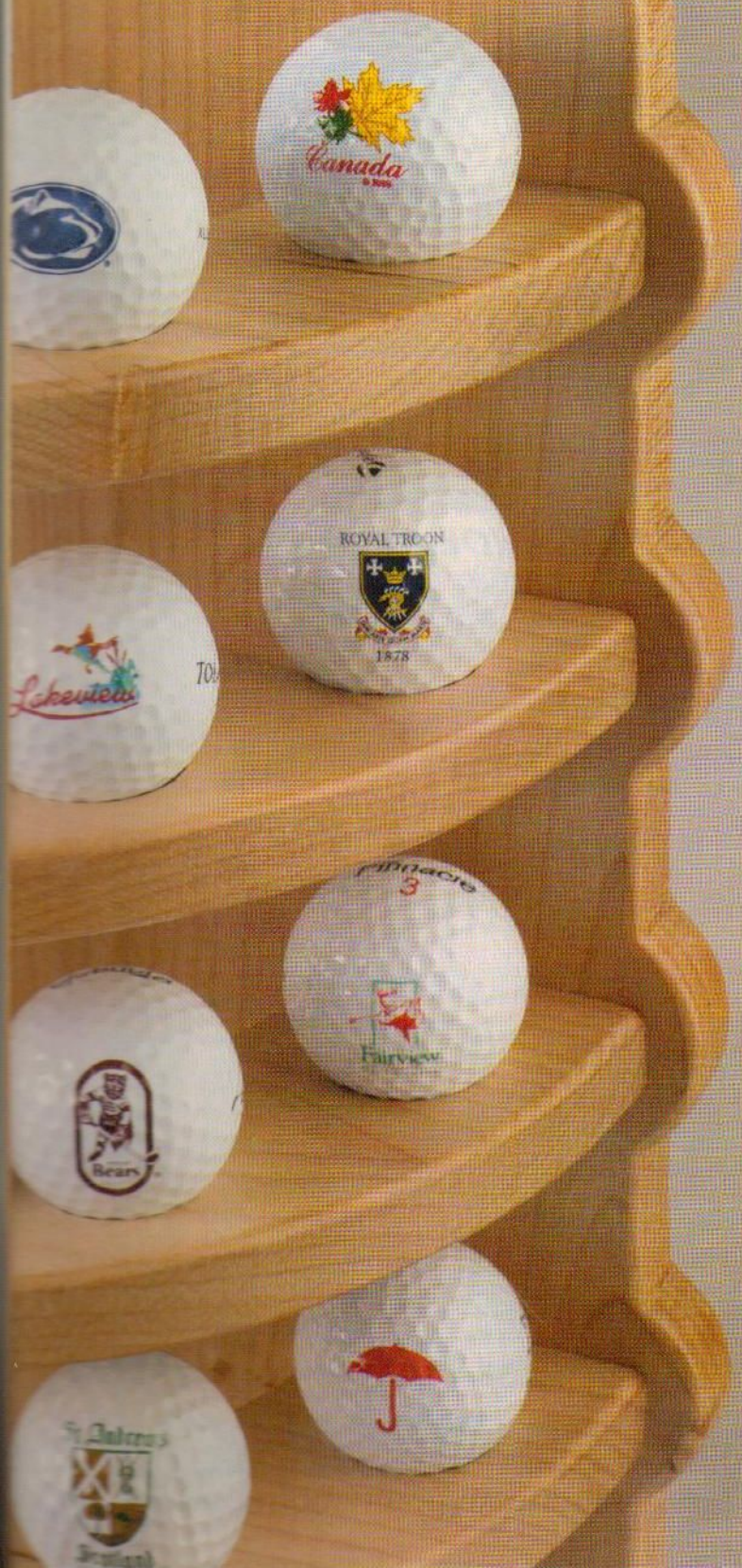


CALL SEYCO AT 1-800-462-3353 For More Information or visit our website at: <http://www.seyco.com>

SCROLLSAW woodworking & CRAFTS

58

Build a handsome display for the golf enthusiast in your life.



IN THIS ISSUE

FEATURES



24 Wonderful Wooden Wedding Gifts

By Kathleen Ryan

Wow the bride and groom with these simple, thoughtful gifts

TECHNIQUES



28 3-D Koi Intarsia

By Homer and Carol Bishop

Dive into 3-D intarsia with a river-bottom scene



47 Funky Fruit Bowl

By John Hutchinson

Make a colorful bowl using dowels, wooden balls, and shop-made jigs

DEPARTMENTS

- | | |
|-------------------------|----------------------|
| 4 Editor's Note | 69 Product Review |
| 6 Letters to the Editor | 70 Scroll Saw Basics |
| 8 Reader Gallery | 71 In Our Next Issue |
| 10 Info Exchange | 71 Ad Directory |
| 12 News and Notes | 72 Sawdust |

PROJECTS



16 Gone Fishing

By Judy Gale Roberts

You'll always have a trophy fish thanks to this intarsia sign



26 Wooden Salad Servers

By Charles Mak

Use compound-cutting techniques to create curved utensils



36 Flower Jewelry Box

By Gary MacKay

Customize the compartments to make a jewelry box that's as useful as it is lovely



44 Swim-Along Fish Pull Toy

By Paul Meisel

Pull this landlocked fish to watch him "swim"



52 Intarsia Wedding Couple

By Kathy Wise

Commemorate the big day with a customizable intarsia keepsake



58 Golf Ball Display Rack

By Wayne Sampson

Show off your collection with an easy-to-build display rack



60 Tiered Cake Box

By Carole Rothman

Celebrate a special occasion with a gorgeous wooden cake Plus! Learn to decorate with MUD

PATTERNS



22 Better with Age Plaque

By Keith Fenton

Celebrate the finer things in life with a fretwork plaque



34 Sailboat Wall Clock

By John Nelson

Count down the hours until summer with a nautical clock



41 Welcome Wind Chime

By Sue Mey

Listen to the music of the summer breeze with an all-wood wind chime



56 Playful Dolphin Pod Puzzle

By Judy and Dave Peterson

Ride the waves with these fun-loving dolphins



WWW.WOOD-SHOW.COM

• Open House E-news

Get the latest info delivered to your inbox by signing up for our show-related e-mail newsletter.

• Teachers and Classes

Read class descriptions and teacher bios. Check the class schedule to plan your weekend.

• Tickets

Tickets are on sale now! Order them online or call our customer service reps (1-800-457-9112).

• Travel Info

Find hotels and campsites, or link to local tourism websites for info on restaurants, shopping, etc.

 Look for Scroll Saw Woodworking & Crafts on Facebook
 Follow us on Twitter, twitter.com/scrollsawer

Seeing the Possibilities



I have been known to get carried away, which perhaps explains the number of fish-related projects in this issue. There are two kinds of intarsia fish, a fish pull toy, and a fish puzzle. (OK, dolphins aren't fish, but you know what I mean.)

Even within the theme of what's-up-with-all-the-fish, however, you will find a variety of techniques and challenges. Homer and Carol Bishop's 3-D koi is a show-stopper that looks more like a sculpture than a scrolled artwork. Judy Gale Roberts' trout intarsia is more traditional, but by carefully choosing the wood and adding woodburned details, Judy transformed it into a lifelike trophy. Paul Meisel's pull toy and Judy Peterson's dolphin puzzle are simpler projects, but still fun. A drilling trick makes the pull toy appear to swim, while an equally easy finishing tip creates the contrast on the puzzle.

I tried to maintain that balance of complexity and simplicity throughout the issue. Quick projects like Charles Mak's salad servers are offset by more detailed endeavors, like Carole Rothman's cake box. And even within the projects, you can customize both the level of intricacy and the design itself. Decorate the cake box with paint, bows, and/or a new product called MUD that can be piped like frosting. Swap the leaf for a monogram on the salad servers. Add more tiers to Wayne Sampson's golf ball display rack. Remove the clock from John Nelson's sailboat design. Change the hair and skin tones on Kathy Wise's intarsia wedding couple. In fact, sketch all-new hair and adjust the dress design if you like.

The point is that what you see isn't necessarily what you get. You can make the projects as presented, customize them a little, or use them as a jumping-off point for ideas of your own. Don't need a golf ball rack? Tweak the pattern to display figurines, shot glasses, or some other collectible. Enlarge the jewelry box and use it for desk accessories. Turn the pull toy into a slithery snake or flying dragon.

I always want our issues to contain at least one project you want to make, but I also hope you see the possibilities in the projects that don't interest you as much. Granted, nothing is going to turn an intarsia pattern into a fretwork, but it's surprisingly easy to turn the "welcome" on a wind chime into a family name or to make a plaque into a box lid.

I'd love to see photos of the projects you make from this issue, whether they look like the authors' or are inspired by their ideas. And, as always, if there are specific projects you would like to see us publish, please send a note to me. I welcome your feedback.

Mindy Kinsey
kinsey@FoxChapelPublishing.com

SCROLLSAW woodworking & CRAFTS

Printed in the USA

SUMMER 2015

Volume 16, Number 2, Issue 59

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.

Publisher	Alan Giagnocavo
Editor	Mindy Kinsey
Technical Editor	Bob Duncan
Editorial Assistant	Carly D. Glasmyre
Director of Operations	Lisa Andes
Art Director	Jon Deck
Studio Photographer	Scott Kriner
Technical Illustrators	Jon Deck
.....	Carolyn Mosher

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

Printed by Fry Communications

©2015 by Fox Chapel Publishing Co. Inc.

All Rights Reserved. Printed in USA

Subscription rates in US dollars:

One year	\$24.95
Two years	\$49.90

Canada

One year	\$29.95
Two years	\$59.90

International

One year	\$34.95
Two years	\$69.90

Display Advertising/Classified Ads

For rates and/or a media kit, please

call Michele Sensenig at 717-286-0090 or 800-457-9112 x104,
or e-mail sensenig@FoxChapelPublishing.com

Wholesale/Distribution

Scroll Saw Woodworking & Crafts is available to retailers for resale on advantageous terms. Contact Wendy Calta (ext. 114) for details.

Identification Statement: *Scroll Saw Woodworking & Crafts*, vol.16, no. 2 (Summer 2015) (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

Shannon@FoxChapelPublishing.com

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

Sloan's Woodshop 1-888-615-9663

www.SloansWoodshop.com

OLSON®

5" Pin Less Scroll Saw Blades

Regular Skip Tooth Blades

3/0, 2/0, 0, 2, 4, 5, 7, 9, 11
\$ 2.30 a Doz - \$23.00 a Gross

Double Skip Tooth Blades

3/0, 2/0, 1, 3, 5, 7, 9, 12
\$2.30 a Doz - \$23.00 a Gross

Reverse Skip Tooth Blades

#2/0, 2, 5, 7, 9, 12, 420
\$2.50 a Doz - \$25.00 a Gross

Spiral Tooth Blades

2/0, 0, 2, 4, 6
\$2.50 a Doz - \$25.00 a Gross

Flat End Spiral

2, 4
\$3.30 a Doz - \$33.00 a Gross

Crown Tooth Blades

2/0, 2, 3, 5, 7, 9, 12
\$3.00 a Doz - \$30.00 a Gross

Precision Ground Tooth

5, 7, 9,
\$4.50 a Doz - \$45.00 a Gross

PGT Double Tooth

5, 7, 9,
\$4.50 a Doz - \$ 45.00 a Gross

Mach Speed Reverse Tooth

3, 5, 7, 9
\$3.50 a Doz - \$35.00 a Gross

Thick Wood Blades

408-TW
\$ 3.60 a Doz - \$36.00 a Gross

Metal Cutting Blades

1, 5, 7, 9, 12
\$3.60 a Doz - \$36.00 a Gross

One Gross = 12 Dozen Blades

You Can Mix or Match - The Same Type of Blades - For Gross Pricing

All the blades above are 5" Pin-Less OLSON® Blades We Also Stock

3" pin-end blades - 2 sizes
5" pin-end blades - 8 sizes
6" pin-less blades - 4 sizes
5" pin-less Jewelers Blades

Baltic Birch Plywood

The Best Grade Available - B/BB

12"x12" - Good One Side

#101 - 1/8" Baltic Birch - \$1.55
#102 - 1/4" Baltic Birch - \$2.35
#103 - 3/8" Baltic Birch - \$3.25
#104 - 1/2" Baltic Birch - \$3.40
#105 - 5/8" Baltic Birch - \$4.45

12"x24" - Good One Side

#107 - 1/8" Baltic Birch - \$3.10
#108 - 1/4" Baltic Birch - \$4.70
#109 - 3/8" Baltic Birch - \$6.50
#110 - 1/2" Baltic Birch - \$6.80
#111 - 5/8" Baltic Birch - \$8.90

Hardwood Plywood

12"x12" - Good One Side

#200 - 1/4" Red Oak - \$2.25
#450 - 1/4" Maple - \$2.25
#250 - 1/4" Cherry - \$3.00
#275 - 1/4" Mahogany - \$3.00
#350 - 1/4" Walnut - \$4.00

12"x24" - Good One Side

#201 - 1/4" Red Oak - \$4.50
#451 - 1/4" Maple - \$4.50
#251 - 1/4" Cherry - \$6.00
#276 - 1/4" Mahogany - \$6.00
#351 - 1/4" Walnut - \$8.00



Blade Storage Tubes

Clear Plastic 3/4"x 6" Hangtab Tops

TUBE \$5.95 Per Dozen



Olson®

Scroll Saw Files

They easily shape and sand contours eliminating hand sanding. Files have a tempered spring steel core coated with silicon carbide abrasive. Comes in both Pin-less and Pin-end styles

Each Package Contains Two Files

Width - .156" Thickness - .056" Fine Finish

Made In The USA

#42100 Pin-Less
#42101 Pin-End

\$5.95 Per Pack



1-7/16" Clock Inserts

Glass Lens, Stainless Back No Rubber Gaskets

#CK100 - White Arabic

#CK103 - Ivory Arabic

#CK102 - Gold Arabic

Mix or Match Pricing

1 to 9 - \$5.95 each

10 + - \$5.65 each

30 + - \$5.25 each

More Clock Sizes & Styles In Stock - 2", 2 3/4", 3 1/2"

1-3/8" Forstner Bit

To Drill Mounting Hole For 1-7/16" Clock & Photo Stock # D1010 - \$ 9.95



1-7/16" Photo Insert

Glass Lens, Stainless Back # PHOTO-1

1 to 9 - \$2.60 each

10 + - \$2.45 each

30 + - \$2.15 each



WeldBond Adhesive

Dries crystal clear and won't leave a yellow glue line in the joint. Sets up in 20 minutes, achieves strong bond in 1 hour and cures in 24 hours. It's Non Toxic, Weatherproof, and Paintable, No Clamping required. We have used it in our shop for over 20 years. Give it a try we think you will really like it.

4oz Bottle - # WB4 - \$4.95

8oz Bottle - # WB8 - \$6.75

21oz Bottle - # WB21 - \$11.95



16-pc Drum Sanding Kit

Includes - 1/2" - 3/4" - 1" & 1-1/2" by 2" long rubber drums, 1/4" spindles & 3 medium grit sleeves each

D3292

\$ 13.95

Do you Love Scrolling

But Hate Scraping The Paper Pattern Off

Try Our - Removable Adhesive Paper

Copy your pattern to this paper. Then peel off the paper backing. Stick the paper on your wood or other material. Cut out the pattern. Then Simply Peel This Paper Off No Spray Glue, No Scraping, No Paint Thinner, No Mess, No Problems - Works in Copiers & Laser or Inkjet Printers. Each Sheet Measure 8 1/2" x 11"

#AP10 - 10 Sheets - \$3.95 #AP100 - 100 Sheets - \$30.00

#AP25 - 25 Sheets - \$9.50 #AP250 - 250 Sheets - \$65.00

Order Toll Free

888-615-9663

Sloan's Woodshop

3453 Callis Road
Lebanon, TN
37090

SHIPPING & HANDLING CHARGES

Applies only to the 48 contiguous states

\$00.00 - \$40.00 add \$ 6.50

\$40.01 - \$60.00 add \$ 8.00

\$60.01 - \$80.00 add \$10.00

\$80.01 - and over add 15%

TN residents add 9.25% Sales Tax

All Prices Subject To Change Without Notice

www.SloansWoodshop.com

Call us & you'll Talk to more than just an Order taker - We All Own & Use Scroll Saws

Locking Heart Box

I would like to make the locking heart box from *Scroll Saw Woodworking & Crafts* Spring 2014 (Issue 54). I was trying to follow the directions for using just a scroll saw, but the different thicknesses don't make sense to me. Is there an update for this project?

John Shankel
Tampa, Fla.

Technical editor Bob Duncan responds:

There is a mistake in the drawing on page 58. Layer D1D2 should be $\frac{3}{16}$ " (14mm) thick, not $\frac{1}{4}$ " (6mm) thick (around $\frac{1}{8}$ ", or 3mm, is used up in the saw kerfs when resawing the blank four times). E2, while not shown in the assembly drawing on page 59, is glued to the bottom of D2 to make up for the thickness of the E (the bottom of the drawer) if you are not using a band saw to cut the pieces. (E1 is the bottom of the drawer that glues to D1.)

See above for a revised pattern for the missing football-shaped element. We apologize for the errors.

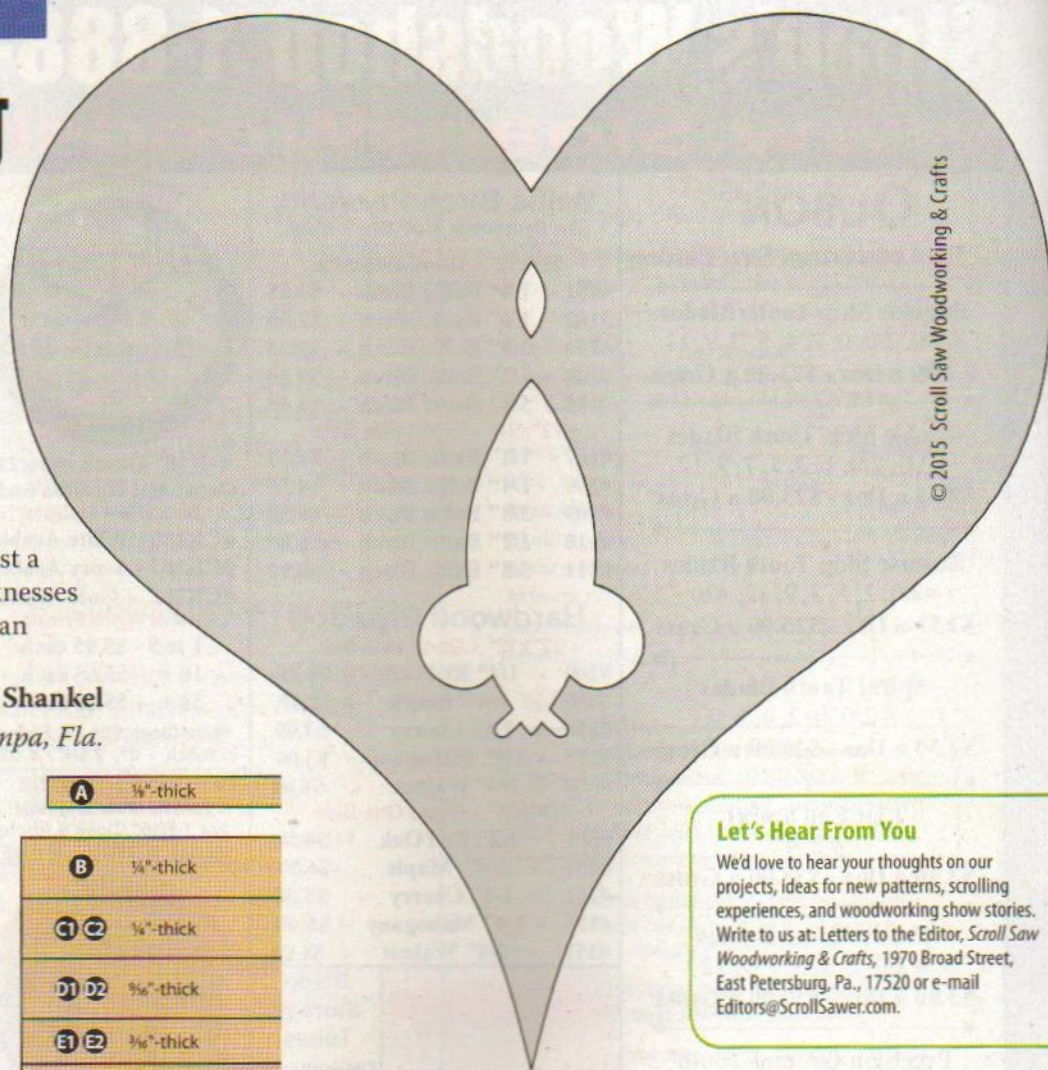
Font Frenzy

I have been a scroller for some time. I cut the letters for name-trains on my scroll saw. I would love to have some different fonts to choose from. Having a number of different fonts available for scrollers and other woodworkers would be a great addition to your catalog.

Barrie Beaver
Via e-mail

Editor Mindy Kinsey responds:

Thanks for the idea, Barrie! Many people use the fonts that come preloaded on computers or found on free font websites. If you don't have a computer or Internet access at home, most public libraries have computers with Internet access you can use for free.



A	$\frac{1}{4}$ "-thick
B	$\frac{1}{4}$ "-thick
C1 C2	$\frac{1}{4}$ "-thick
D1 D2	$\frac{3}{16}$ "-thick
E1 E2	$\frac{3}{16}$ "-thick
F	$\frac{1}{4}$ "-thick

Let's Hear From You

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



Fox Hunt

Joel Fairchild of Northfield, Conn., and Bud Hanson of Wasaga Beach, Ont., Canada, were randomly drawn from the participants who located the fox in our last issue (Spring 2015, Issue 58). The fox was hiding in the photo of the mug rack on page 35, in the Scrolling Ideas for Spring Cleaning article.

Find the fox in this issue, and tell us the page number and location. Two readers randomly selected from all correct replies will receive a \$25 Fox Chapel Publishing gift certificate. Entries must be received by June 1, 2015, 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 Street, East Petersburg, Pa., 17520, or enter online at www.ScrollSawer.com.

Since 1929
Still made in the USA

HAWK

Precision Scroll Saws



Versatility in blade selection

We stock **over 70 blades** to fit your every need



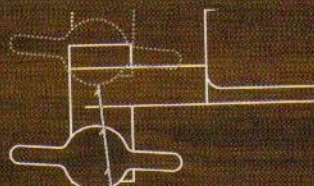
Choose from a variety of tooth styles, spacings, widths, and materials to optimize your scrolling

Go online to see more **HAWK** advantages!

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

The **HAWK** Advantage #2

Adjustable blade angle for fast cuts or tight turns



Versatility in blade alignment

Adjust the blade at an angle for:

- Fast, efficient cutting
- Clearing dust & chips

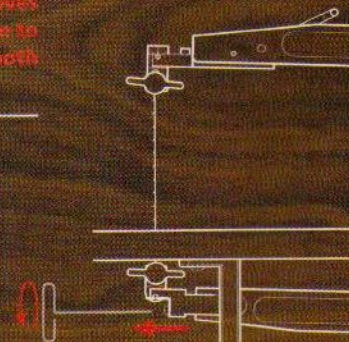
Every stroke brings the most out of the blade for a highly efficient cutting motion



The blade moves straight down to use every tooth

Adjust the blade vertically for:

- High precision
- Small turning radius
- Narrow cutting width



10 Square Foot Project Packs Available...

Domestics & Exotics

WEST PENN
HARDWOODS, INC.

Purpleheart, Zebrawood, Paduak, Bocote, Curly Soft Maple... and many other species, including Bubinga and Canarywood!
1/8", 1/4", 3/8", 1/2" and 3/4" thickness
by 3 - 8" wide and 18 - 36" lengths.

Use Coupon Code: **SSW10** on your next order to receive **10% OFF**. Coupon cannot be combined with any other offers and excludes the following species: Tulipwood, Kingwood, Cocobolo, Amboyna, Waterfall Bubinga and Ebony.

www.westpennhardwoods.com

230 S. Clinton Street, Olean NY 14760

Phone: 716-373-6434

Like us on Facebook!



Flying Dutchman



The Amazing
Ultra Reverse
Scroll Saw Blade



Available in sizes **\$3.30** / dozen
#1, 3, 5, 7 & 9. **\$18.50** / 1/2 gross
\$3.00 shipping & handling. **\$31.50** / gross

MIKE'S WORKSHOP

P.O. Box 33917 • Portland, OR 97292

Ph: 503-760-1614 • Fax: 503-761-2674

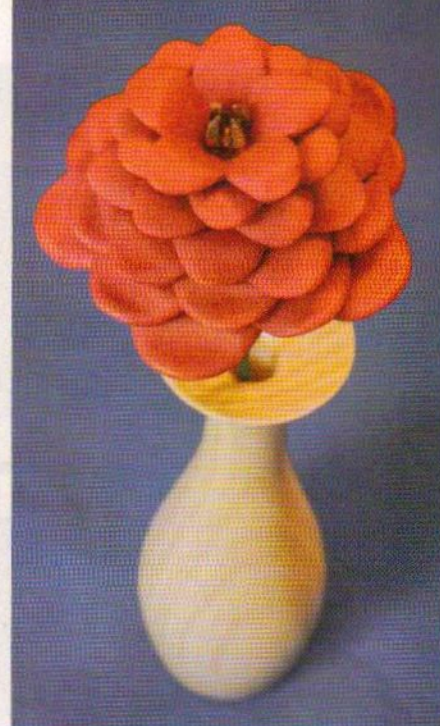
www.mikesworkshop.com

Once you try it, you'll never go back!



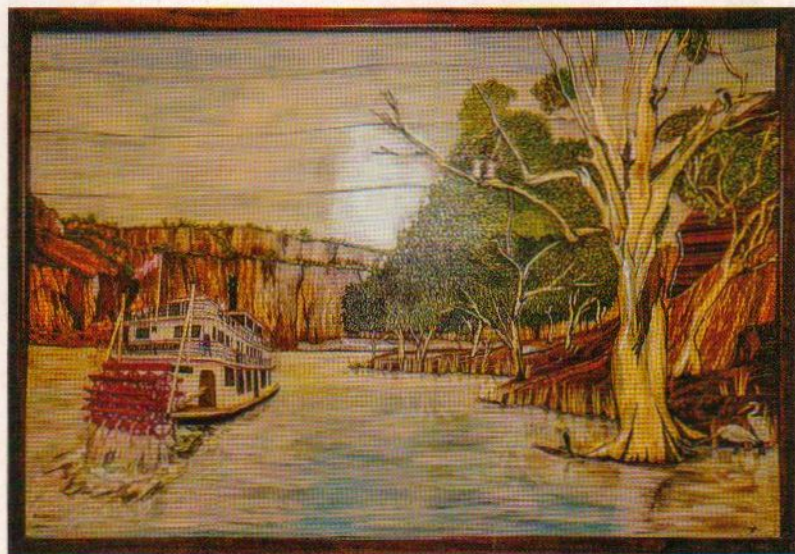
Rose ▶

Gary Terborg of Englewood, Ohio, created this flower for his mother. He made the petals out of poplar, and each layer is cut from one block at the same time. Gary was inspired by Diana Thompson's techniques, but developed his own patterns and used a different cutting technique to create a uniform set of petals.



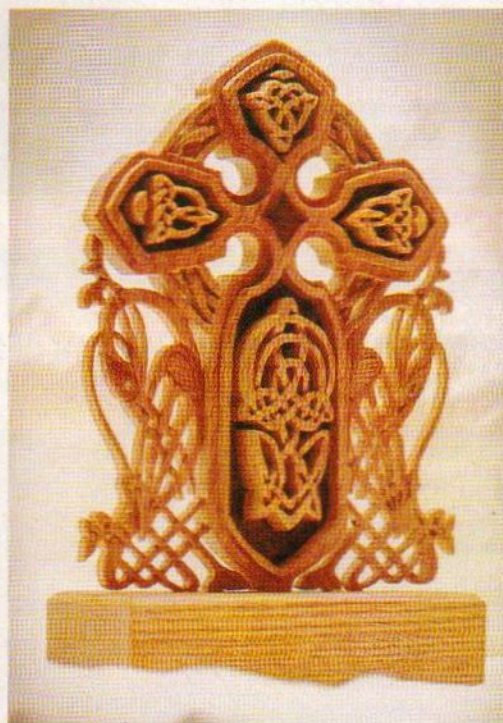
Hummingbird Plaque ▲

Donald Nichols modified a pattern from *Small Intarsia: Woodworking Projects You Can Make* to make this hummingbird plaque. Donald enlarged the pattern to 130%, and gave the bird two wings instead of one. He used red oak, walnut, purple heart, bloodwood, webrawood, canary wood, birch dowel, and granadilla. It took him more than 31 hours to complete.



Murray Magic ▲

Alan Chapman of Coffs Harbour, Australia, used 16 different kinds of wood in crafting *Murray Magic*, an intarsia piece that depicts a paddleboat on the Murray River. The piece is approximately 3' 6" wide and is finished with light acrylic paint tinting.



Celtic Cross ▲

Ray Shrewsberry of West Bloomfield, Mich., cut this piece from white oak, red oak, and rosewood. He has been scroll sawing for three years.

Share Your Latest Work!

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



C-124 Plane ▲

Jerry Walters of Arvada, Colo., served as a U.S. Air Force navigator in the 1960s. As a novice scroller, the first thing he wanted to scroll was the plane he flew, a C-124. When he couldn't find a pattern, he made his own by modifying a basic clock pattern he had. Jerry made the C-124 plane clock from ½"-thick pine.



Eiffel Tower ▲

Erik Lauriksen of Hobøl, Norway, designed and cut this beautiful rendition of the Eiffel Tower. He has been working with a scroll saw for 70 years.

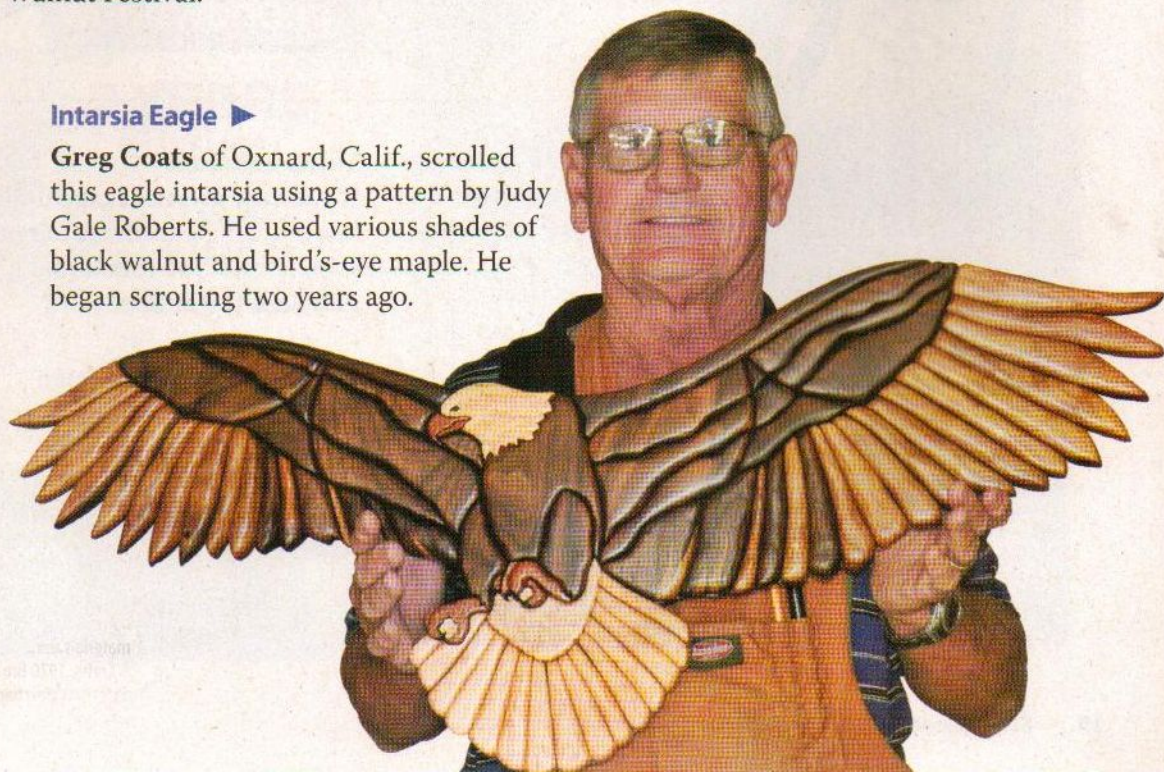
Celtic Wristwatch

Joesph Landis of Gandeeville, W. Va., scrolled the Celtic wristwatch from *Scroll Saw Woodworking & Crafts* Summer 2013 (Issue 51). It won first place in the black walnut category in the West Virginia Black Walnut Festival.



Intarsia Eagle ►

Greg Coats of Oxnard, Calif., scrolled this eagle intarsia using a pattern by Judy Gale Roberts. He used various shades of black walnut and bird's-eye maple. He began scrolling two years ago.



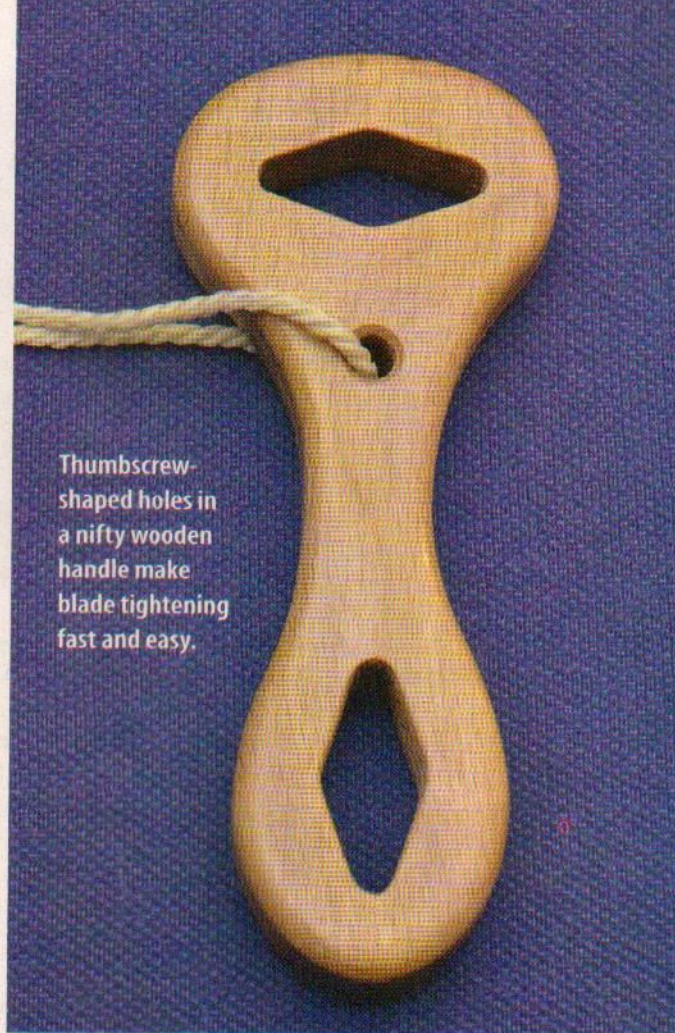
Scroller's Church Key



Sometimes it's hard for scrollers to tighten the thumbscrews that hold the blades in their saws, especially if they have arthritis in their fingers. I made this

church key to make tightening up the screws very easy on any saw. The tool has two diamond-shaped holes rotated 90° from each other so the tool can be used above and below the table. Cut the diamond-shaped holes slightly undersized, and then use sandpaper to adjust the fit until the hole fits two-thirds of the way over the thumbscrew. If the thumbscrew on your saw is shaped differently, trace the shape into the pattern. The center hole in the pattern is optional; I added it so I could thread a piece of nylon cord through and hang the key around my neck.

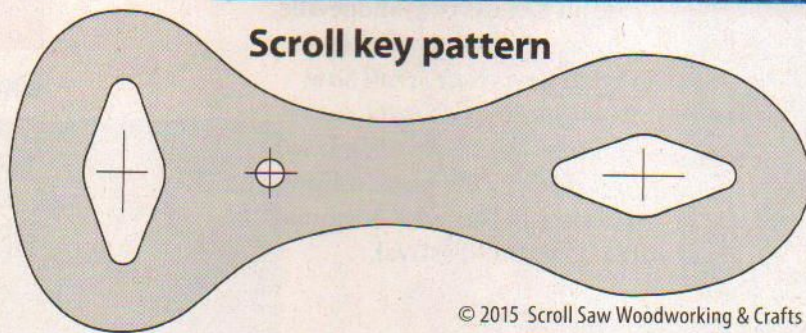
Gary Terborg
Englewood, Ohio



Thumbscrew-shaped holes in a nifty wooden handle make blade tightening fast and easy.



Scroll key pattern



© 2015 Scroll Saw Woodworking & Crafts

A dollar store booklight can safely illuminate fretwork luminaries.

Shed Some Light

My father, Perry Daub, is 96 and still scrolling. He just completed eight of the Halloween luminaries from *Scroll Saw Woodworking & Crafts* Fall 2014 (Issue 56) and was looking for a flameless way to illuminate them. He found a cheap, easy way to do it: a book light from the dollar store!

Nancy McQuillen
Columbus Grove, Ohio

Sticky Solutions

If you ever use clear tape under scroll saw patterns, you know it can be difficult to remove, especially if your shop is cold. I've found that a few passes with a heat gun does the trick.

Floyd Bartling
Via e-mail



TOP TIP in our Fall issue wins a \$25.00 Fox Chapel Publishing Gift Card. Send your tips or techniques to: Info Exchange, *Scroll Saw Woodworking & Crafts*, 1970 Broad Street, East Petersburg, Pa., 17520 or e-mail Editors@ScrollSawer.com.

Just FLOCK IT!

with DonJer Spray-on Fibers

Line Box and Gourd Interiors in just minutes.

Create soft, fuzzy effects on your wood crafts such as:

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

....the possibilities are endless!

Available in over 30 colors.

Call for brochure & color chart 800-336-6537

Flock It! d/b/a DonJer Products Co.

13142 Murphy Rd., Winnebago IL 61088

www.donjer.com




Welcome to
the wonderful world of High Speed
Engraving/Carving

I created this stencil from my granddaughter's photo in 10 minutes using Coyote Stencil Shop Software.

YOU CAN DO THIS!

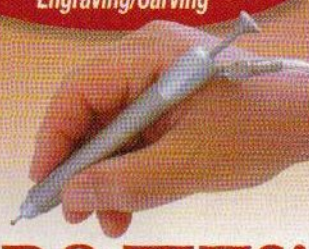
Custom Carving at 360,000 rpm

You'll be amazed at how easy it is to do very fine detail work. It's like using a ball point pen. Many scroll saw enthusiasts use this rotary tool to enhance their work. It's powerful & quiet, with no chatter or vibration.

Yes, YOU CAN DO THIS—with no artistic ability necessary! If you can trace a line, you can carve beautiful art in almost any surface. The all-metal Shofu Lab Air-Z is built for a lifetime of use. Everything in it is rebuildable or replaceable. A great addition to your workshop!

MANY PEOPLE EARN AN EXTRA INCOME USING THE SHOFU LAB AIR-Z!

For more details about this fantastic tool:
ORDER OUR FREE DVD at www.graphictransfer.net
or call us today **928-453-2652**





SPECIAL OFFER!

SAVE 29%
off the cover price!

SCROLL SAW
woodworking
& CRAFTS

2 YEARS
(8 Issues)

U.S. - \$39.90

Canada - \$45.00

International - \$55.90

(U.S. funds only)

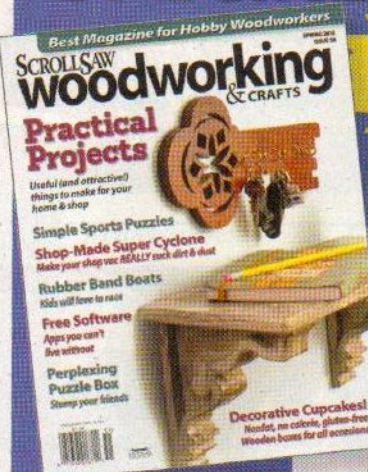
Toll Free: 888-506-6630

www.ScrollSawer.com

(International: 717-560-4703)

FREE BONUS!

Receive this \$9.99 value, FREE with your paid 2-year subscription.



PROXXON

DSH/E 37090



- electronic stroke control
- extremely low vibration
- very precise cutting

PROXXON (Germany) manufactures the largest variety of miniature power tools in the world.

For more information: PROX-Tech, Inc., P.O. Box 1909, Hickory, NC, 28603-1909 Toll free 1-877-PROXXON, sales@prox-tech.com

www.proxxon.com/us



Nathan Krupp won Best of Class and Best in Show awards for his fretwork cuckoo clock at the 2012 show.



Scroller and SSWC test-cutter Dale Helgerson served on the judging panel for the show's 2012 contests.

2015 Midwest Scroll Saw Trade Show

After a two-year hiatus, the Midwest Scroll Saw Trade Show will take place again in 2015. The show will be held on August 14 and 15 at a new location: the Grand Ballroom at the Dubuque County Fairgrounds in Dubuque, Iowa.

Karen Boelman of the Art Factory is organizing the show in conjunction with the Veterans Freedom Center of Dubuque. She and her husband, Dirk, had hosted the show before his death in 2014. Karen said, "I know Dirk would be happy to see the show continue. We were in the process of talking to the Veterans Freedom Center about it when he passed on. The vets and I are very excited to bring the show back for 2015." This is the only show during 2015 devoted solely to scrolling.

The Midwest Scroll Saw Trade Show will be similar to the previous events, which were held in Richland Center, Wis. There will be vendors, door prizes, classes, demonstrations, a display area to showcase your achievements, and a banquet. The contest will offer awards for best in class, junior scroller, open, fretwork, and intarsia.

Dubuque is a small but scenic city, with beautiful views of the Mississippi River and rock outcrops created by the stunning bluffs around the river. It is the home of the National Mississippi River Museum and Aquarium and The Grand River Center, as well as various art, music, and theater venues.

Karen welcomes suggestions, volunteers, and vendors. Let's start a new scrolling community tradition in Dubuque!

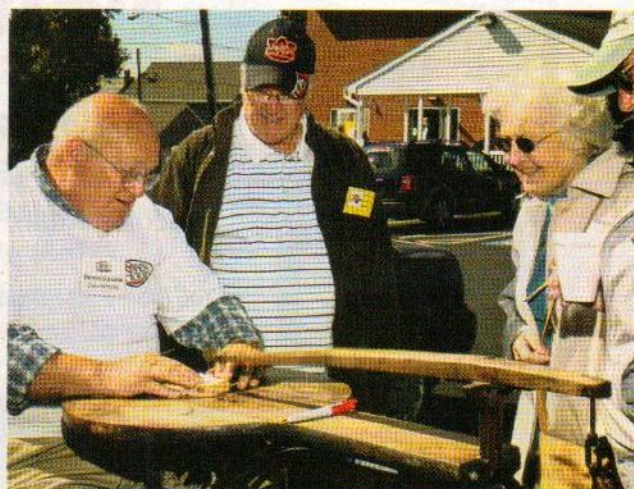
For more information about the show, visit www.midwesttradeshow.com. If you're interested in volunteering or exhibiting at the show, e-mail Karen Boelman at dirkdraws2@gmail.com. For information on lodging and events in Dubuque, visit www.traveldubuque.com or www.dubuque365.com.

Remembering Dale Whisler

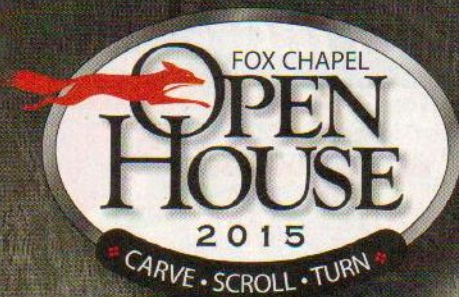
Known as the inventor of the scroll saw picnic and a founder of the Scroll Saw Association of the World (SAW), Dale L. Whisler passed away in February. He was 73.

Dale held the first scroll saw picnic in his hometown of Stevens, Pa., in 1995. The author John A. Nelson remembers about 40 people sharing their projects, swapping ideas, and eating picnic food in a farm pasture. Dale and John collaborated on publicity, and the next year more than 400 people attended. "We all had such a great time that Dale proposed setting up a national scroll saw club so folks could help each other with problems and questions," reported John. "In a pasture along with 24 cows, SAW was started."

"Dale was charismatic and well-liked, and he took great joy in bringing new people to the craft," said Alan Giagnocavo, the publisher of *Scroll Saw Woodworking & Crafts* magazine. Added John, "I consider Dale the father of scrolling. He will be missed."



In addition to his scroll saw picnics, Dale L. Whisler was known for his pedal-powered scroll saws.



Open House & WOODWORKING SHOW

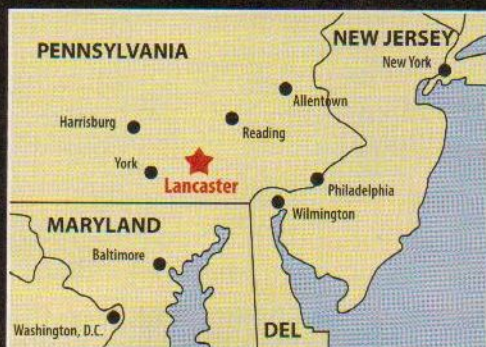
May 8-9, 2015

Confirmed Scrolling Classes

- **INTARSIA TIPS & TRICKS**
with Judy Gale Roberts
- **HOW TO BUILD A BETTER BOWL**
with Carole Rothman
- **JIGSAW PUZZLE CRAFTING**
with Shawn Ferguson
- **DESIGNING FREESTANDING PUZZLES**
with Judy Peterson
- **SCROLL SAW MAINTENANCE**
with Ray Seymore of Seyco
- **PLUS:** Carving with Rick Jensen, Floyd Rhadigan, and Wayne Barton; Woodburning with Michele Parsons; Turning with Barry Gross. 40 different classes, free demos, shopping, and much more!

Demonstrations

- **TRI-COUNTY SCROLLERS AND WOOD CRAFTERS** (*Hands-On Scrolling*)
- **LANCASTER COUNTY WOODCARVERS** (*Hands-On Carving*)
- **SOUTH-CENTRAL PA WOODTURNERS** (*Hands-on Turning*)



**Rough and Tumble
Historical Association,**
Lancaster County, Penn.

Preserving the agricultural & industrial history of rural America.

RoughAndTumble.org

Visit www.Wood-Show.com

For photos & video of the 2014 show, plus updates on:

- **HOTELS & CAMPING**
- **CLASSES & DEMOS**
- **EXHIBIT SPACE**
- **TICKETS**

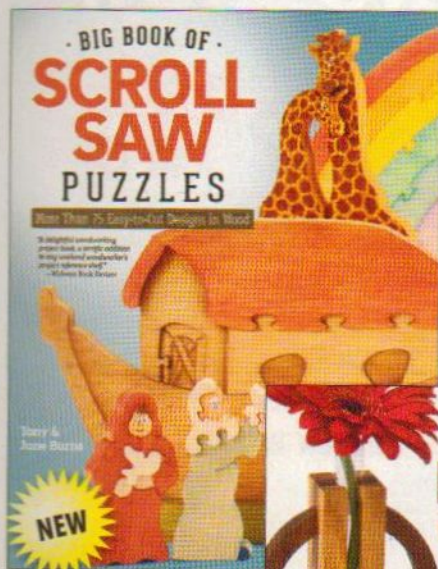
SCROLLSAW
woodworking
& CRAFTS

FOX CHAPEL
PUBLISHING

WOODCARVING
ILLUSTRATED

FREE GIFT with your order of \$35 or more

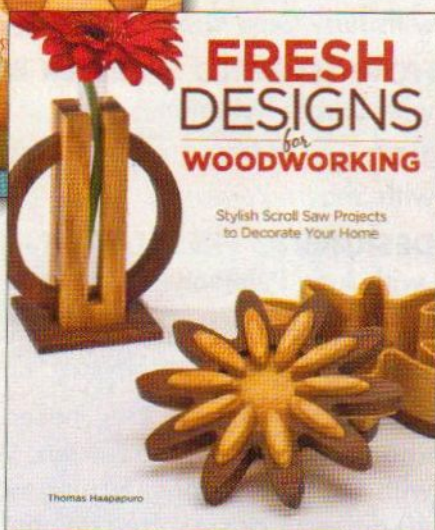
Essential Books for SCROLL SAW CREATIVITY



Big Book of Scroll Saw Puzzles

More Than 75 Easy-to-Cut Designs in Wood
By Tony & June Burns
Make beautiful freestanding art puzzles on your scroll saw. This big book offers 75 shop-tested and ready-to-use patterns, plus step-by-step instructions for cutting, staining, and painting. Subjects include nature, holidays, animals, fantasy, and more.

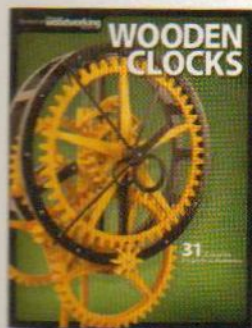
\$19.99 • Code: 8596



Fresh Designs for Woodworking

Stylish Scroll Saw Projects to Decorate Your Home
By Thomas Haapapuro
Create unique and beautiful works of art in wood. Detailed patterns, easy-to-understand instructions, and step-by-step photos make these 21 projects attainable at any skill level.

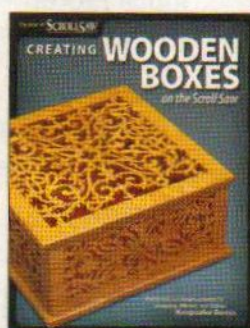
\$19.99 • Code: 5373



Wooden Clocks

31 Favorite Projects & Patterns
By the editors of Scroll Saw Woodworking & Crafts
These beloved clock projects are arranged by skill level. Build grandfather clocks, pendulum clocks, desk clocks, and much more.

\$24.95 • Code: 4277



Creating Wooden Boxes on the Scroll Saw

Patterns and Instructions for Jewelry, Music, and Other Keepsake Boxes
By the editors of Scroll Saw Woodworking & Crafts
Make a beautiful variety of music boxes, desktop organizers, storage cases, memory boxes, and more, with these 26 outstanding projects.

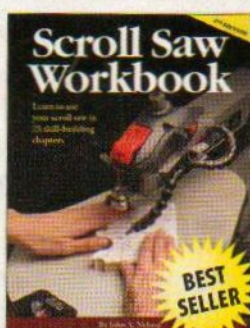
\$19.95 • Code: 4444



Box-Making Projects for the Scroll Saw

30 Woodworking Projects that are Surprisingly Easy to Make
By Gary MacKay
Discover beautiful & unique boxes you can easily make on your scroll saw, with 30 heirloom projects that will show-off your talents and make great gifts.

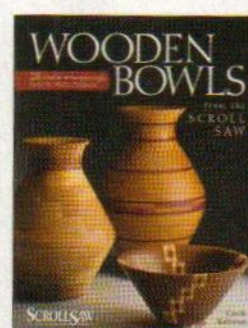
\$17.95 • Code: 2941



Scroll Saw Workbook, 3rd Edition

Learn to Master Your Scroll Saw in 25 Skill-Building Chapters
By John Nelson
Use this ultimate beginner's scroll saw guide to hone your skills to perfection. New updated edition covers the latest innovations in scroll saw models and brands.

\$16.99 • Code: 7667

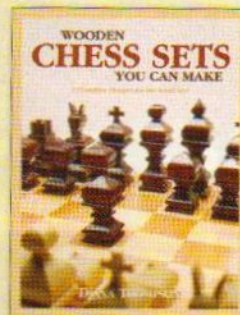


Wooden Bowls from the Scroll Saw

28 Useful and Surprisingly Easy-to-Make Projects
By Carole Rothman
Create amazing bowls, vases, candy dishes and jars with just a flat piece of wood and your scroll saw. You will not believe these bowls were made without a lathe!

\$19.95 • Code: 4338

**FREE with your
purchase of \$35 or more**



Wooden Chess Sets You Can Make

By Diana Thompson
Easy-to-cut compound patterns for 9 chess sets, plus a segmented chess board.

\$14.95 • Code: 1880

**A \$14.95
VALUE!**

To Get Your Free Book: Use Coupon Code SSW59 after placing item in cart or when ordering. Offer expires 7/31/15. Cannot be combined with any other offer.



Big Book of Scroll Saw Woodworking

More Than 60 Projects and Techniques for Fretwork, Intarsia & Other Scroll Saw Crafts
By the editors of Scroll Saw Woodworking & Crafts
This all-in-one scroll saw reference offers projects for all skill levels, along with detailed patterns, step-by-step instructions, crisp photos, and expert techniques.

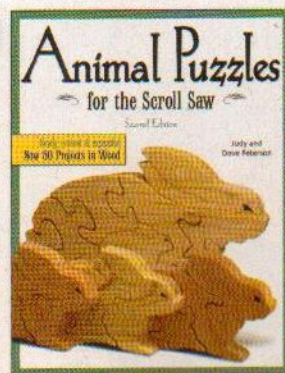
\$24.95 • Code: 4260



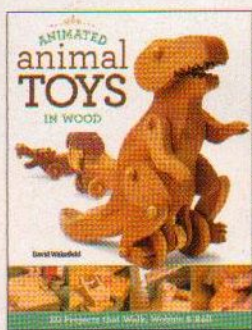
ORDER TODAY! 800-457-9112 • www.FoxChapelPublishing.com



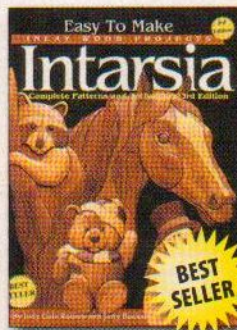
Zany Wooden Toys that Whiz, Spin, Pop, and Fly
28 Projects You Can Build From The Toy Inventor's Workshop
By Bob Gilsdorf
Have zany fun making these cool wooden toys, games, and even gumball machines that are unexpectedly action-packed.
\$19.95 • Code: 3942



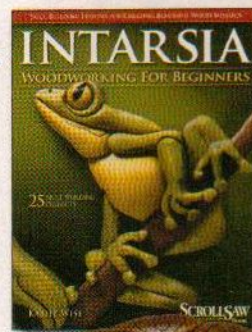
Animal Puzzles for the Scroll Saw, 2nd Edition
Revised & Expanded, Now 50 Projects in Wood
By Judy and Dave Peterson
These fascinating patterns for upright and interlocking puzzles include a beagle, bison, panda bear, caribou, red fox, and much more.
\$17.95 • Code: 3911



Animated Animal Toys in Wood
20 Projects that Walk, Wobble & Roll
By David Wakefield
Build classic pull and push toys with 20 imaginative projects for making wild and wacky wooden animals that come alive with delightful lifelike motion.
\$22.99 • Code: 8442

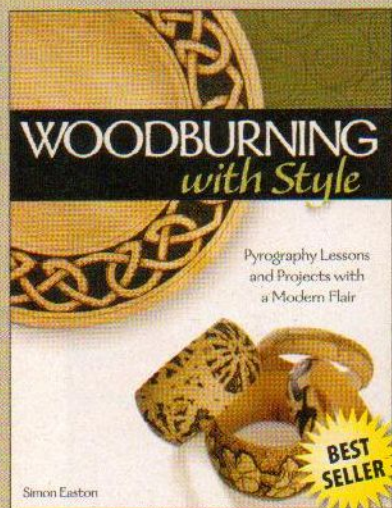


Easy To Make Intarsia Wood Projects Intarsia
Complete Patterns & Techniques - 3rd Edition
By Judy Gale Roberts and Jerry Booher
Learn intarsia with 12 ready-to-use patterns, step-by-step shaping and assembly demonstrations, and hundreds of instructional photos.
\$19.95 • Code: 1260

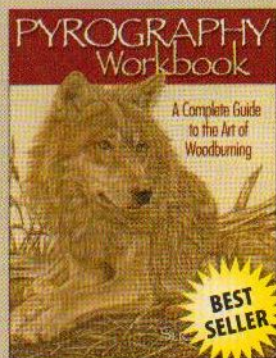


Intarsia Woodworking for Beginners
Skill-Building Lessons for Creating Beautiful Wood Mosaics: 25 Skill Building Projects
By Kathy Wise
Learning intarsia is easier than you think! This book breaks down the important techniques into manageable and easy-to-understand steps.
\$19.95 • Code: 4420

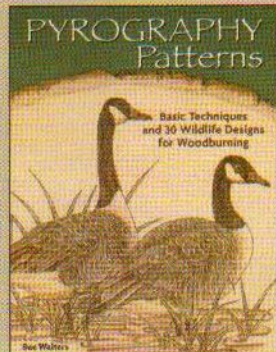
Enhance Your Next Project With PYROGRAPHY



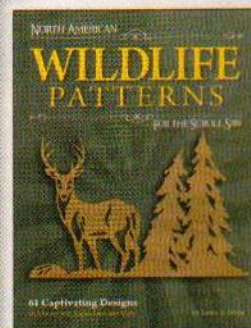
Woodburning with Style
Pyrography Lessons and Projects with a Modern Flair
By Simon Easton
This beautifully photographed, hands-on instructional guide to the art of pyrography will take you on a journey of skill-building lessons and projects.
\$24.95 • Code: 4437



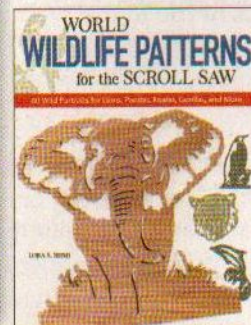
Pyrography Workbook
A Complete Guide to the Art of Woodburning
By Sue Walters
Learn everything you need to know to create stunning pyrography, with step-by-step projects, original patterns, and a gallery of award-winning work.
\$19.95 • Code: 2585



Pyrography Patterns
Basic Techniques and 30 Wildlife Designs for Woodburning
By Sue Walters
This book offers 30 North American wildlife illustrations and 10 border designs to use in woodburning projects. Large ready-to-use designs are provided in both line and tonal patterns.
\$16.99 • Code: 8190



North American Wildlife Patterns for the Scroll Saw
61 Captivating Designs for Moose, Bear, Eagles, Deer and More
By Lora S. Irish
Acclaimed artist Lora S. Irish brings even more wild animals to life, with this treasure trove of patterns that present the incredible diversity of North American species.
\$12.95 • Code: 1651



World Wildlife Patterns for the Scroll Saw
60 Wild Portraits for Lions, Pandas, Koalas, Gorillas and More
By Lora S. Irish
Scroll exotic wild animals from each of the seven continents, with patterns for all of the world's best-known species, from antelopes to zebras.
\$12.95 • Code: 1775



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



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

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

Gone Fishing

You'll always have a trophy fish thanks to this intarsia sign

By Judy Gale Roberts

Get ready for opening day with this decorative sign. Hang it proudly as you head out at the crack of dawn.

I used wood from an old barn for the background. The rough texture of the reclaimed wood contrasts nicely with the smooth finish of the fish.



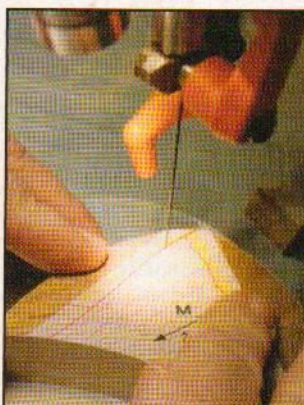
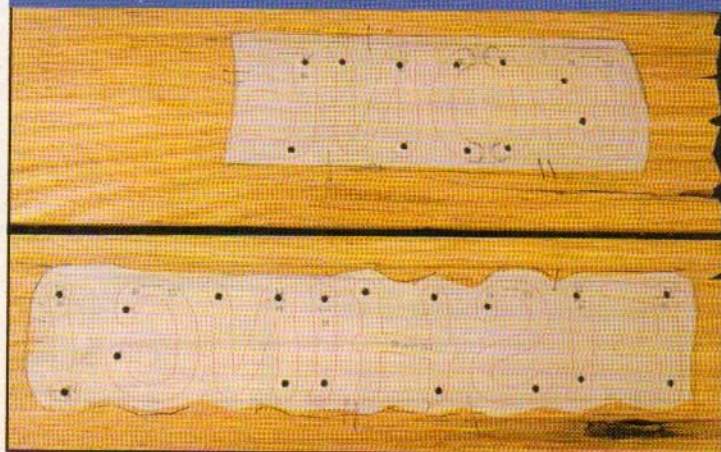
Getting Started

Make at least five copies of the pattern; keep one as the master. Attach the patterns to the blanks. I use a Xyron Creative Station 9", a sticker-making machine, which turns all of my patterns into stickers that apply and peel off easily and do not leave residue on the wood.

Plane the back of the found wood until it is about ½" (13mm) thick. Then, flip the letter patterns and attach them facedown to the smooth back. You should be able to see the lines through the paper; patterns will not stick well to the textured surface of the wood.

For all of the sanding and shaping in this project, I use a soft inflatable sander and a Flex Drum sander. As you begin sanding, use an 80-grit sleeve on one drum to remove most of the material, and use a 120-grit sleeve on the other drum to refine the pieces. In later steps, we will use 180-grit and 220-grit sleeves to smooth out the pieces.

FISH: CUTTING & PREPARING THE PIECES



1 Cut the pieces. Drill blade-entry holes and cut the holes for the letters. Then, cut the other pieces. Leave the patterns on the pieces until you have cut all of the pieces. Number the back of each piece according to the pattern. Dry-assemble the pieces. Remove the patterns after the pieces are numbered and fit tightly together.

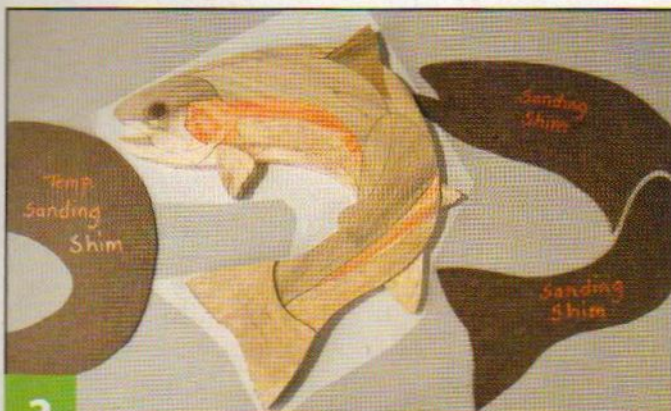


EXPERT TIPS

from Judy Gale Roberts

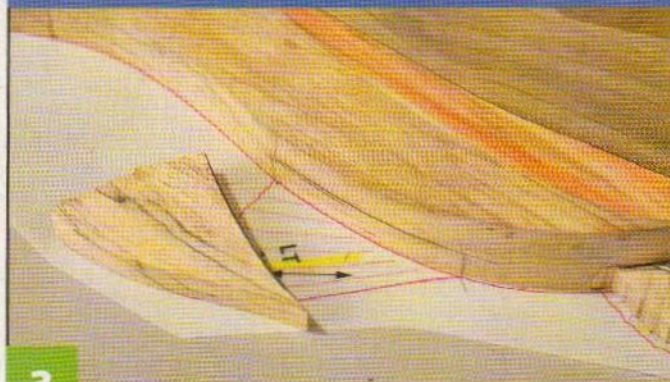
- **Cut the patterns so that you leave at least 1/4" (6mm) of pattern line to lead in to the piece.** The oversized pattern sticks better to the blank, and the extra pattern line lets you get a feel for the wood before cutting the piece.
- **Dry-fit the patterns to the blanks to use more of the wood and to select the best possible grain figure for each piece.** After you select the location, trace around the pattern to make it easy to reposition the pattern after applying the adhesive.
- **Use a Xyron Creative Station 9" sticker maker to apply adhesive to the back of the pattern.** The adhesive holds the pattern securely but removes easily without leaving any residue.
- **Beginners should center the blade on the line to remove the entire line as they cut.** But, as your skills increase, try to leave half the cutting line visible for a perfect fit of pieces later. A lighted magnifier and foot switch will help you to cut this accurately.
- **Plan the cuts.** You should be cutting smaller parts off larger parts. It is difficult to accurately cut small pieces apart.
- **Use the saw to trim parts that don't fit together tightly.** Often, you can see where the pattern line is heavy; use a sharp blade to trim this area. I use the saw to trim these parts because if you sand, it's hard to keep the edge square.

FISH: SHAPING THE PIECES



2

Make sanding shims. To keep the fish smooth, use $\frac{1}{8}$ " (3mm)- to $\frac{1}{4}$ " (6mm)-thick plywood or tempered hardboard to create sanding shims. These shims allow you to sand several cut pieces as one section. Cut one sanding shim for the tail, one for the body, and a third to temporarily join the tail and body. This will help when you need to blend the two sections together.



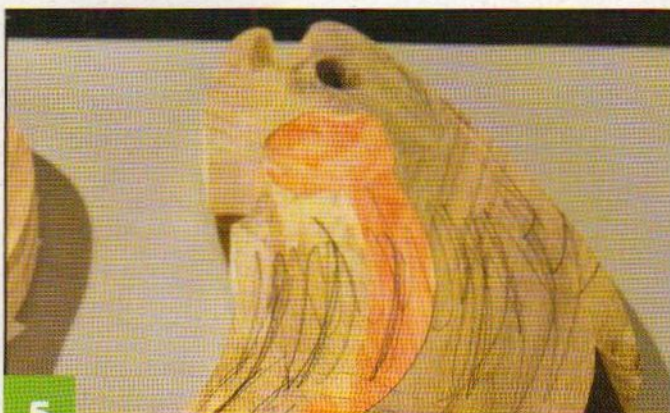
3

Rough-sand the pieces. Mark the rough final thickness on each piece. Remember, the thinnest parts of the project are those perceived to be farthest from the viewer. Sand the two exterior fins down to about half of their initial thickness; you can always remove more wood later. Then, mark the thickness of the fins on the adjoining pieces. Do not sand past these marks. Rough-sand and shape the other pieces based on the thickness of the fins.



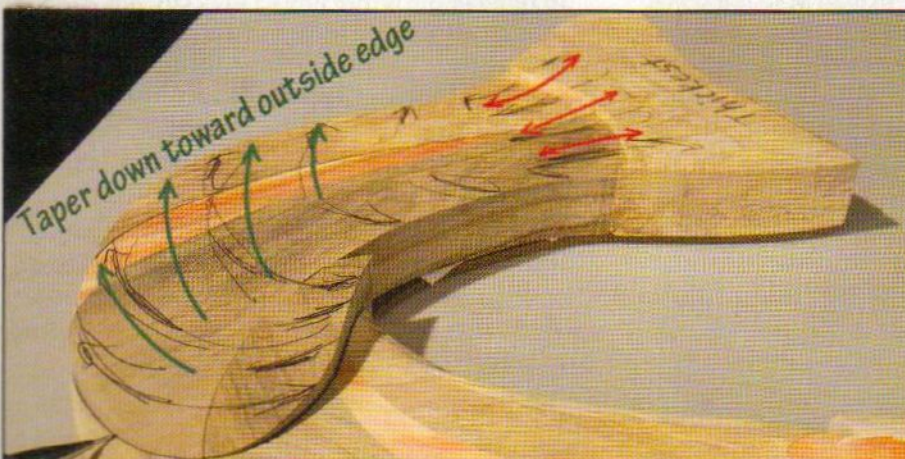
4

Attach the pieces to the sanding shims. Remove as much dust as possible from the pieces. Cut the carpet tape into $\frac{1}{2}$ " (13mm)-wide strips; I used a hobby knife. Turn all of the pieces upside down and apply the tape strips to the backs. Try to get at least two strips of tape across each piece. Peel off the paper and press the shims lightly onto the exposed tape. Flip the pieces, check the fit, adjust as needed, and then press down firmly to adhere them to the shims.



5

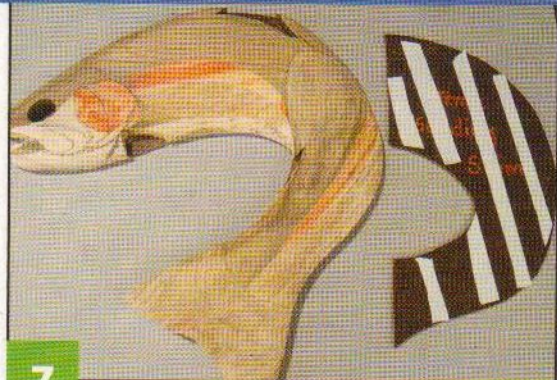
Shape the head and upper body. The fish is turning and twisting, which makes it interesting to look at and to sand. The top line of the fish has the same contour and thickness. The lower side of the fish (the belly) will be the thinnest, which creates the illusion of the fish twisting. The tail is the thickest part. Mark where you plan to sand down to, and sand a gradual taper from the head to the lower part of the belly. Do not sand much from the top line of the fish. Then, round the sides of the fish.



6

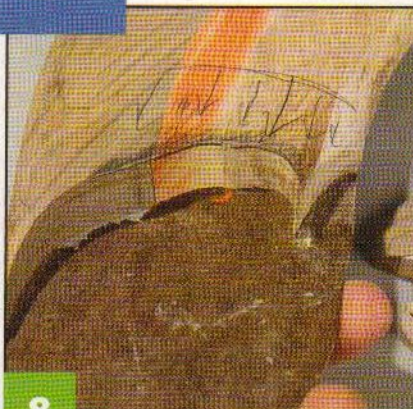
Sand the tail. Dry-assemble the tail and body sections and mark the thickness on the edge of the tail section. Sand a sharp taper toward the outer edge of the tail section (indicated with the green arrows). Watch the pencil lines, including the lines indicating the thickness of the fins sanded in Step 3, and do not sand below them. Sand a slight dip between the body and the tail, indicated by the red arrows, and round the outer edges. Sand as close as you can to the outer edges to blend the tail and body.

FISH: REFINING THE PIECES



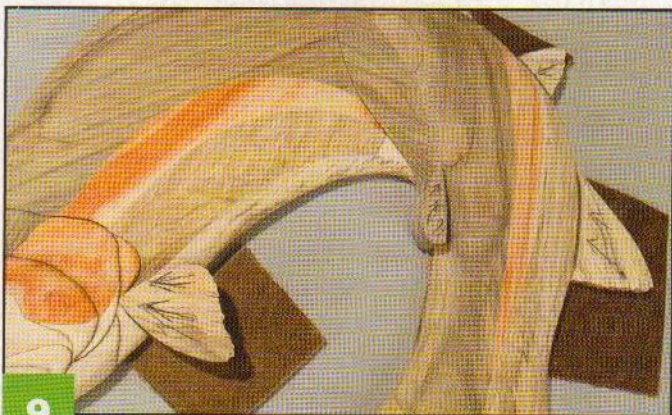
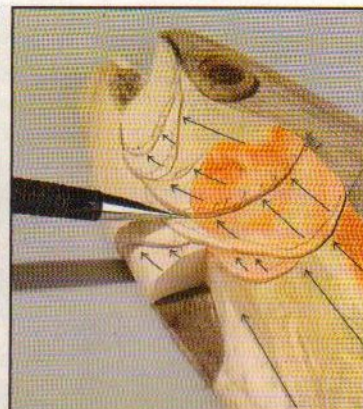
7

Refine the joint between the tail and the body. Apply strips of double-sided tape to the third shim, and press the two other shims on top of the third shim. Blend the top line of the fish and refine the joint between the two sections. Separate the head pieces from the body shim.



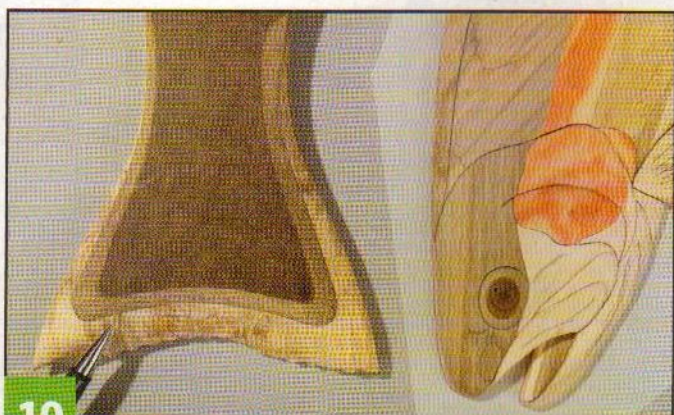
8

Shape the head. Sand a gradual taper from the mid-body to the gill section. Mark a line to sand down to so you can remove an even amount of wood from the blank. Mark the thickness of the piece you're sanding on the adjoining parts. Replace the head, and mark where the body joins the head. Taper each section of the head to the next gill to give the gills a layered look.



9

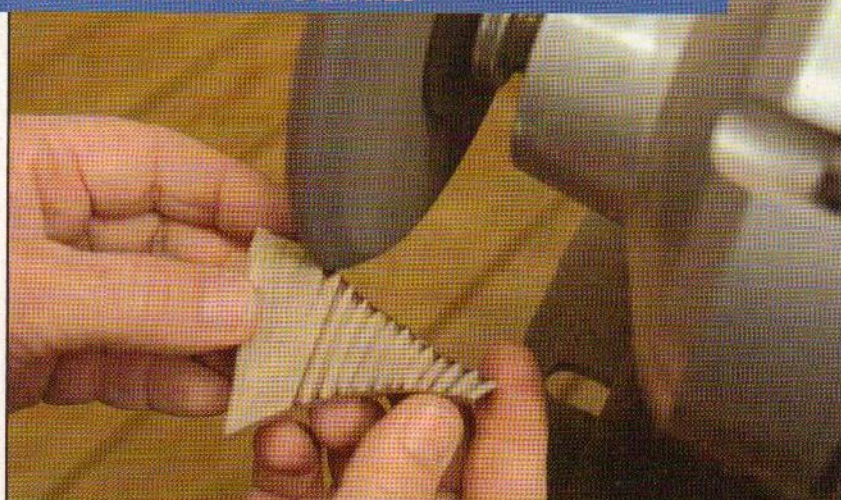
Sand the fins. Leave the pieces on the sanding shims. To keep the shims on the same level, use scraps of the shim material as spacers. Sand a taper from the tip of the dorsal and pectoral fins down to the thickness of the body. Watch the marks as you sand, and do not sand the fins below the thickness of the body.



10

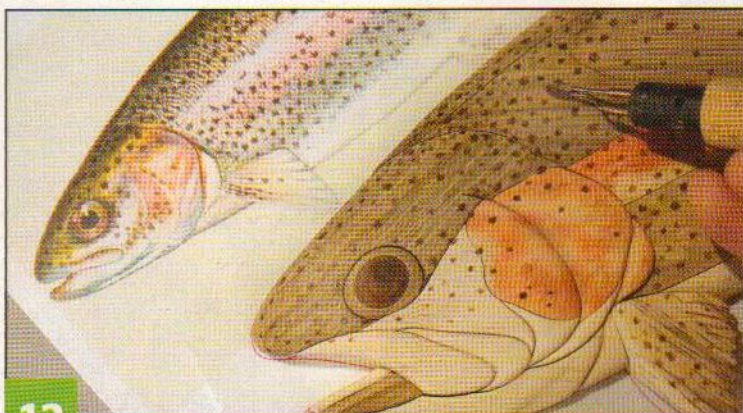
Undercut the tail. While the tail is still attached to the sanding shim, flip it over and use the drum sander to remove wood from the end and sides of the tail. This makes the fish stand out and adds dimension to the project. It's OK to sand the sanding shim; you want a smooth curve on the back edges. Use a finer-grit sleeve on the sanding drum to sand all of the surfaces before separating the pieces from the sanding shims.

FISH: ADDING THE DETAILS



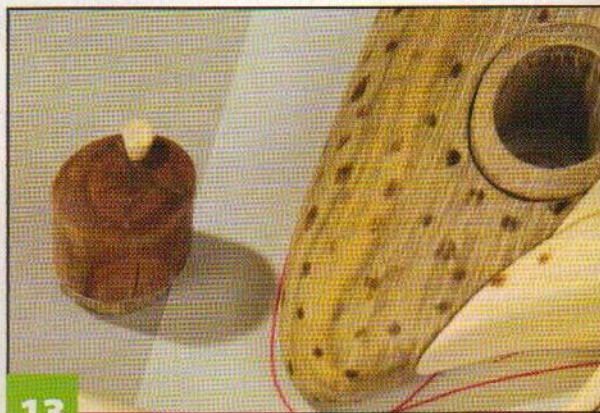
11

Add texture. Use graphite paper to transfer the dashed texture lines from the pattern to the tail, fins, and face. I used a Wonder Wheel to carve and burnish texture lines on the fins and tail. This wheel, which is slightly flexible, makes it easy to add texture, and the burnish left by the wheel emphasizes the grooves. The more pressure you apply, the darker and deeper the groove will be. Practice on scrap wood. I vary the depth and darkness of the grooves for a realistic look. You could also use a rotary tool with carving bits to create this texture.



12

Add spots to the trout. Use a wire-tip woodburner with a shallow spoon tip (which burns more of an oval shape than a typical round tip burner). If you have a solid-tip burner, you can grind an oval shape onto the tip of the burner. Reduce the heat to vary the darkness of the spots. Burn on scrap wood to quickly reduce the heat.



13

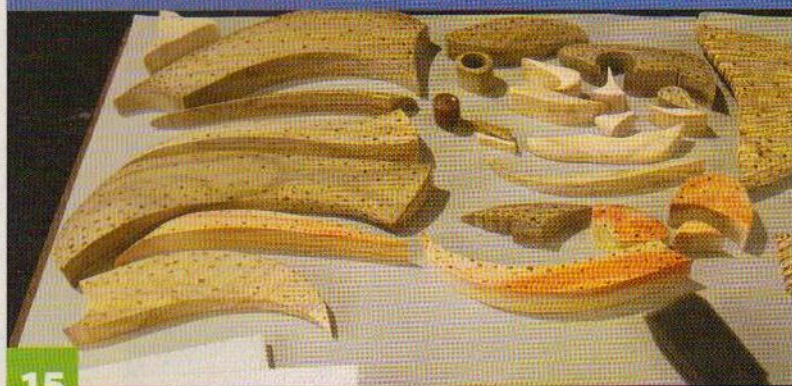
Add the eye highlight. Drill a small hole in the eye. Cut a piece of holly to the size of a pencil, and sharpen it with a pencil sharpener. Cut the cone tip and glue it into the hole in the eye. After the glue dries, sand it flush with the eye.



14

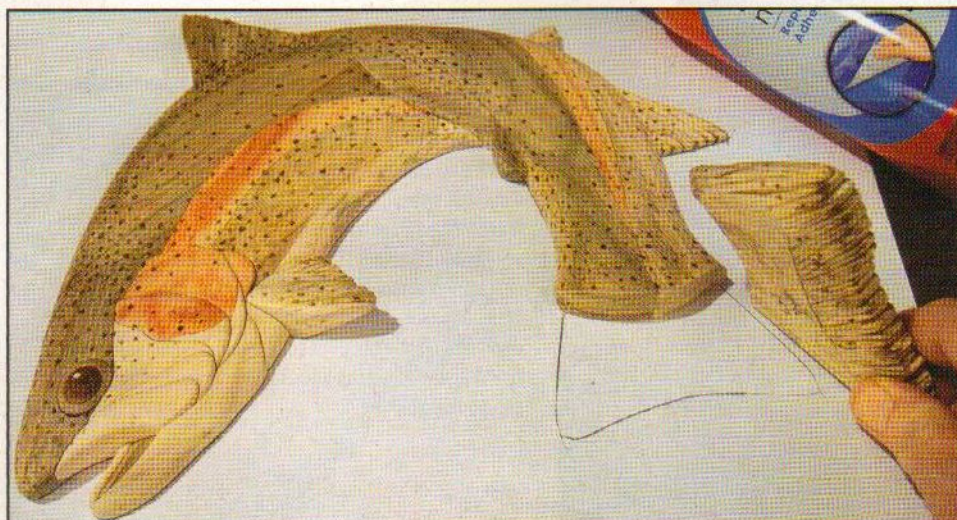
Sand the letters. Sand the edges and surfaces of the letters. Hand-sand each piece with 220-grit sandpaper, and then remove just the sharp edges of the letters. Do not round the edges. Remove any cross-grain scratches and pencil marks. Blow the dust off the pieces with compressed air and check again for scratches; the dust can sometimes fill in scratches.

FISH: FINISHING & ASSEMBLING THE PROJECT



15

Apply the finish. Remove all dust, and apply a heavy coat of gel polyurethane to the sides and surface of the pieces. Let the finish set for a minute, and wipe off the excess polyurethane with a folded paper towel. Do not overuse it; a worn paper towel leaves lint on the pieces. Use a terry cloth rag for deep texture areas, such as the tail. The nap of the cloth gets into the grooves and removes excess gel. Buff the pieces as dry as possible. If the gel dries too quickly, apply more gel and it will wipe off easily. Apply two more coats of gel to the top surfaces only.



16

Cut the backing. Apply a light coat of spray adhesive to a sheet of white paper. Then, dry-assemble the project on the paper (the adhesive keeps the pieces from sliding all around) and trace the project. Remove the project, and use spray adhesive to attach the traced pattern to the tempered hardboard. Cut about $\frac{1}{16}$ " (2mm) inside the lines to make the backing board. Repeat these steps to cut a backing board for the found wood.



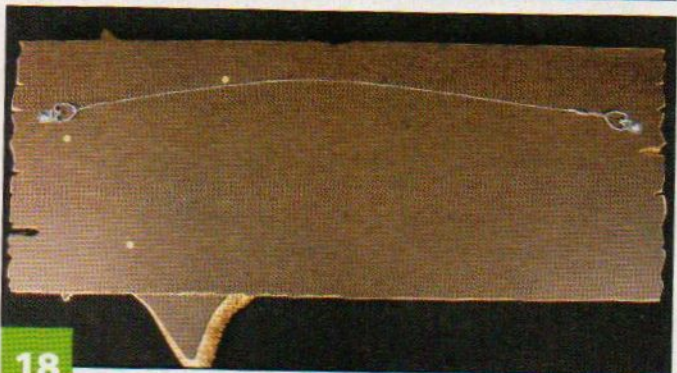
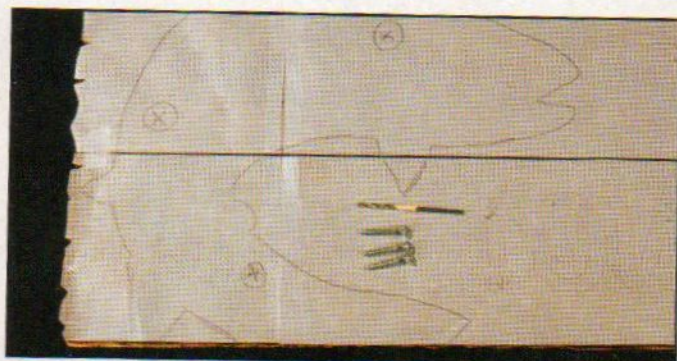
17

Glue the pieces. To accommodate wood expansion and contraction, glue the pieces to the backing board, not to each other. Dry-assemble the pieces on the backing board, and then carefully remove a few perimeter pieces and glue them in place. Let the glue set to lock these pieces in place before gluing down the other pieces. Use glue sparingly; too much glue can cause the piece to float. Glue the backing board to the background.

TIP

GLUE SELECTION

Use tacky glue or Titebond molding and trim glue. Both glues have a strong initial tack and set up quickly. However, both glues still give you enough time to realign the pieces before they set.



18

Attach the fish and add a hanger. Use three #6-18 by 1" (25mm) flat-head brass wood screws to attach the fish to the background; use longer screws for thicker wood. Turn the pattern upside down on the back of the background to use as a guide to drill pilot holes. Drive the screws in until they barely protrude through the background, position the fish, and press down to mark the location of the screws. Then, drill pilot holes in the back of the fish and screw the fish into place. Because of the uneven weight distribution, use picture-hanging wire to hang this project. Use two #6 by 3/8" (10mm) long pan head screws to attach two D-rings to the back of the project, and string the wire between the rings.

Judy Gale Roberts, born in Houston, Tex., has long been recognized as the leading authority on intarsia. Judy was one of the first 10 people to be inducted into the Woodworking Hall of Fame. For more of her work or information on classes held at her home studio in Seymour, Tenn., contact Judy at 800-316-9010, or visit www.intarsia.com. Judy's numerous intarsia books are available at www.foxchapelpublishing.com.



Materials & Tools

Materials:

- Dark wood, such as dark Western red cedar or walnut, 3/4" (19mm) thick: eye, 1" x 1" (25mm x 25mm)
- Medium-tone wood, such as soft maple heartwood, Western red cedar, or dark spalted wood, 3/4" (19mm) thick: 5" x 12" (127mm x 305mm)
- Medium-tone red wood, such as box elder, Western red cedar, or aromatic cedar, 3/4" (19mm) thick: 4" x 7" (102mm x 178mm)
- Medium-light wood, such as Western red cedar, darker spalted wood, or basswood, 3/4" (19mm) thick: 5" x 8" (127mm x 203mm)
- Light wood, such as basswood, Northern white cedar, or poplar, 3/4" (19mm) thick: 4" x 7" (102mm x 178mm)
- Light wood, such as basswood, Northern white cedar, poplar, or sycamore, 5/8" (16mm) thick: letters, 5" x 10" (127mm x 254mm)
- Rustic or found wood, 1/2" (13mm) thick: background, 9" x 21" (229mm x 533mm)
- Glue stick, spray adhesive, or a Xyron Sticker Maker
- Tape: double-sided light-duty carpet tape
- Finish, such as polyurethane gel
- Tempered hardboard, 1/8" (3mm) to 1/4" (6mm) thick: background, 9" x 21" (229mm x 533mm); fish, 10" x 11" (254mm x 279mm); assorted scraps for sanding shims
- Sanding sleeves: 80, 120, 180, 220
- Glue: wood or tacky
- D-ring hangers: 2 each
- Picture-hanging wire
- Wood screws: 3 each #6-18 x 1" (25mm) brass; 2 each #6 x 3/8" (10mm) pan head

Tools:

- Blades: #3 or #5 skip reverse-tooth, #2/0 to #1 skip reverse-tooth
- Pencil
- Drill with bit: 1/8" (3mm) dia.
- Sanders: Flex Drum, soft inflatable
- Wonder Wheel or rotary tool with assorted bits
- Woodburner with tips: spoon shader
- Screwdriver

Patterns for **GONE FISHING** are in the pattern pullout section.

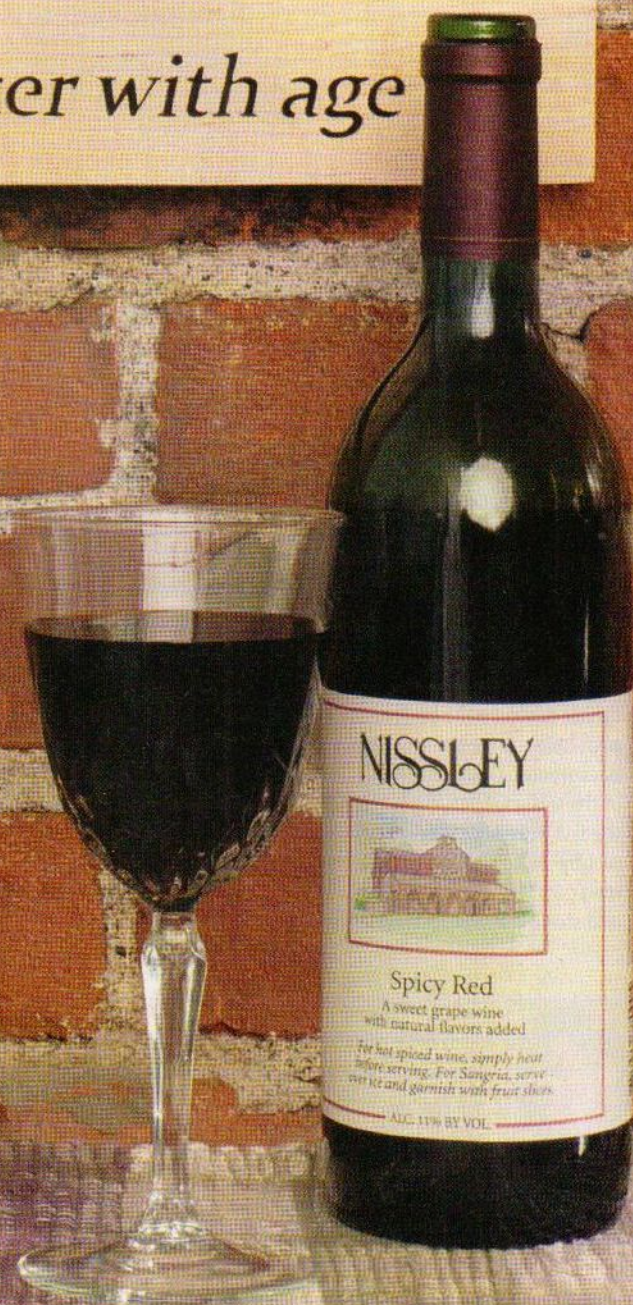
The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.



Better With Age Plaque

Celebrate the finer things in life
with a fretwork plaque

By Keith Fenton



For many of us, wine, good friends, and scrolling never get old, so I decided to make a plaque that commemorates all three! Make this plaque for a close friend or hang it in your own dining room. I recommend using a $\frac{3}{8}$ " to $\frac{1}{2}$ " (10mm to 13mm)-thick tight-grained hardwood, such as maple, for this project.



Begin cutting the innermost frets first to reduce breakage.

Making the Plaque

Apply blue painter's tape to the blank, and attach the pattern with spray adhesive. Cut the perimeter with a #5 reverse-tooth blade. Drill blade-entry holes, and then sand the back to remove any tear out and make sure the plaque lies perfectly flat. Cut the fretwork, starting with the innermost cuts to reduce the chance of breakage. I recommend using a #3 reverse-tooth blade for the large lettering and fretwork at the top, and a #2 reverse-tooth blade for everything else.

When you are finished cutting the frets, remove the pattern and use a random orbital sander or sandpaper to sand the plaque, working through the grits until you reach 220 grit.

Materials & Tools

Materials:

- Hardwood, such as maple, $\frac{3}{8}$ " to $\frac{1}{2}$ " (10mm to 13mm) thick: 8½" x 13" (203mm x 330mm)
- Spray adhesive
- Painter's tape
- Sandpaper
- Spray varnish
- Staining and antiquing medium, such as DecoArt brand
- Acrylic paint, such as DecoArt Americana: avocado, red violet, and butter
- Wood glue, clear-drying

- Saw-tooth hanger
- Two-part epoxy (optional): gluing the hanger

Tools:

- Blades: #2, #3, and #5 reverse-tooth
- Drill press and bit
- Hand-held orbital sander
- Paintbrush for staining, such as a #6 flat shader or ¼" (6mm) wide or smaller

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



Mix the stains using 2 parts staining and antiquing medium to 1 part acrylic paint.

Finishing the Plaque

I combined DecoArt's Staining and Antiquing Medium with DecoArt's Americana acrylic paints to create a semi-transparent stain. Mix the medium with the paint in 2:1 ratio; you will only need a small amount of paint. Apply the mixture with a small flat brush, painting from the inner surface out to avoid getting paint on the edges of the fretwork. Paint one piece at a time, and then immediately pat each piece dry with a paper towel. When patting, be careful not to spread the stain onto the rest of the plaque. Allow the stain to dry before applying a spray varnish.



Paint one section at a time, patting each area immediately with a paper towel.

Pattern for the **BETTER WITH AGE PLAQUE** is in the pattern pullout section.



Keith Fenton has been designing scroll saw patterns for several years alongside his partner, Sheila Landry. Together, they've contributed patterns and articles to several woodworking and painting magazines and e-zines. Visit their website at www.sheilalandrydesigns.com to see their entire selection of patterns, including free samples.

Wonderful Wooden Wedding Gifts

Wow the bride and groom with these simple, thoughtful gifts

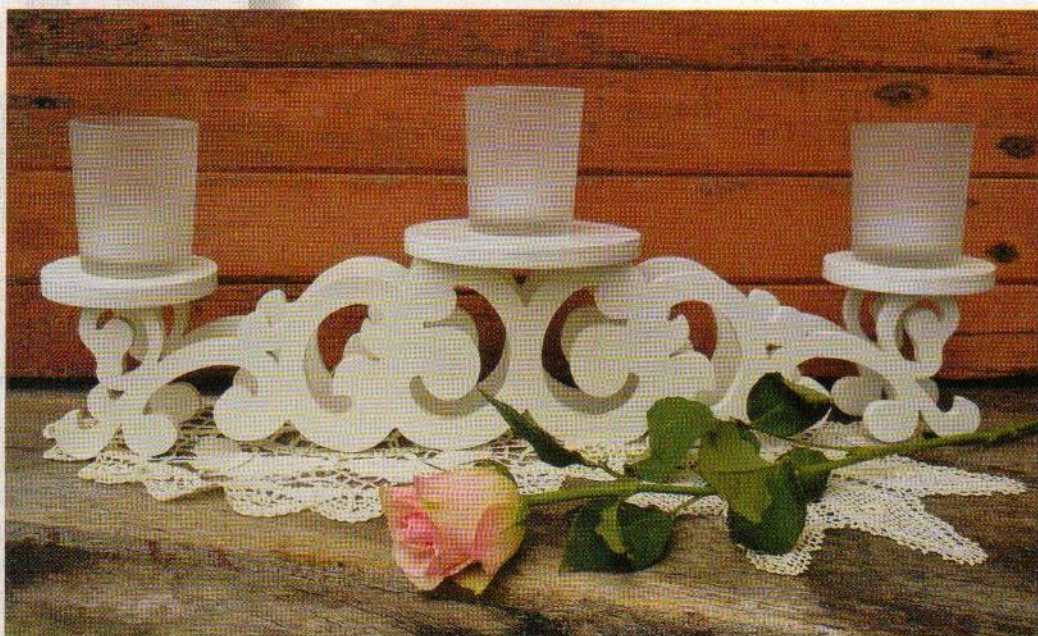
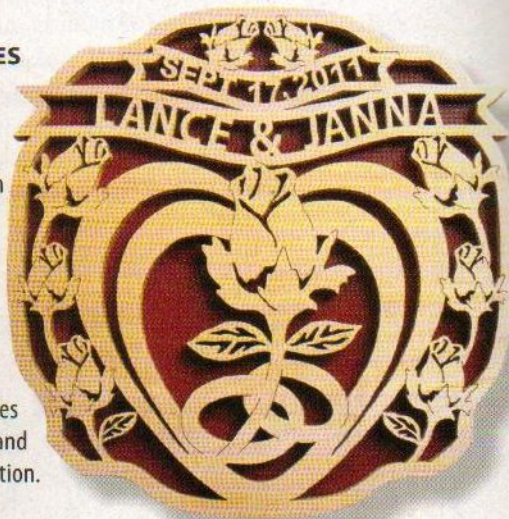
By Kathleen Ryan

Love is in the air at this time of year, and for many scrollers it's mingled with sawdust. These quick, easy, and inexpensive scroll saw wedding gift project ideas are sure to leave a lasting impression on any newlywed couple.

Note: These projects are intended as inspiration only. The patterns are not in this issue, nor are they necessarily available from the designers.

PERSONALIZED WEDDING PLAQUES

Memorialize the happy day with a wedding plaque. This 11" plaque is made from Baltic birch plywood. The backer is painted with red acrylic and finished with two coats of polyacrylic sealer. Designed by Sue Mey and cut by Linda Roland, the pattern comes with a full set of letters and numbers for personalization. It is available at www.scrollsawartist.com.



CANDLEHOLDER

Nothing says love like candles, and this striking candleholder will add even more romance. Measuring 4" by 4" by 18", the candleholder was cut from 1/4" fiberboard and painted with acrylic paint. Australian artist Leanne McBeath modified a Steve Good pattern to make this candleholder. See more of Leanne's work at www.sawdustartonline.com.



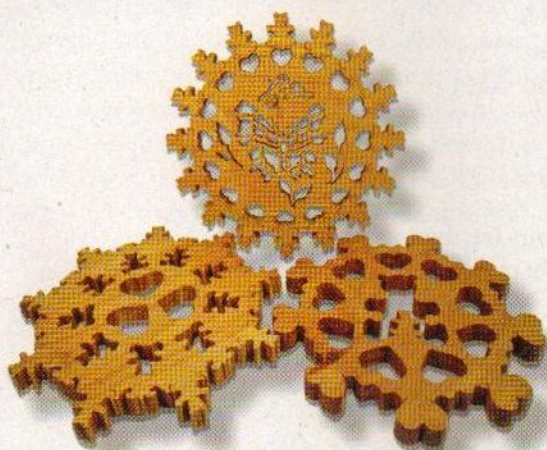
COASTER AND NAPKIN HOLDER SET

This lovely coaster and napkin holder set was designed by Sue Mey and scrolled by Bill Heitman. Bill used maple for the napkin holder, Baltic birch for the coasters, and sapele wood for the bottoms of the coasters. He finished the set with teak oil and Deft satin. Pattern available from www.scrollsawartist.com.



WEDDING PARTY BOXES

Help the bride give her wedding party gifts with meaning. Cut from Baltic birch plywood and measuring 10" by 8" by 3½", each box bears a message from the bride. Richard Jones crafted these lovely keepsakes using a Sheila Landry pattern. Pattern available from www.sheilalandrydesigns.com.



WOODEN TRIVETS

Perfect for any newlywed kitchen, this attractive set of pine trivets was designed and cut by Gus Panart of Rathdrum Creek Crafts. They range in size from 7" to 9" and were finished with an oil stain and polyurethane. View more of Gus's work at www.etsy.com/shop/rathdrumcreekcrafts.



SCROLL SAW SPOONS

Newlyweds will cherish these decorative 7" spoons for a lifetime. Built to last, they are cut from maple with a scroll saw, and then shaped with power tools and knives. The set was finished with Watco butcher-block oil and conditioner. Theodore P. Buzzelli loosely based the spoon on the left on a Pedro Santos pattern; the spoon on the right is his own design. Contact Theodore at tpbuzzelli@comcast.net.

PICTURE FRAME

This commemorative wedding frame, designed and scrolled by Keith Fenton, is the perfect way to celebrate that special day. Cut from curly maple, it measures 9" by 13" and took about four hours to complete. The bride and groom silhouettes inside the frame can easily be replaced with an actual wedding photo. Pattern available from www.sheilalandrydesigns.com.



MARVELOUS MINI HEARTS CLOCK

This keepsake clock was cut from red flame box elder wood and finished with Deft lacquer. Measuring 3½" by 8½" long, it features a mini insert clock purchased from Wildwood Design. Justin Crabtree of Wooden Keepsakes cut this clock from a pattern in the March 2000 issue of *Creative Woodworks and Crafts*. See more of Justin's work at www.etsy.com/shop/woodenkeepsakes.

Wooden Salad Servers

Use compound-cutting techniques to create curved utensils

By Charles Mak

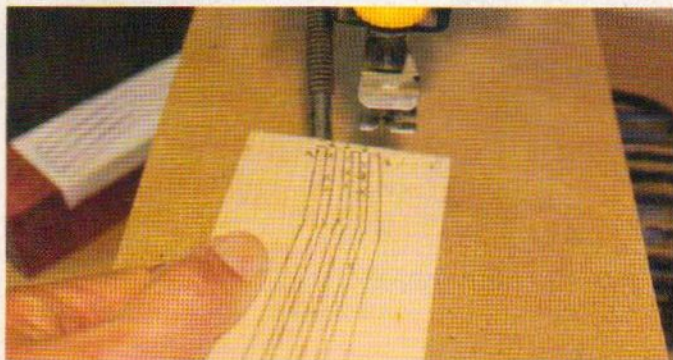
Spice up your salad this summer with these stylish salad servers. Don't be fooled by the curvy shape—all you need is a scroll saw! Use compound-cutting techniques to make curved salad servers without bending the wood.

Getting Started

Choose a domestic closed-grain or semi-porous hardwood, such as cherry, walnut, or maple, and make sure the blank is free of knots or checks. Cut the blank to size.

Attach the pattern to the wood with spray adhesive or trace the pattern onto the blank with carbon paper or graphite paper. Cover the pattern with clear packaging tape, if desired.

CUTTING THE PROJECT



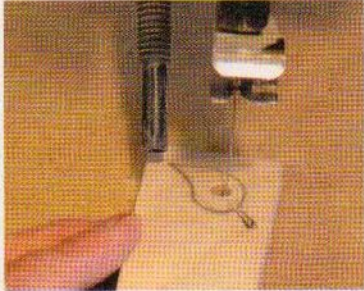
▲ Step 1: Cut the first side of the server. Make X marks in the waste areas to avoid cutting mistakes. Then, cut the first side of the utensil on the waste side of the line.



▲ Step 2: Sand the first side. It is easier to hold the block to sand the surface of the server smooth than it is to hold the thin utensil after cutting it.

Step 3: Finish cutting the utensil. Cut along the second line to free the server. Then, sand the server smooth. Finally, sand the exposed side of the second server smooth.

Step 4: Cut the second utensil. Repeat Steps 1 to 3 to cut the second server. Then, cut the taper on the utensils individually or in a stack of two. Use the pattern as a guide.



◀ **Step 5: Cut the fretwork in the servers.** Attach the pattern to the utensil, drill a blade-entry hole, and cut the design. You can stack-cut the fretwork for two servers at a time, if desired.

Step 6: Sand the utensil. Stamp or scribe your maker's mark on the servers, and sand them with progressively finer grits of sandpaper up to 220 grit.

Finishing the Servers

Apply a few coats of food-safe mineral oil-based finish, beeswax, or your choice of finish. Every finish is food safe if you allow it to cure according to the manufacturer's instructions. After you finish and use the servers, clean them with warm soapy water and wipe them dry; do not soak them in hot water or run them through the dishwasher. This will damage or remove the finish. If you use a mineral oil-based finish, recoat the tongs with oil when they start to look dry; if you use beeswax, reapply it as needed.

Materials & Tools

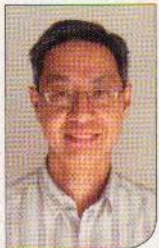
Materials:

- Hardwood, 2" (52mm) thick: 2" x 11¾" (52mm x 298mm) for 2 pairs of servers
- Spray adhesive or carbon/graphite paper
- Tape: clear packaging
- Sandpaper
- Finish, such as tung oil, walnut oil, mineral oil, Danish oil, or beeswax

Tools:

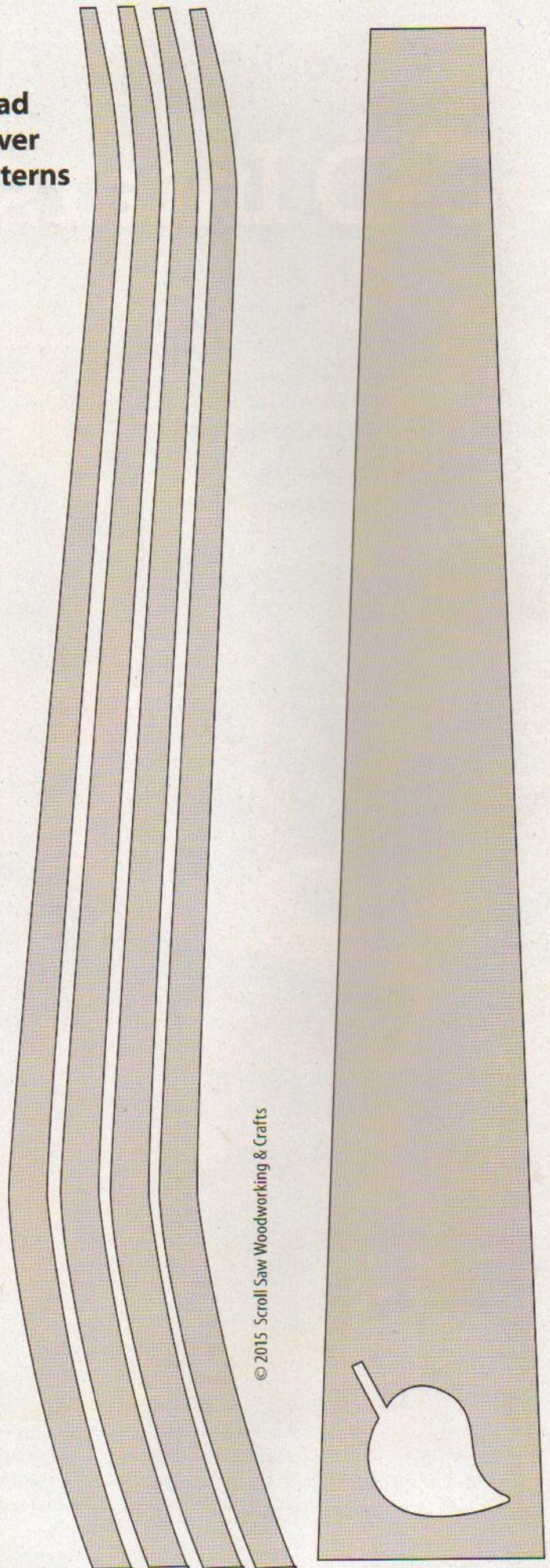
- Blade: #5 skip-tooth
- Stationary belt sander or oscillating drum sander
- Drill and bit: ¼" (6mm) dia.

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



Charles Mak is a semi-retired businessperson and amateur woodworker in Calgary, Alta., Canada. He enjoys writing, authoring shop tips, teaching, and woodworking with both power and hand tools. His e-mail address is: thecanadianwoodworker@gmail.com.

Salad server patterns

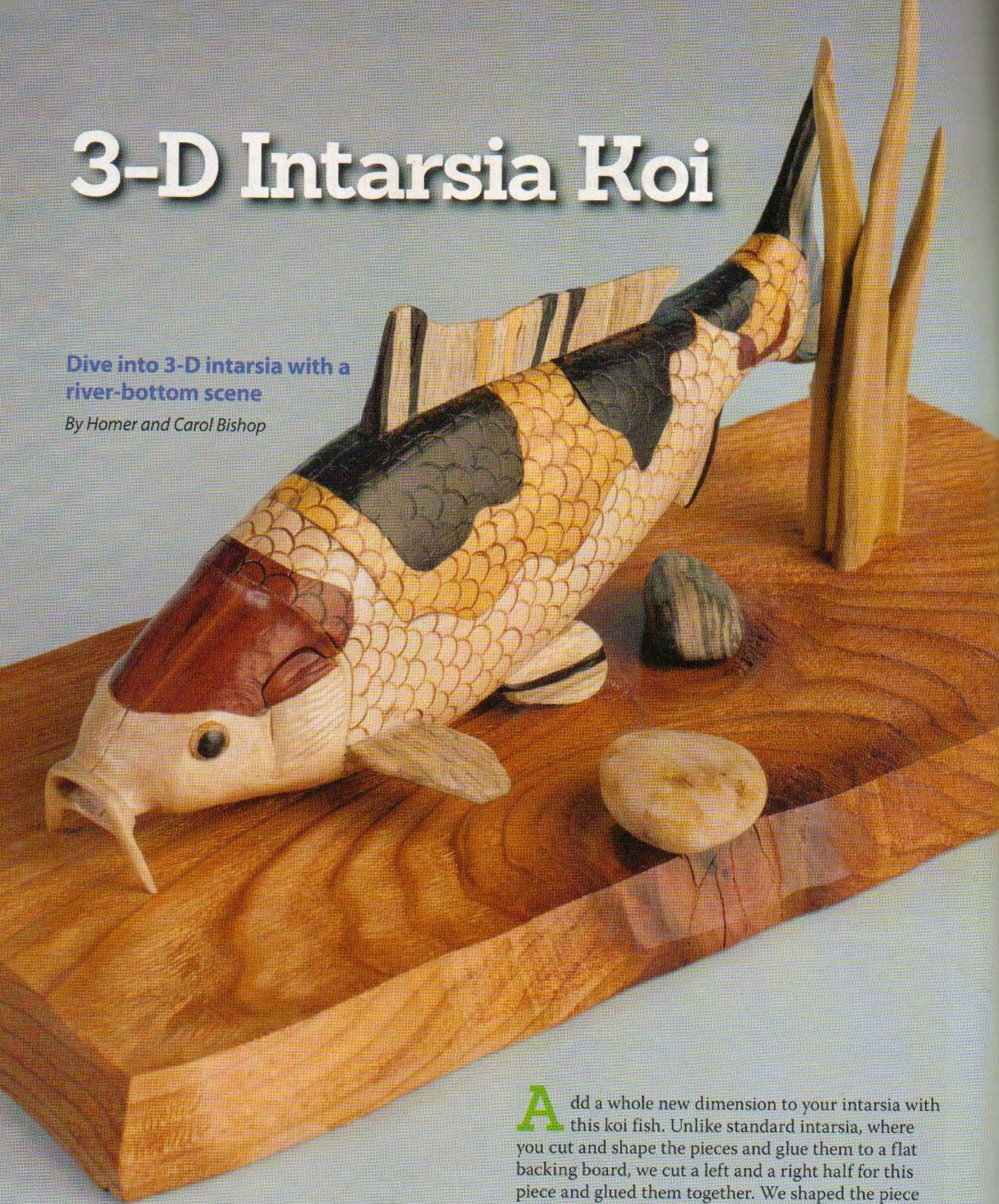


© 2015 Scroll Saw Woodworking & Crafts

3-D Intarsia Koi

Dive into 3-D intarsia with a river-bottom scene

By Homer and Carol Bishop

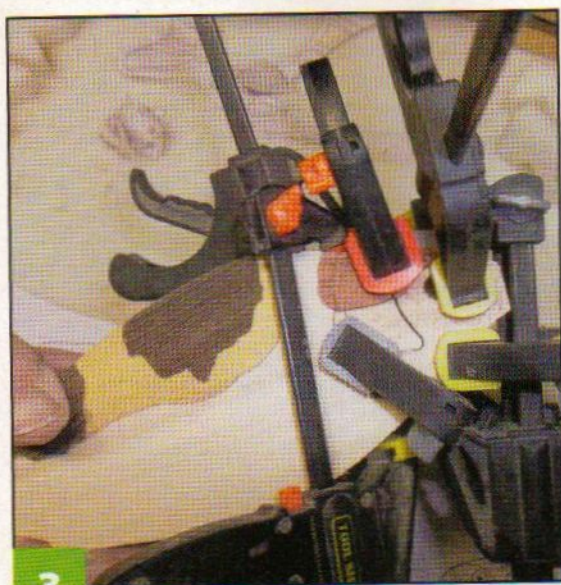


Add a whole new dimension to your intarsia with this koi fish. Unlike standard intarsia, where you cut and shape the pieces and glue them to a flat backing board, we cut a left and a right half for this piece and glued them together. We shaped the piece after gluing it together, mounted it on a base, and added more 3-D elements to create a scene.

Instead of staining or dyeing the pieces, we used the natural colors of different varieties of wood. To help you shape the fish properly, we've created templates to hold against your piece. You will find them on the pattern pullout.

Getting Started

Start with a new blade that has been squared to the table, as this will ensure a clean and good fit. Attach the patterns to the appropriate blanks using the pattern transfer method that gives you the best results (see page 70). Always use a copy of the pattern and save the original for later use. We resawed the thin stock from thicker pieces of scrap.



3

Make the head. Cut the head and gill pieces. Drill $\frac{5}{16}$ " (8mm)-diameter holes where indicated for the eyes. Glue the head pieces together, and glue and clamp the head to the body. Insert the gills loosely to add more surface for the clamps. Do not glue the gills in place yet.

KOI: CUTTING THE PIECES



1

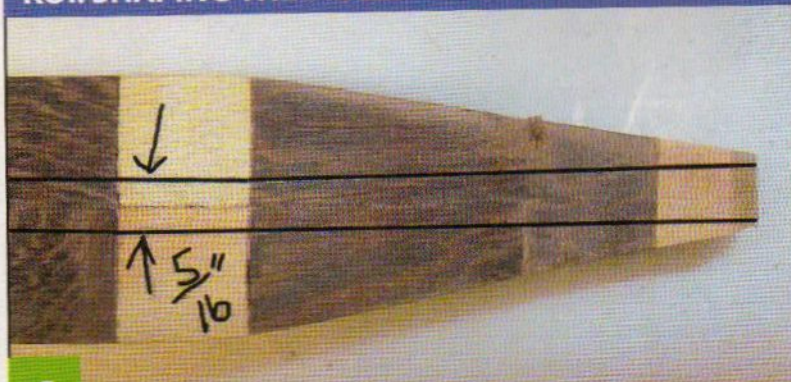
Make the two halves of the body. Cut the pieces, dry-assembling them on a copy of the pattern as you go. Check the fit of the pieces and make any necessary corrections. Position the pieces face-up on a nonstick surface, and then glue and clamp them together. Fill any gaps between the pieces with glue, allowing the extra to squeeze out of the joints.



2

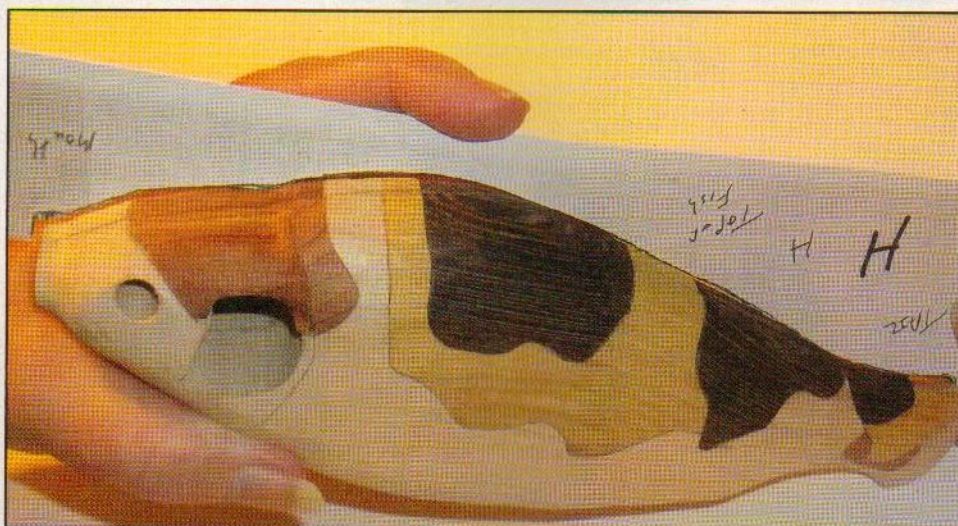
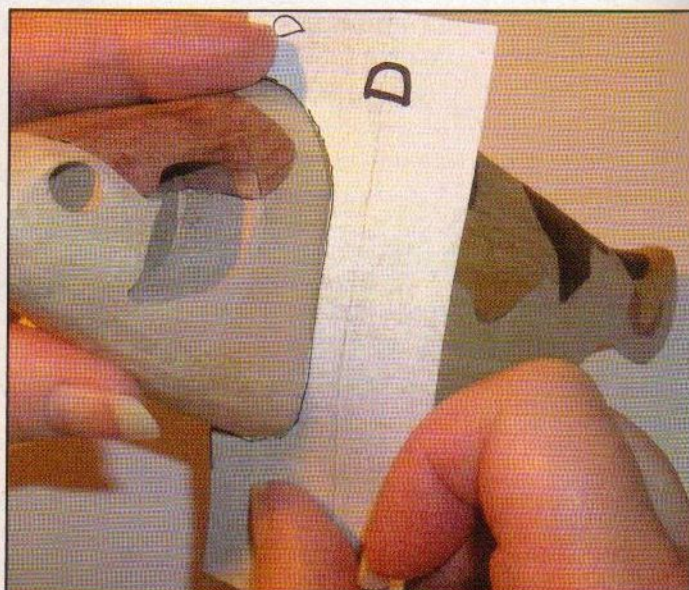
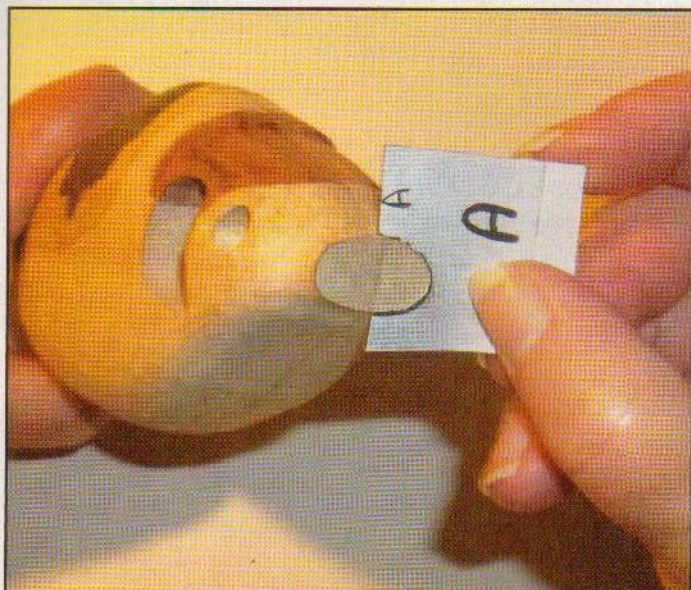
Glue the two halves together. Sand the fronts of the pieces to remove any glue squeeze-out. Hand-sand the backs carefully to clean up the surfaces, keeping the backs as flat and smooth as possible. Dry-assemble the two halves and make sure the backs are flat. Generously apply glue to the backs and press the pieces together. Adjust the positions of the two halves until the colors and edges align as much as possible. Clamp the halves together and let dry.

KOI: SHAPING THE PIECES



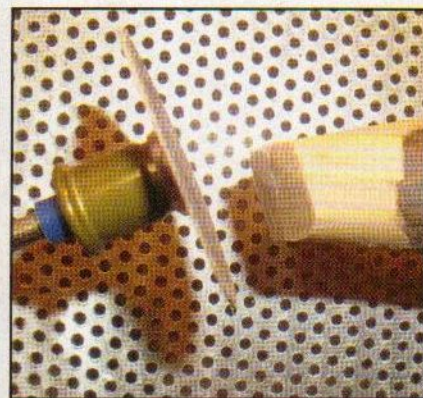
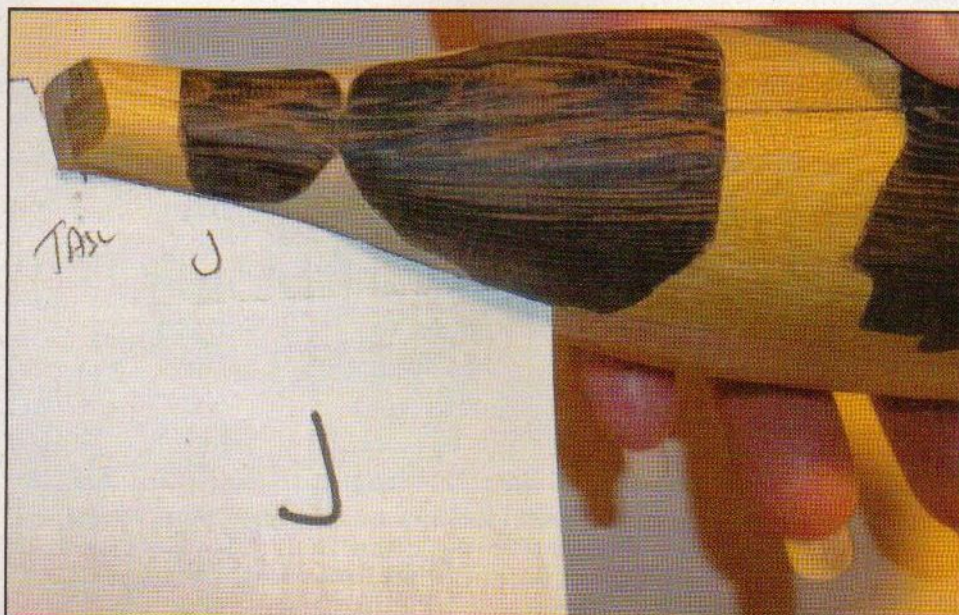
4

Prepare to shape the fish. Draw two lines, each $\frac{5}{16}$ " (8mm) from the center seam, on the top of the fish. Use this width as a guide when you sand the tail section; do not sand past the lines. Transfer the shaping templates to cardstock and cut them out.



5

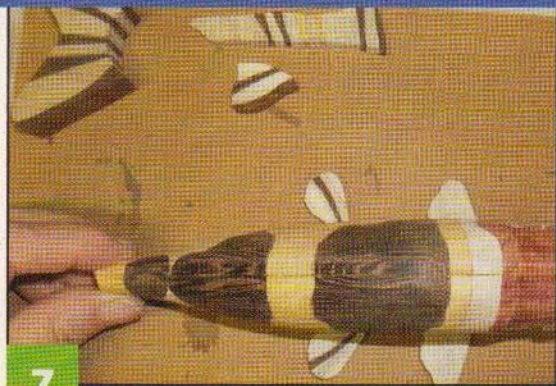
Shape the fish. Sections A–I on the pattern indicate the template locations on the fish. Use Templates A–I to check the size and shape of both sides of the fish during sanding. Use a disc or belt sander to sand the tail section and round the top and bottom of the fish, and then use sanding drums in a rotary tool to refine the body. When you are satisfied with the shape, use a flap sander to smooth any sanding marks or scratches.



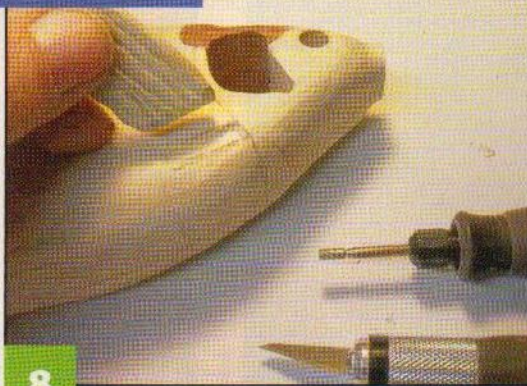
6

Add a bend to the tail. Use Template J as a guide to angle the tail. Use a small disc sander to shape the tail. Use Template K to check the shape of the entire fish.

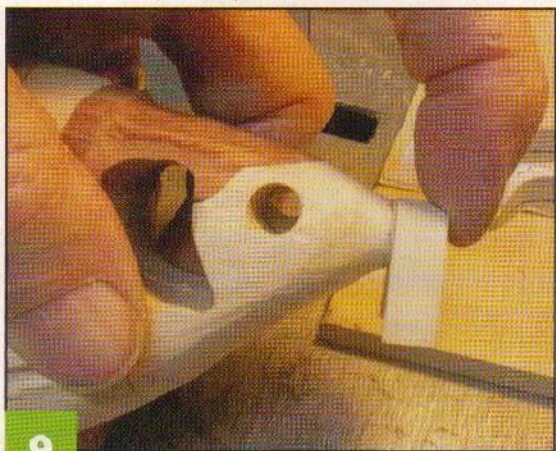
KOI: ADDING THE DETAILS



7 **Cut the fins and tail.** Cut the fin pieces and glue them together. Then, cut the tail pieces and glue them together. Test the fit of the tail and make any necessary corrections.



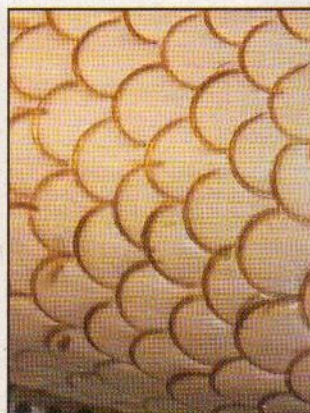
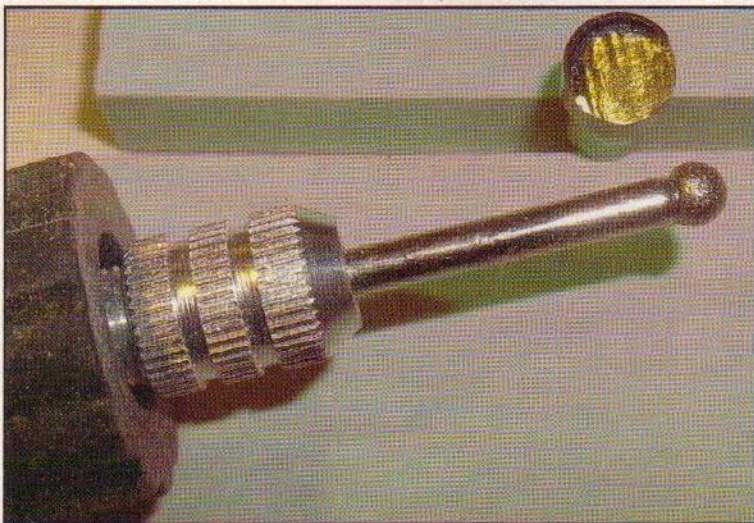
8 **Add the pectoral and pelvic fins to the body.** Refer to the pattern to mark the locations of the pectoral and pelvic fins. Use a rotary bit or a hobby knife to carve slots in the body that will fit the ends of the fins. Glue the fins into place.



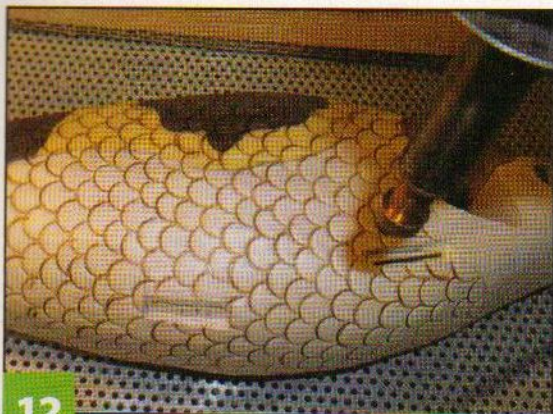
9 **Add the facial details.** Cut the mouth. Glue the gill pieces together and taper them so the back sticks out from the body about $\frac{1}{8}$ " (3mm). Cut the eye dowel to length and use black fabric paint to add an iris on each end. Cover the ends of the dowel with a thin layer of clear-drying glue to make the eyes glossy.



10 **Prepare the dorsal, anal, and tail fins.** Shape the dorsal and anal fins, tapering them from $\frac{3}{16}$ " (5mm) thick where the fins meet the body to $\frac{1}{16}$ " (2mm) at the edges. Do not shape the tail fin yet. Use a rotary tool with a thin cutoff wheel to cut slots in the ends of the fins and tail, and matching slots in the body. Cut the slots about $\frac{1}{8}$ " (3mm) deep and short enough that they will not be visible when the pieces are joined later. Cut small pieces of thin cardboard to be used as joint supports, and trim the cardboard for a good fit in the slots.

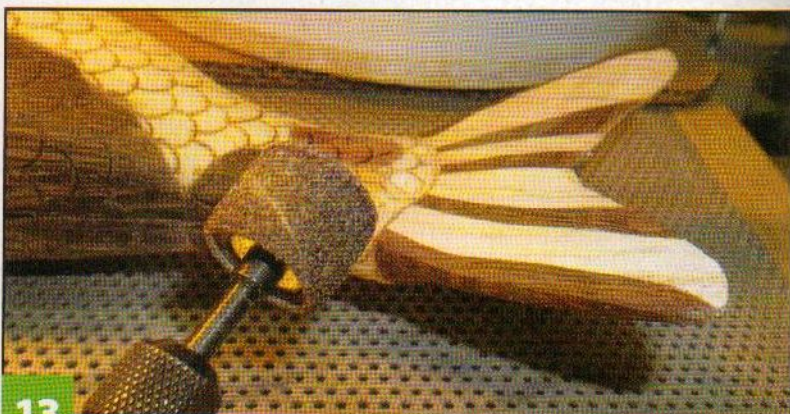


11 **Make a scale-stamping tool.** You will need a solid-tip woodburner; we used a Creative Versa-Tool® by Walnut Hollow. Use a grinding or diamond bit in a rotary tool to modify the stamping tool tip into a half-round scale shape. Place the tip in the burner and practice stamping on a piece of scrap wood to ensure you are satisfied with the tip shape and to determine the correct temperature.



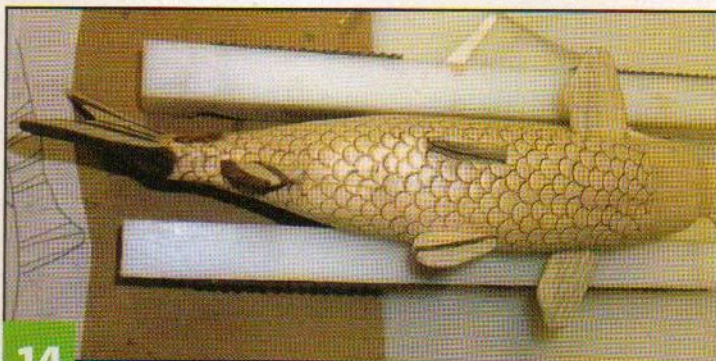
12

Woodburn the scales. Begin stamping on the body just behind the head and work toward the tail. Use a flat tip to darken the mouth area. Don't go to the outer edge, as it may show later when you attach the mouth.



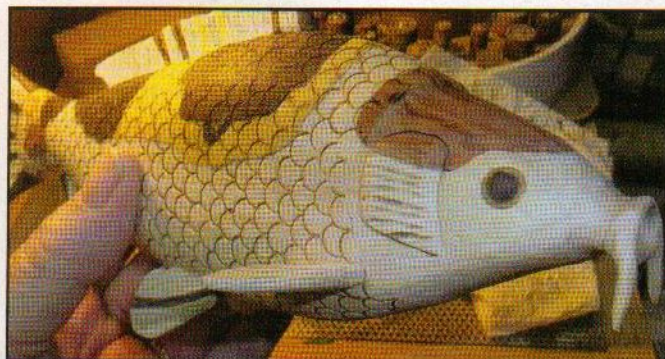
13

Attach and refine the tail fin. Sand the tail fin so the tips are about $\frac{3}{16}$ " (5mm) thick. Apply clear-drying glue to the tail fin, cardboard joint supports, and around the slot; insert the joint supports into the slot; let dry. Use a rotary tool to blend the tail fin to the body. The outer tips of the fin should end up about $\frac{1}{16}$ " (2mm) thick. Use the edge of the sanding drum to cut thin grooves in the tail fin.



14

Attach and refine the fins and gills. Apply glue to the fins, cardboard joint supports, and around the slots, and insert a joint support into each slot. Wipe away any squeeze-out. Use the sanding drum in a rotary tool to adjust the joints and cut thin grooves into the fins. Glue the gills in place, making sure the front of the gill is flush with the head.



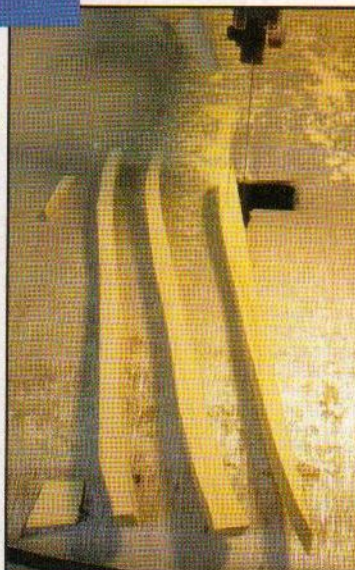
Slightly groove the gills with the rotary tool as shown. Glue the eyes in position; they should protrude approximately $\frac{1}{8}$ " (3mm). Glue the mouth in position; when the glue dries, sand and shape it. The mouth will only be about $\frac{1}{8}$ " (3mm) thick when you finish sanding.

KOI: MAKING THE BASE



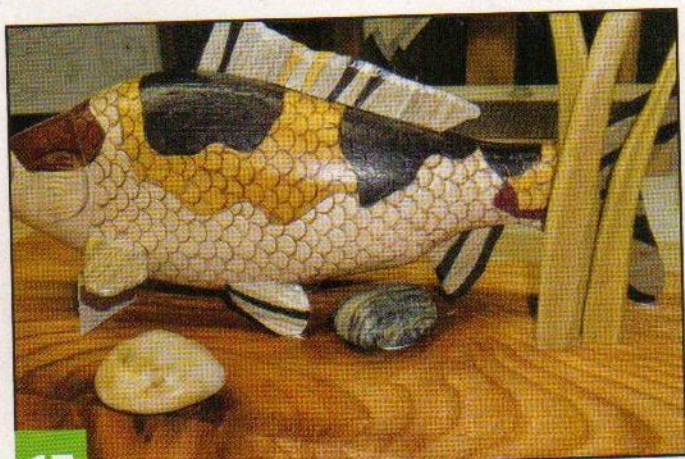
15

Cut the base. We chose a piece of wood with a grain pattern that resembled an eroded river bottom. Angle-cut the edges. Use a wire brush to remove the softer materials between the grain, and use a flap sander to smooth the surface. Coat the base and fish with a clear sealer.



16

Make the grass. Cut three pieces of grass, and sand and shape them as desired. Apply tape where you'd like to place the grass. Use a sharp pencil to trace around the base of the leaves, and use the scroll saw to cut a spot in the base. Apply clear finish to the grass and let them dry. Decide how to position the rocks on the base.



17

Attach the grass and rocks. Glue the grass and rocks in place, and then position the fish on the base. Try to position the fish's tail so it touches a piece of grass. Glue and clamp the fish to the base. Allow the glue to dry.

Materials & Tools

Materials:

- Aromatic red cedar, $\frac{7}{8}$ " (22mm) thick: body, gills, head 2" x 2" (51mm x 51mm)
- Blue pine, $\frac{3}{16}$ " (5mm) thick: fins, assorted scraps
- Blue pine, $\frac{3}{4}$ " (19mm) thick: tail, 2" x 3" (51mm x 76mm)
- Cottonwood, $\frac{1}{4}$ " (6mm) thick: mouth, 1" x $1\frac{1}{2}$ " (25mm x 38mm)
- Cottonwood, $\frac{7}{8}$ " (22mm) thick: belly, head, 6" x 9" (152mm x 229mm)
- Poplar, $\frac{3}{8}$ " (10mm) thick: grass, $2\frac{1}{4}$ " x 6" (57mm x 152mm)
- Wenge, $\frac{3}{16}$ " (5mm) thick: fins, assorted scraps
- Wenge, $\frac{3}{4}$ " (19mm) thick: tail, 2" x 3" (51mm x 76mm)
- Wenge, $\frac{7}{8}$ " (22mm) thick: body, 2" x 5" (51mm x 127mm)
- Western red cedar, $\frac{3}{4}$ " (19mm) thick: base, 7" x 13" (178mm x 330mm)
- Yellowheart, $\frac{3}{16}$ " (5mm) thick: fins, assorted scraps
- Yellowheart, $\frac{7}{8}$ " (22mm) thick: body, 6" x 6" (152mm x 152mm)
- Dowel, $\frac{5}{16}$ " (8mm) dia., $2\frac{1}{2}$ " (38mm) long

- Glue: Crafters Pick (The Ultimate) or Beacon's 3-in-1 Advanced Craft
- Spray adhesive: temporary-bond
- Sandpaper
- Fine tip black marker or pencil
- Fabric paint, such as Tulip: black
- Masking tape
- Heavy-weight card stock (for shaping templates and joint supports)
- Rocks: 2 small (optional)
- Finish

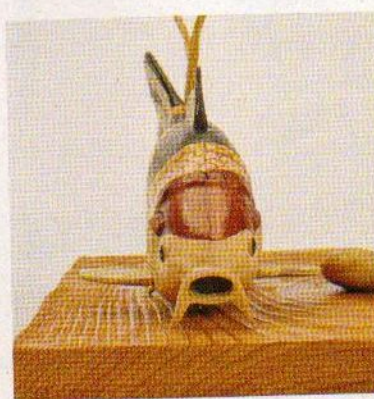
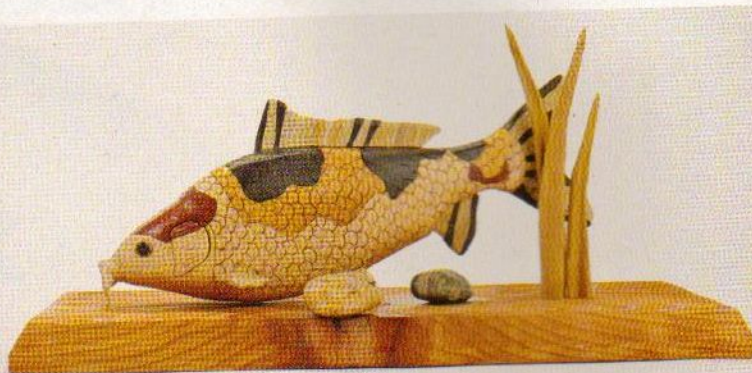
Tools:

- Blades: #4 and #7 skip-tooth
- Drill press with bits: $\frac{3}{16}$ " (8mm) dia., assorted
- Sanders: flap, belt, or disc
- Wire wheel
- Rotary tool with bits: assorted, sanding drums
- Hobby knife
- Clamps
- Nonstick clamping surface or waxed paper
- Solid-tip woodburner, such as Creative Versa Tool®, with stamping tool tip and flat tip

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

SPECIAL SOURCES:

The Creative Versa-Tool #38283 is available through Walnut Hollow, 800-395-5995, www.walnthollow.com.



Carol and Homer Bishop have been cutting and designing intarsia patterns for several years. You can reach them at hcbishop2005@yahoo.com. For a list of their available patterns, e-mail a request to bishoppatterns@yahoo.com.

Patterns for the **3-D INTARSIA KOI** are in the pattern pullout section.



Sailboat Wall Clock

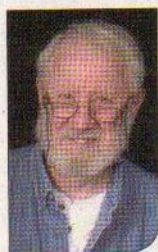
Count down the hours until summer with a nautical clock

By John Nelson
Cut by Rolf Beuttenmuller

Can't wait for warm weather to come around again? Hang this sailboat clock in your office or home to remind you of summer all year long. Add a backing board for extra contrast and additional support, or enjoy the natural wood look.

Making the Clock

Apply blue painter's tape to the blank and attach the pattern with spray adhesive. Drill blade-entry holes and the clock insert hole. Use a #3 reverse-tooth blade for the smaller areas and a #5 blade for the larger areas and the perimeter. Remove the pattern, and soften the edges with sandpaper or a router with a $\frac{1}{8}$ " (3mm)-radius roundover bit. Apply a finish of your choice; I used Watco semi-gloss spray lacquer. If desired, use glue to attach a backing board.



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

Materials & Tools

Materials:

- Maple, 1" (25mm) thick: 12" x 12" (305mm x 305mm)
- Backing board, $\frac{1}{8}$ " (3mm) thick (optional)
- Clock insert: 1 $\frac{1}{16}$ " (36mm) dia. (optional)
- Blue painter's tape
- Spray adhesive
- Sandpaper
- Glue (optional)
- Finish, such as Watco semi-gloss spray lacquer

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

Tools:

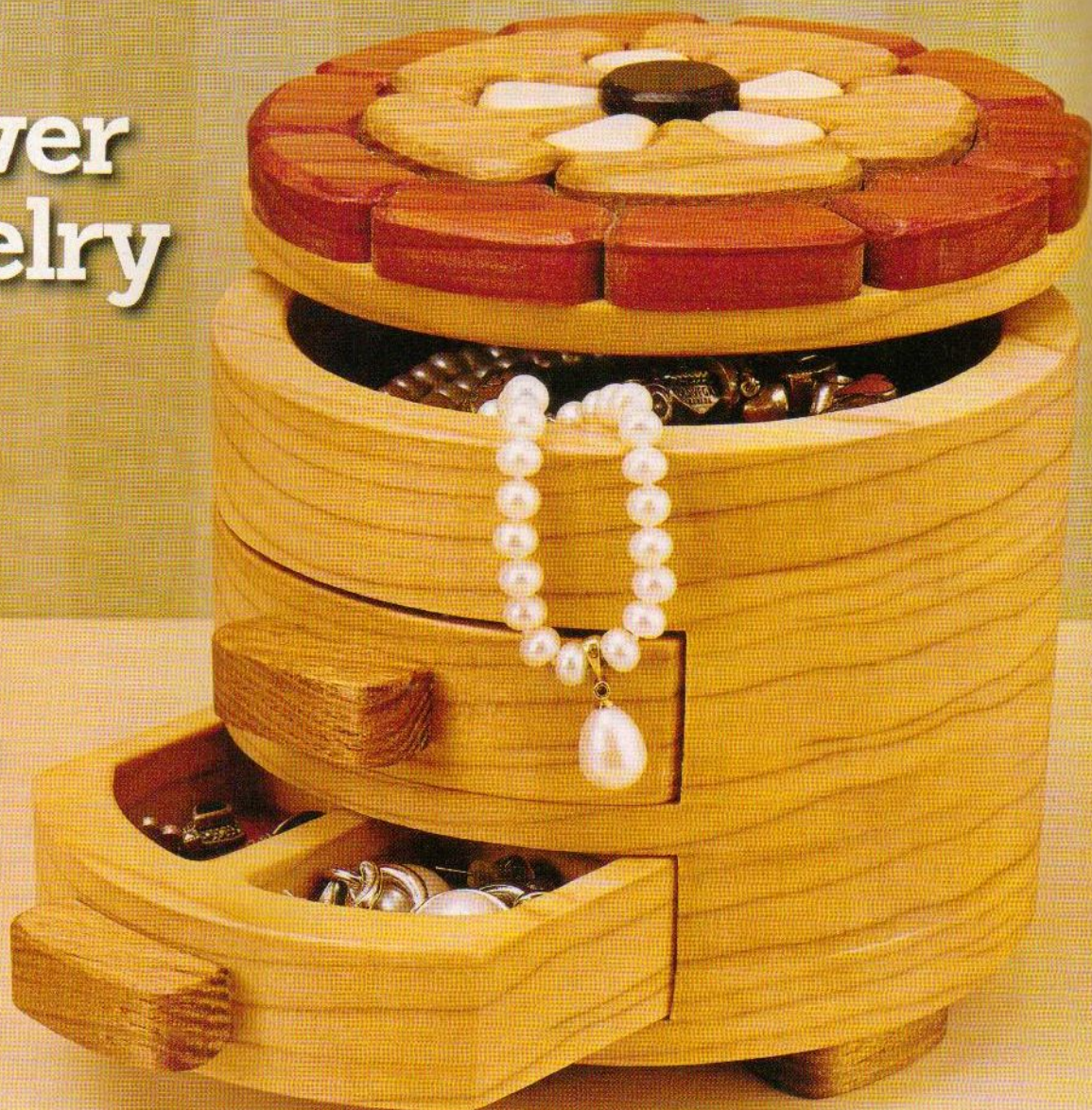
- Blades: #3 reverse-tooth, #5
- Drill with assorted bits
- Router with $\frac{1}{8}$ " (3mm)-radius roundover bit (optional)

Pattern for the **SAILBOAT WALL CLOCK** is in the pattern pullout section.

Flower Jewelry Box

Customize the compartments to make a jewelry box that's as useful as it is lovely

By Gary MacKay



Store your jewelry and trinkets in a box as beautiful as the objects inside. I built this box from the bottom up by gluing layers of wood together. This construction technique ensures the drawers fit precisely and that, if you use a wood with a pronounced grain, the grain will match across the front of the box.

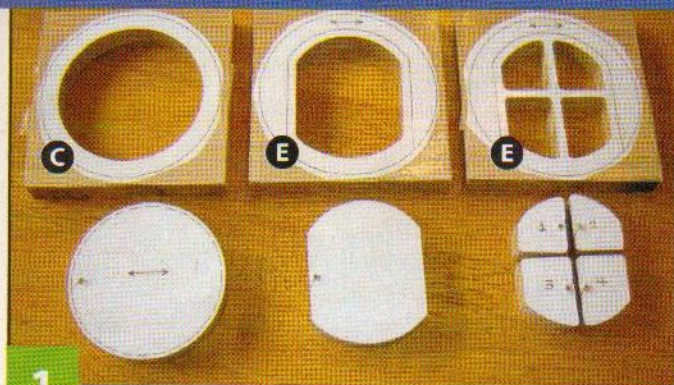
Customize this box by choosing the type of drawers you want; I included patterns for drawers with one and four compartments. You can also choose to make the flower from different types of wood; I used red cedar, sassafras, aspen, and walnut.

Getting Started

Make six copies of the pattern labeled ABCD, and make two copies of the drawer bottom pattern (EF). Make two additional copies of either the one-compartment or the four-compartment drawer pattern (both labeled E; the sample project uses one of each). Copy the box feet (G) and drawer pull (H) patterns as well. Refer to the Parts List and adhere the patterns to the appropriate blanks. Cover all of the patterns with clear tape.

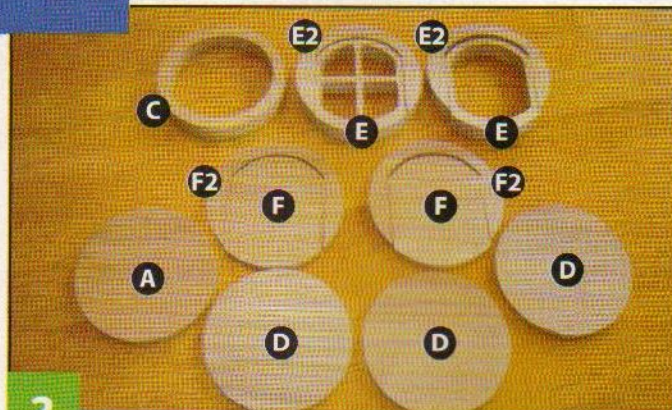


FLOWER BOX: MAKING THE DRAWERS & BOX



1

Cut the top compartment (C) and drawers (E). Drill $\frac{1}{8}$ " (3mm)-diameter blade-entry holes where indicated on the patterns. Use a #9 or larger blade to cut the compartments as shown. Save the cutouts, with the patterns attached, if you plan to line the compartments with felt. Cut the perimeters of the three pieces. Cut the U-shaped drawer openings on both drawer pieces to form the drawer frames (E2).



2

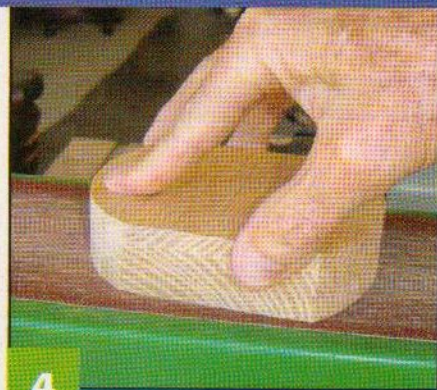
Cut the lid (A), box layers (D), and drawer bottoms (F). Stack the pieces if desired and cut the perimeters of the six circles. Then, cut the U-shaped drawer openings on the drawer bottoms to form the bottom frames (F2). (Do not cut the compartments.) Sand away any fuzzies and remove all of the patterns.



3

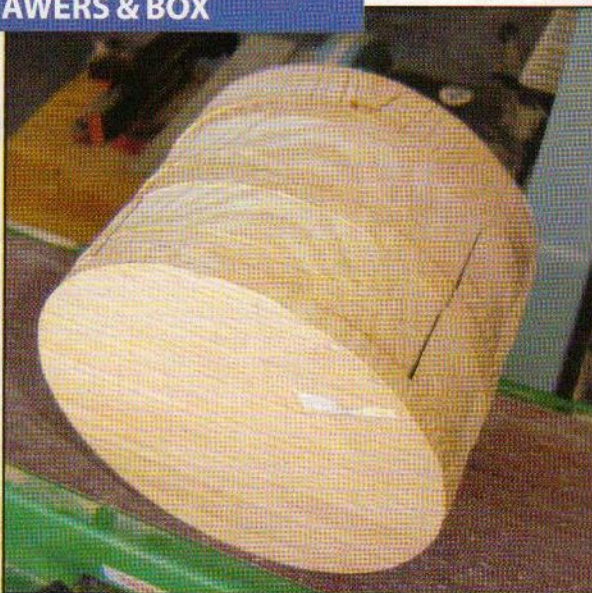
Assemble the box. Refer to the diagram on page 40. Match the drawers (E) to the drawer bottoms (F). Glue and clamp each drawer and bottom, and then glue and clamp each drawer frame (E2) to the bottom frame (F2). Make sure the grain direction is parallel between the two layers. Glue and clamp the bottom of each drawer frame assembly (E2-F2) to a box layer (D) (do not glue the drawers). Glue and clamp the top compartment (C) to a box layer. Stack the three assemblies with the openings and grain aligned and the top compartment on top; glue and clamp. (Do not glue the drawers.)

FLOWER BOX: REFINING THE DRAWERS & BOX



4

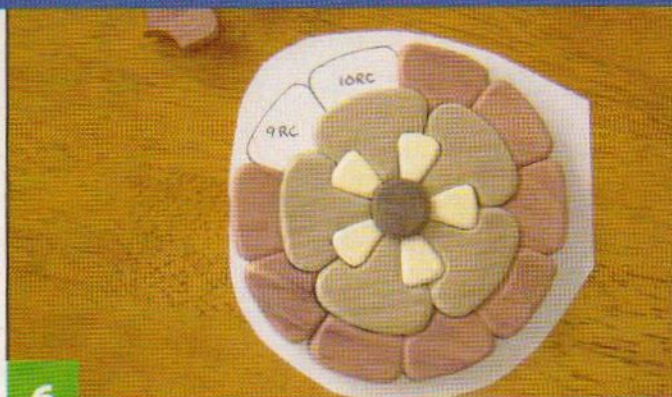
Sand the sides and backs of the drawers. Use a belt sander to sand all of the layers flat and smooth. Put the drawers in the opening to test the fit. The drawers should slide smoothly into the openings.



5

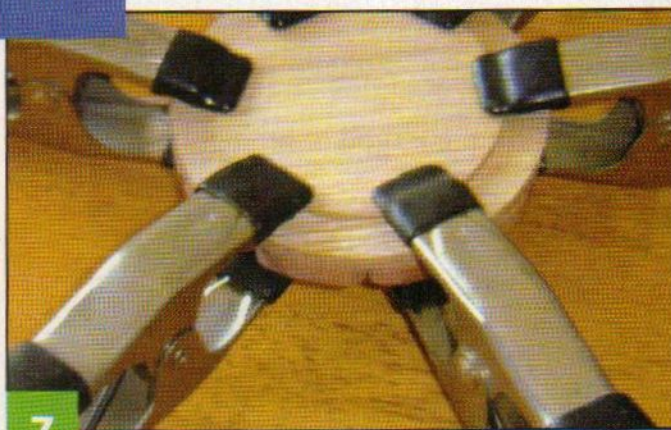
Sand the outside of the box. Insert the drawers into the box. Use tape to hold the drawers in place while you sand the outside of the box; avoid sanding the tape. When the rest of the box is smooth, remove the tape and place more strips in already sanded areas. Sand the remaining parts of the box smooth. Remove the tape, and hand-sand the box and drawers with 220-grit sandpaper.

FLOWER BOX: ADDING THE DETAILS



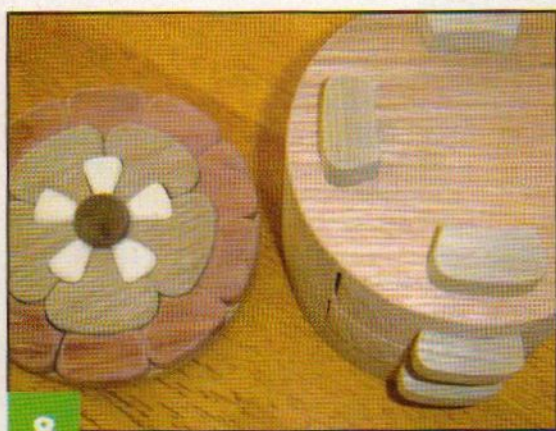
6

Make the flower for the lid. Attach the appropriate patterns to the flower center and flower segment blanks. Cut the pieces. Number the bottom of each piece. Remove the patterns, and round the top edges of the center and segments. Place a copy of the flower pattern under waxed paper on a flat surface. Place the center on the waxed paper, and edge-glue segments 1A through 5A to the center using the remaining segments as spacers. Be careful to prevent glue squeeze out. Then, edge-glue the remaining segments together.



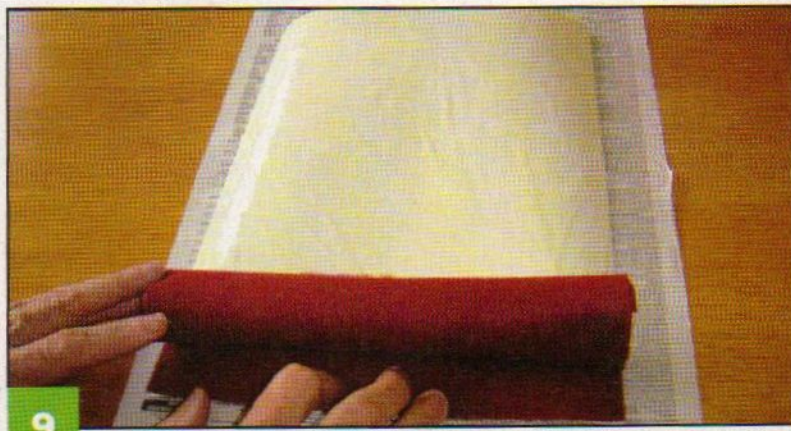
7

Assemble the lid. Center the floral decoration on the lid (A); glue and clamp. Cut the lid liner (B) along the dashed line. Remove the pattern and sand off any remaining adhesive or paper. Place the lid facedown, and center the lid liner on top. Invert the box and use it to center the liner on the lid. Lift the box, mark the location of the liner, lift the liner, and apply glue. Use the marks to reposition the liner and clamp it in place.



8

Add the drawer pulls and feet. Cut the drawer pulls and feet. Glue and clamp the pulls and feet to the box, and let the glue dry. Then, apply a clear spray finish to the box.



9

Line the box compartments (optional). Use wood glue to attach felt to a piece of poster board. Weight the felt with a couple of books and let the glue dry overnight. Place the saved cutout compartment pieces, pattern sides down, on the back of the poster board. Trace the pieces and cut the poster board with scissors. Adhere the liners to the compartments using a few drops of tacky glue.

Parts List

	Piece	Materials	Quantity
A	Lid	Ash $\frac{1}{4}$ " x $5\frac{1}{2}$ " x $5\frac{1}{2}$ " (6mm x 140mm x 140mm)	Cut 1
B	Lid Liner	Ash $\frac{1}{8}$ " x $4\frac{1}{2}$ " x $4\frac{1}{2}$ " (3mm x 114mm x 114mm)	Cut 1
C	Top Compartment	Ash $\frac{3}{4}$ " x $5\frac{1}{2}$ " x $5\frac{1}{2}$ " (19mm x 140mm x 140mm)	Cut 1
D	Box Layers	Ash $\frac{1}{4}$ " x $5\frac{1}{2}$ " x $5\frac{1}{2}$ " (6mm x 140mm x 140mm)	Cut 3
E	One- or Four-Compartment Drawer	Ash $\frac{3}{4}$ " x $5\frac{1}{2}$ " x $5\frac{1}{2}$ " (19mm x 140mm x 140mm)	Cut 2; any combination of drawer patterns
E2	Drawer Frame	Cut from piece E, above	—
F	Drawer Bottom	Ash $\frac{1}{4}$ " x $5\frac{1}{2}$ " x $5\frac{1}{2}$ " (6mm x 140mm x 140mm)	Cut 2
F2	Bottom Frame	Cut from piece F, above	—
G	Feet	Sassafras $\frac{1}{2}$ " x 1" x 6" (13mm x 25mm x 152mm)	Cut 4
H	Drawer Pulls	Sassafras $\frac{1}{2}$ " x 1" x 3" (13mm x 25mm x 76mm)	Cut 2

Materials & Tools

Materials:

Box

- Ash, $\frac{1}{8}$ " (3mm) thick:
4½" x 4½" (114mm x 114mm)
- Ash, $\frac{1}{4}$ " (3mm) thick:
10½" x 16" (mm x mm)
- Ash, $\frac{3}{4}$ " (19mm) thick:
5½" x 18" (140mm x 140mm)
- Sassafras, $\frac{1}{2}$ " (13mm) thick:
1" x 12" (25mm x 305mm)

Flower decoration

- Walnut, $\frac{3}{8}$ " (16mm) thick:
1" x 1" (25mm x 25mm)
- Aspen, $\frac{1}{2}$ " (13mm) thick:
2½" x 2½" (64mm x 64mm)
- Sassafras, $\frac{1}{2}$ " (13mm) thick:
4" x 4" (102mm x 102mm)
- Red cedar, $\frac{3}{8}$ " (10mm) thick:
5½" x 6" (140mm x 152mm)

Additional materials

- Spray adhesive
- Packing tape: clear
- Glue: wood, tacky (optional)
- Sandpaper: assorted to 220-grit
- Spray finish: clear
- Felt (optional): 9" x 12" (229mm x 305mm)
- Poster board (optional):
9" x 12" (229mm x 305mm)
- Waxed paper

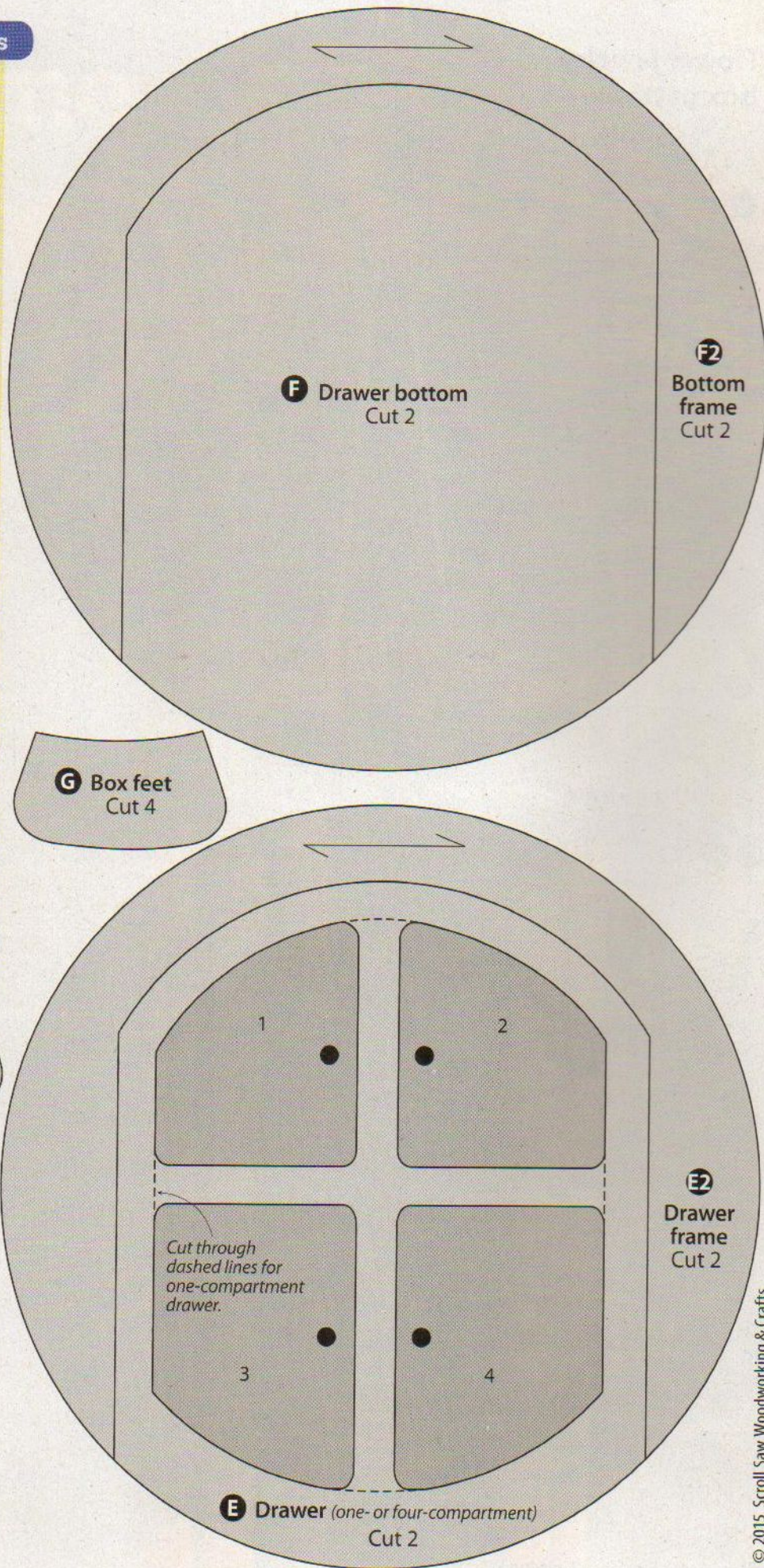
Tools:

- Blades: #5 and #9 or larger reverse-tooth
- Drill with $\frac{1}{8}$ " (3mm)-dia. bit
- Belt sander
- Clamps

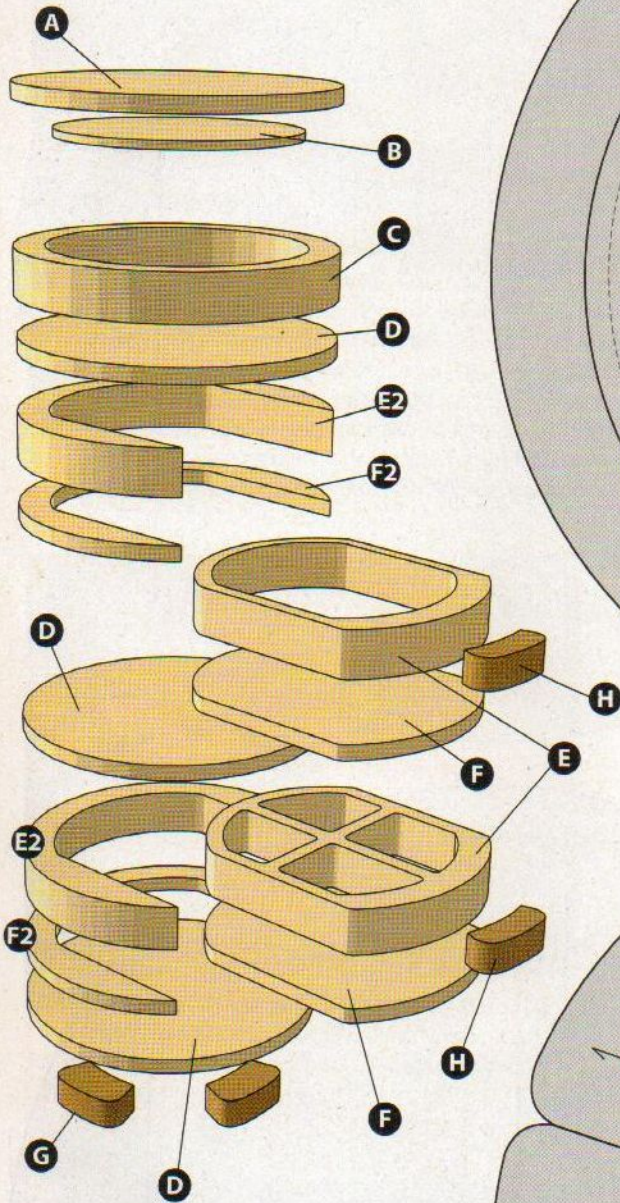
*The author used these products for the project.
Substitute your choice of brands, tools, and
materials as desired.*



Gary MacKay of Myrtle Beach, S.C., is the author of *Box-Making Projects* for the Scroll Saw, available from Fox Chapel Publishing at www.foxchapelpublishing.com.



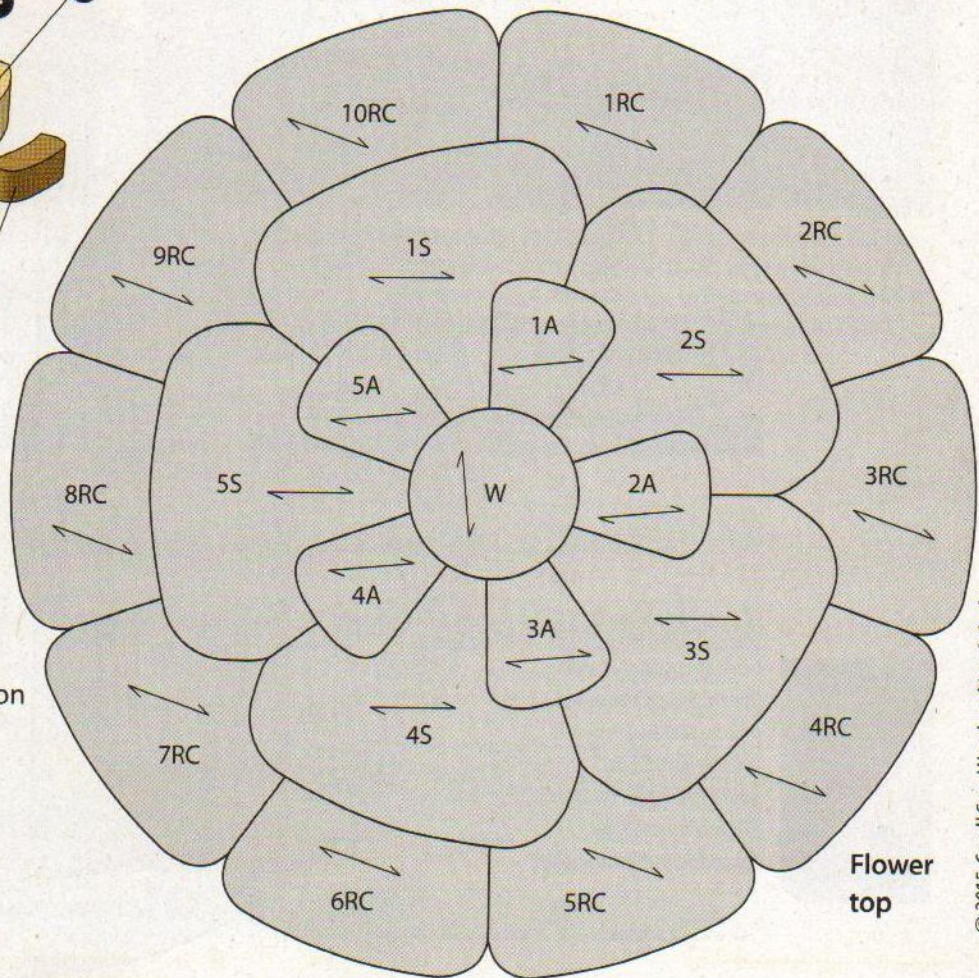
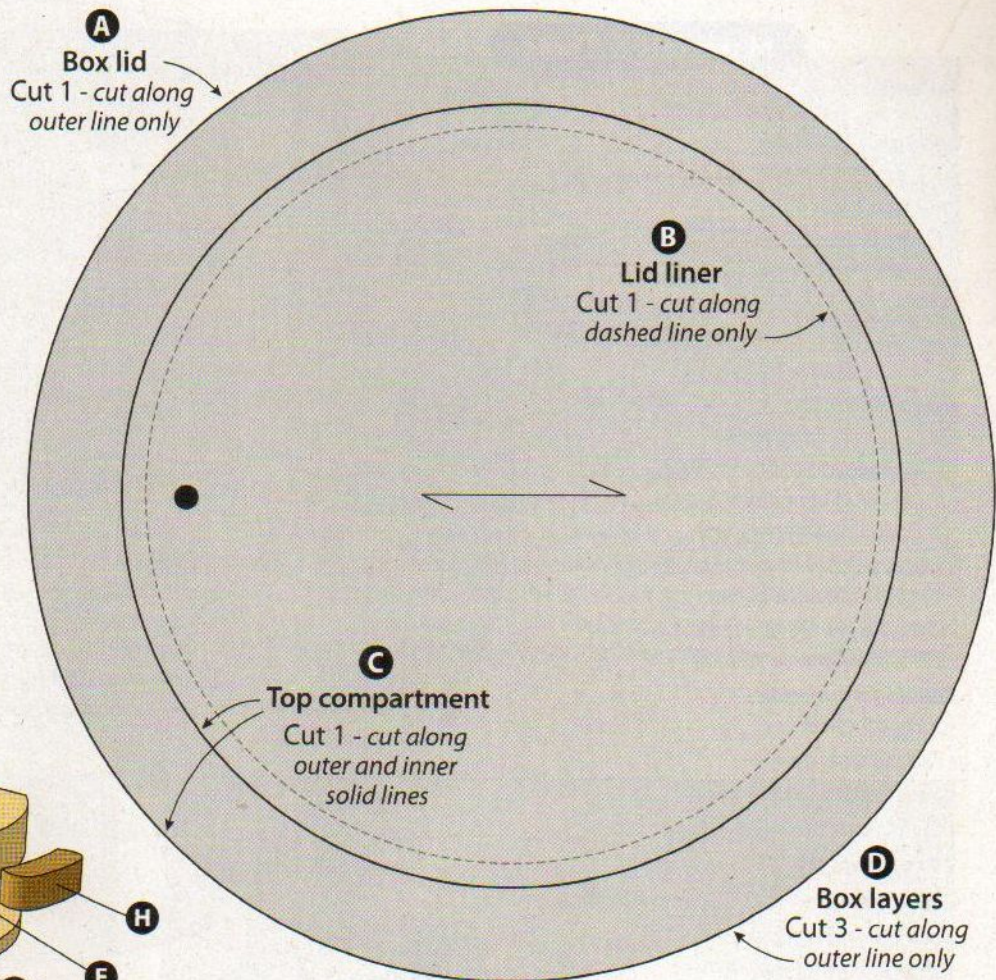
Flower jewelry box patterns



Assembly diagram

Legend

- ↗ Grain direction
 S.....Sassafras
 RC..... Red cedar
 A..... Aspen
 W..... Walnut



Welcome Wind Chime

Listen to the music of the
summer breeze with an
all-wood wind chime

By Sue Mey
Cut by Rolf Beuttenmuller

Welcome friends to your home and summer to your life with this beautiful wind chime. With wooden dowels for chimes, this wind chime's soothing sound is a great soundtrack to any summer afternoon.

Cutting the Wind Chime

Apply blue painter's tape to the blanks and attach the patterns with spray adhesive. Drill blade-entry holes and holes for the strings where indicated on the welcome sign, top circle, clapper, and clapper weight. On the welcome sign, cut the frets first with a #3 blade, and then cut the perimeter with a #5 blade. Cut the clapper, clapper weight, and top circle with a #5 blade. Round the edges with sandpaper or a router and a $\frac{1}{8}$ " (3mm)-radius roundover bit. Apply a finish; I used Watco semi-gloss spray lacquer, but I suggest using spar varnish if you're planning to keep the wind chime outside.

Cut the dowels to length. Drill small holes close to the top of each dowel, making sure to drill across the grain.



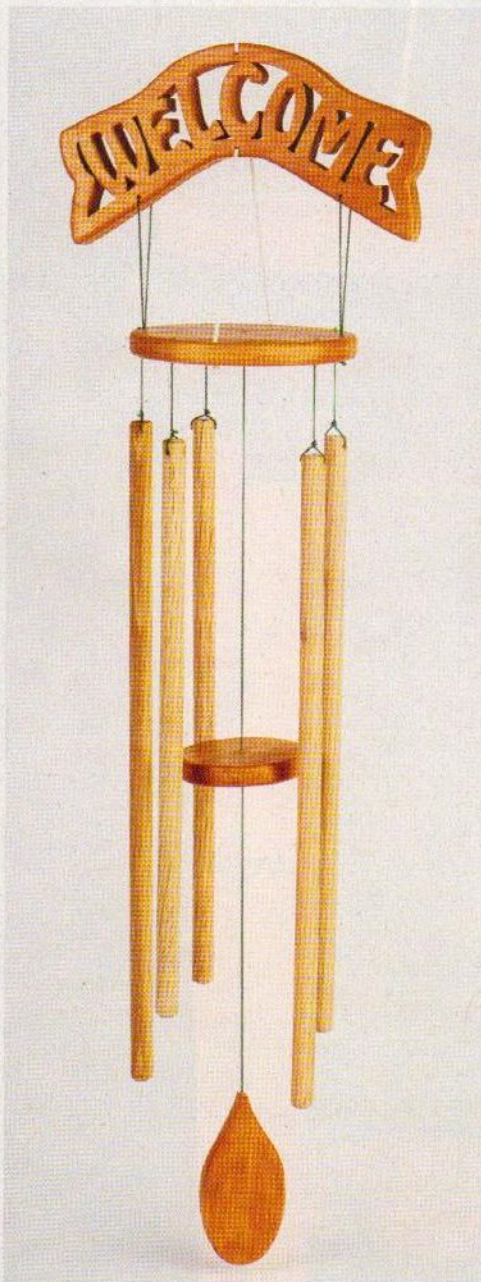
Assembling the Wind Chime

Thread three 9" (229mm)-long strings through the holes in the welcome sign and into the holes in the top circle indicated on the pattern. Tie each string into a knot underneath the top circle to secure it, making sure the top circle hangs parallel to the ground. Thread five 5" (127mm)-long pieces of string through the remaining holes in the top circle. Thread these pieces through the holes in the dowels, and back up to the top circle. Secure with knots.

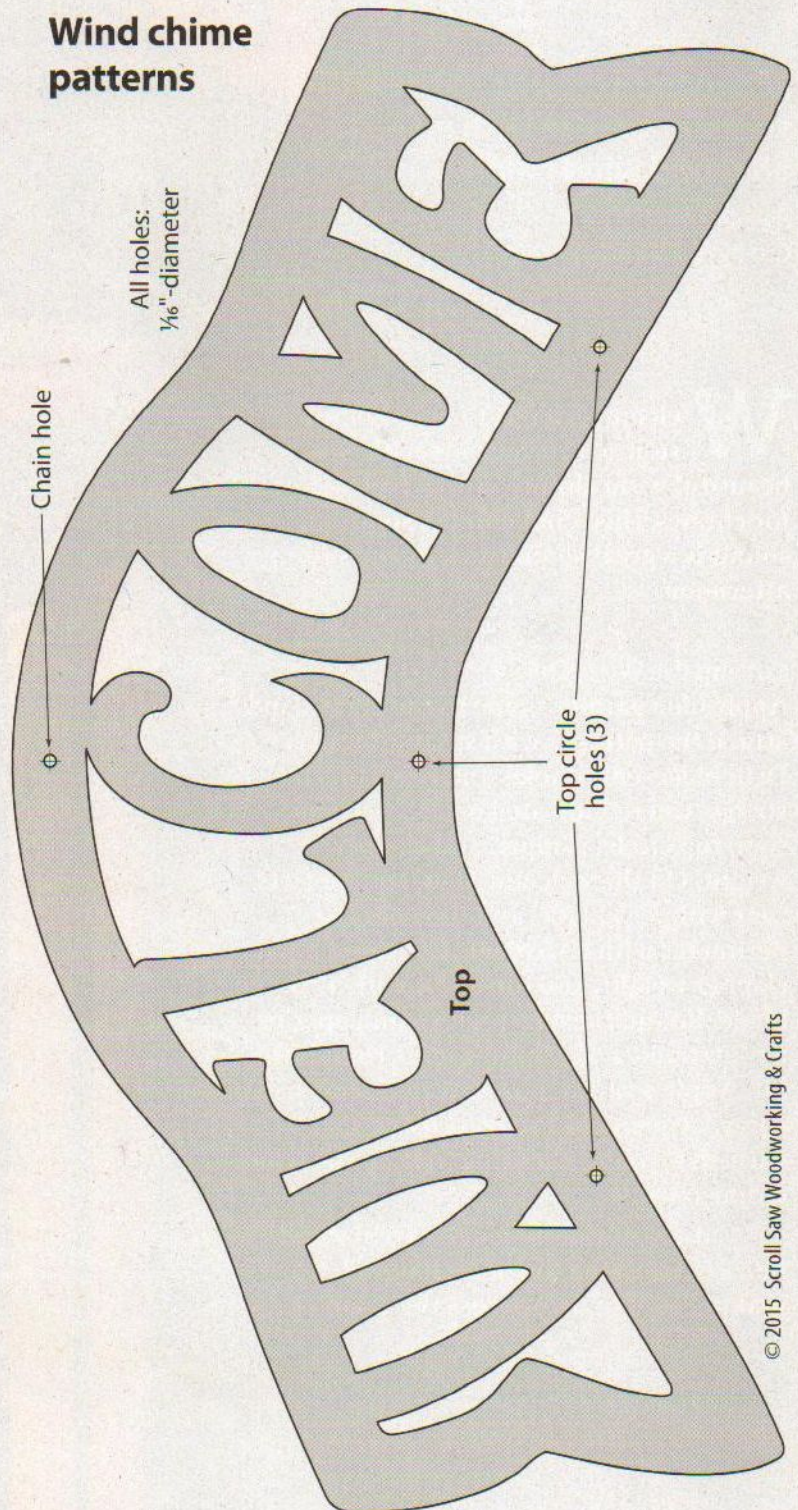
Thread a 20" (508mm)-long piece of string through the hole in the center of the top circle. Insert this piece of string into the hole on the clapper, and tie a knot to keep the clapper from sliding. Keep some length for the clapper weight.

Tie a knot at the end of the string, insert it in the hole in the clapper weight, and use wood putty to secure it. Use a drop of cyanoacrylate (CA) glue on each knot to keep them from coming untied.

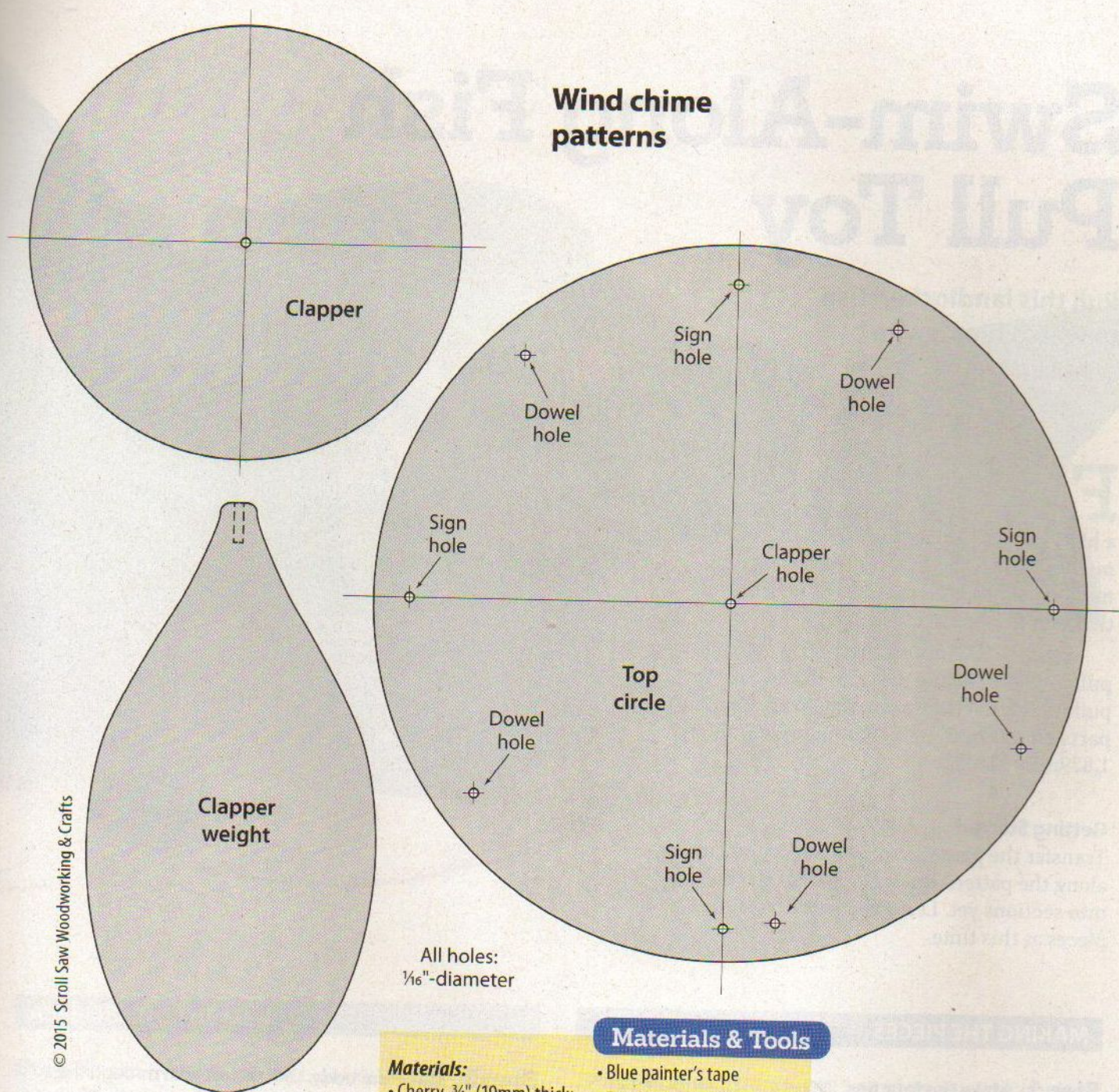
Thread a doubled-up piece of string through the top hole on the welcome sign and attach it to a curtain ring or similar. Attach a chain to the curtain ring. Clip the chain on a hook secured to a ceiling, beam, or tree branch.



Wind chime patterns



Wind chime patterns



All holes:
1/16"-diameter

Materials & Tools

Materials:

- Cherry, 3/4" (19mm) thick: welcome sign, 4" x 8" (102mm x 203mm)
- Cherry, 1/2" (13mm) thick: clapper, clapper weight, and top circle, 7" x 8" (178mm x 203mm)
- Dowels, 3/8" (10mm) dia.: 12" (300mm), 12 1/2" (318mm), 13" (330mm), 13 1/2" (343mm), 14" (356mm)
- Spray adhesive
- Sandpaper

- Blue painter's tape
- Finish, such as Watco: semi-gloss spray lacquer
- Wood putty
- Cyanoacrylate (CA) glue
- String
- Curtain ring
- Chain

Tools:

- Blades: #3, #5
- Drill with assorted small bits

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 and pattern-making

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

Swim-Along Fish Pull Toy

Pull this landlocked fish to watch him "swim"

By Paul Meisel

Fascinate kids and adults alike with this swimming pull toy. Its friendly shape is a hit with the kids, and the simple painting makes it easy for scrollers. The swimming motion is easy to create too—simply offset the axle hole in each wheel.

I used $\frac{3}{4}$ " (19mm)-thick lumber for this pull toy. The cutting diagram in the pattern pullout section shows one way to arrange the parts on a 1" by 8" by 6' (25mm by 203mm by 1,829mm) blank.

Getting Started

Transfer the patterns to the blanks and cut along the pattern lines. Do not cut the body into sections yet. Leave the patterns on the pieces at this time.

MAKING THE PIECES

Step 1: Make the four fins. Drill a $\frac{1}{2}$ " (13mm)-diameter hole through each fin.

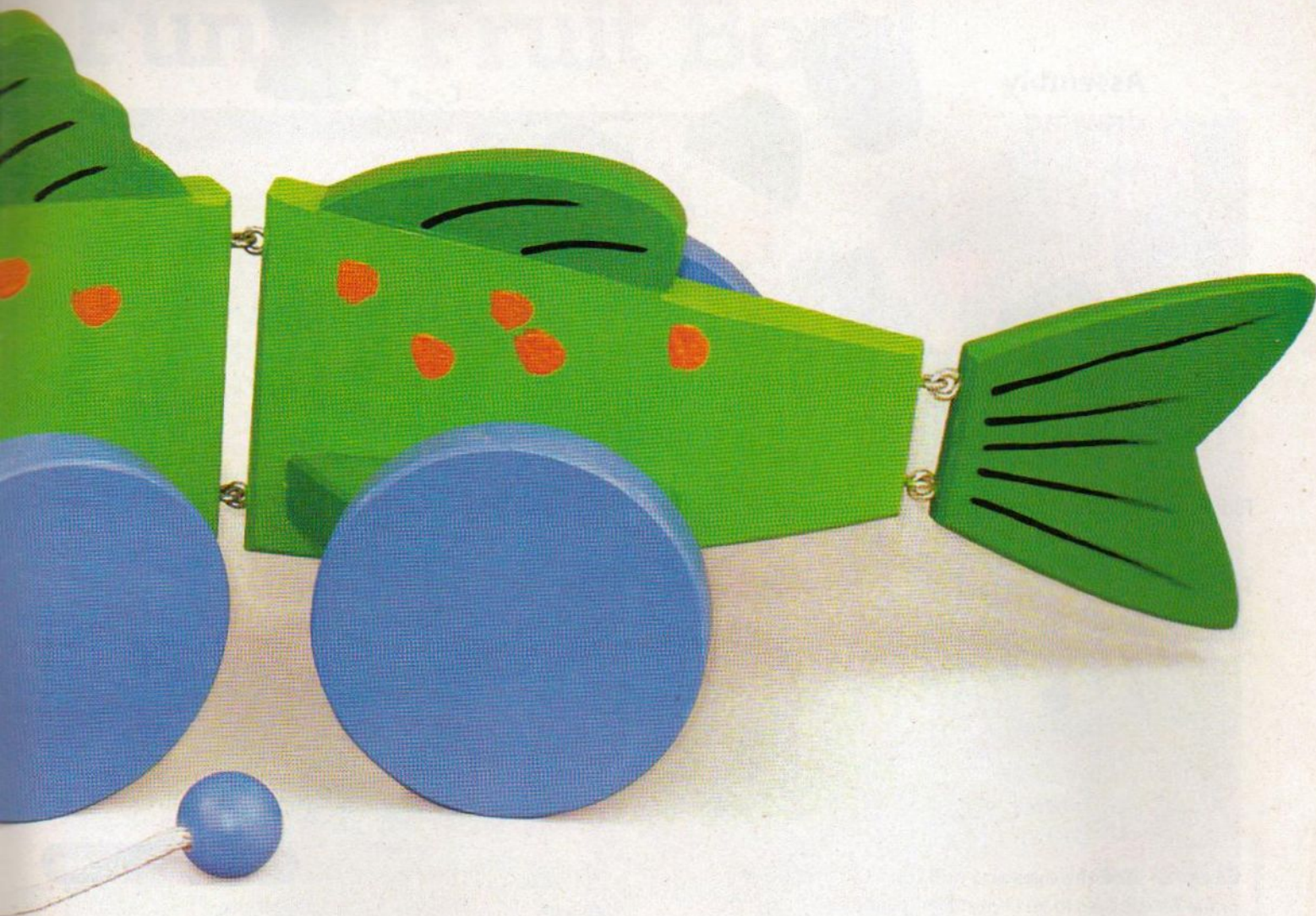
Step 2: Make the four wheels. The dowels must fit tightly into each wheel axle hole, but should spin freely through the fin and body. Drill test holes in scrap wood and test the fit of the dowels. If the dowel is too loose for the test hole, drill a $\frac{23}{64}$ " (9mm)-diameter hole and test again. If the dowel is too large, cut the dowels to 1" (25mm) longer than the final length. Chuck the dowel in a hand drill, wrap sandpaper around the dowel, and spin-sand it in the drill to reduce the diameter until it fits tightly into the $\frac{3}{8}$ " (10mm)-diameter hole. Drill the axle hole where indicated on the wheel. Round the edges of each wheel with sandpaper or a router with a $\frac{1}{16}$ " (2mm)-radius roundover bit. Cut the dowels to size.

Step 3: Make the body. Drill the eyehole through the body, and drill the two axle holes through the body. Taper both sides of the back section of body and tail. I measured $5\frac{1}{4}$ " (133mm) from the end and sanded the taper on my belt sander. Cut the fish body into three sections along the cut lines. Round the edges of the three body parts with sandpaper or a router with a $\frac{1}{16}$ " (2mm)-radius roundover bit.

Step 4: Drill holes for the pull string and screw eyes.

The holes for the pull string are drilled with two different sizes of bits. Drill a counterbore hole in the bottom lip, and then drill a hole through the bottom lip. Drill pilot holes for the screw eyes as shown in the assembly drawing.





ASSEMBLING THE FISH

Step 5: Attach the fins to the body. Glue the first fin to the body. Use a brad nailer to drive a brad in at an angle through the fin and into the body to reinforce the fin (this is called "toe-nailing"). Repeat to attach the remaining fins.

Step 6: Paint the fish. Use the paint colors shown or choose your own color scheme. I used a black permanent paint marker to add the detail lines on the top fins and the tail. Try not to get paint in the axle holes on the wheels.

TIP

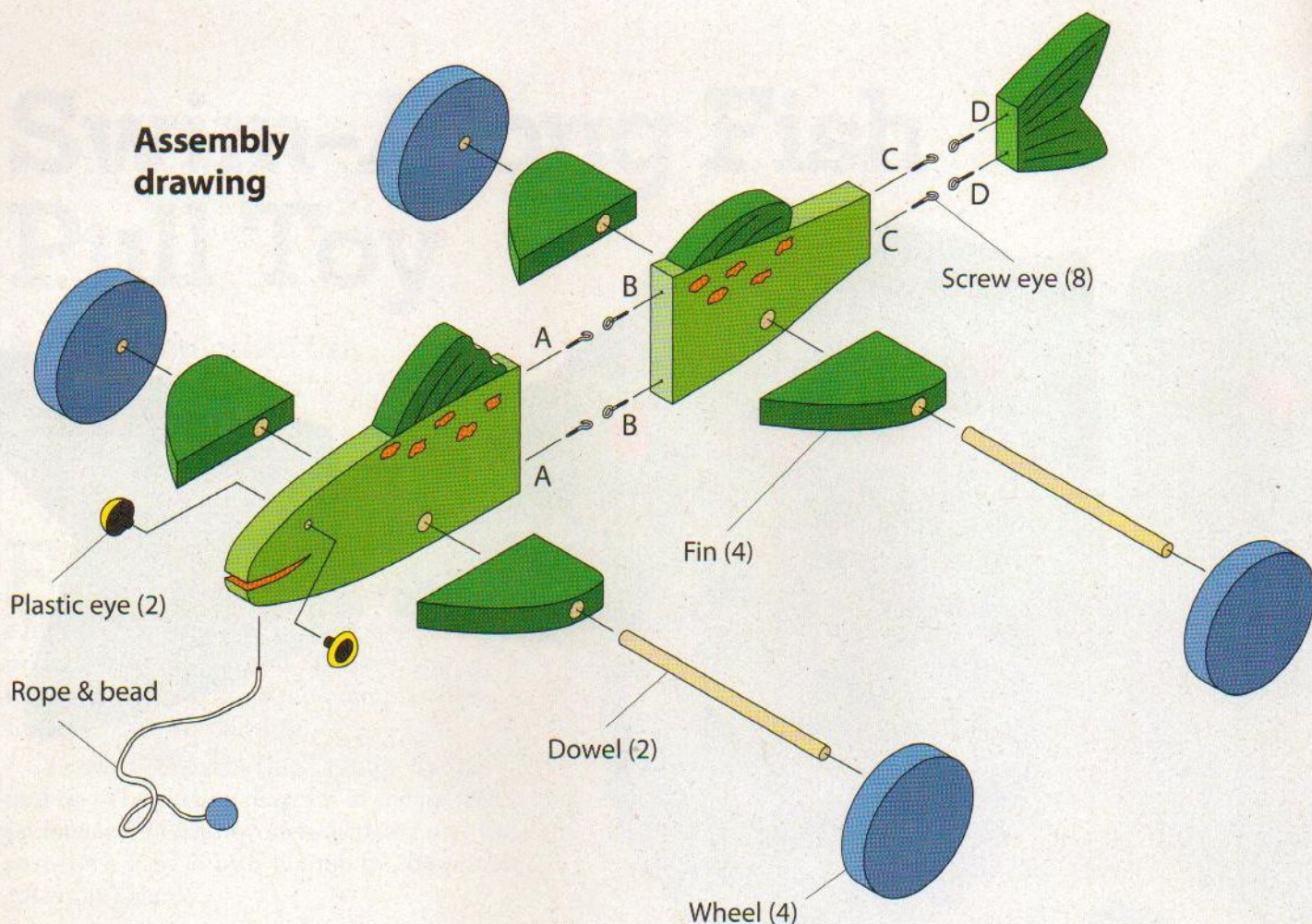
ALIGNMENT PIN

Use a $\frac{3}{16}$ " (12.5mm)-diameter drill bit to align the holes in the body and fin. Remove the bit immediately after nailing to prevent it from adhering to the assembly.

Step 7: Attach the wheels. Spread glue inside the hole of one wheel. Insert a dowel into the hole and let the glue dry. Insert the wheel and dowel assembly through the body assembly. Spread glue on the inside of the hole in a second wheel, rotate the wheel so the off-set is 180° from the first wheel, and let the glue dry. Repeat for the second set of wheels.

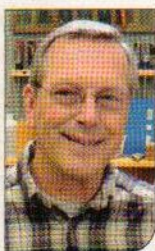
Step 8: Assemble the body. With two pairs of pliers, open four screw eyes enough to allow assembly with a second screw eye. Pair the opened screw eyes with closed screw eyes, and thread each set into the pilot holes as shown in Details A, B, C, and D on the assembly drawing. Rotate the opened heads so the eye openings are horizontal, and position the closed eyes vertically. Join the two body sections and squeeze the opened screw eyes closed.

Assembly drawing



Step 9: Add the eyes and pull cord. Cut the shanks of the plastic eyes to $\frac{3}{8}$ " (10mm) long and push them into place. Thread one end of the rope through the lower lip and tie a knot. Pull the rope up until the knot seats in the counterbored hole. Spread glue on the knot to keep it from unraveling. Repeat this procedure with the bead on the pull string.

Patterns for the **SWIM-ALONG FISH PULL TOY** are in the pattern pullout section.



Paul Meisel of Mound, Minn., has designed more than 3,000 woodworking plans. For more ideas of what to build, to order parts, or to request a catalog, contact him through Meisel Hardware Specialties.

Materials & Tools

Materials:

- Pine, $\frac{3}{4}$ " (19mm) thick: 8" x 6" (203mm x 1829mm)
- Dowel, $\frac{3}{8}$ " (10mm) dia.: 2 each $7\frac{1}{8}$ " (181mm) long
- Screw eyes: 8 each $1\frac{3}{16}$ " (20mm) (#2815)*
- Yellow plastic eyes: 2 each $1\frac{5}{16}$ " (24mm) (#9916)*
- Pull toy rope and bead (#3147 set)*
- Acrylic paints, such as Delta Ceramcoat: light green (#02489)*, green (#02662)*, blue (#02074)*, orange (#02042)*
- Paint marker: black (#3247)*

- Spray adhesive
- Sandpaper
- Wood glue
- Brads: $1\frac{1}{4}$ " (32mm) long

Tools:

- Blades: #5 reverse-tooth
- Drill press with bits: $\frac{3}{64}$ " (1.5mm), $\frac{1}{4}$ " (6mm), $\frac{3}{16}$ " (12.5mm), and $\frac{1}{2}$ " (13mm) dia.
- Pliers
- Clamps
- Hammer or brad nailer

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

SPECIAL SOURCES:

The items above marked with an asterisk (*) are available from Meisel Hardware Specialties. To request a catalog or order parts call 1-800-441-9870 or visit their website, www.meiselwoodhobby.com

Funky Fruit Bowl



Photo by John Hutchinson

Make a colorful bowl with dowels, wooden balls, and shop-made jigs

By John Hutchinson

Dowels, brass rods, wooden balls, and a wooden base might add up to a less-than-perfect soup tureen, but together they make an excellent fruit bowl.

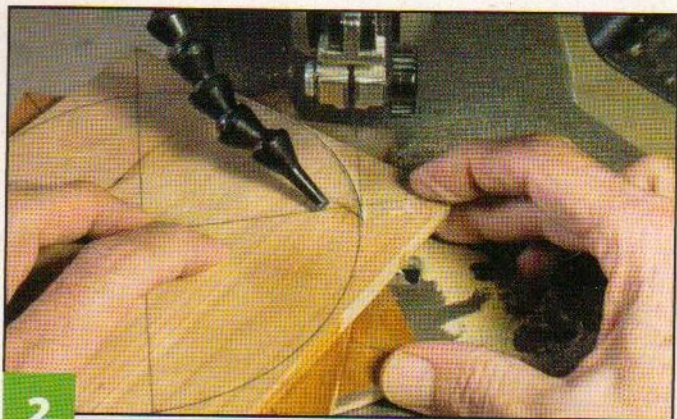
This nontraditional bowl is my homage to the modernist designer George Nelson, but you can customize the design to suit your tastes. The hardest parts of the project are spacing the holes accurately, drilling holes in the dowels, and drilling holes in the ball knobs, but shop-made jigs make these steps a breeze.

FRUIT BOWL: MAKING THE BASE



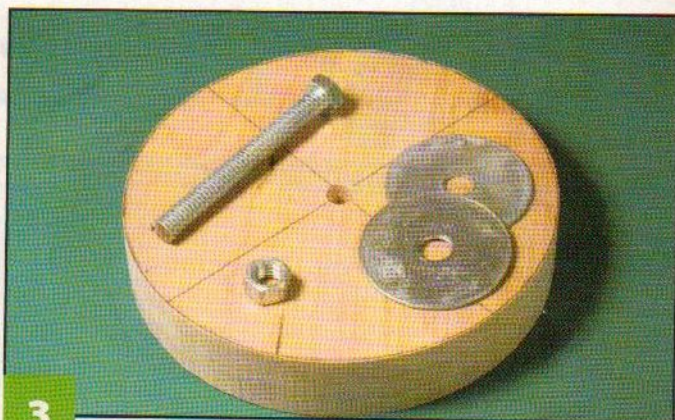
1

Make plywood. You can use a piece of hardwood for the base, but I recommend homemade plywood for long-term stability. To make a 1 $\frac{1}{8}$ " (29mm)-thick base, cut three $\frac{3}{8}$ " by 6" by 6" (10mm by 152mm by 152mm) plies and drill a $\frac{1}{8}$ " (3mm)-dia. hole at the center of each. Commercial producers of plywood impart strength and stability by alternating the grain direction from ply to ply, so I offset my plies by 45° per layer. I used a 10d bright finish nail as an alignment pin. Use a good wood glue and an array of clamps to complete the hardwood plywood.



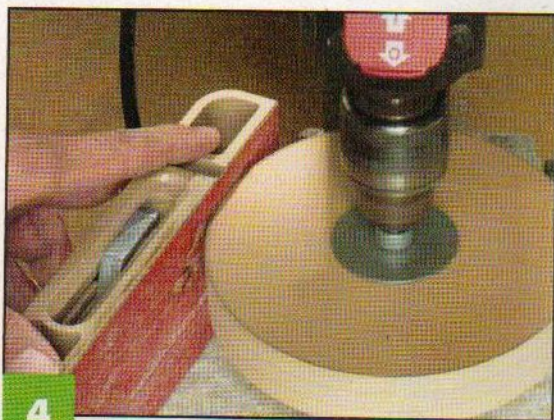
2

Cut the base. Use a compass to draw a $5\frac{3}{4}$ " (146mm)-dia. circle on the base. Combine a slow feed rate with a #9 reverse-tooth blade to cut the $1\frac{1}{2}$ " (29mm)-thick stock. I cut outside the line because I intend to refine the disk through spin-sanding on my drill press. Alternately, you can rough-cut the layers separately and then stack and glue them; remember to vary the direction of the grain.



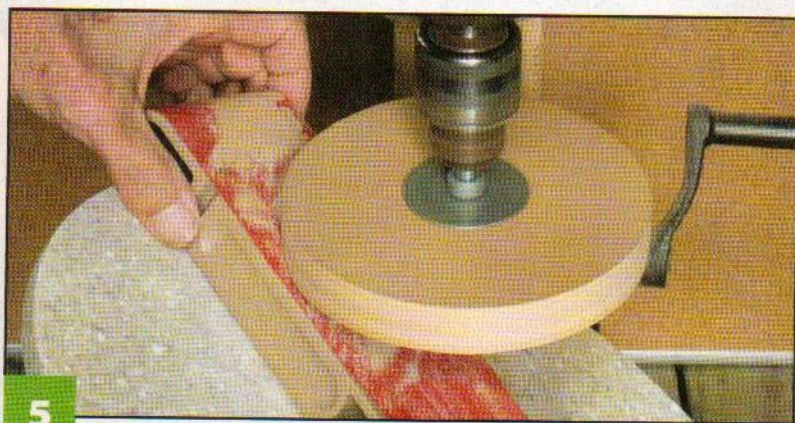
3

Make a sanding arbor. Drill a $\frac{3}{8}$ " (10mm)-dia. hole at the center of the disk, and then gather a $\frac{3}{8}$ " (10mm)-dia. by 3" (76mm)-long bolt, a nut, and a pair of substantial $\frac{3}{8}$ " (10mm) fender washers. Because the nut has to be tightened with a fair amount of force, the fender washers are necessary to prevent crushing of the wood around the hole.



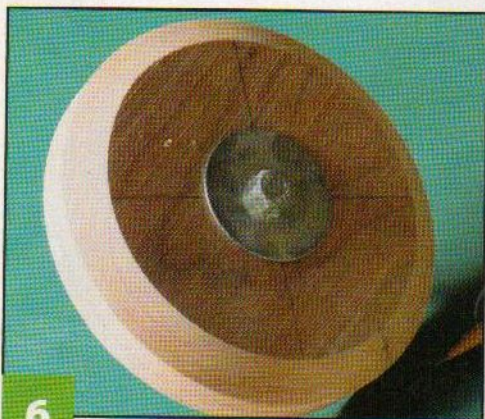
4

Spin-sand the base. Chuck the bolt-arbor/disk assembly into the drill press and spin-sand with a sanding block. Make sure that the block remains perpendicular to the table, and keep it on the left side of the quill for safety. It's turning clockwise, and you should always sand on the "uphill" side.



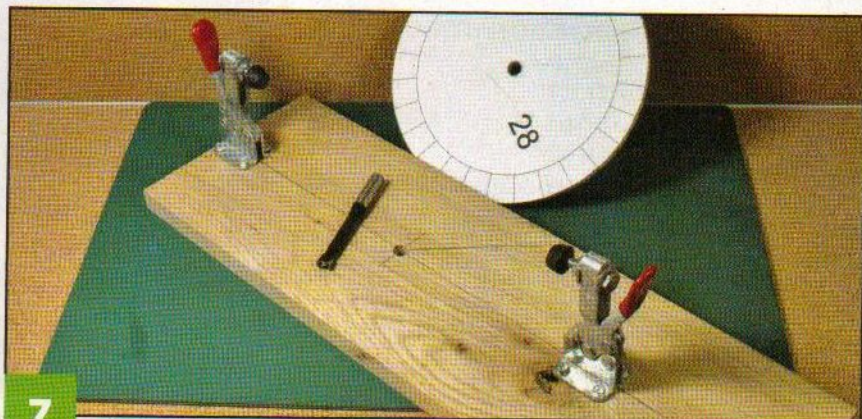
5

Sand the chamfer. Tilt the drill press table to 30° and lock it in place. The goal is to create a 60° chamfer on the face of the disk. Place a 60-grit sanding block flat on the table, and then keep raising it into the chucked disk until you hit the top-third line. I know that when I've sanded down to the joint between the first and second layers, I'm done. As with the edge sanding, keep the sanding block to the left of the quill for safety.



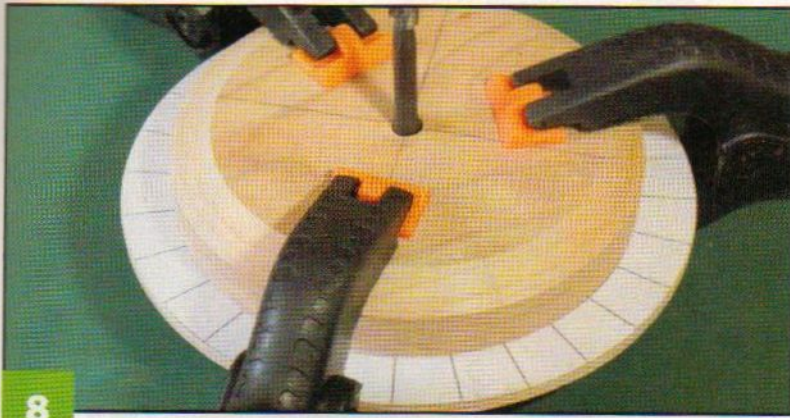
6

Check the chamfer. After you have completed the angled spin sanding, you should have something that looks like this—a 60° chamfer approximately $\frac{3}{4}$ " (19mm) wide.



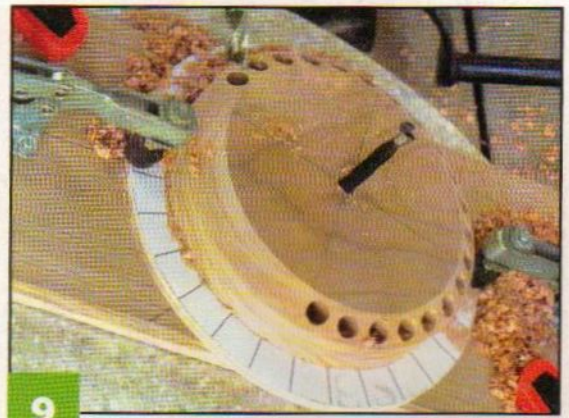
7

Prepare the drilling template and the radial hole-drilling jig. Make two copies of the drilling template and tape them together to form a circle. Glue it to $\frac{1}{4}$ " (6mm)-thick plywood and drill a $\frac{3}{8}$ " (10mm)-dia. hole in the center. The radial hole-drilling jig consists of a scrap board approximately $5\frac{1}{2}$ " (140mm) wide and long enough to span the width of your drill press table. Drill a $\frac{3}{8}$ " (10mm)-dia. hole on the centerline, and screw two hold-down clamps to the board. Finally, draw a line from the center of the pivot hole to the edge of the board. This will be the indexing line.



8

Assemble the jig. Temporarily bond the base to the drilling template with spray adhesive or double-face tape; align them with the shank of a $\frac{3}{8}$ " (10mm)-dia. drill bit. Then, use the same bit as a pivot pin and position the base/template assembly on the jig. Align any line on the template with the indexing line on the jig, and secure the base assembly with the hold-down clamps. Move the jig until the point of a $\frac{3}{8}$ " (10mm)-dia. hole-boring bit is centered on the slope of the chamfer, and clamp the jig to the table.



9

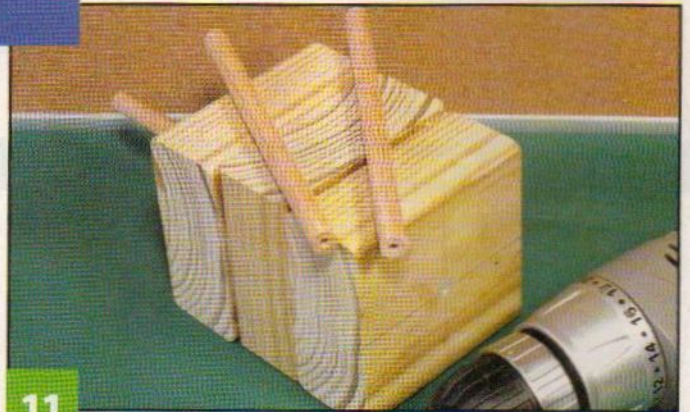
Drill the holes in the base. Drill the hole, and then unclamp the base assembly, rotate to the next line on the pattern, clamp, and drill again. Repeat the process for all of the holes. You'll get the rhythm in no time. When you're done, separate the indexing plate from the base. Sand the base with 120-grit sandpaper.

FRUIT BOWL: ASSEMBLING THE DOWELS



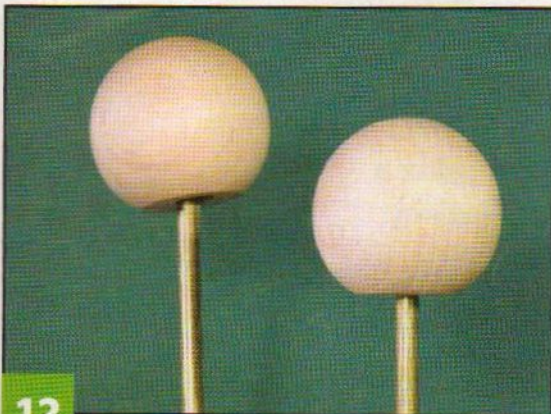
10

Sand the dowels. In a perfect world, you'd be able to run out to a home center and purchase wooden dowels with a diameter $\frac{1}{4}$ " (.5mm) less than $\frac{3}{8}$ " (10mm). If you're lucky, you might find that your dowels were created in that world. If not, or their diameters are actually larger than stated, chuck lengths of dowel into an electric hand drill, grasp with a piece of 80-grit sandpaper, and spin-sand until the dowels just barely slide into the holes.



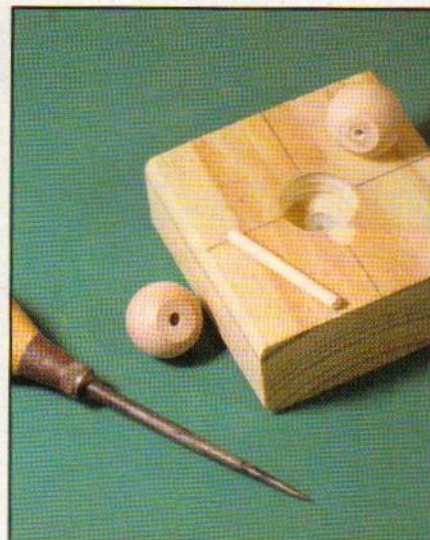
11

Drill the dowels. The next challenge is to drill $\frac{3}{4}$ " (3.5mm)-dia. holes, about 1" (25mm) deep, on the exact center of $\frac{3}{8}$ " (10mm)-dia. dowels. After experimenting with a number of techniques, I found a nylon spacer that I used as a drill guide bushing. I stacked three pieces of scrap 2x4, drilled a continuous $\frac{3}{8}$ " (10mm)-dia. hole, and then inserted the nylon spacer. That left me $3\frac{1}{2}$ " (89mm) of shaft below the spacer to house the dowel during the drilling process.



12

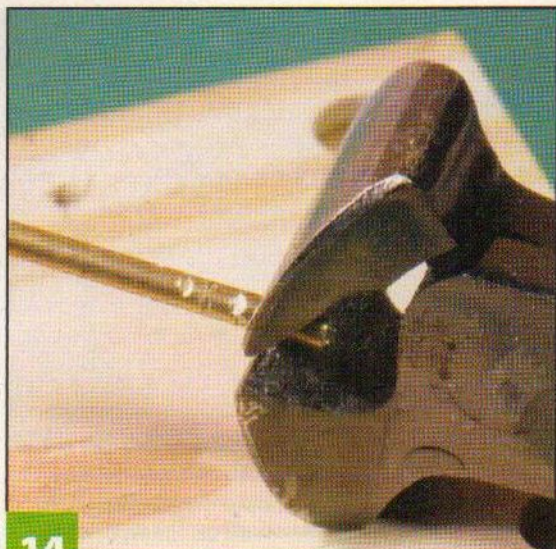
Check the ball knobs. While the purchased wooden ball-knobs are beautifully turned, their pre-bored holes are oversized for my purpose. I don't want the look on the left. I do want the look on the right.



13

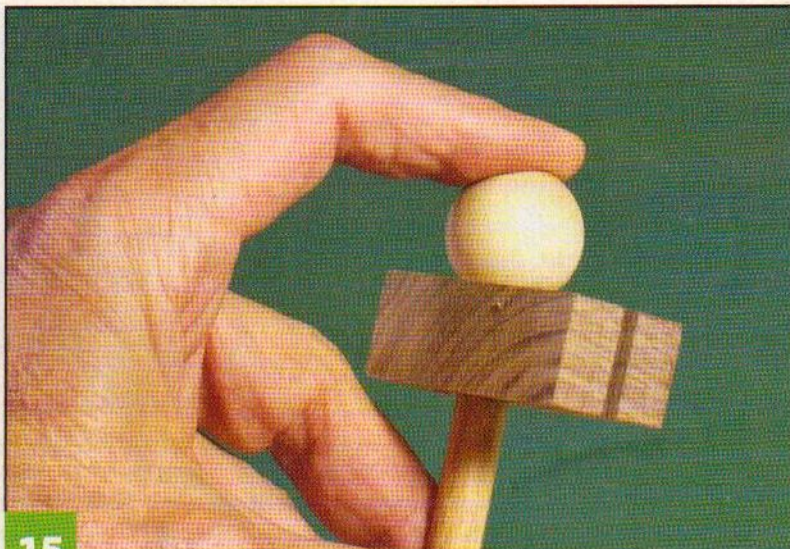
Drill the ball knobs.

Fill the existing holes by gluing in $\frac{3}{16}$ " (5mm) dowel. To make a drilling jig, drill a stopped 1" (25mm)-dia. hole in the center of a scrap 2x4, and then drill a $\frac{3}{8}$ " (10mm)-dia. through-hole. Insert another of the nylon spacers as the guide bushing. Boring the new attachment hole was then simply a matter of pressing the flat of the knob against the flat of the stopped hole and drilling to within $\frac{1}{8}$ " (3mm) of the top.



14

Prepare the brass rods. Cut the rods to length, and then nick them with nippers to provide reservoirs for the glue. Use cyanoacrylate (CA) glue to attach the rods to the knobs and dowels.



15

Add a spacer. Because I wanted to expose a portion of the brass rod connector, I made a slotted spacer from a scrap of wood. Besides maintaining a consistent reveal, the flat top and bottom keep things plumb and level while the glue sets. The amount of exposure is a design variable; anything between $\frac{3}{8}$ " (10mm) and $\frac{3}{4}$ " (19mm) looks great!

FRUIT BOWL: COMPLETING THE PROJECT



16

Assemble the bowl. So now it's just a matter of dry-fitting the dowels to the base, deciding what finishes to use, and gluing-up the final assembly. I started with the shortest dowel and added progressively longer dowels until I reached the longest, and then I started again with the shortest. I used the top of a wooden axle to plug the hole.



Consider a Variation

The variations are endless. You might want to try adding wooden beads ... or use the same techniques with colored pencils.



Materials & Tools

Materials:

- Hardwood, 1 each 1" (25mm) thick OR 3 each $\frac{3}{8}$ " (10mm) thick; 6" x 6" (152mm x 152mm)
- Plywood, $\frac{1}{4}$ " (6mm) thick; indexing plate, 7" x 7" (178mm x 178mm); indexing jig, $5\frac{1}{2}$ " (140mm) wide x 2" (51mm) longer than width of drill press table
- 2x4 lumber: assorted scraps
- Glue, such as Gorilla brand: cyanoacrylate (CA); wood
- Dowels, $\frac{3}{8}$ " (10mm) dia.: 7 each 7" (178mm) long; 7 each $6\frac{5}{8}$ " (168mm) long; 7 each $6\frac{1}{4}$ " (159mm) long; 7 each $5\frac{7}{8}$ " (149mm) long
- Brass rod, $\frac{1}{8}$ " (3mm) dia.: 28 each
- Wooden ball knobs: 28 each, 1" (25mm) dia.
- Bolt, $\frac{3}{8}$ " (10mm) dia.: 3" long
- Nut, $\frac{3}{8}$ " (10mm) dia.
- Nail: 10d bright finishing
- Fender washers: 2 each $\frac{3}{8}$ " (10mm) dia.

- Sandpaper: 60, 80, 120 grits
- Spray adhesive OR double-sided tape (optional)
- Nylon spacers: 2 each $\frac{3}{8}$ " (10mm) outside dia., $\frac{5}{64}$ " (3.5mm) inside dia. x 1" (25mm) long
- Wooden axle or screw button plug: $\frac{3}{8}$ " (10mm) dia.
- Finish: clear
- Acrylic paint (optional)

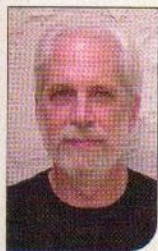
Tools:

- Blades: #9 reverse-tooth
- Drill press with bits: $\frac{1}{8}$ " (3mm), $\frac{5}{64}$ " (3.5mm), $\frac{3}{8}$ " (10mm), 1" (25mm)
- Wrenches sized to fit nut, bolt
- Sanding block, such as Woodpeckers SandDevil
- Angle guide
- Hold-down clamps: 2 each
- Clamps
- Hand drill

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

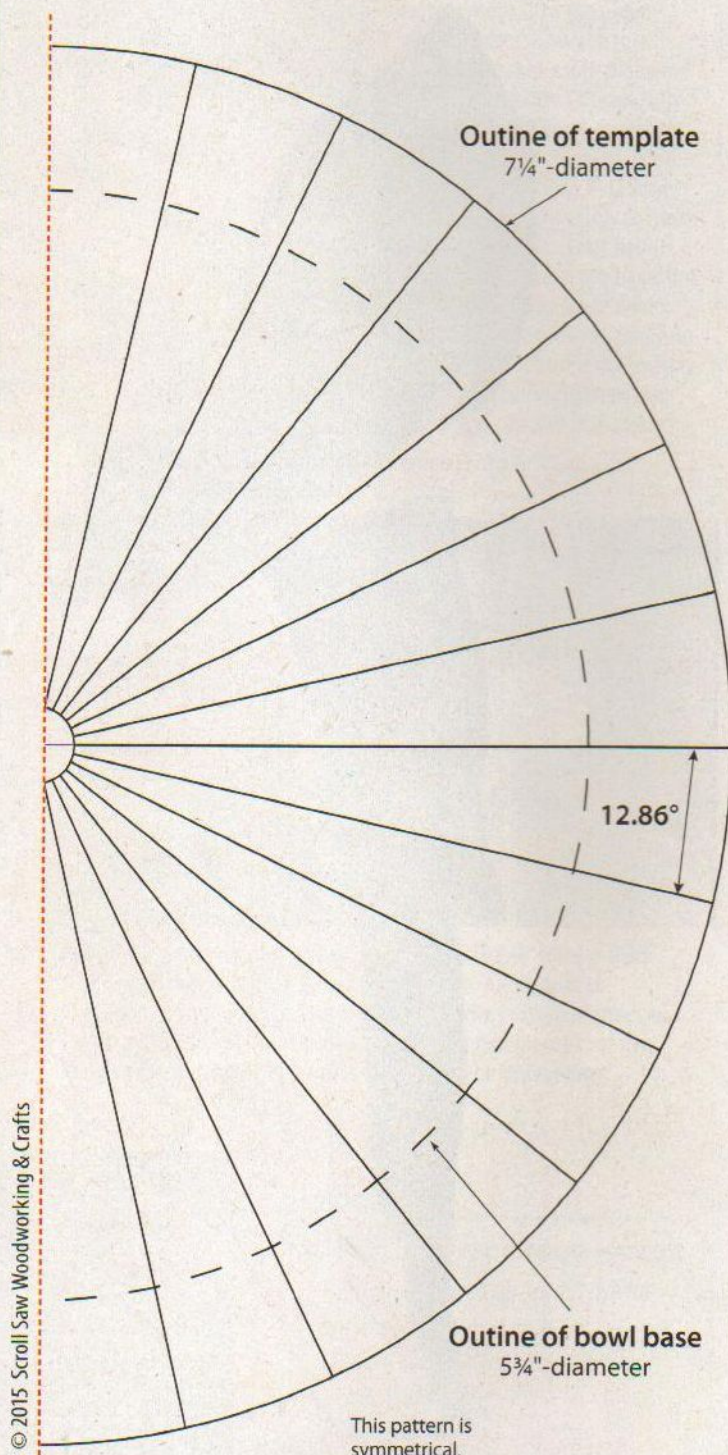
SPECIAL SOURCES:

- While 1" (25mm)-dia. wooden ball knobs are available at many hardware and home improvement stores, they usually cost up to \$1 each. I found them for \$0.21 each (\$0.20 if you buy 100) at www.woodnshop.net/knobs.
- Nylon inserts are available at many home improvement stores; I found mine in the specialty drawers in the hardware department at Home Depot.
- The Woodpeckers SandDevil is available from www.woodpeck.com.



When not woodtinkering, John Hutchinson finds a few spare moments for his multiple professions of architect, illustrator, and writer. His work has appeared in *Fine Woodworking*, *Woodworker's Journal*, *Popular Woodworking*, *American Woodworker*, and *Woodcraft Magazine*, as well as three books by *Popular Woodworking Books*. His role model is architect Morris Lapidus, designer of the Fontainebleau Hotel and author of *Too Much is Never Enough*.

Fruit bowl base drilling template



Intarsia Wedding Couple

Commemorate the big day with a customizable intarsia keepsake

By Kathy Wise

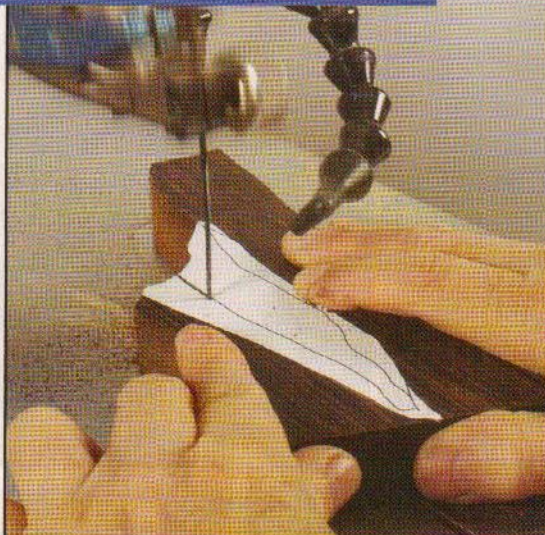
Summer is always a popular time to tie the knot, and what better present for that special couple than a customized intarsia keepsake? Add their names and the date of the big day to make a one-of-a-kind gift; of course you can also change the hair colors and skin tones. The bride and groom will treasure this piece forever—especially because it will help the groom remember their anniversary date!



WEDDING COUPLE: CUTTING & SHAPING THE PIECES

Getting Started

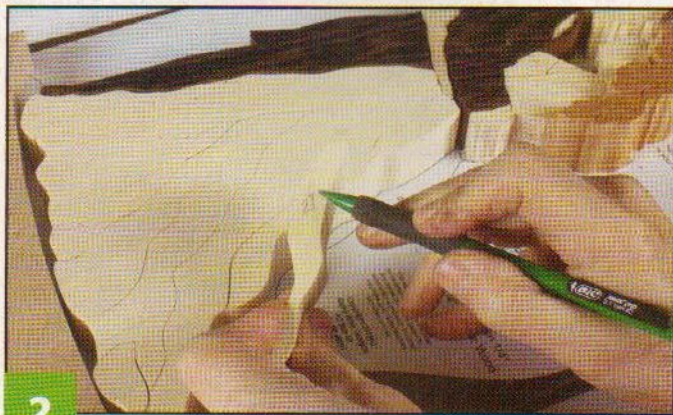
Make six copies of the pattern, and keep a master copy for later use. Cut each pattern piece and sort them into groups by wood color. Spray adhesive onto the backs of the pattern pieces; attach them to the shiny side of clear shelf paper, such as Con-Tact® brand; and stick the patterns onto the blanks. I used aspen, wenge, cherry, and black walnut for the couple and wavy maple to add interest to the cake base.



1

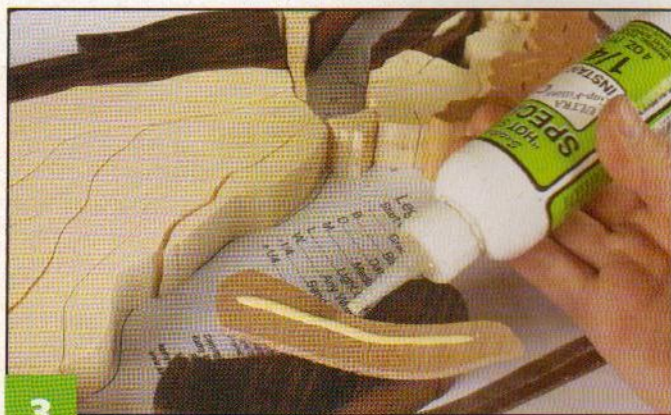
Cut the pieces.

Use a #3 reverse-tooth blade for the softer woods (like the poplar wedding dress). Switch to a #5 or larger skip-tooth blade for the harder woods. Cut carefully and stay on the lines, especially where different colors of wood meet. When cutting 1" (25mm)-thick wood, cut carefully to make sure the blade does not bend. Cut the bottom piece of the base, but do not cut the top piece where the couple attaches yet. Use your choice of font to print the overlay letters and cut them from thin wood; you can also use stickers.



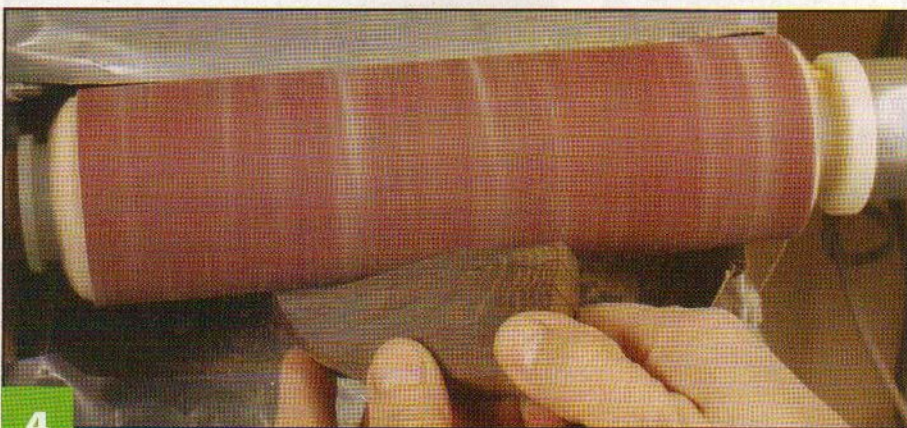
2

Organize the pieces. As you cut the pieces, mark the back of each with a pencil. This ensures you don't accidentally sand and shape the wrong side. Attach a copy of the pattern to an assembly board. Organize the pieces on the board and check the fit. Make any adjustments, and mark the areas to sand.



3

Cut the riser for the groom's arm. The 1/4" (6mm)-thick plywood riser gives the project more depth. Apply dots of cyanoacrylate (CA) glue and wood glue to the bottom of the arm, and apply accelerator to the riser. Press the two pieces together. Using CA glue with accelerator will reduce the drying time.



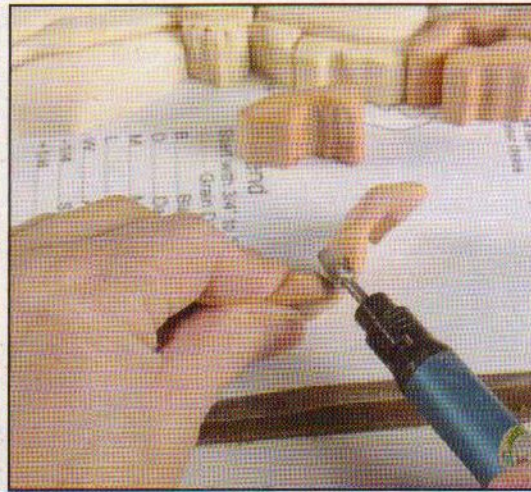
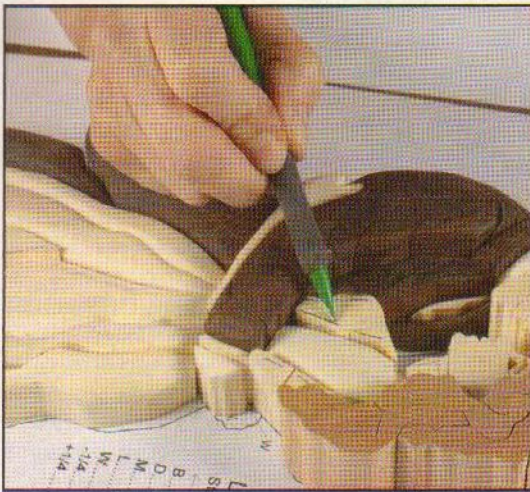
4

Mark and sand the pieces. Refer to the shaping guides, and mark the pieces with the areas to be sanded. Use a drum sander to shape the pieces. Round the edges first. Then, start sanding the lowest pieces (8, 9). Mark the level to sand down to, and keep the marks visible as you sand. On the groom's arm, do not sand so much that the riser will be visible. Work your way up to the thickest pieces (10, 22, 23).

TIP

PROTECT YOUR HANDS

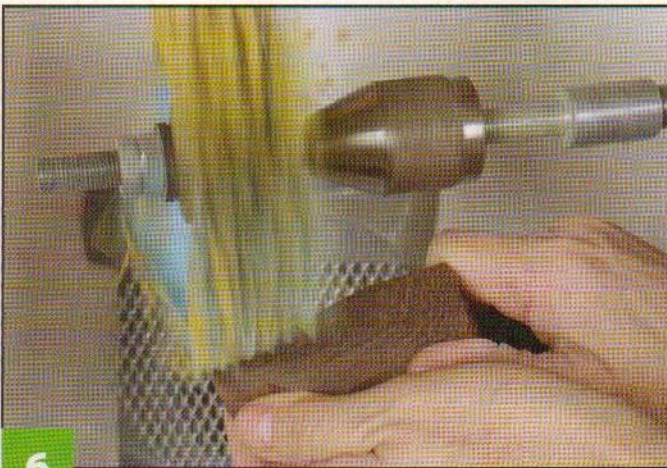
The 150-grit sanding drum I use for rough shaping, and even the 220-grit sanding drum I use to smooth the pieces, will remove skin faster than wood. While it's not shown in the photos, I wear tight-fitting gloves or fingertip protectors when sanding.



5

Refine the pieces.

Place the pieces on the pattern often to check your progress. Mark how far you still need to sand down to, and resume sanding. Continue marking and shaping all of the pieces until you are happy with the results. Use a rotary tool with a small bit to carve the face and hair details. If desired, carefully add further details around the eyes and ears with a woodburner.



6

Smooth the pieces. Use a 220-grit sanding mop to smooth the surfaces of the pieces; this will make it easier to apply varnish. Hold the smaller pieces with a pair of needle-nose pliers. Don't push too far into the mop or the piece will go flying.

WEDDING COUPLE: ADDING THE DETAILS



7

Stain the wedding gown. Apply a coat of Old Masters white stain gel to the wedding gown to make it stand out from the skin pieces. Let it dry overnight and apply another coat if you want the gown to be even whiter.



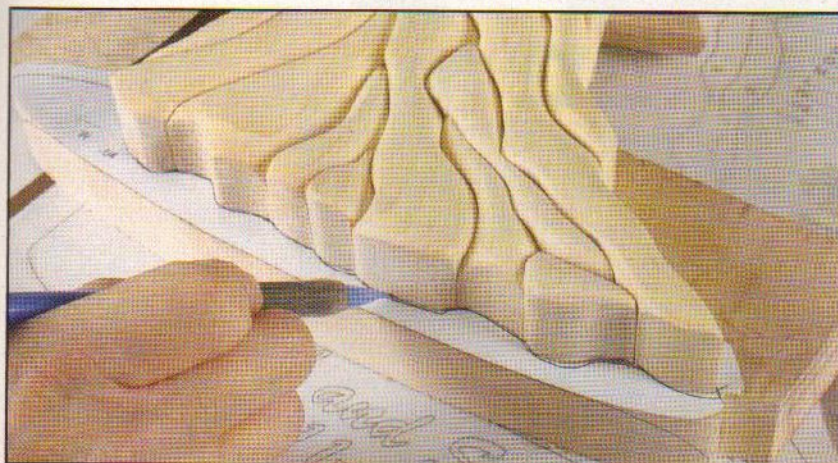
8

Glue the pieces together. Place waxed paper on top of the assembly board. Assemble individual pieces together with dots of CA glue. After gluing the head, the tuxedo, and the gown individually, fit those sections together. Use accelerator to speed up the process, if desired. Allow the glue to set before attaching the adjoining pieces. To create a tighter fit between pieces, re-cut along the lines and then re-glue to draw the pieces closer.



9

Sand the back of the couple flat. Use a flat drum sander, such as a Sand-Flee, to smooth the back of the couple and ensure a good glue joint between the piece and the backing board.

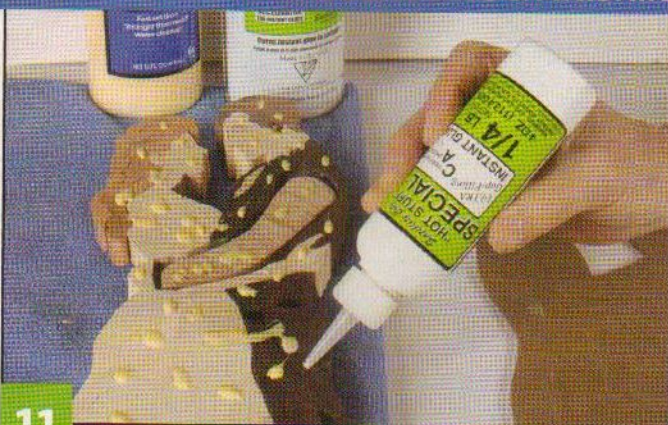


10

Cut the base and backing board.

Position the couple on the top base piece (with the pattern still attached) and trace the outline of the couple. Cut the top base piece, and then shape and sand both base pieces. Glue the two base pieces together, and then glue the couple to the base. Then, trace the outline of the couple and the base on the pattern attached to the tempered hardboard. Cut about $\frac{1}{8}$ " (3mm) inside the outline of the couple, sand the edges smooth, and paint the back, if desired.

WEDDING COUPLE: ASSEMBLING & FINISHING



11

Glue the couple to the backing board. Turn the couple upside down and apply dots of CA glue and wood glue to the backs of the pieces. Do not use so much glue that it will squeeze out. Spray accelerator on the backing board, position the backing board on the pieces, and let the glue set for about 30 seconds. Then, flip the piece right side up and apply even pressure to all of the pieces to lock them in place. Let the glue dry overnight.



12

Apply the finish. I use clear spray satin polyurethane. Follow the manufacturer's instructions and let it dry overnight. Apply a clear gloss finish on the eyes to give the couple a lifelike look. I glued the name, date, and extra decoration decals to the base after the finish was completely dry. Attach a hanger to the back to complete the project.

Materials & Tools

Materials:

- Red wood, such as cherry, 1" (25mm) thick: hair, 3" x 6" (76mm x 152mm)
- White wood, such as poplar, 1" (25mm) thick: gown, skin, 8" x 13" (203mm x 330mm)
- Black wood, such as wenge, 1" (25mm) thick: tuxedo, 6" x 13" (152mm x 330mm)
- Dark wood, such as black walnut, 1" (25mm) thick: hair, 3" x 3" (76mm x 76mm)
- Light figured wood, such as wavy maple, 1" (25mm) thick: base, 4" x 11" (102mm x 280mm)
- Tempered hardboard, $\frac{1}{8}$ " (3mm) to $\frac{1}{4}$ " (6mm) thick: backing board, 11" x 18" (280mm x 457mm)
- Plywood, $\frac{1}{4}$ " (6mm) thick: arm riser, small scraps
- Dark hardwood, $\frac{1}{8}$ " (3mm) thick: letters (optional), 3" x 6" (76mm x 152mm)
- Glue: wood, cyanoacrylate (CA) glue with accelerator
- Clear shelf paper, such as Con-Tact® brand
- Spray adhesive
- Gel stain, such as Old Masters brand: white
- Finish: clear satin spray varnish, clear gloss (for eyes)
- Small letters or decals (optional)

Tools:

- Blades: #7 skip-tooth, #5 reverse-tooth, #5 skip-tooth, #3 reverse-tooth
- Sanders: pneumatic drum, flat drum, sanding mop
- Rotary tool with small bit
- Woodburner

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



Nationally acclaimed intarsia artist Kathy Wise has written three books and more than 40 articles. For a free catalog of 500 patterns, contact Kathy Wise Designs Inc., P.O. Box 60, Yale, Mich. 48097; fax 810-387-9044; www.kathywise.com; kathywise@bignet.net.

Patterns for the **INTARSIA WEDDING COUPLE** are in the pattern pullout section.

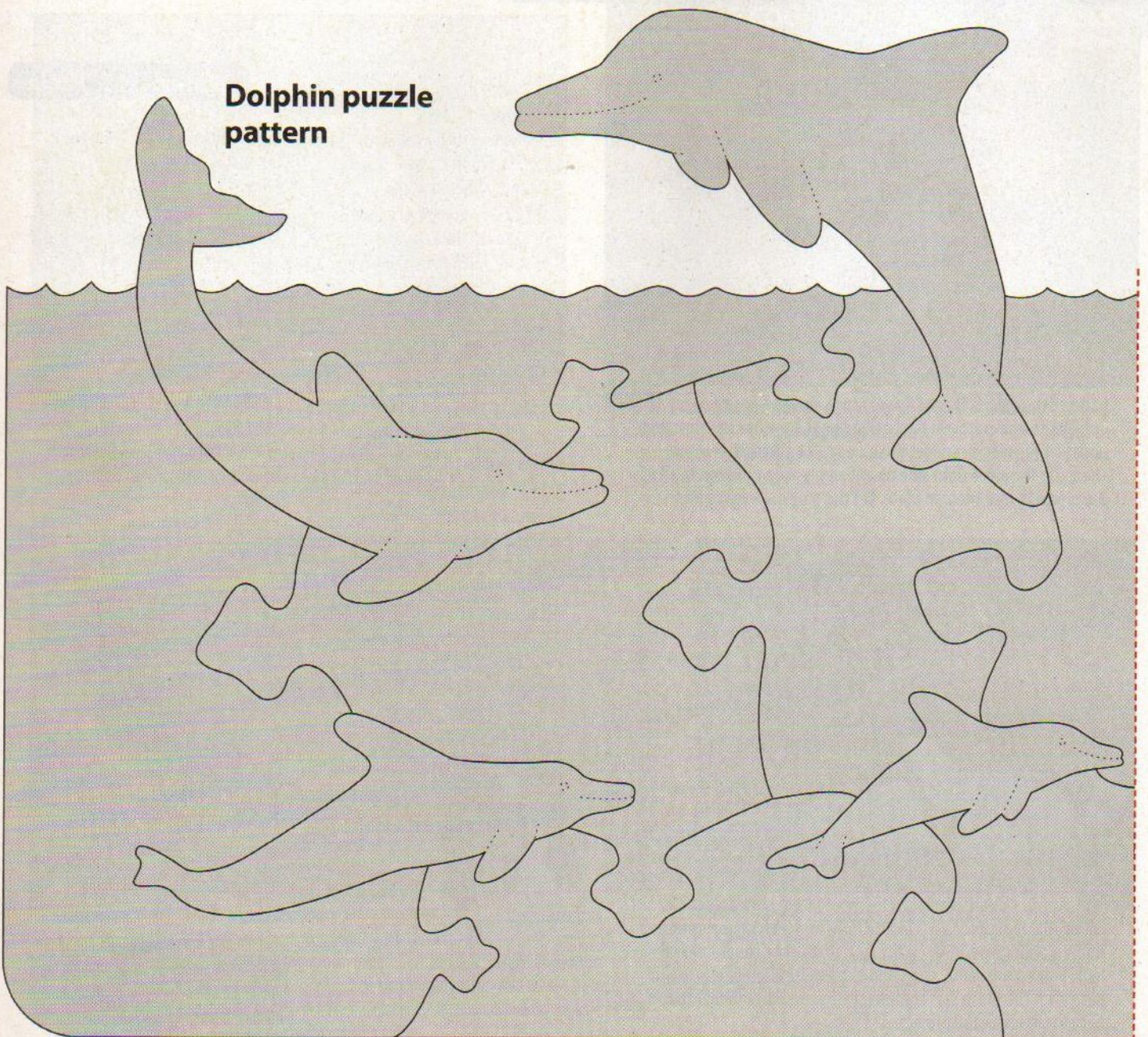
Playful Dolphin Pod Puzzle

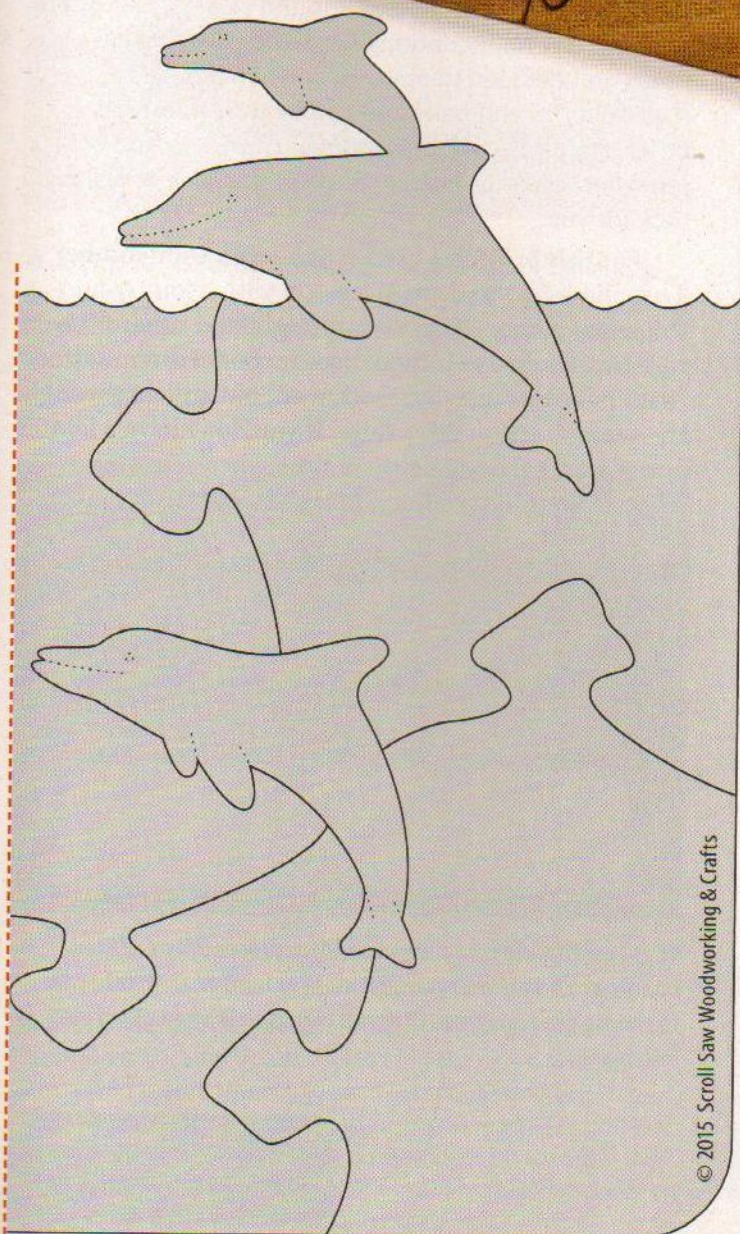
Ride the waves with these fun-loving dolphins

By Judy and Dave Peterson

Make a splash this summer with this dolphin pod puzzle. Kids, friends, and family won't be able to resist its playful nature, whether you're displaying it, putting it together, or playing with it! I scrolled this puzzle in walnut, but you can choose whatever hardwood you'd like.

Dolphin puzzle pattern





Making the Puzzle

Transfer the pattern to the blank. Cut the pieces, reassembling as you go. After cutting the pieces, drill the eye holes with a small bit, sand both sides, and use a flap sander to round the edges of the pieces slightly. I used Danish oil on the dolphins to make them stand out and left the background of the puzzle bare. If you're using a lighter wood, you can stain the dolphins and oil the entire puzzle.

Materials & Tools

Materials:

- Walnut, $\frac{3}{4}$ " (19mm) thick: 8" x 12" (203mm x 305mm)
- Spray adhesive
- Danish oil: clear

Tools:

- Blades, such as Flying Dutchman ultra reverse: #7
- Sanders: drum, flap
- Drill with assorted small bits

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



Dave and Judy Peterson live in Monona, Wis. They are the authors of *Animal Puzzles for the Scroll Saw*, *Fantasy & Legend Scroll Saw Puzzles*, *Dinosaur Puzzles for the Scroll Saw*, and *Zodiac Puzzles for Scroll Saw Woodworking*, all available from www.foxchapelpublishing.com.

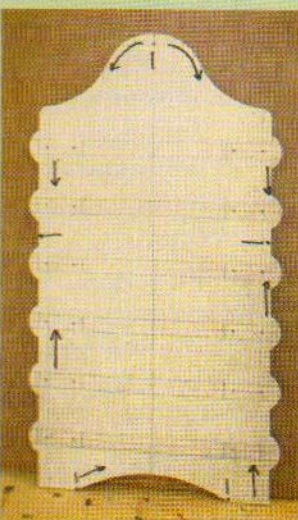
Golf Ball Display Rack

Show off your collection with an easy-to-build display rack

By Wayne Sampson

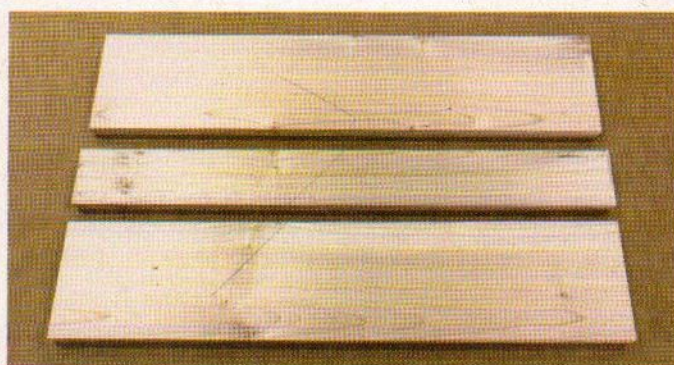
As a golf ball collector, I found out fast that there aren't many options for distinctive display racks, so I decided to make my own! My display rack holds 36 golf balls and can be wall-mounted or freestanding, with an optional third leg. Add or remove shelves as desired to make the perfect display rack for you.

For this project, I used rough-sawn solid lumber. This allows me to dress the wood with a jointer and thickness planer so that it is straight and square. The rare times I do use fully surfaced wood, I am mindful that I have less wood to work with, but still go through the same dressing procedure. If you don't have a jointer and planer, take a little extra time when selecting wood at your local home improvement store.



Routing Multiple Project Parts

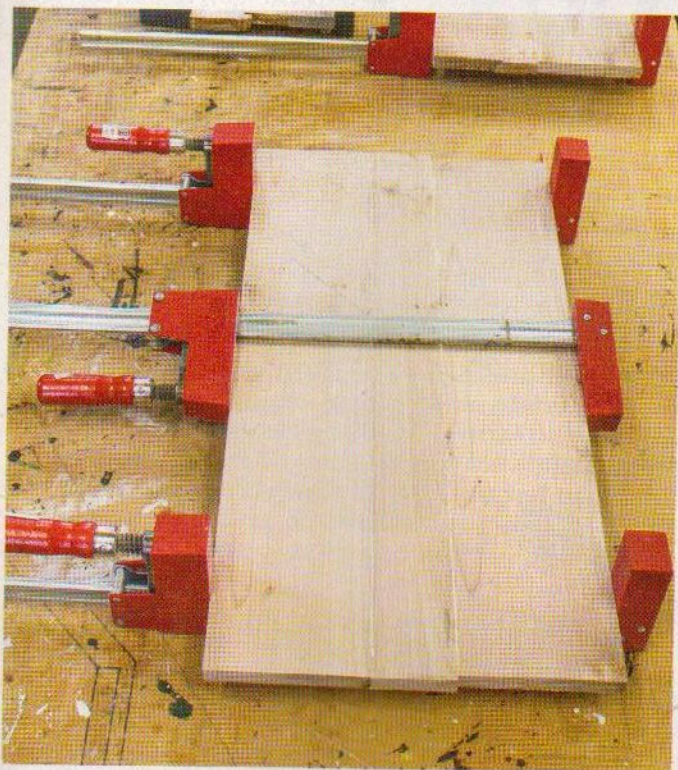
If you plan to make a lot of these display racks for friends or family, make templates of the backing board, shelves, and leg out of tempered hardboard. Attach the template to the shelf or backing board blank with double-sided tape and use a router with a flush-trim bit (or a pattern-cutting bit) to cut the shelves and backing board.



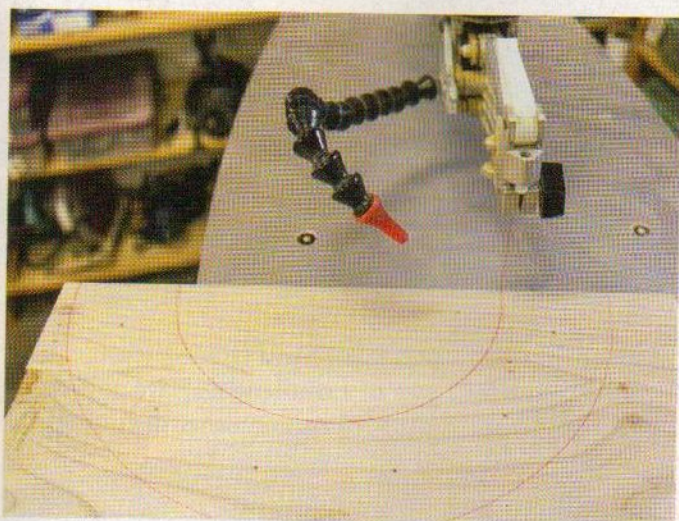
When purchasing rough-sawn solid lumber or fully surfaced boards at a home improvement store or lumber yard, take care to choose grain patterns that will match well when glued up into blanks.

Patterns for the **GOLF BALL DISPLAY RACK** are in the pattern pullout section.

MAKING THE GOLF BALL DISPLAY RACK



▲ Step 1: Glue up blanks. Because it can be difficult to find wood wide enough for this project, I suggest you glue up blanks to make the shelves and backing boards. As you cut and glue the wood, try to match grain direction and color to create a uniform look. Clamp the boards and let dry.



▲ Step 2: Cut the pieces. Attach or trace patterns of the shelves, backing board, and leg (if your rack will be freestanding) onto the blanks, and cut the perimeters. Then, sand the pieces through the grits until you reach 220 grit. Use a router with a $\frac{3}{8}$ " (10mm)-radius roundover bit to round the edges of the shelves, and use a $\frac{1}{8}$ " (3mm)-radius roundover bit to round the edges of the backing board.



▲ Step 3: Drill the cups. Use a $1\frac{1}{4}$ " (32mm)-diameter Forstner bit to drill $\frac{3}{8}$ " (10mm)-deep cups for the golf balls in each shelf.

Step 4: Drill the pilot holes. Drill and countersink the holes on the back of the backing board. For a freestanding display, countersink the holes to accept wooden plugs. For a hanging display, countersink the holes so the screws will sit slightly below the surface. Using the backing board holes as a guide, drill pilot holes in the shelf ends from the back.

Step 5: Finish and assemble the rack. Tape off the shelf ends and areas on the backing board where the shelves will be glued. Finish the shelf with a clear finish, such as Minwax rub-on satin polyurethane. When dry, remove the tape, apply glue, and screw the shelves to the backing board. Add the leg to the bottom shelf if the project will be freestanding.

Materials & Tools

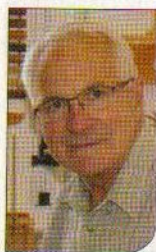
Materials:

- Hardwood, such as red alder, 1" (25 mm) thick: shelves and leg, 8" x 6" (203mm x 1828mm); backing board, 13" x 24" (330mm x 610mm)
- Sandpaper
- Screws, 24 each #8 x $1\frac{1}{4}$ " (32mm) long flat-head rough-thread
- Clear finish, such as Minwax rub-on satin polyurethane
- Masking tape
- Glue

Tools:

- Blades, such as Precision Ground Tooth (PGT): #9 or 8 TPI
- Drill and drill bits: $\frac{1}{8}$ " (3mm) dia. for all screw pilot holes, $1\frac{1}{4}$ " (32mm)-dia. Forstner bit for golf ball cup, countersink
- Router with bits: $\frac{3}{8}$ " (10mm)-radius roundover; $\frac{1}{8}$ " (3mm)-radius roundover; flush-trim or pattern cutting (optional)
- Jointer (optional)
- Planer (optional)
- Table saw (optional)

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



Wayne Sampson of Camrose, Alta., Canada, was inspired to become a woodworker by his father and grandfather, who were both carpenters. Formerly a planning technologist, he designed and built woodworking projects, including six of his family's homes across Canada. He owned and operated a custom woodworking business in Yellowknife for 10 years before retiring. When not golfing or maintaining his acreage, he designs and builds woodworking projects.

Tiered Cake Box



**Celebrate a special occasion
with a gorgeous wooden cake**

By Carole Rothman

Everyone loves beautiful cakes. This festive wooden version is also a two-tiered jewelry box with matching flocked interiors. This would be a great gift for friends, family, or that special someone—with or without something sparkly inside.

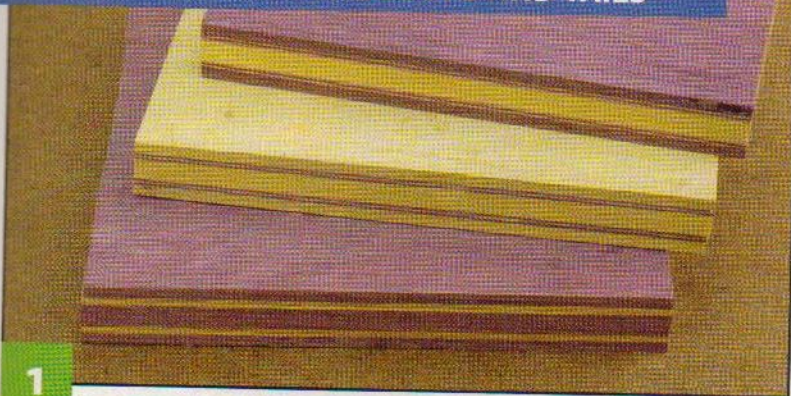
Much like my gift boxes in *Scroll Saw Woodworking & Crafts* Holiday 2014 (Issue 57), this box uses lamination and compound cutting to make boxes with ribbons. But unlike the previous projects, this box needs icing! I added piped dots using MUD texturing compound, which looks like icing but dries hard, like wood. However, the texture of the compound is different from icing, so I highly recommend you

practice on scrap wood before you tackle the cake. If you're looking for more of a challenge, I have added instructions for piping borders and other decorations.

Getting Started

Cut the blanks to size. Photocopy the patterns. You need one copy each of the top layer pattern, the bottom layer pattern, and the top tail pattern. You need four copies of the side tail pattern, 10 copies of the top loop pattern, and 24 copies of the side loop pattern. For the cake plate top pattern, either copy the halves and tape them together, or copy the pattern on larger paper.

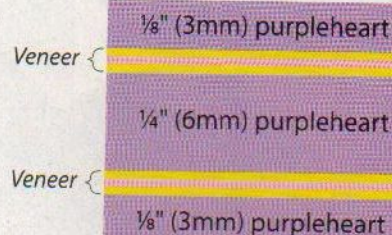
CAKE BOX: MAKING THE LOOPS AND TAILS



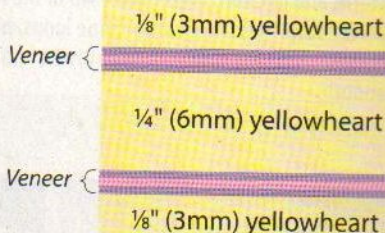
1

Prepare the three laminated blanks. Glue up the laminated blanks using the lamination diagrams (at right). For ease in handling, start with the 1/4" (6mm)-thick center blank and glue the veneer and thin wood blanks alternately to each side, in the order indicated, until all pieces are firmly attached. Clamp the laminated blanks and let them dry fully. Sand one long-grain edge of each lamination smooth. To prevent warping, keep the laminated blanks in a press until right before you cut them.

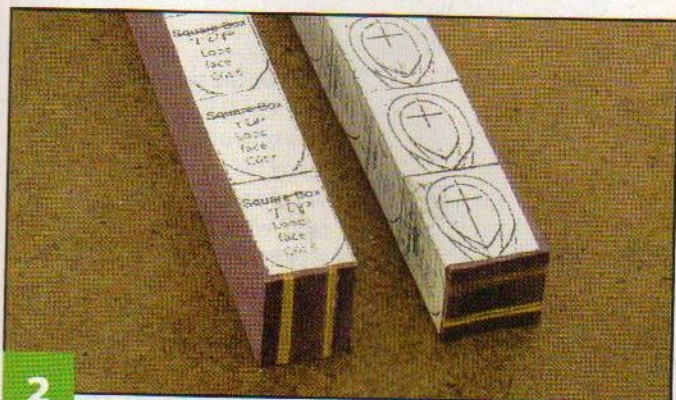
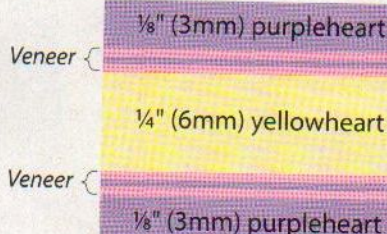
Lamination 1 - ribbons on bottom layer



Lamination 2 - ribbons on top layer

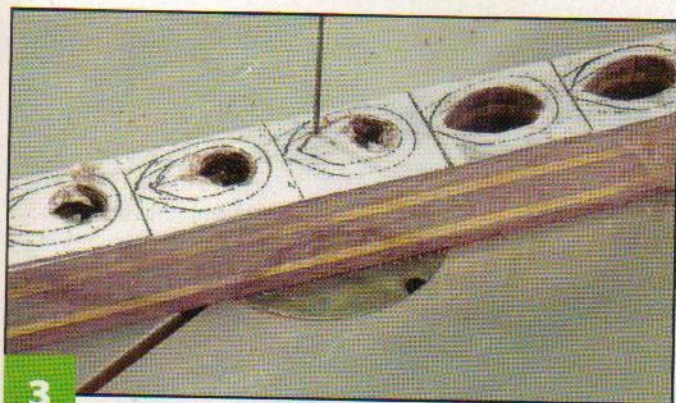


Lamination 3 - ribbons on top of cake



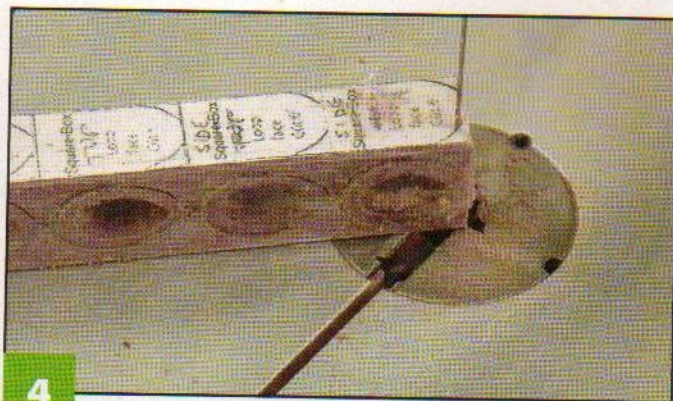
2

Attach the side loop patterns. Start at the sanded edge of lamination 1 and cut two 3/4" by 6 1/2" (19mm by 165mm) strips. Using repositionable adhesive, attach six side loop patterns to each strip. Center the face (solid) pattern between the stripes on the striped side, and the pattern with the drill hole marked on the plain side. Save the remainder of lamination 1 for the tails.



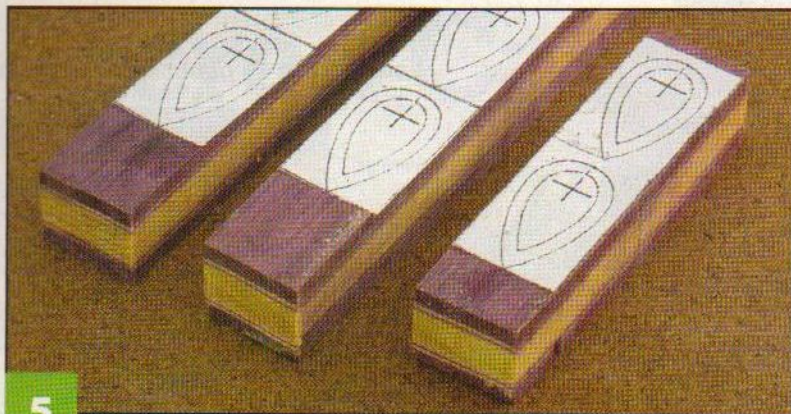
3

Cut the sides of the loops. Cover the drilled side with clear tape to avoid shredding the pattern. Drill where indicated with a 5/16" (8mm)-diameter bit, using a backer board to prevent tear out. Insert a blade and cut the inside of each loop. Then, cut the outside of each loop to free it from the blank. Replace each loop and tape it securely in place.



4

Complete the loops. Rotate the blank so the face side of the pattern is up. Cut along the curved bottom to complete the first loop. Remove the loop from the blank, cut off the waste, and repeat the process on the next loop. Repeat Steps 2 to 4 with lamination 2.



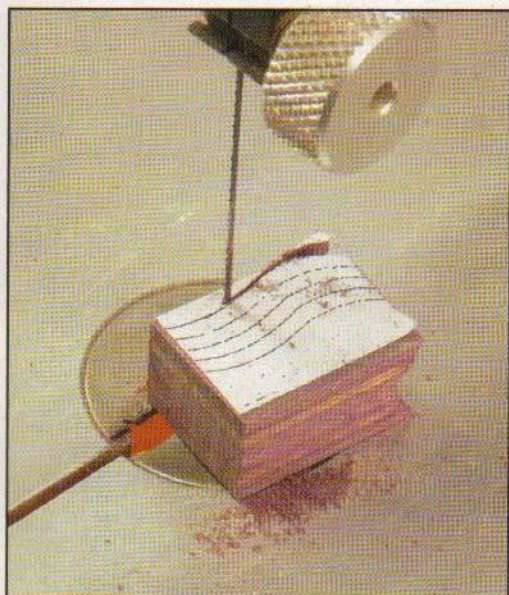
5

Cut the loops for the top of the cake. Cut two $\frac{3}{4}$ " by 6" (19mm by 152mm) strips and one $\frac{3}{4}$ " by 3" (19mm by 76mm) strip from lamination 3. Follow Steps 2 to 4 to attach patterns and cut four loops from each of the longer strips and two loops from the shorter strip. This will give you nine loops, plus one extra. Save the remainder of lamination 3 for the tails. Sand the inside and outside of the top and side loops until smooth.

TIP

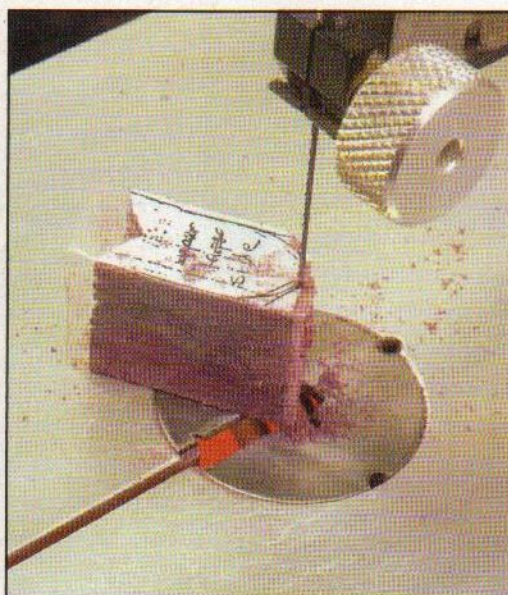
SANDING THE LOOPS TO SHAPE

Instead of cutting the lower curve of the loops, you can shape them by sanding. Cut the loops as explained in Step 3, but do not tape them back in place. Skip Step 4. Use a belt sander to sand the outside of each loop smooth, and then sand the lower curve, referring to the pattern for shape.



6

Cut the side tails. Cut two 1" by $1\frac{3}{8}$ " (25mm by 35mm) strips from lamination 1. Attach the face part of the pattern to the striped side of each strip, with the V centered between the stripes, and attach the side part of the pattern to the plain side. Place each strip face-side up and cut the top V. Rotate the blank 90° and cut along each line on the side pattern to form four tails. Use clear tape to reattach the tails and waste. Turn each strip face-side up and cut the lower curved edge to complete the tails. This will give you eight tails total. Repeat this process with lamination 2.



TIP

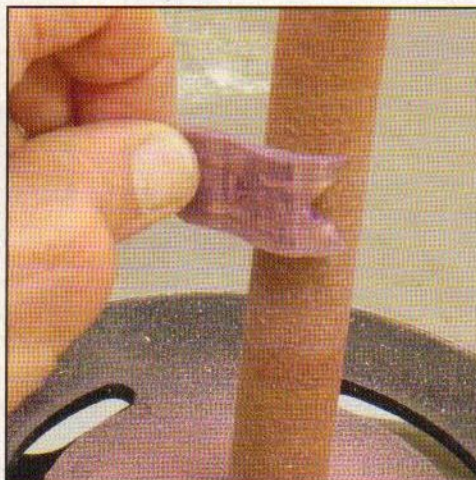
TESTING THE FIT OF THE RIBBONS

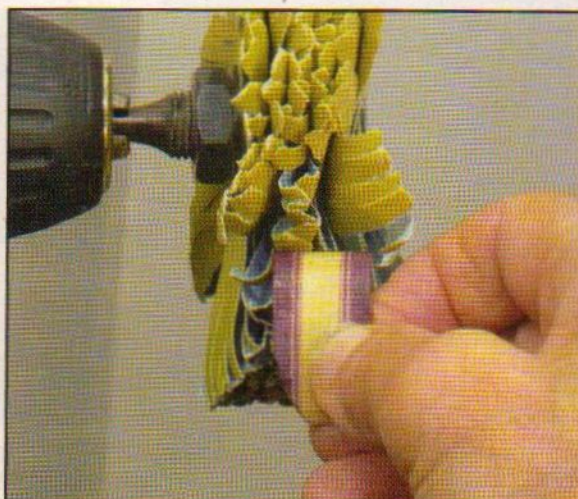
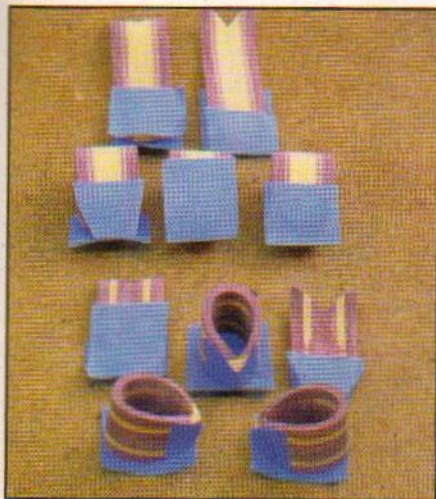
Use small loops of masking tape to secure the loops and tails to scrap wood to test their fit and position. Sand the contours so the pieces mate together tightly for gluing. Since many pieces have more than one gluing area, use these mock-ups to determine which area(s) should be masked before pre-finishing each piece.

7

Cut the top tails.

Cut one 1" by $2\frac{1}{4}$ " (25mm by 70mm) strips from lamination 3 and repeat Step 6 to cut four tails (one tail is an extra). Sand the top and side tails until smooth.

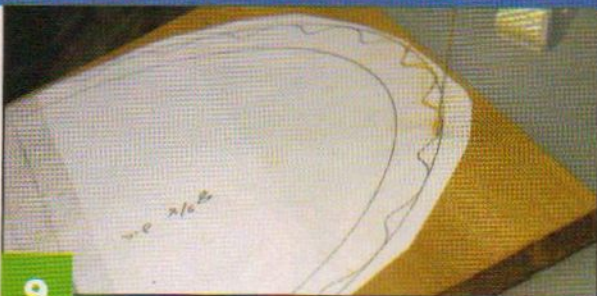




8

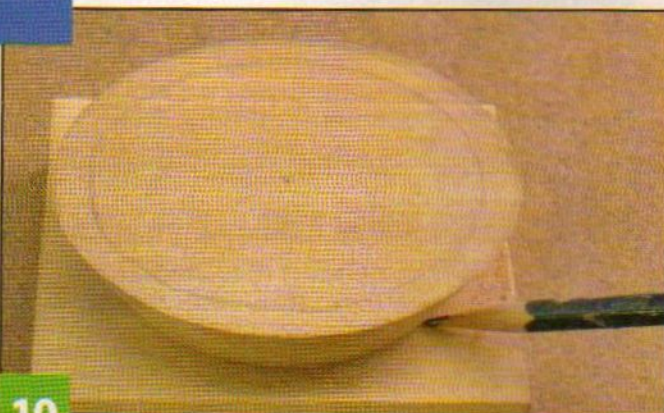
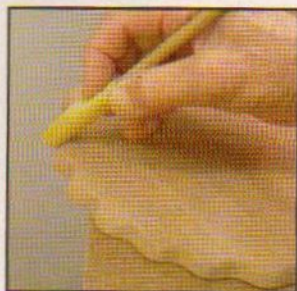
Pre-finish the loops and tails. Pre-finishing the loops and tails makes the finishing process in Step 25 easier. Apply blue painter's tape to the gluing surfaces on the loops and tails. Spray the unmasked areas with shellac and allow it to dry. Remove the tape, and buff each piece with a 320-grit sandpaper mop or hand-sand with 320-grit sandpaper.

CAKE BOX: MAKING THE CAKE PLATE



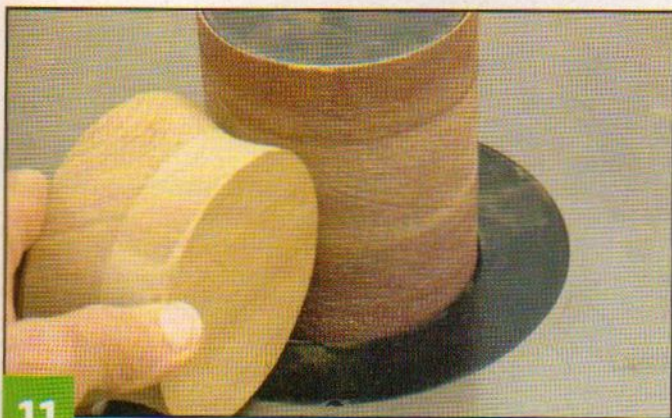
9

Cut the top of the cake plate. Attach the cake plate top pattern to the blank with repositionable adhesive. Tilt the left side of the saw table down to 30° and cut clockwise around the plate. Sand until smooth, and soften (round) the sharp edges. Use a spindle sander or sandpaper wrapped around a dowel.



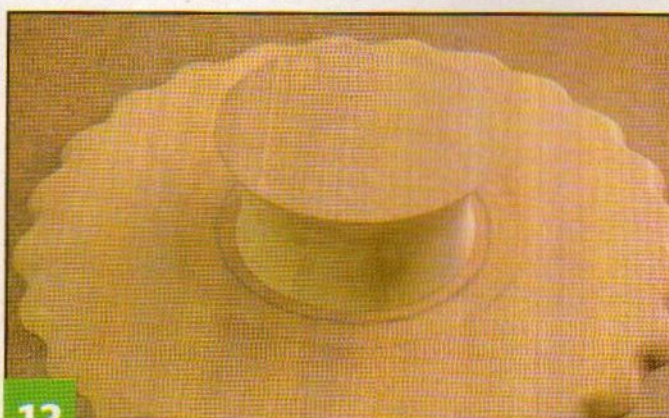
10

Cut the base pieces of the cake plate. Use a compass to draw a 4" (102mm)-diameter circle on the blank. With the saw table still tilted down 30°, cut in a clockwise direction around the circle. Trace the outline of the smaller face of the just-cut piece onto the other base blank (it will have approximately a 3", or 76mm, diameter). Level the saw table and cut the circle.



11

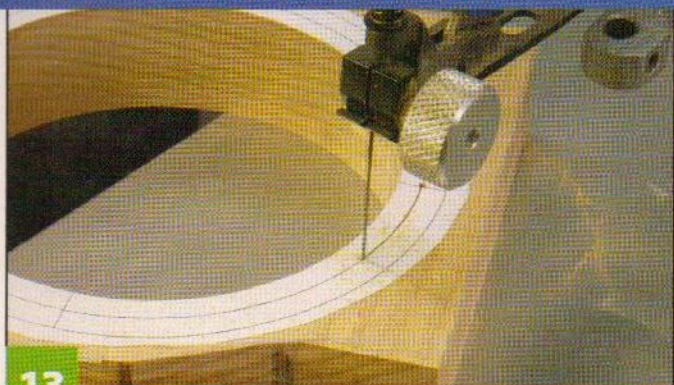
Finish the base pieces. Glue and clamp the two base pieces together and let the glue dry. Use a spindle sander to sand a curve where the two pieces meet. Check your work frequently to keep the shaping even.



12

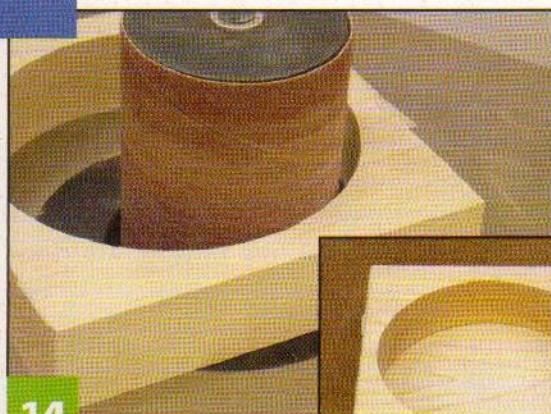
Assemble the base. Mark the center on the bottom side of the cake plate top, and use a compass to draw a circle slightly larger than the top of the base pieces. Use the circle as a guide to glue and clamp the base to the cake plate top.

CAKE BOX: MAKING THE LAYERS



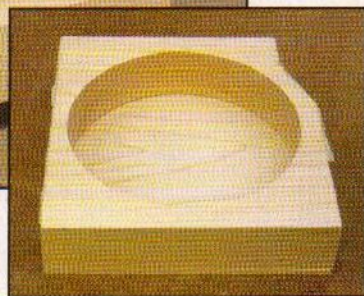
13

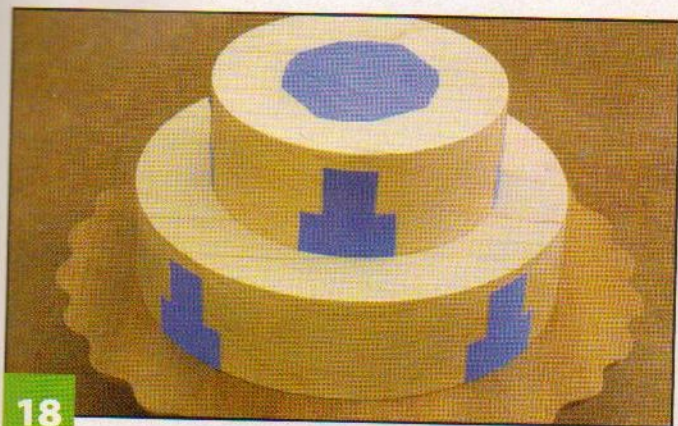
Cut the bottom layer. Cover the blank with clear packaging tape and attach the pattern. Drill $\frac{1}{16}$ " (2mm)-diameter blade-entry holes where indicated. Thread the blade through the innermost hole and cut the circle to remove the center. Set aside the center to use for the top layer and its lid. Insert the blade into the other hole and cut around the circle to free the bottom layer. Remove it from the blank and sand the inside and the outside of the layer until smooth.



14

Assemble the bottom lid. Remove the pattern from the blank, but do not discard it. Sand the inside of the bottom lid until smooth. Remove any fuzzies from the bottom edge. Glue the lid to the bottom lid blank. Clamp the lid blank in place, allow it to set for a few minutes, unclamp, and remove any squeeze-out from inside the circle. Reclamp and let dry.





18

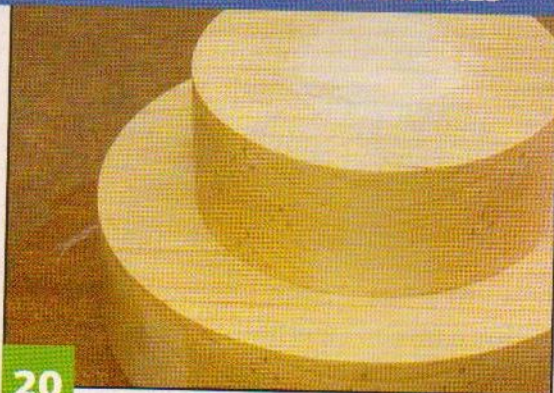
Mask the gluing areas for the ribbons. Position the loops and tails for each lid in four evenly spaced clusters. The ribbons on the bottom layer should fall between those on the top layer. Position the ribbons for the top of the cake in the center. Mask all gluing areas with blue painter's tape.



19

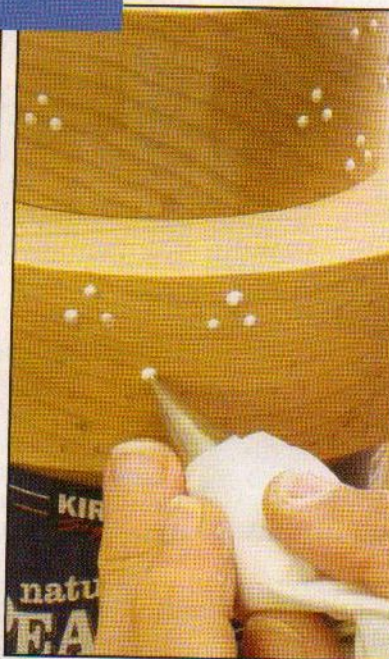
Seal the pieces. Seal the inner and outer box surfaces with a coat of shellac. When the shellac dries, remove the tape and sand the sealed and unsealed surfaces with 320-grit sandpaper until smooth. Remove the dust.

CAKE BOX: ADDING THE DETAILS



20

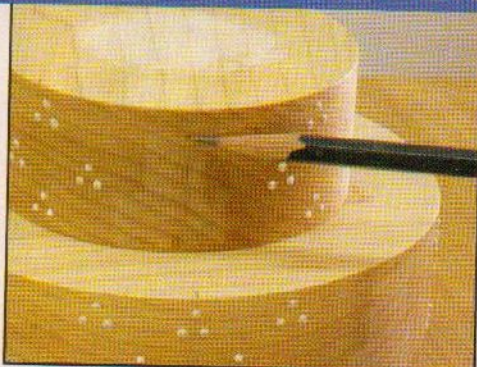
Mark the locations of the decorative dots (optional). Although the dots add a festive look, you can omit them and still have an attractive project. To prepare the surface for piping, use a ruler and light pencil marks to create evenly spaced patterns of dots in the areas between the ribbon clusters. Pipe the dots individually or in small groups. Erase all previously drawn pencil marks, except for the small dots that will guide the piping.



21

Pipe the decorative dots. Place the bottom layer lid over a wide jar with the top layer lid in position. Put the assembly on a stable raised platform so you can work more easily. If you are using a coupler, trim the end of a disposable plastic piping bag and insert the body of the coupler so the threads protrude. Place a #1 tip into the ring of the coupler, and screw the ring and tip to the body of the coupler. If you are not using a coupler, trim the end of a plastic or parchment bag and drop a #1 tip into the bag. Fill the bag with a small amount of MUD, and pipe small dots where marked in Step 20. Remove any misplaced or misshapen dots immediately with a damp brush, clean away the residue, and re-pipe. Let the dots set until firm. Clean all tools with water, soaking them if needed to remove dried MUD.

CAKE BOX: COMPLETING THE PROJECT



22

Prepare the lids for the side loops and tails.

Divide the loops and tails from each lamination into four clusters, each consisting of two tails and three loops. For each cluster, glue two of the loops to the tails, using a toothpick to apply wood glue, such as Nexabond, to the sides of the loops and pressing the tails into place. On each lid, lightly mark the center of each cluster location at the top of the lid. Draw a line down the side at that point. Put the top lid in place and make sure the ribbon clusters of the top lid will be aligned with the dot clusters on the bottom lid.

CAKE BOX: FINISHING THE PROJECT



23

Attach the loops and tails to the bottom and top layers. Use masking tape to hold a sample loop in place on one of the layers. Slide the matching loops and tails into position under it. The bottom of the cluster can sit flush with the bottom edge of the lid or just above it. Mark the top of the loop. Measure the distance from the top of the layer to this mark, and mark that distance with a small dot at each of the eight gluing locations. Remove all other pencil marks. At each location, use Nexabond glue to lock the top loop into place, holding it until set. Let it dry fully. Check the matching tail assemblies for fit, and sand the lower edge or underside of the tails if needed. Glue the assemblies into place, holding firmly until set.



TIP

EASY GLUING

If you have a vise with non-marring jaws, clamp the lid in a horizontal position for ease in gluing and drying the bow clusters.



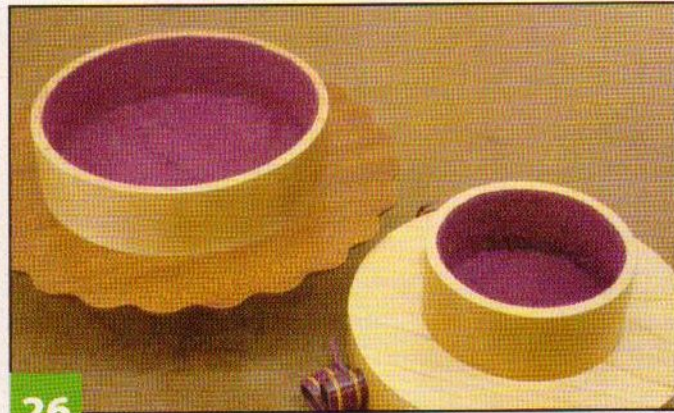
24

Attach the loops and tails to the top of the cake. Separate the six loops for the lower layer of the ribbon cluster from the three loops for the upper layer. Glue the tails to the upper loops. Use small loops of masking tape to position the six lower loops in a circle at the center of the lid. Test the fit of the loop-tail assemblies and adjust the lower loops as needed. Glue on the six lower loops, one at a time, holding until set. Glue the three tail-loop assemblies in place and hold until set. Let the pieces dry thoroughly.



25

Apply a clear lacquer finish. Sand away any glue residue on the ribbon clusters and box surfaces. Apply several coats of glossy spray lacquer to the lids and cake stand. Do not spray the box interiors or the insides of the lids.



26

Flock the box interiors. Apply a generous coat of acrylic paint that matches the flocking fibers to the inside of the box. Spray or pour a large amount of flocking fibers, and let the paint dry overnight. Then, tap out the excess fiber for reuse.



Advanced Piping

If you're handy with a piping bag, or willing to learn, consider embellishing the lid of your cake box with decorations piped with fabric paints or MUD. For both materials, prepare the lid by sanding it smooth, sealing it with a coat of shellac, and smoothing the shellac with 320-grit sandpaper.

Use fabric paints for larger dots and beading (shell-like borders made with a round tip). The paint, applied directly from the bottle, is inexpensive and comes in many colors. The disadvantages to paint are that you're limited to a relatively large round opening, air bubbles can be a problem, and the finished result, while durable, does not look or feel like wood.

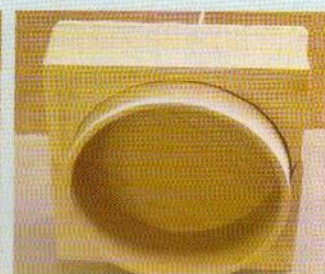
MUD is a texturing compound that dries hard and can be applied with a pastry bag and tip. It is usually applied to a horizontal surface. A #1 piping tip and a brush can be used to create flowers and other designs. Although its loose texture is not ideally suited to the vertical aspect of cake decorating and it tends to develop small cracks unless applied thinly, I found ways to work within these limitations and pipe borders and other decorations that are attractive and durable, and look and feel like wood.



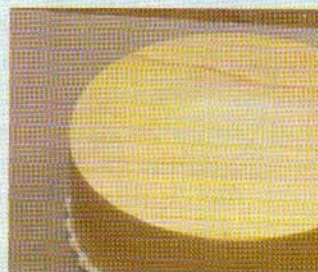
MUD Piping Supplies and Basics

To minimize cracking, use only small piping tips, such as #1 for dots, string work, and very small beading; #2 for slightly larger beading; and #13 for shell borders.

If cracks appear as the decorations dry, pipe a dot of MUD onto the crack, and push it in and smooth it with a damp brush. You can use inexpensive nickel tips and disposable parchment bags, but to minimize waste, store MUD in a plastic piping bag with a coupler and #1 PME tip. PME tips are made of stainless steel and will not turn MUD blue when used for storage. Seal the open end of the bag with a rubber band, insert the tip into a moist sponge and store it in a lidded plastic container.



Mask and paint the lower border. The bottom edge of each layer requires special preparation to keep the natural color of the wood from showing, and to keep the piped border from sagging. I handled the first problem by using blue painter's tape to mask off the lower 1/4" (6mm) of the lid and applying a light coat of white acrylic paint to that area. After the paint dried, I removed the tape and sanded the upper edge of the painted area with 320-grit sandpaper to remove any ridges. To prevent sagging and to keep voids from forming on the underside of the shells, I used the remainder of the piece from which the lid was cut as a holder, wedging the lid in place with a toothpick. This allowed me to pipe the border horizontally, one section at a time, and to control the distance from the lower edge.



Pipe the lower border. Pipe the first section with a #13 tip, let it set up for a few minutes, and then rotate the lid to access the next area. When you have completed the border, let the lid dry for 24 hours, fill any small cracks that form, and sand away any residue on the lid bottom.

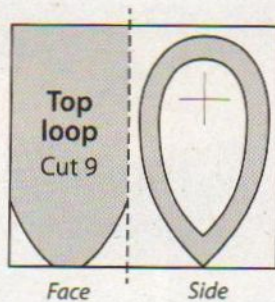
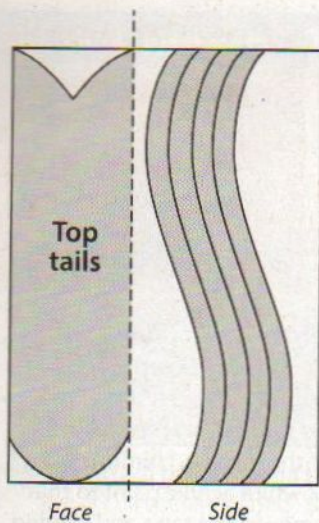


Pipe side decorations.

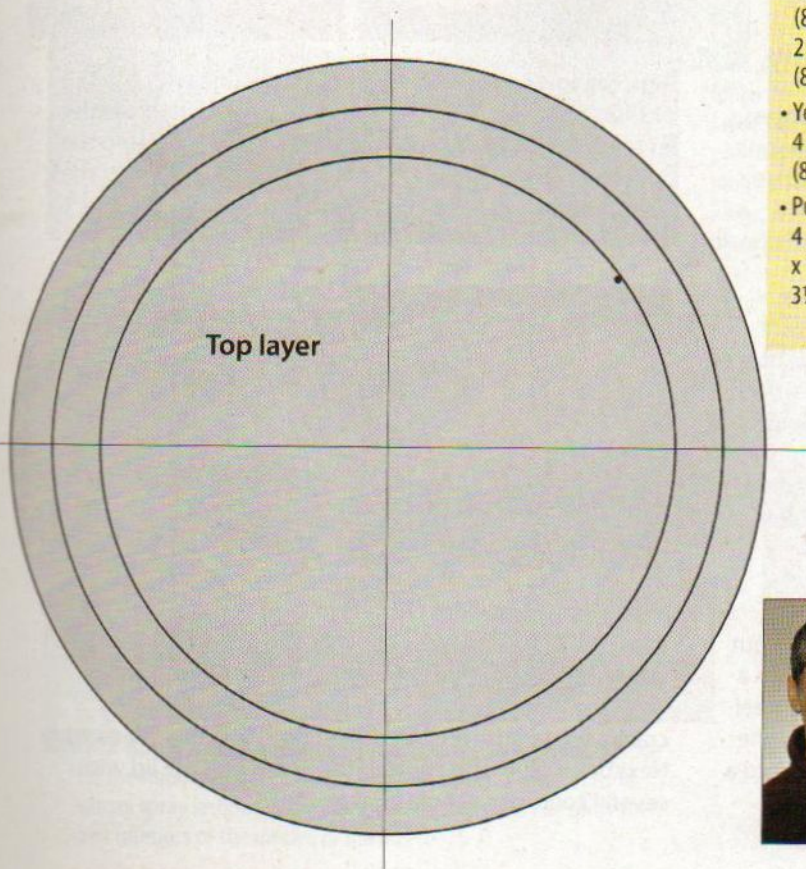
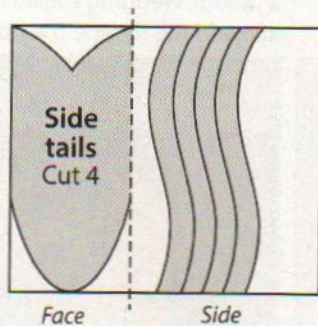
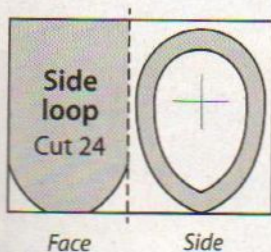
I piped two tiers of string work on the side of the layer with a #1 tip. For the first tier, I marked the location of each loop on the top edge of the lid with a small pencil mark. For the second tier, I used the first tier as a guide. I

added some small dot clusters to the sides for interest, and then piped a "C" border on the upper edge with a #13 tip. I also could have piped a shell or reverse shell border.

When the piped work was dry and I had filled the cracks, I glued the prepared loops and tails into place with Nexabond glue, and sprayed the outside of the lid with several coats of clear gloss lacquer.



Cake box patterns



© 2015 Scroll Saw Woodworking & Crafts

Materials:

- Maple, $1\frac{1}{8}$ " (35mm) thick: top and bottom layers and lids, 7" x 7" (178mm x 178mm)
- Maple, $\frac{1}{8}$ " (3mm) thick: bottom lid, 7" x 7" (178mm x 178mm); top lid, 5" x 5" (127mm x 127mm)

Wood for the cake plate

- Sapele, $\frac{3}{4}$ " (19mm) thick: cake plate base bottom, $4\frac{1}{2}$ " x $4\frac{1}{2}$ " (229mm x 229mm); cake plate base middle, 4" x 4" (102mm x 102mm)
- Sapele, $\frac{1}{4}$ " (6mm) thick: cake plate top, 9" x 9" (229mm x 229mm)

Wood for lamination blocks

- Yellowheart, $\frac{1}{4}$ " (6mm) thick: lamination 2, $3\frac{1}{2}$ " x $6\frac{1}{2}$ " (89mm x 165mm); lamination 3, $3\frac{1}{2}$ " x 6" (89mm x 152mm)
- Yellowheart, $\frac{1}{8}$ " (3mm) thick: lamination 2, 2 each $3\frac{1}{2}$ " x $6\frac{1}{2}$ " (89mm x 165mm)
- Purpleheart, $\frac{1}{4}$ " (6mm) thick: lamination 1, $3\frac{1}{2}$ " x $6\frac{1}{2}$ " (89mm x 165mm)
- Purpleheart, $\frac{1}{8}$ " (3mm) thick: lamination 1, 2 each $3\frac{1}{2}$ " x $6\frac{1}{2}$ " (89mm x 165mm); lamination 3, 2 each $3\frac{1}{2}$ " x 6" (89mm x 152mm)
- Yellow veneer: lamination 1, 4 each $3\frac{1}{2}$ " x $6\frac{1}{2}$ " (89mm x 165mm)
- Purple veneer: lamination 2, 4 each $3\frac{1}{2}$ " x $6\frac{1}{2}$ " (89mm x 165mm); lamination 3, 2 each $3\frac{1}{2}$ " x 6" (89mm x 152mm)

- Pink veneer: lamination 1, 2 each $3\frac{1}{2}$ " x $6\frac{1}{2}$ " (89mm x 165mm); lamination 2, 2 each $3\frac{1}{2}$ " x $6\frac{1}{2}$ " (89mm x 165mm); lamination 3, 4 each $3\frac{1}{2}$ " x 6" (89mm x 152mm)
- Spray adhesive: repositionable
- Glue: wood, such as Weldbond; Nexabond (for loops)
- Sandpaper
- MUD texturing compound (see Special Sources) (optional)
- Tape: blue painter's and clear packing
- Spray shellac
- Spray lacquer
- Acrylic paint and matching flocking fibers

Tools:

- Blades: #5 skip tooth, such as Flying Dutchman Polar
- Compass
- Drill with bits: $\frac{5}{16}$ " (8mm), $\frac{1}{16}$ " (2mm) dia.
- Press or clamps and boards
- Sanders: assorted types
- Disposable piping bag (plastic or parchment) (optional)
- Piping coupler (optional)
- Piping tip #1 (optional)

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

SPECIAL SOURCES:

MUD texturing compound is available from Margot Clark at www.margotclark.com.

Additional patterns for the **TIERED CAKE BOX** are in the pattern pullout section.



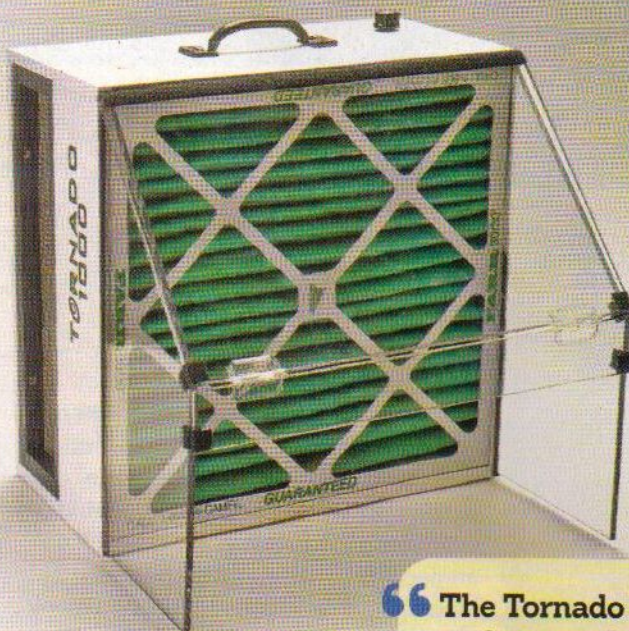
Carole Rothman of Pawling, N.Y., is a retired psychologist and college professor. She is also an award-winning cake decorator. Visit Carole online at www.scrollsawbowls.blogspot.com. You'll find her books *Creative Wooden Boxes* from the *Scroll Saw and Wooden Bowls* from the *Scroll Saw* at www.foxchapelpublishing.com.

Tornado 1000 Dust Collector

Several commercial tabletop dust collectors are available, as are a host of plans for shop-made versions. The Tornado 1000, which is made in the USA by SMC Enterprises, stands out thanks to its large working area and the vast amount of air it can move. The Tornado 1000 took everything I could throw at it and kept going! This dust collector is a must-have for intarsia and segmentation artists.

SMC Enterprises was begun by Steve Chlupsa and his brother Andy in the mid-1980s. They created the Optima line of woodburners and the SafeAir dust collector unit, which was popular in the 1990s. After selling the Optima line to PJJ Enterprises in 2000, Steve got out of the dust collector business—until Andy wanted to upgrade his carving equipment. Steve went back to the drawing board.

I had a hard time finding a sanding or carving tool the Tornado 1000 couldn't keep up with, and I tried a variety of tools of increasing sizes and dust production capacities without changing or cleaning the filter. The Tornado 1000 easily kept pace with an aggressive carbide-point bit in a rotary tool. After 20 minutes of carving while sitting comfortably outside the acrylic shield, there was almost no dust on the table, but dust covered the filter. The Farr 30/30 filter is a high-efficiency model that will catch most particles over 6



“The Tornado 1000 took everything I could throw at it and kept going!”

microns and is designed to provide good airflow even as it collects dust and debris.

After completing my tests, I used a shop vacuum and an air compressor to restore the filter to nearly new condition. I'm sure the filter will break down over time; when it does, I suggest replacing it with another Farr 30/30 filter, which is available for \$12.95, or a MERV11 filter, which catches particles down to 3 microns (useful when sanding or using diamond or ruby bits) and is available for \$16.95.

The Tornado 1000 is available for \$399 + \$30s&h from SMC Enterprises. For more information, visit www.smcenterprises.com or call 270-871-7976.



Port-A-Cool Cyclone

If you have access to a hose connection, you can cool your shop with the Port-A-Cool Cyclone with about the same amount of electricity you'd use to run a hairdryer. The unit is an evaporative cooler (known in some places as a swamp cooler) that uses the natural evaporation of water to cool your shop down to 30°F.

Because it depends on evaporation, the unit works best when the overall humidity is low. It also needs to be adjusted properly to avoid spraying water. Finally, wood expands and contracts depending on its moisture content, so the cooler can affect your projects. If possible, vent the moist air outside and run the unit only when you need to.

Port-A-Cool's Cyclone 2000/2200 is sized for a 500-square-foot area and retails for around \$550; the 3000/3200 is sized for a 700-square-foot area and retails for around \$750. For more information, visit www.port-a-cool.com.

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



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 3/4" (19mm) thick and check the angle of the cut using a square. Adjust the table until you get a perfectly square cut.

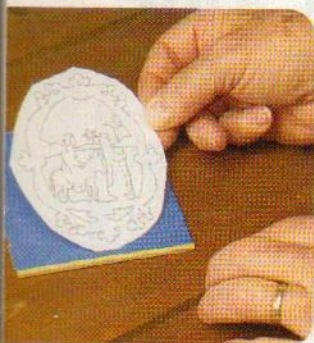
You can also use the kerf-test method. Take a 1 3/4" (44mm)-thick piece of scrap wood and cut about 1/16" (2mm) into it. Stop the saw, back the blade out, and spin the wood around to the back of the blade. If the blade slips easily into the kerf, the table is square. If it doesn't slide into the kerf, adjust the table and perform the test again until the blade slips in easily.

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.



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.



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 1/8" (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.

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.



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.

ADVERTISING DIRECTORY

Bushton Manufacturing – page 7
620-562-3557
www.hawkwoodworkingtools.com

D&D Woodcrafts – page 71
610-381-2286
www.dndhardwoodsonline.com

Flock It – page 11
800-336-6537
www.donjer.com

Graphic Transfer – page 11
928-453-2652
www.graphictransfer.net

King Arthur's Tools – Inside Back Cover
800-942-1300
www.katools.com

Mike's Workshop – page 7
503-760-1614
www.mikesworkshop.com

Ocooch Hardwoods – page 71
888-322-2432
www.occoochhardwoods.com

Prox-Tech, Inc. – page 11
877-PROXXON
www.proxxon.com/us

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

Sloan's Woodshop – page 5
888-615-9663
www.sloanswoodshop.com

West Penn Hardwoods, Inc. – page 7
716-373-6434
www.westpennhardwoods.com

Wildwood Designs
Back Cover
800-848-4363
www.CherryTreeToys.com

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

IN OUR NEXT ISSUE

Add a fretwork border to stacked wooden rings to make lacy bowls.



Layer fretwork to give depth to a scenic nightlight.



Make a whimsical animated music box that plays "If I Only Had a Brain."



SUBSCRIBE TODAY

Don't Miss a Single Issue!

SCROLLSAW
woodworking
& CRAFTS

Phone **888-840-8590**,
or visit us online at
www.scrollsawer.com

D & D Woodcrafts

40 Species of Exotic & Domestic Hardwoods

FROM 1/16" TO 3/4" THICK

14 Species of Plywood

PEGAS SCROLL SAW BLADES (Swiss Made)

CURRENT PRICING ONLINE:
www.dndplywoodonline.com
www.dndsawbladesonline.com
www.dndhardwoodsonline.com

Toll Free: 1-888-751-1400 or 610-381-2286 • Fax 610-381-5155

654 Blue Ridge Rd. • Saylorsburg, PA 18353

Scroll Saw Ready Hardwoods

1/8" to 3/4" thick and
4" to 12" wide

Carving Stock
Turning Blanks
Intarsia Lumber
Plywood

- Lower Prices
- Fast Service
- Satisfaction Guaranteed

Order online or call toll free
www.OcoochHardwoods.com

Free Catalog

1-888-322-2432

Serving with a Saw

Shirley Wagner, an 84-year-old Franciscan Sister of Perpetual Adoration, lives a peaceful life in the small community of Medford, Wisc. Once she steps into her basement workshop, however, Sister Shirley really tears it up—with a scroll saw, that is.

"I use routers, chop saws, radial arm saws, jig saws—whatever gets the job done—but the scroll saw is the most flexible and safest," she said. Sister Shirley discovered this new hobby in 1993 after a 30-year career as a music teacher. Since then, the scroll saw has become music to her ears. She has produced more than 550 commissioned works of art—everything from fretwork clocks and life-sized crucifixes to commemorative plaques and intarsia art that praises God and celebrates nature.

Completely self-taught, Sister Shirley says no job is too big for her to tackle. One of her pieces, titled *The Last Supper*, spans 12' across. Donor trees can be up to 16' tall and 16' wide. Her stash of exotic woods includes about 40 species of varying hues. Some are resawn, sanded, and left in their natural tones to accent intarsia works. Others are stained or painted as part of a hand-cut Victorian dollhouse or a fretwork clock tower.

Sister Shirley donates most of her work to help raise funds for various charities. "I love this kind of art," she said. "For me it's like praying, because the nature part of it automatically leads me to God."

Contact Shirley Wagner at swagner@fspa.org.



Shirley Wagner customized a basic pattern to build this dollhouse. It stands 4' by 2' by 3', and the roof comprises more than 5,000 shingles.

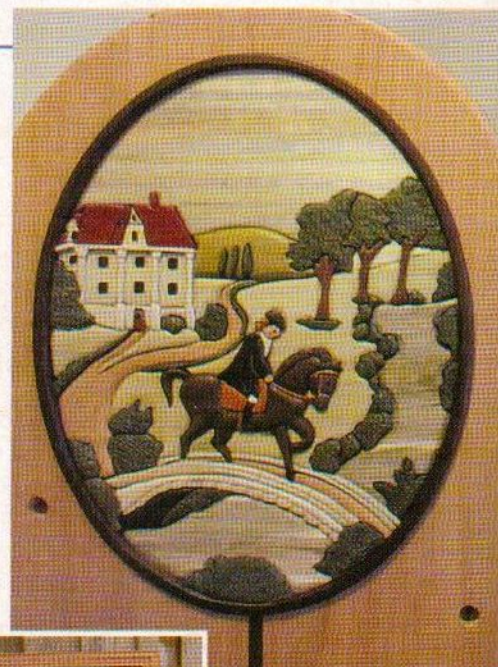
Custom Intarsia Creations

You name it and Mike Mathieu can make it. He's made everything from a personalized martial arts belt display to a custom knife block, but his passion is creating intarsia. "I like a good challenge, and custom intarsia fulfills that need. I really enjoy doing things that no one has done before, including myself. Everything I create is truly one of a kind," said the Virginia craftsman. Mike started designing custom intarsia in 1993. His ability to work with very small pieces of wood infuses his art with a high level of detail. "I use lots of texturing and detail carving to enhance my pieces. For me, it is part of the process that makes my intarsia come alive," he said.

According to Mike, the key to successful custom projects is communication. "Most clients have a rough idea of what they want, but they don't understand the whole custom process. It's my job to explain it through sketches and diagrams, and to show them I have the ability to turn their vision into a reality," he elaborated. "If the client likes your work and feels comfortable with you doing their project, then the money will be there."

Mike offers advice for custom intarsia: "Take pride in your work, don't be afraid to try something new, learn from your mistakes, and always strive to do the best you can."

View more of Mike's work at www.midlothianwoodworks.com.



Above: The intarsia plaque is inlaid into the side of a custom bookshelf. At left: Mike Mathieu poses beside his rendition of Monticello, the home of Thomas Jefferson.

Your Vision. Our Tools.

*"I totally endorse
Guinevere Tools.*

*It is the best tool
I've ever used along
with my scroll saw.*

*Guinevere makes
me feel like
all projects
are possible."*

Mike Seale
Sugarland, Texas



GUINEVERE
The **FLEXIBLE** Finisher

GUINEVERE® Master Set #11303 includes all 5 flexible heads, 31 assorted sleeves plus the dust extractor.

GUINEVERE® miniature sanding and polishing system gives you complete control. Pneumatic heads conform to the surface they touch, leaving a unique velvet finish not possible with hand sanding. SEE more Guinevere Kits at katools.com/shop.

katools.com • 800-942-1300

CherryTree

Woodworking Plans, Kits & Supplies



Order Today!

Or Contact us for your Catalog

1-800-848-4363

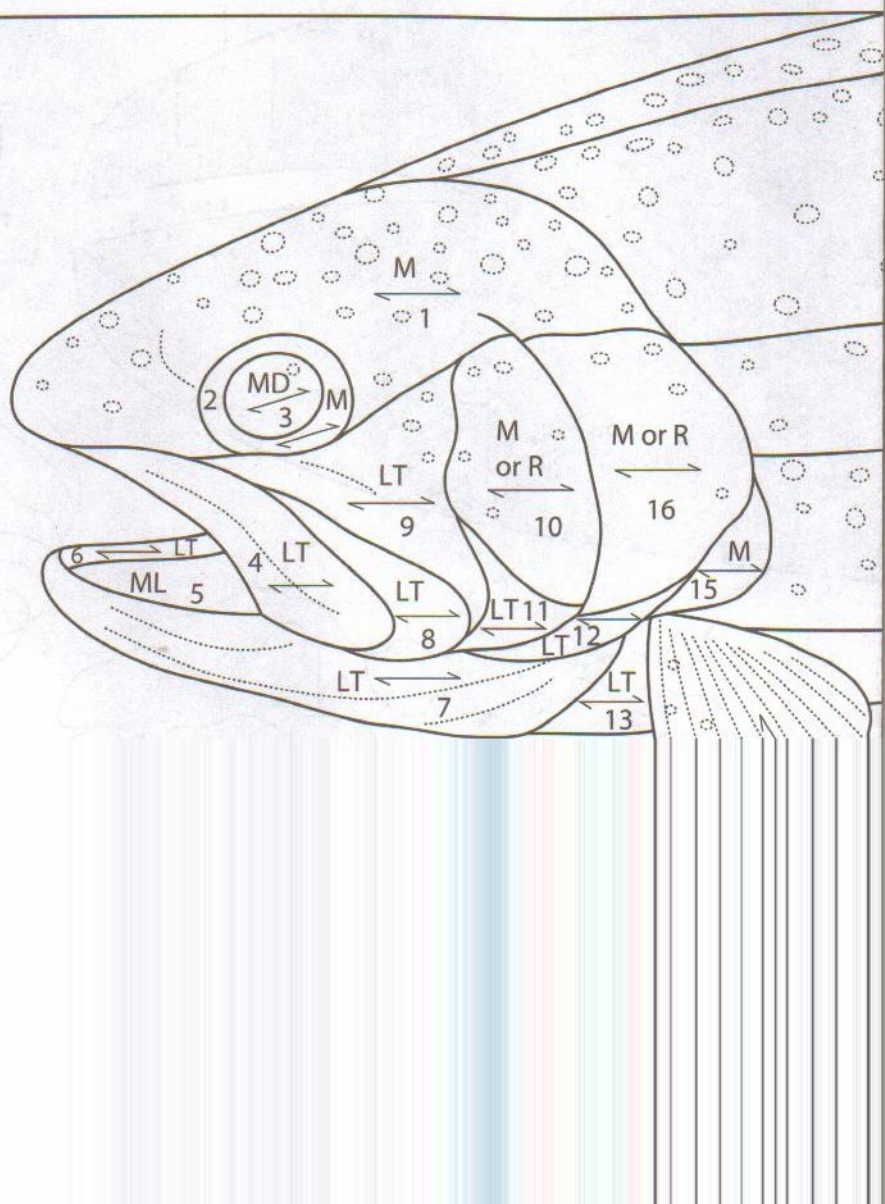
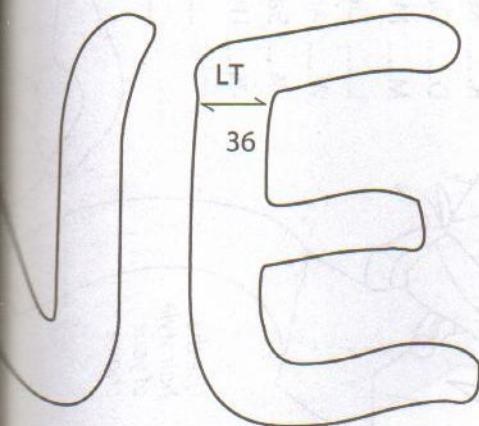
www.CherryTreeToys.com

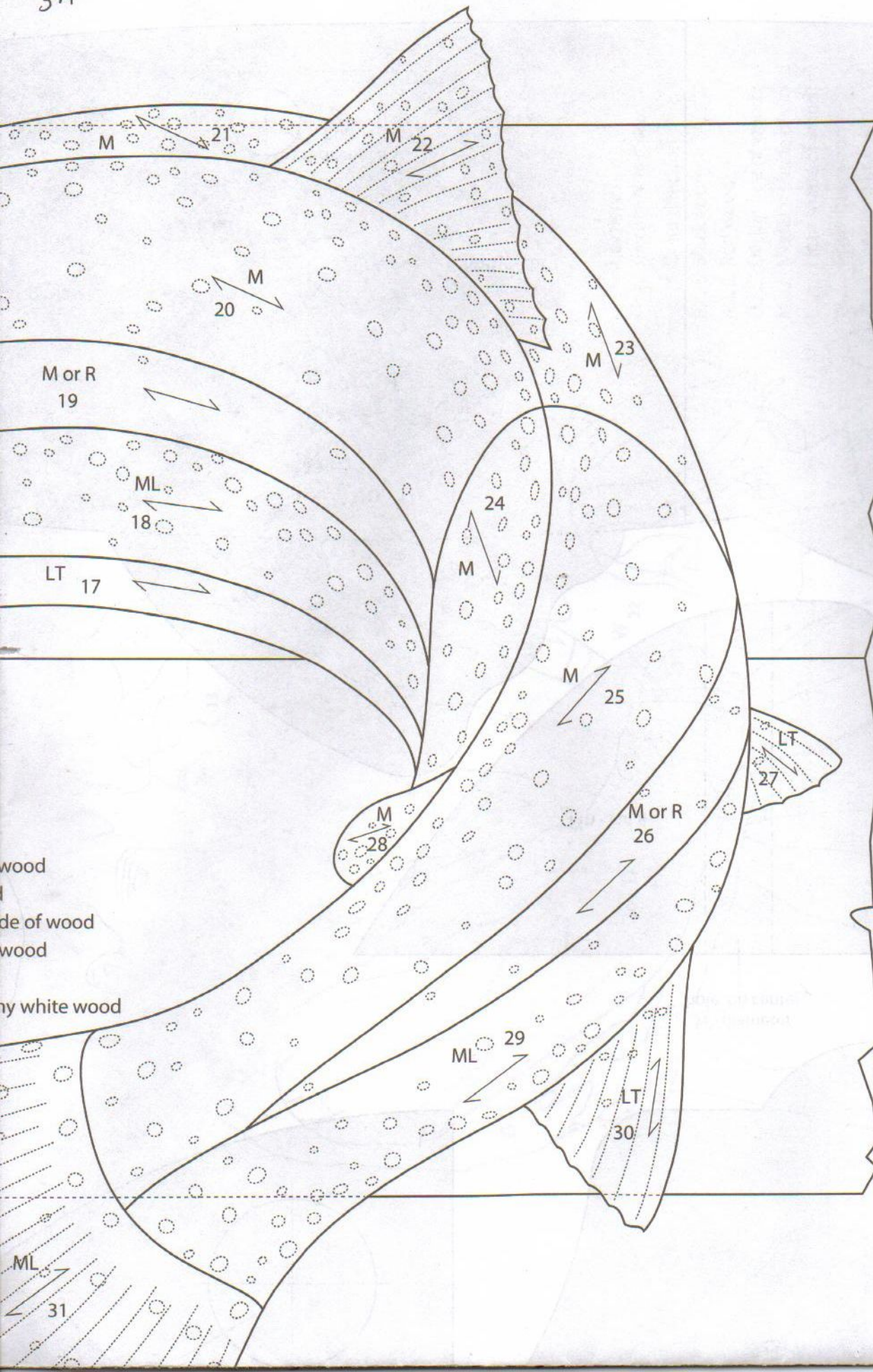
Gone Fishing

Page 16 - SSWC Issue 59

Designer: Judy Gale Roberts







Notice about photo

Some photocopiers and
distort patterns when
them slightly off-size o
Use the 1" bar printed
when copying the pat
photocopies of the pat
to check for
any distortion.

One

Tiered

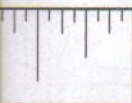
Page 6

Designs

L/A

Copying patterns

home printers can
ou print them, making
stretching the image.
elow as a guide
rns and hold the
ern up to the original



inch

SCROLLSAW woodworking & CRAFTS

Summer 2015 - Issue 59

1970 Broad Street
East Petersburg, PA 17520

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

All patterns on this pullout section: © 2015 Scroll Saw Woodworking & Crafts

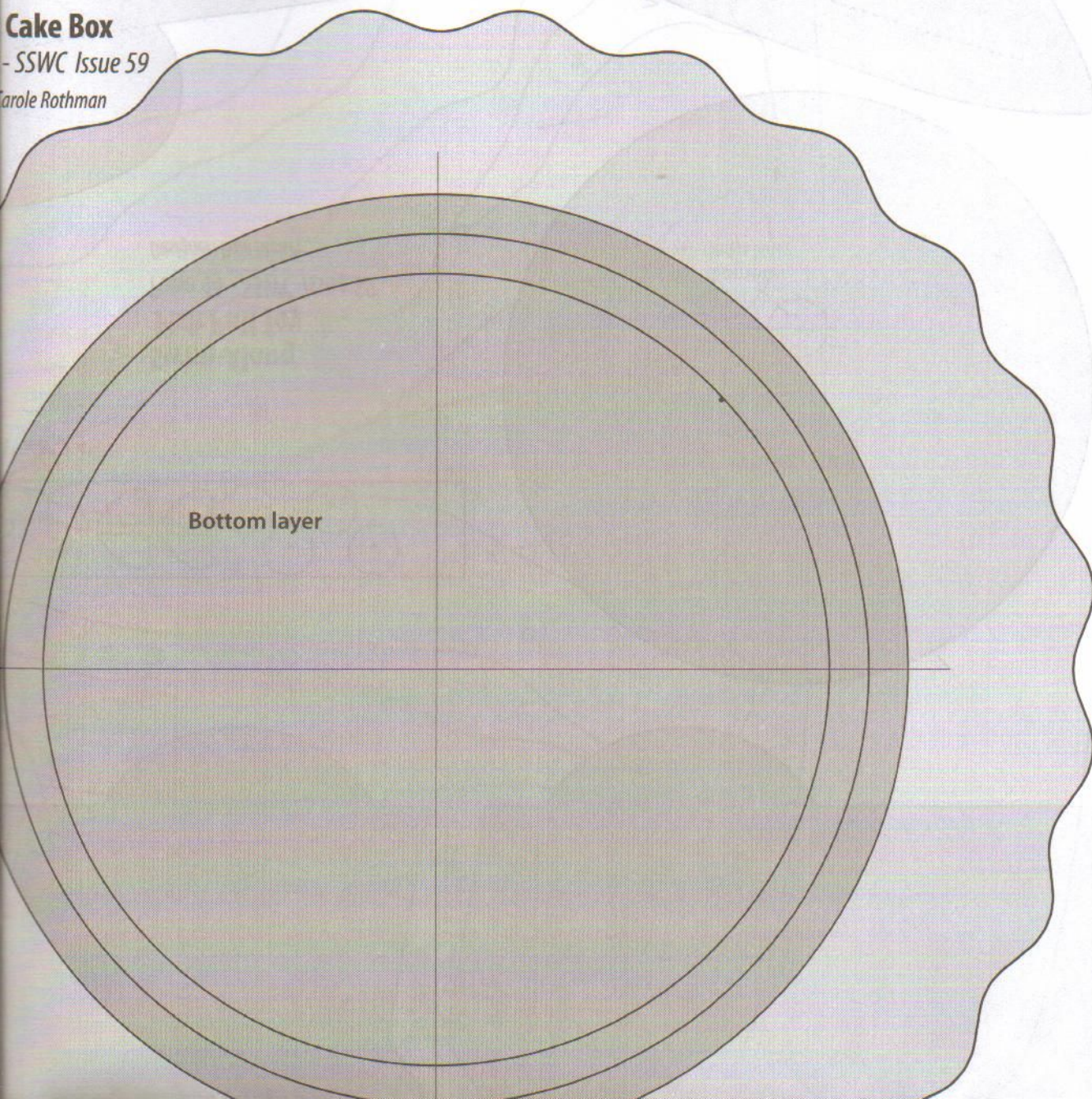
Gone Fishing	16	Swim-Along Fish Pull Toy	44
Better With Age Plaque	22	Intarsia Wedding Couple	52
3-D Koi Intarsia	28	Golf Ball Display Rack.....	58
Sailboat Wall Clock.....	34	Tiered Cake Box.....	60

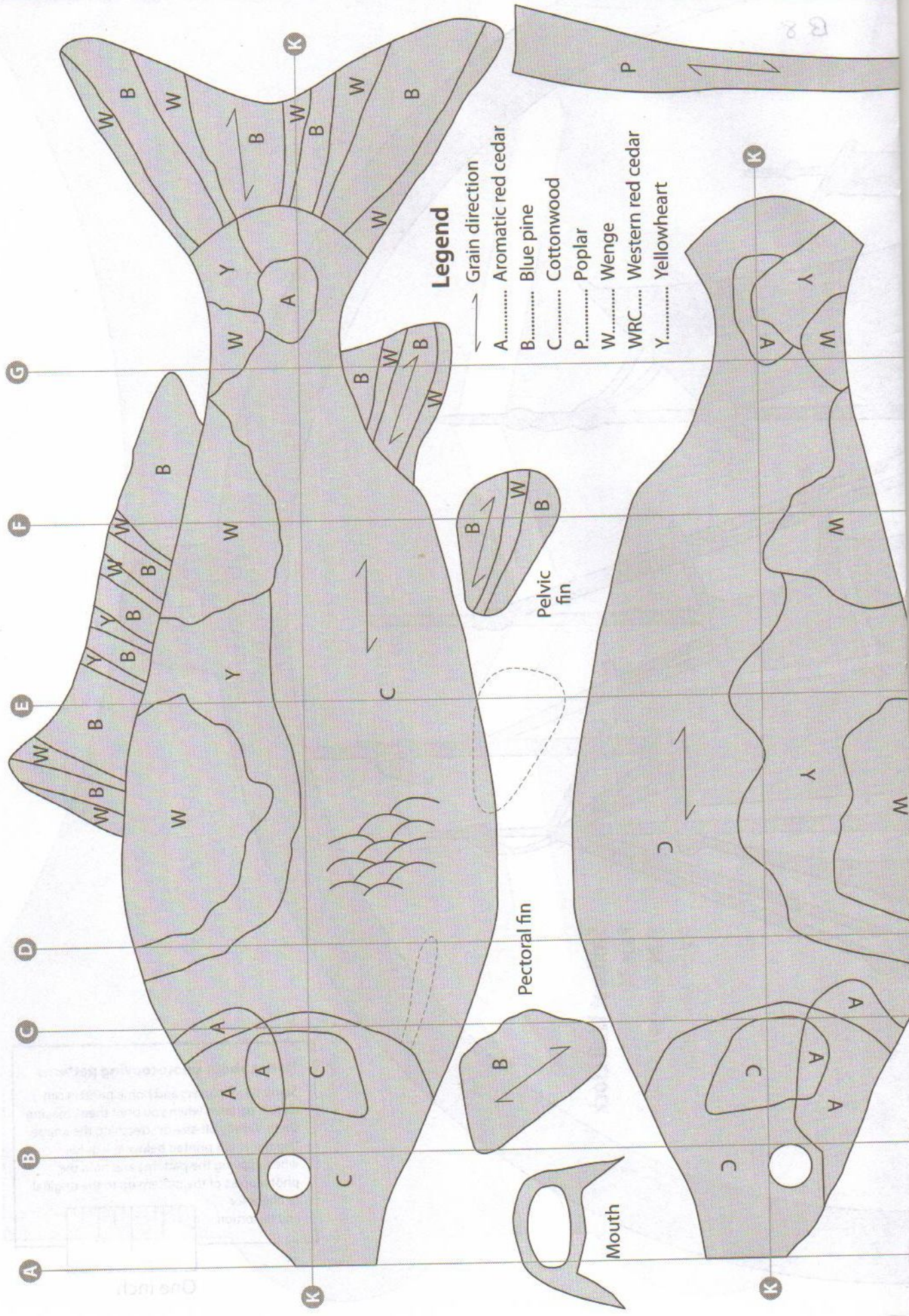
Note to professional copying services. You may make up to ten copies of these patterns for the personal use of the buyer of this magazine.

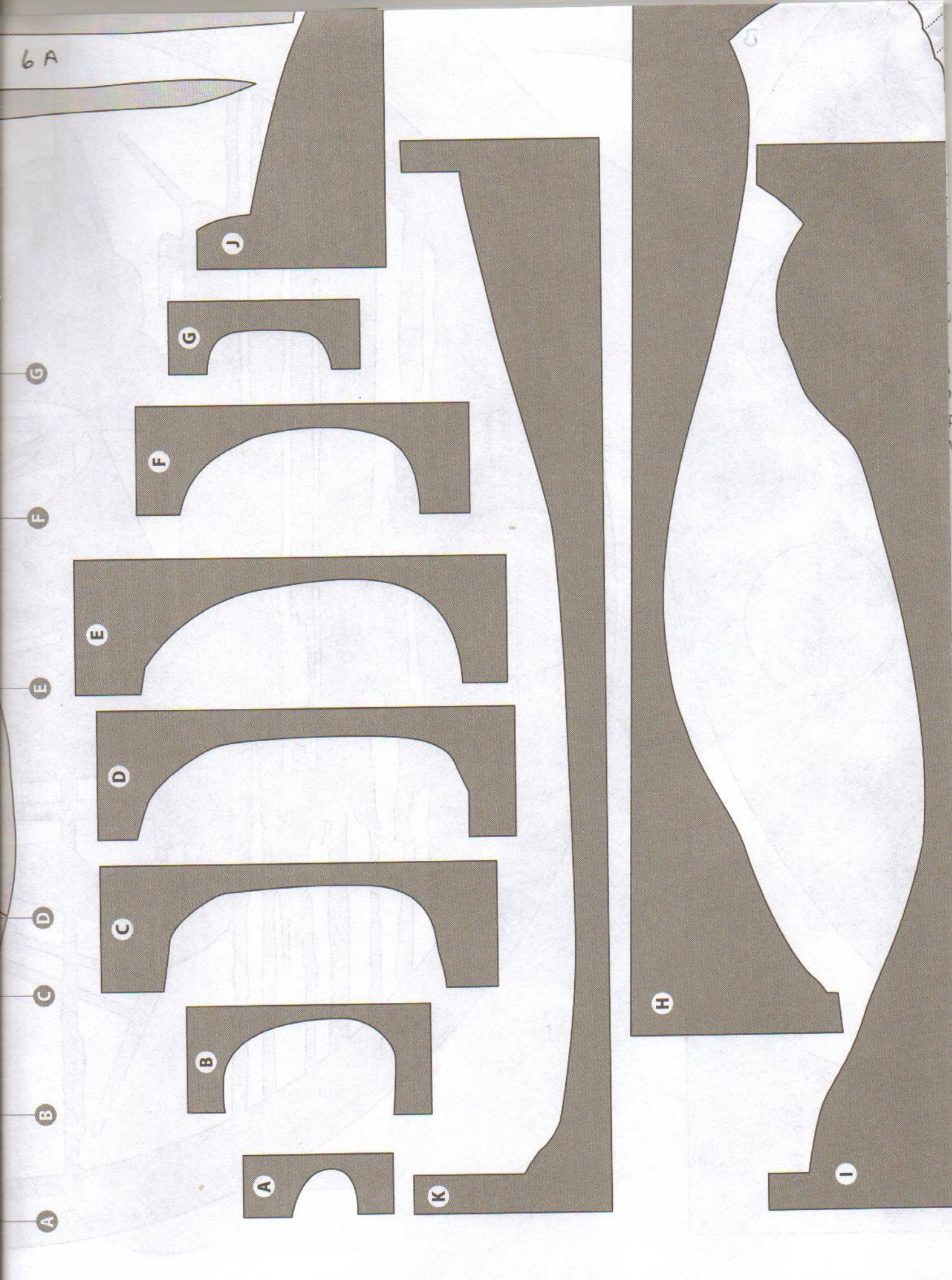
Cake Box

- SSWC Issue 59

Carole Rothman







6A

G

F

E

D

C

B

A

J

G

F

E

D

C

B

A

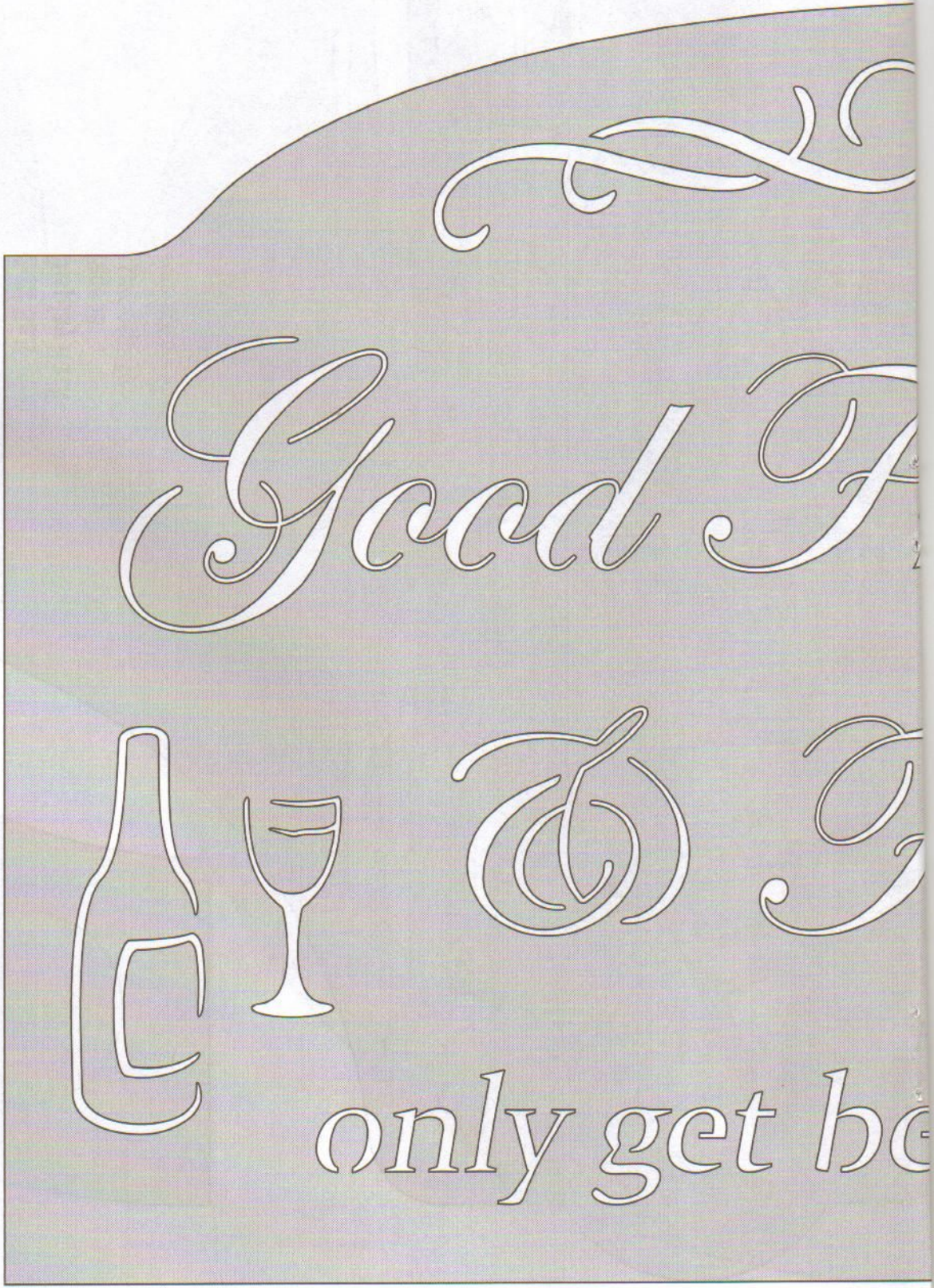
K

H

I

7a

08



8a

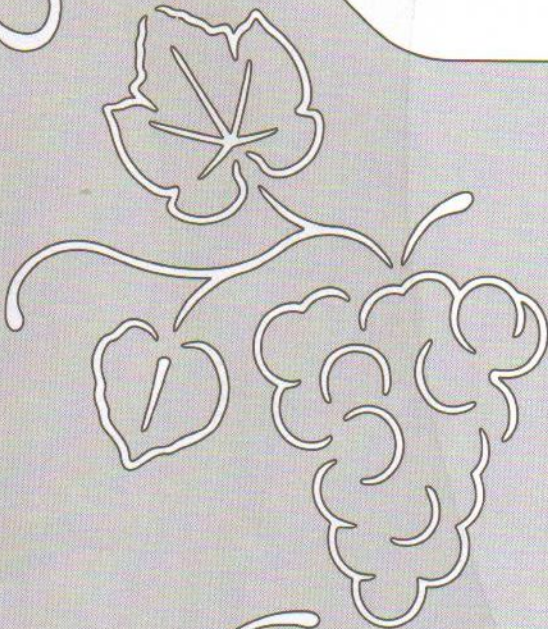
Cake plate

**Better With Age
Plaque**

Page 22 - SSWC Issue 59

Designer: Keith Fenton

*Friends
Time Wine
Better with age*

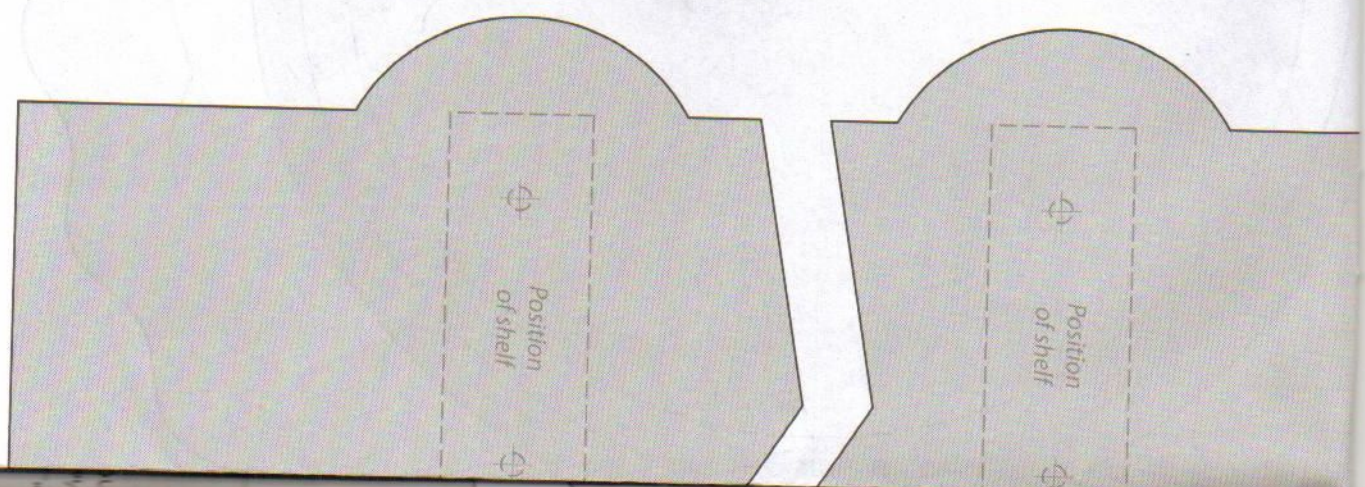
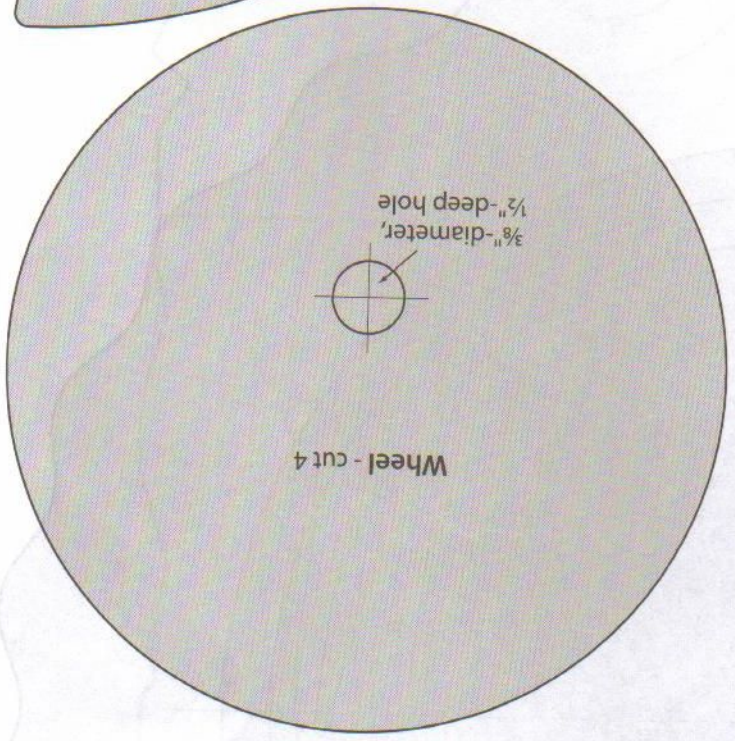
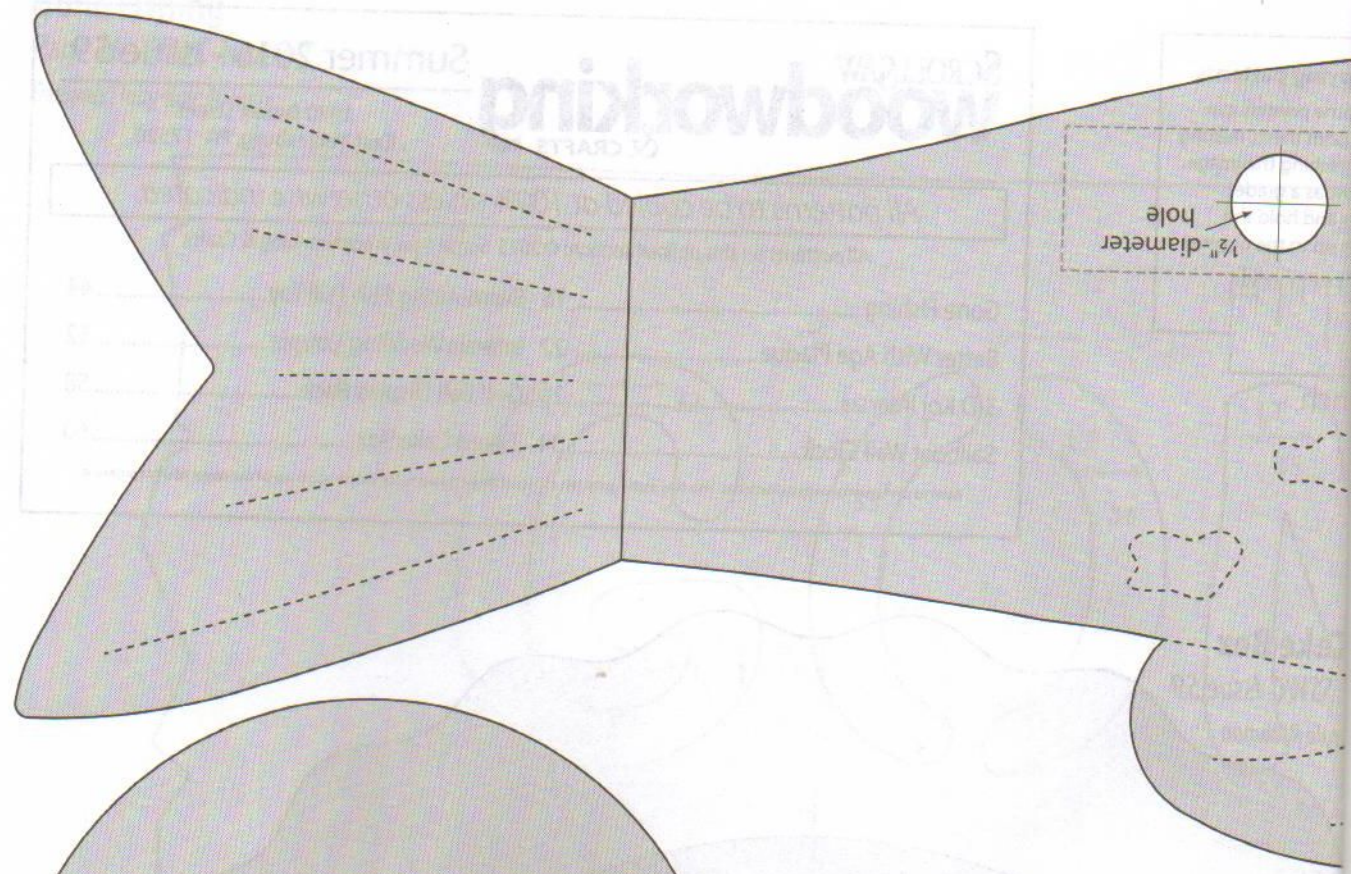
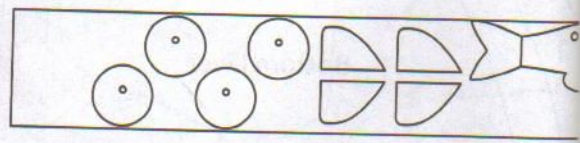
A decorative line drawing of a vine with two leaves and a cluster of grapes, positioned to the right of the main text.

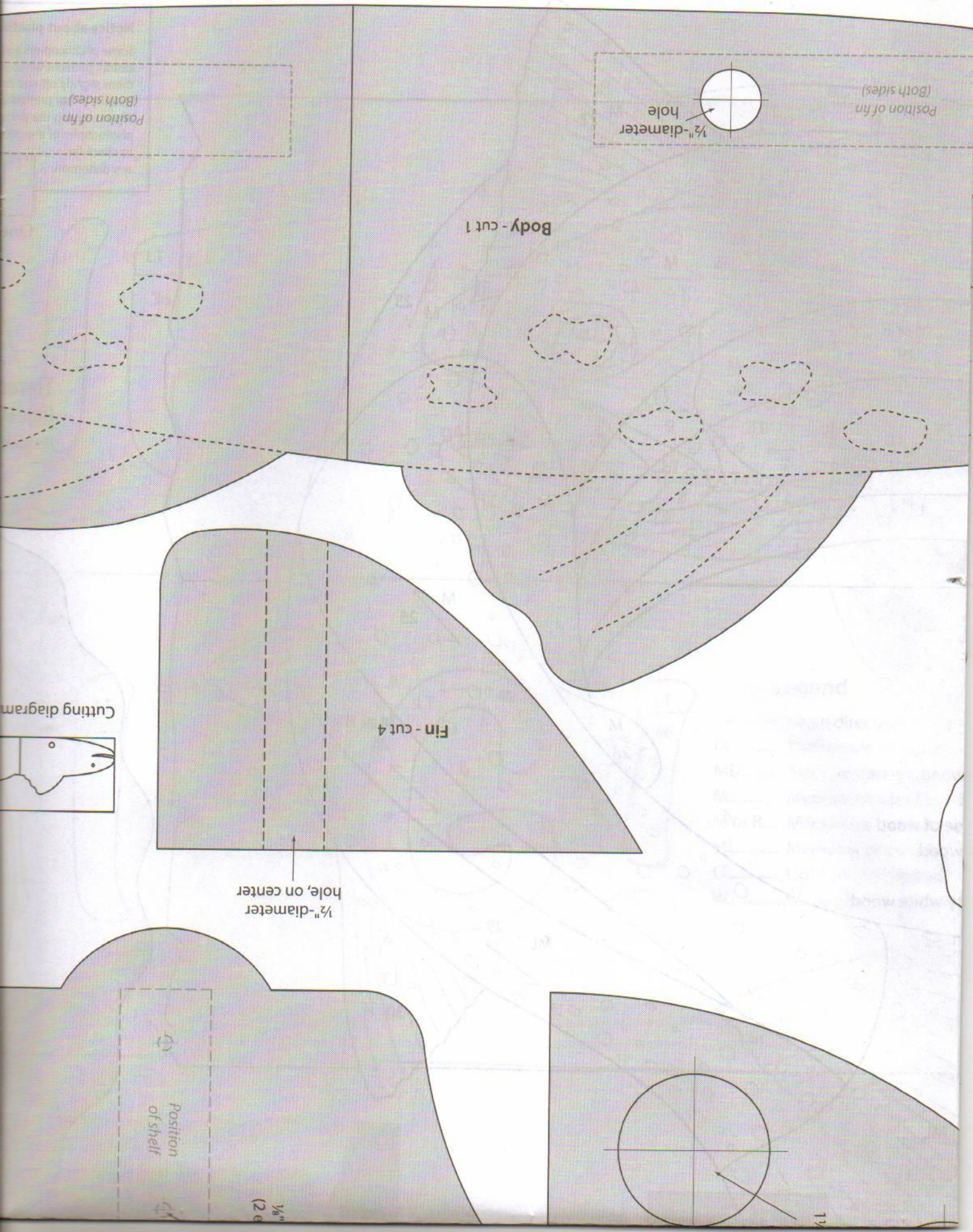
**Swim-Along
Fish Pull Toy**

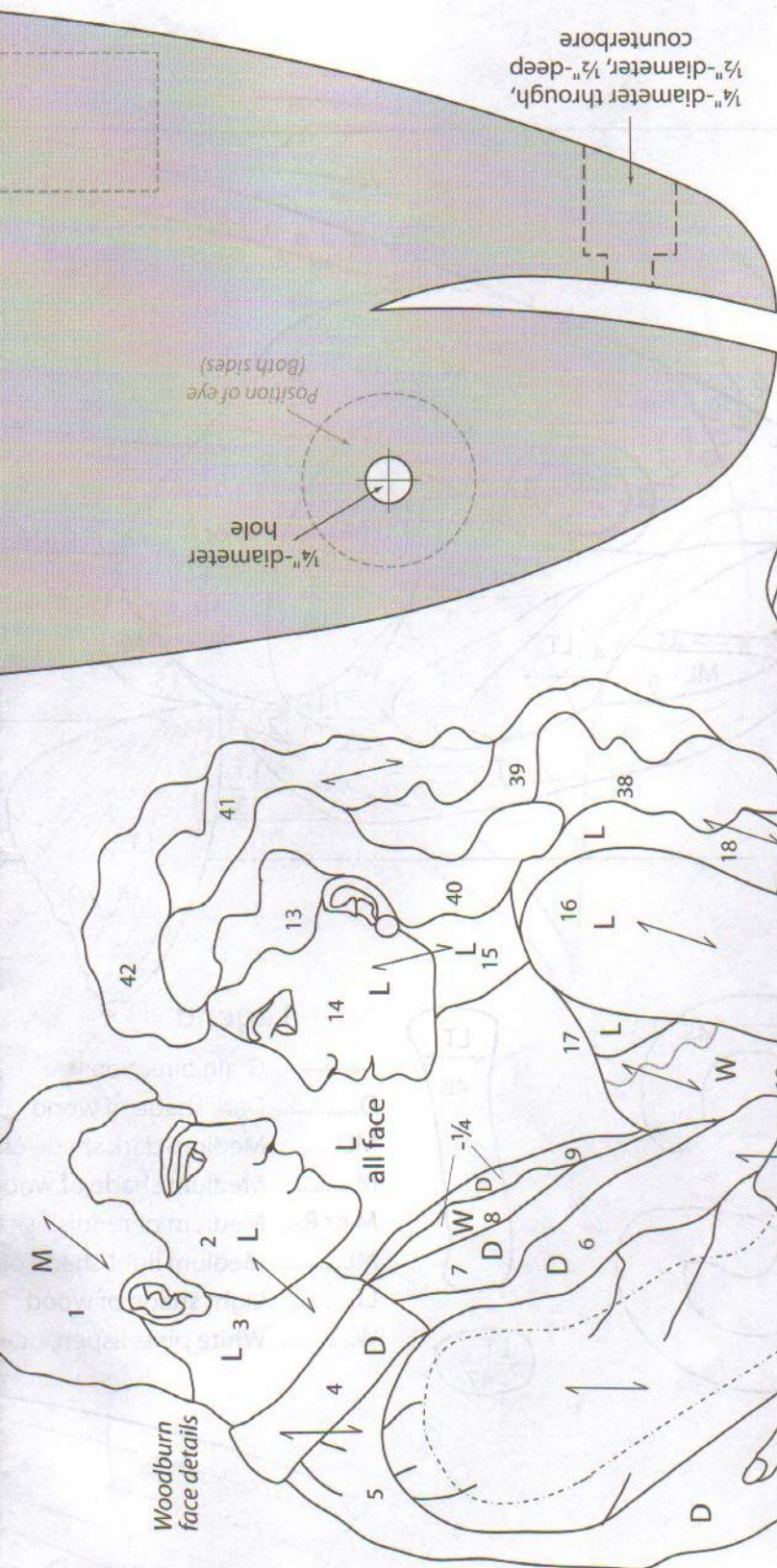
Page 44 - SSWC Issue 59

Designer: Paul Meisel

1" x 8" x 4"







Legend

Start with 3/4" to 1" wood

Grain direction

B..... Black ebony

R..... Red wood

D..... Dark shade of wood

M..... Medium shade of wood

L..... Light shade of wood

W..... Any white wood

-1/4..... Sand or plane down 1/4"

-1/4..... Use 1/4" thicker wood

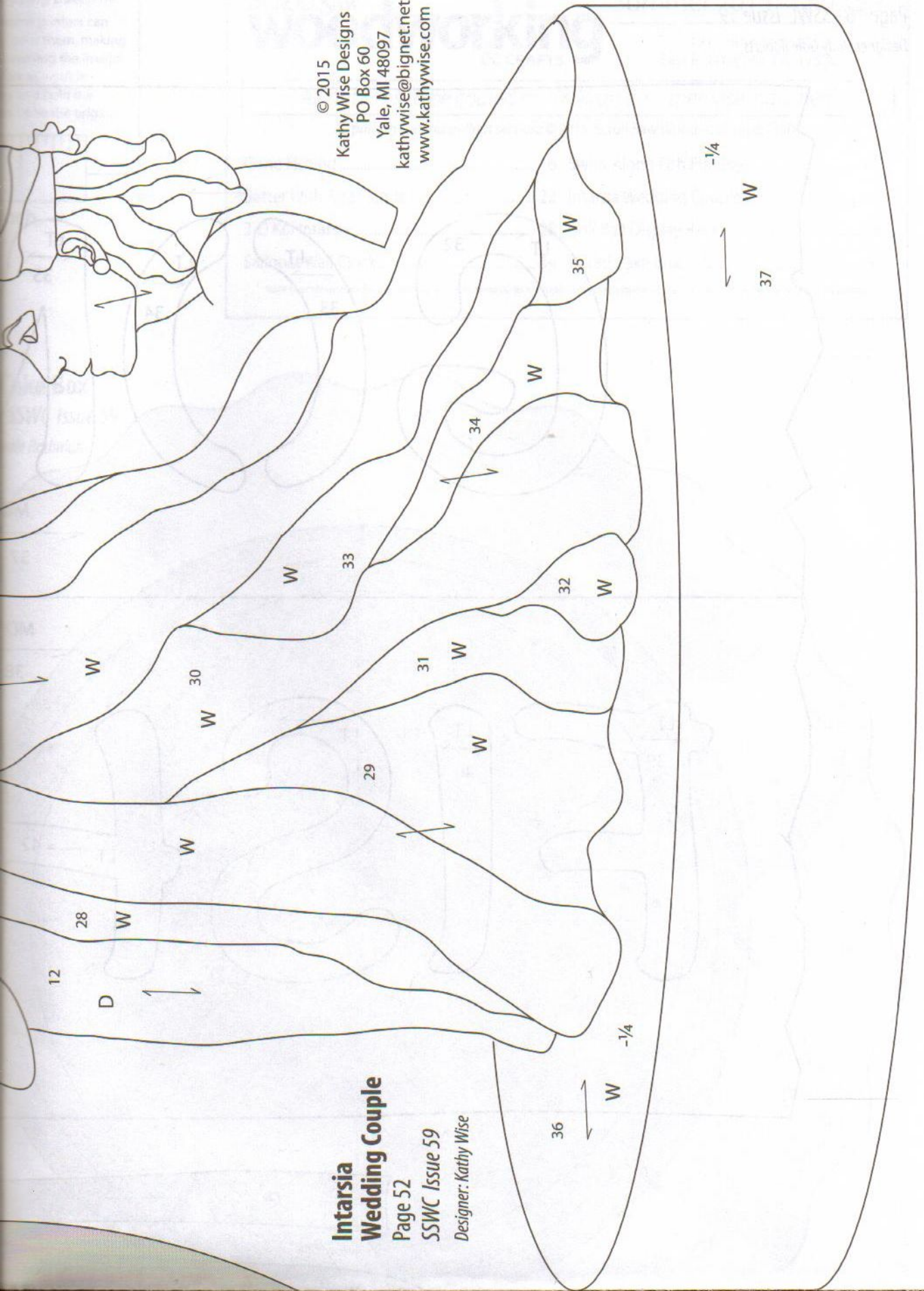
..... Woodburned detail

.....Riser

Use the hair style of your choice

b4

© 2015
Kathy Wise Designs
PO Box 60
Yale, MI 48097
kathywise@bignet.net
www.kathywise.com

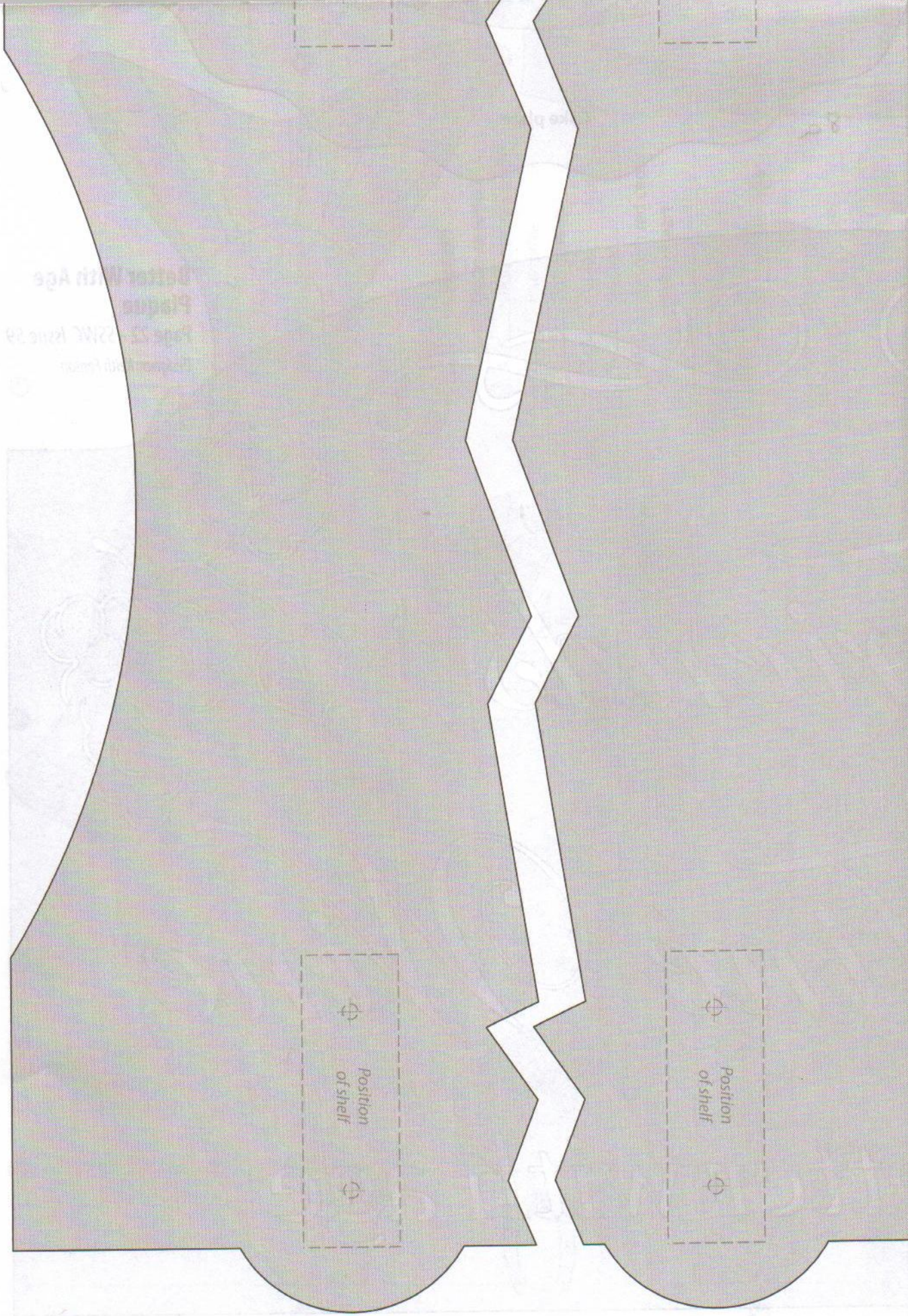


**Intarsia
Wedding Couple**

Page 52

SSWC Issue 59

Designer: Kathy Wise



Position
of shelf

Position
of shelf

1/2" diameter,
1/8" deep
holes (6)

1/8" diameter hole

Golf Ball Display Rack

Page 58

SSWC Issue 59

Designer: Wayne Sampson

1/2" diameter holes
(each shelf mount)

Position
of shelf

B6

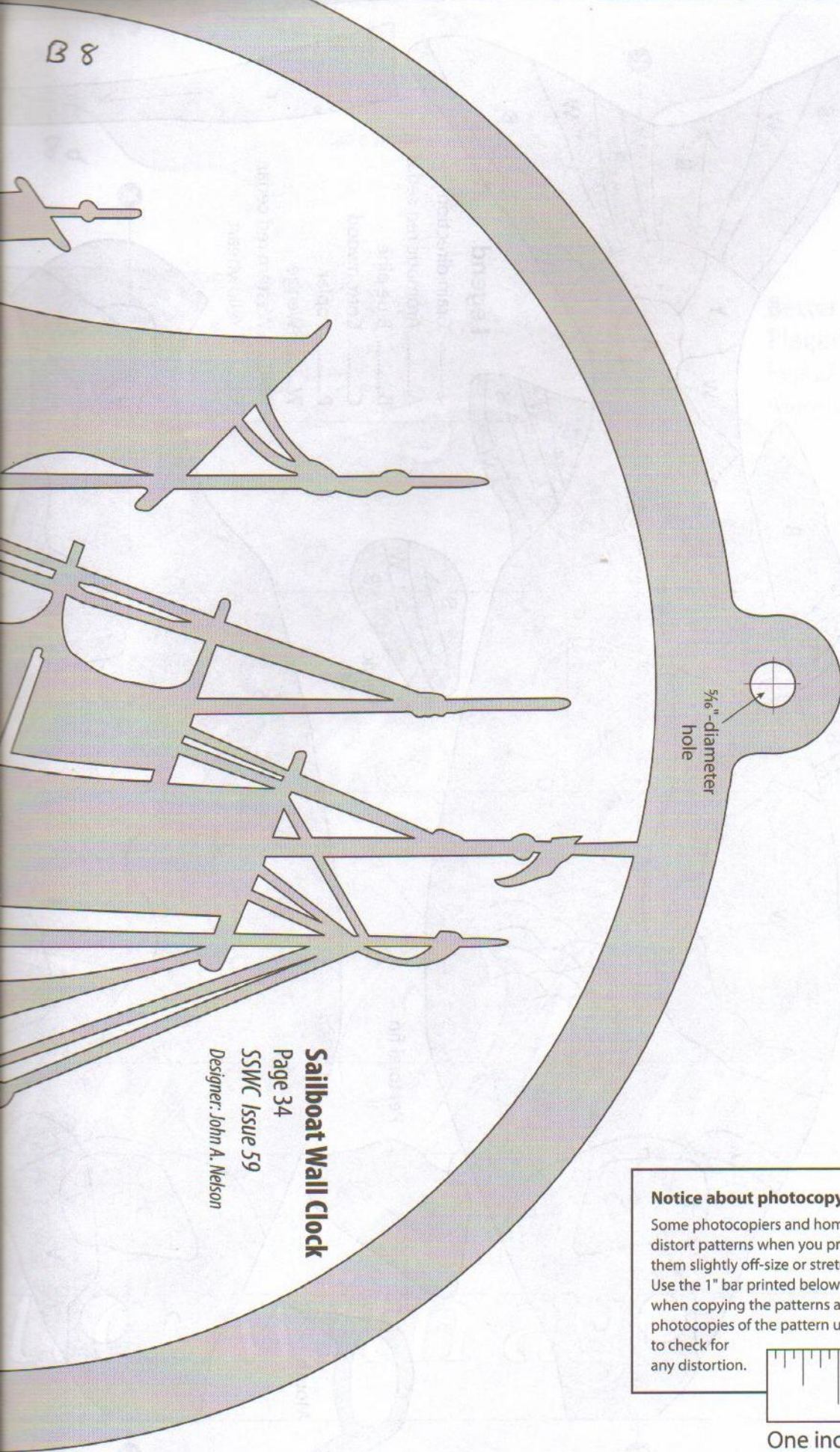
Shelf - cut 6

Position
of optional
support leg
on the
lowest
shelf

Support leg
(optional)

$1\frac{1}{16}$ "-diameter
clock insert
(optional)

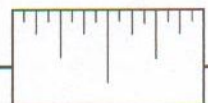
$1\frac{3}{8}$ "-diameter hole,
 $\frac{1}{4}$ "-deep



Sailboat Wall Clock
Page 34
SSWC Issue 59
Designer: John A. Nelson

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