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SCROLLSAW

FALL 2019
ISSUE 76

Woodworking & CRAFTS

24
Special Projects

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Patterns!

**Happy Dragon
Intarsia**

Red Rose Wall Art

Maple Leaf Shelf

**Elegant Wooden
Yarn Bowl**



**Fretwork
Owls**

PLUS

Fall Woodland Scene

Bald Eagle Whirligig

Halloween Cut-Outs & Much More!



Instructions (with 26 photos)
for Judy Gale Roberts's
"Kindhearted Dragon"
start on page 22.

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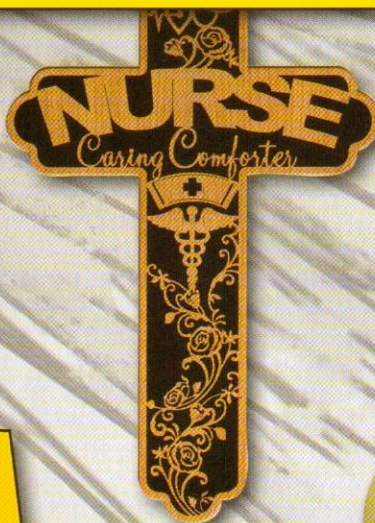
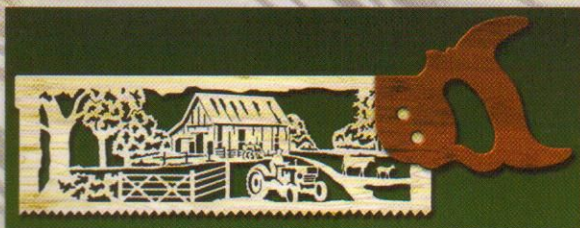
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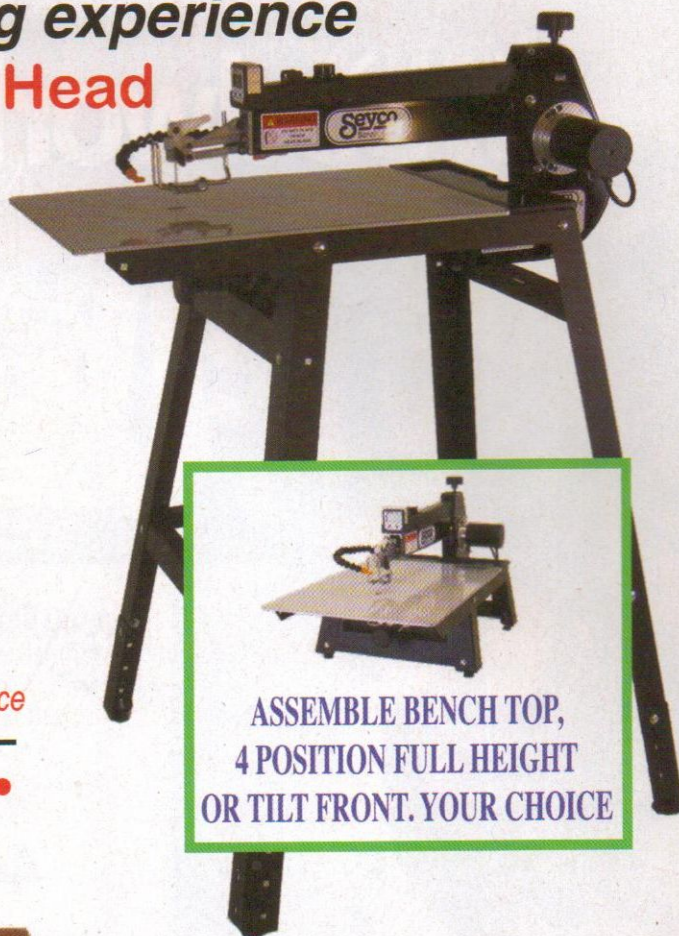
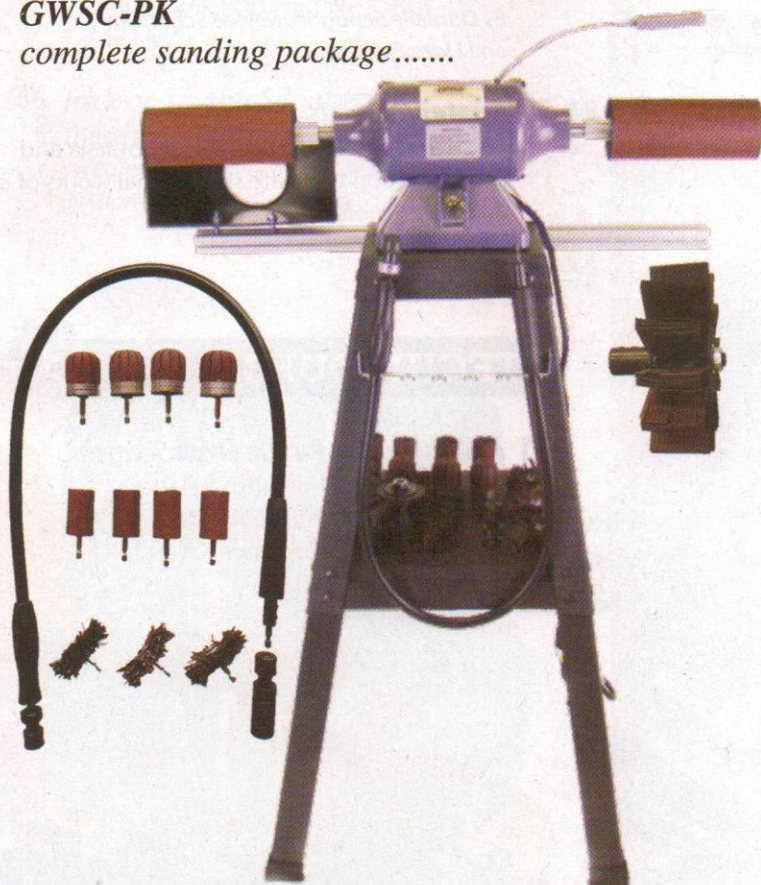
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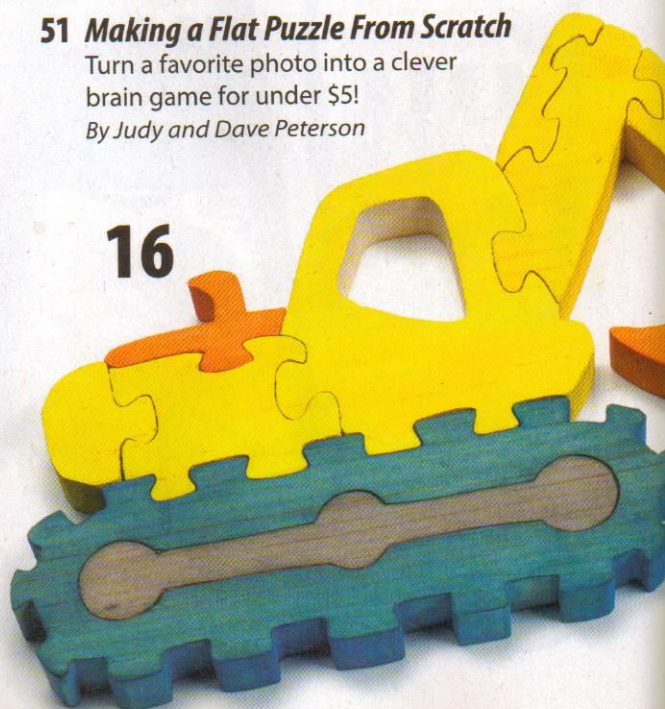
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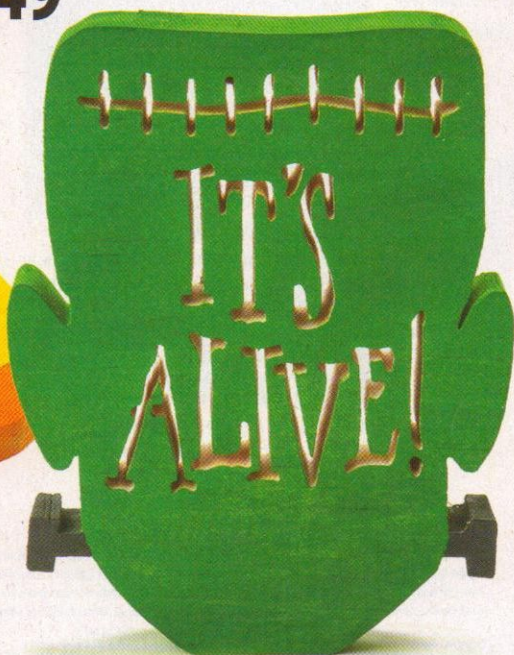
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Find these free extras at

SCROLLSAWER.COM

• *Bonus Gallery*

See more photos of David Best's gorgeous *Temple* (pg. 14).

• *Video Extras*

Check out videos on all the ways you can use Unicorn SPiT (pg. 16).

• *Free Projects*

For spooky projects to usher in fall, visit the Halloween category in our How To menu.

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DEPTS.

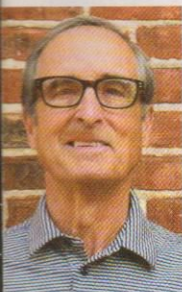
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Artists On the Cutting Edge

Quite often, when we're putting an issue together, there will be a moment when I'm just flabbergasted at the sheer amount of talent on display. And this month I was especially wowed.

The way I see it, any edition that contains a signature piece from either intarsia queen Judy Gale Roberts or bowl-maker extraordinaire Carole Rothman is a special one—and this issue has both!

Judy, of course, is *the* leading authority on the art of intarsia. Widely recognized as its preeminent practitioner, she has reimagined its possibilities—as she explains in the intro to her cover showstopper (the Kindhearted Dragon), she and her father devised and perfected the use of sanding to achieve more actual and perceived dimension. Her eight-page article here (see page 22) is nothing short of a master class in the subject.

Likewise, Carole is another contributor in a league of her own. Her transcendentally beautiful bowls are individual works of art, each one uniquely imagined. Last issue it was her ingenious “brickwork” bowl; here (page 59) it's her take on a wooden knitter's bowl (which can also be made without the needle and yarn holes).

But we're also—always—searching for *new* talent to bring your way. This time around it's the sensational surrealist

Anatoly Obelets of Ukraine, whose work blurs the line between intarsia and segmentation. Check out his interview and gallery (page 36), then take a crack at his Timeless Red Rose (page 38), which he created especially for *SSW&C*.

Let the artists in these pages bring out the artist in you!

Cheers,

John Atwood
John Atwood
atwood@foxchapelpublishing.com



An Anatoly original (see page 36).

SCROLLSAW woodworking & CRAFTS

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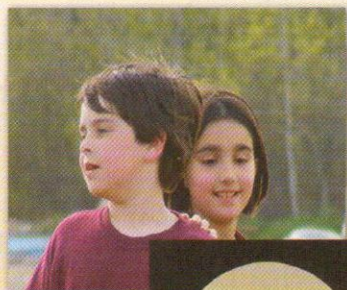
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Young Scroller's Winter Retreat

I started scroll sawing when I was very young. My grandfather taught me and has been patiently working with me all these years; he is my mentor and biggest supporter. I had done a few large pieces, but none like Charles Hand's "Winter Retreat" (Issue #73). I worked on the piece during my Christmas break, and it took me around 24 hours to complete. I enjoyed the project and have many more planned!

Jaclyn Kunkle, age 16, Wilkes County, N.C.

A Gathering of Eagles

I have been doing intarsia for over thirty years. In that time I've collected so many patterns by various artists that I filled a four-drawer file cabinet! Recently, inspired by Judy Roberts' patterns, I made an eagle, then another and another until I had eight from various patterns. I used about 200 pieces and a dozen hardwoods with no added stain or paints. In total, I spent 44 hours in the shop to create *A Gathering of Eagles*.

Steve Rutledge,
Winter Haven, Fla.

Steve combined eight different eagle patterns to create his design.



SET IT STRAIGHT/Summer Issue (SSW75)

- In the Pegas Scroll Band Saw review we indicated that the unit comes with #9, #11, and #12 blades. Please note that the #11 blade is not included.
- We neglected to credit Joe Pascucci as the test cutter for the "Undersea Photo Frame" project.
- We discovered the tab positions were incorrect for Part 4 of John A. Nelson's "Japanese-Inspired Fretwork Shelf". The corrected pattern appears at right (page 7).

We apologize for the inaccuracies.



Dragon Comes to Life

I had fun cutting John Nelson's Chinese dragon puzzle (Issue #74) out of $\frac{3}{4}$ " (1.9cm) oak on my Hawk scroll saw. John's puzzle included awesome painted details, but I'm not good at design painting—I make sawdust! However, I wanted some color, so I used six different stains to complete my project.

It's not as fancy as the painted one, but it's more interesting than a one-color finish.

Dick Grotke, East Aurora, N.Y.

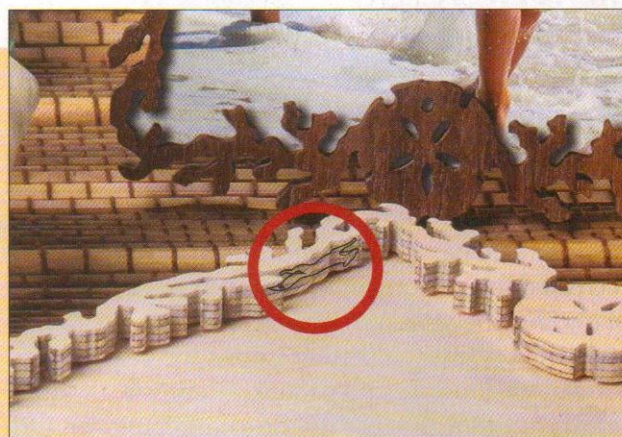
Dick's stained dragon puzzle satisfied his need for color.



Japanese-Inspired Shelf (SSW75)

Correction Pattern

4 Shelf
Cut 1



Fox Hunt

Julie Bestor of La Mirada, Calif., and Philip Schoen of Sheboygan, Wis., were randomly drawn from the participants who located the fox in our last issue (Summer 2019, Issue 75). The fox was hiding in the lead photo in Alison Tanner's article, Undersea Photo Frame, on page 61.

Find the fox in this issue, and tell us the page number and location. Two readers randomly selected from all correct replies will receive a \$25 Fox Chapel Publishing gift certificate. Entries must be received by August 1, 2019, to be eligible. Note: The contest fox is an outline drawing that would face left if his feet were on the "ground" (other foxes appearing in SSW&C don't count).

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

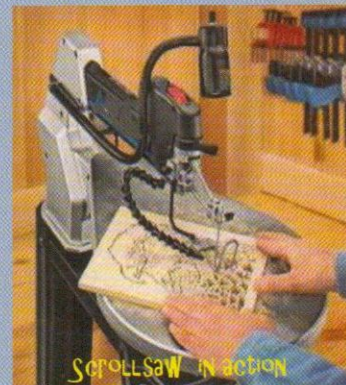


FretWork...

Intarsia



Marquetry



SCROLLSAW IN ACTION

Scrollsaw Association of the World

Scrollers come in all ages, sizes, genders, and interests. Some prefer cutting fretwork, others create beautiful artwork in wood intarsia, while still others cut beautiful plaques with messages, and others work on the intricate designs of marquetry.

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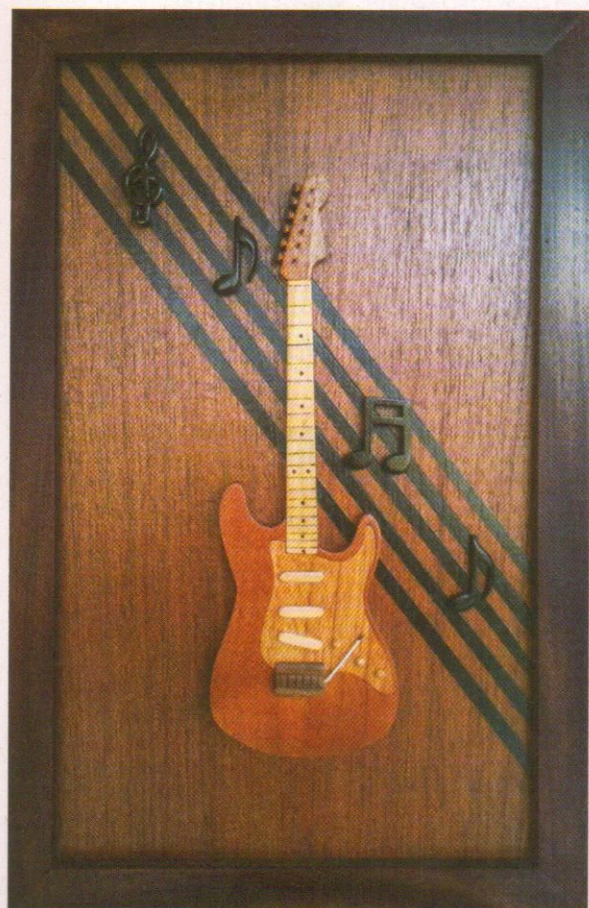
Write to Us!

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



Jo Labre *Racine, Wis.*

Jo Labre discovered intarsia after becoming a widow in 2009. As the owner of a retail flag and map store, Jo has always loved compass roses. "I created this design to showcase both areas of my life," she said. The rich colors come from 165 pieces of fifteen different woods, including avodire, chakte viga, and padauk. When she retires, Jo's compass rose will be a daily reminder of her cartographic career.



Luis Martinez *Aguadilla, Puerto Rico*

Luis Martinez gifted this piece to his neighbor, whose guitar he used as the inspiration for the pattern. This musical masterpiece stands about 12" (30.5cm) and is made of cedar, mahogany, maple, and walnut. Luis used marquetry on the body of the guitar and burned the frets. With painted cedar music notes and an African mahogany frame, this piece is ready to rock!



Mike Kozikowski *Clermont, Fla.*

After his wife, Barbara, started selling her needlepoint work at craft shows, Mike Kozikowski decided he wanted in on the fun! He began scrolling and making wooden art such as ornaments, baskets, and clocks. He scrolled the "Jamie Lynn Clock" pattern designed by Dan and Ray Wilckens out of bubinga, walnut, and white oak. Mike finds satisfaction in shaping wood to create beautiful pieces like this. Find Barbara and Mike on Etsy under KoziKrafts.



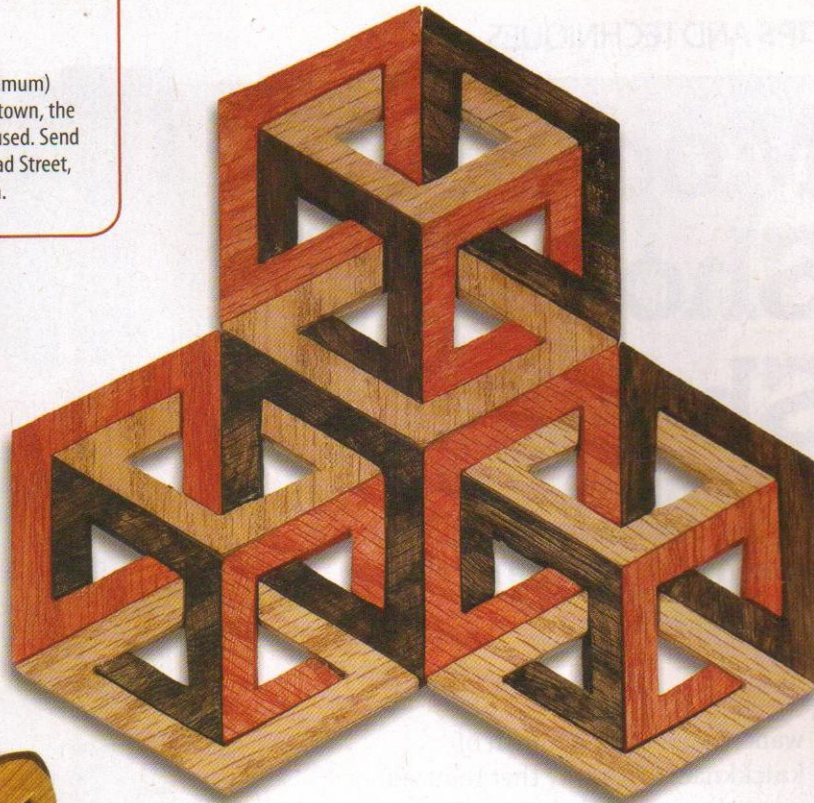
Share Your Latest Work!

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



Khaled Gamal *Cairo, Egypt*

Khaled Gamal, an electrical engineer, has been scrolling for five years and loves designing 3D illusion patterns for the scroll saw. He cut these eye-catching ornaments from plywood and used various stains to create a bold design. Look for these patterns and more in Khaled's Etsy shop under [egwoodmade](#).



Laura Milby *Wahiawa, Hawaii*

Using locally sourced wood from her home in Hawaii, Laura Milby creates home décor and furniture inspired by her environment. The "Tree of Life Heart" is a pattern of her own design made from koa wood mounted on maple. Laura, who has been scrolling for two years, is the owner, designer, and craftswoman behind [Lovingly Restored by Laura LLC](#). Check out her shop on Etsy under [LovinglyRestoredShop](#).



Shane Fox

Philadelphia, Pa.

Shane started scrolling at age 11 after his dad bought him a few books on intarsia. Now 17, Shane and his two brothers, Clay (19) and Jacob (15), are proprietors of their own Etsy shop, where they sell intarsia pieces, wooden boxes, and turned objects. Shane used a Dewalt DW788 20" variable speed scroll saw and a pattern by Garnet Hall to complete his tiger. Find more work from Shane, Clay, and Jacob on Etsy under [FoxBrothersWood](#).



Modular Shop

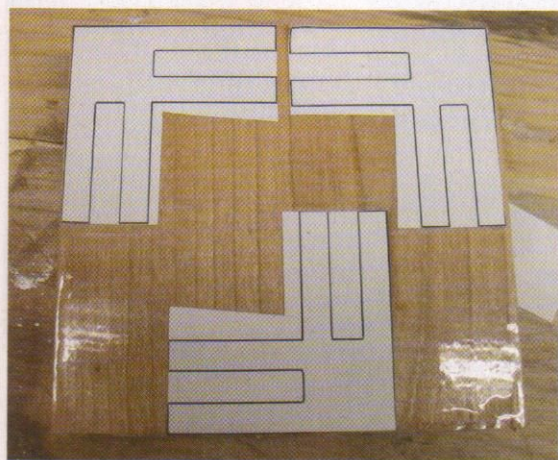
Shelves

TOP TIP ✓

Simple, stackable storage cubbies you can make on the scroll saw

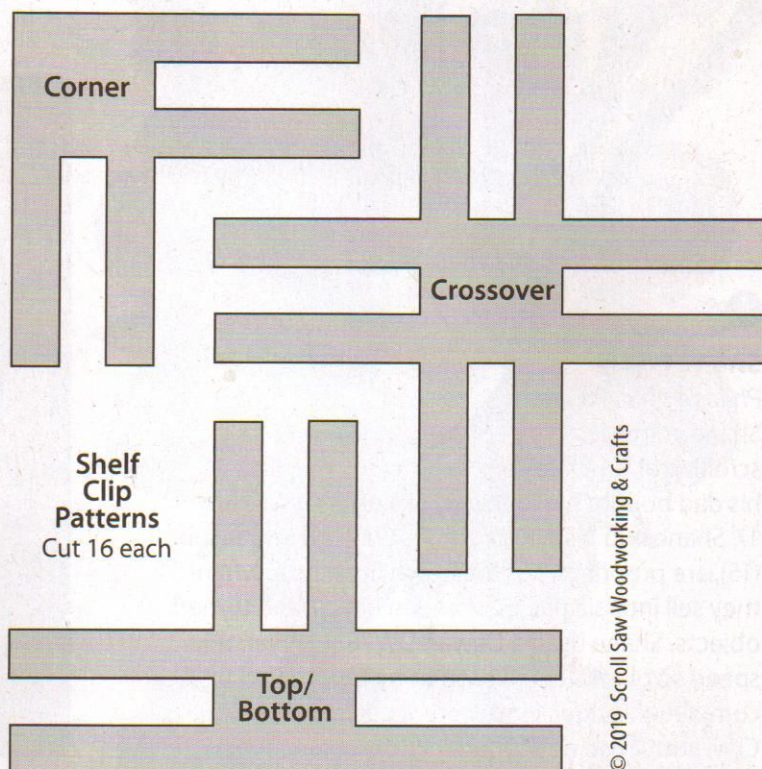
By Albert Baggetta

I wanted to display a bunch of knickknacks in a way that reduced clutter—these mini shelving units are the result. They're attractive and minimalist, and you can assemble them in a variety of configurations. If you can cut out the letter F or E on your scroll saw, you should find making the shelf clips very easy. Using my patterns, you can make bunches of wooden clips to hold as many shelves as you need.



Getting Started

Choose a kind of wood; I used $\frac{1}{4}$ " (6mm)-thick Baltic birch plywood for my shelves and $\frac{1}{4}$ " (6mm)-thick cherry to make contrasting clips to hold them together. Photocopy the patterns and attach them to the wood using clear packaging tape.

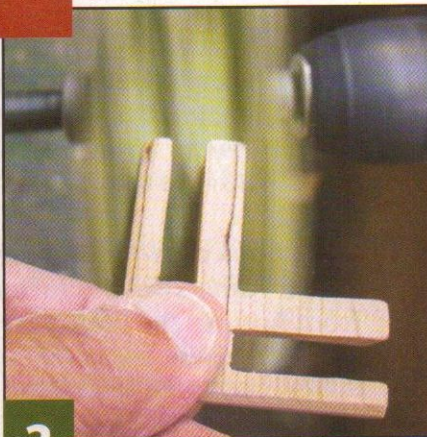


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CUTTING & SHAPING



1 **Carefully cut the clips.** I use a #5 reverse-tooth blade, so I can stack-cut the blanks and get several done at one time. Make sure you stay on the line as much as possible when cutting the insides of the clips; you want the gap to match the width of the 1/4" (6mm)-thick shelf boards.



2 **Sand the edges of the clips to round them over.** You can hand-sand them, but I prefer to use a sanding mop. Carefully press the finished clips into the mop as it spins.

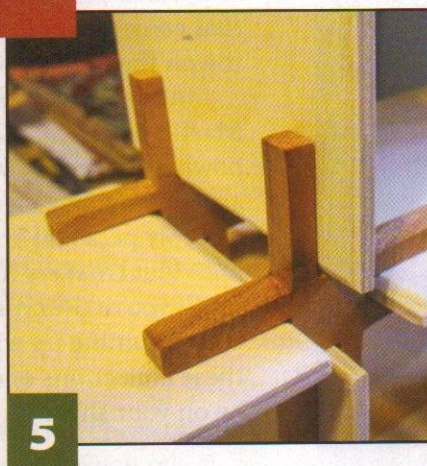


3 **Cut the shelves to size.** Round the edges with a belt sander.

FINISHING & ASSEMBLING



4 **Paint as desired.** Finish the individual pieces with a clear spray lacquer. Once dry, assemble the shelves, starting with the corners. I used larger panels for the top and bottom and shorter panels for the sides.



5 **Keep adding panels and clips until you reach the desired amount.** To stack the units, use the crossover and top/bottom clips to join the tops and sides of units. Two clips on the top and bottom should be enough to stabilize the unit at its current size. If you want, you can place a third clip in the middle on each edge.

A Word About Stability

These shelving units are intended to hold light, small objects. The tighter you make the inside cut on the clips, the tighter they will hold the entire unit together. If you find you have cut the insides of the clips a bit smaller than 1/4" (6mm), use sandpaper or a file to widen them a bit. Alternately, you could sand down the shelves to make a snug fit. If you plan on leaving the units together permanently, put a few drops of glue on the inside of each of the clips before inserting the shelves.

Materials

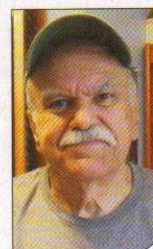
- Baltic plywood, 1/4" (6mm) thick: 5 each, 4" x 8" (10.2cm x 20.3cm)
- Baltic plywood, 1/4" (6mm) thick: 5 each, 4" x 6" (10.2cm x 15.2cm)
- Cherry, 1/4" (6mm) thick: 16 each, 3" (7.6cm) square
- Sanding mop: 140-grit
- Wood glue (optional)
- Tape: clear packaging
- Spray adhesive
- Finish: clear spray lacquer

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

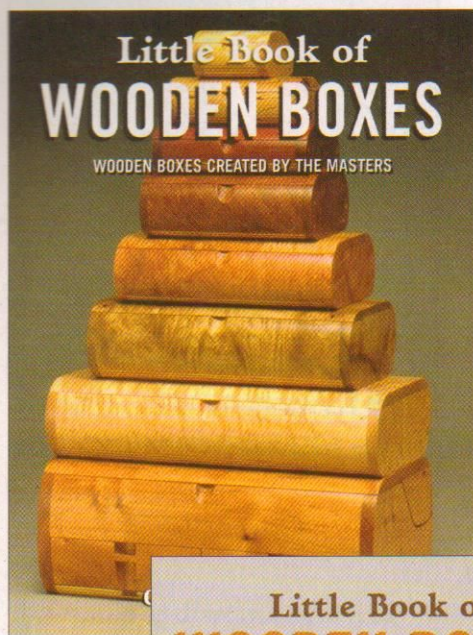
Materials & Tools

Tools

- Scroll saw blades: #5 reverse-tooth
- Belt sander



Al Baggetta is a retired English teacher and former musician who took a liking to scroll sawing. Visit his pattern site at baggetta.com.



**Little Book of Wooden Boxes:
Wooden Boxes Created by the Masters**

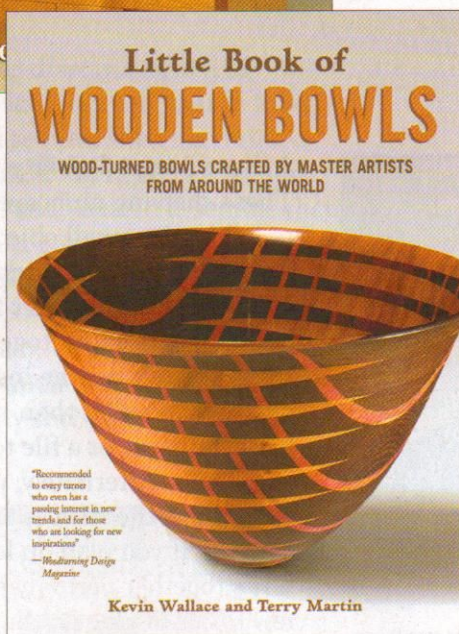
Peter Korn, Curator © Fox Chapel Publishing

\$12.99 ISBN: 978-1-56523-996-8

**Little Book of Wooden Bowls:
Wood-Turned Bowls Crafted by Master Artists
from Around the World**

By Kevin Wallace and Terry Martin © Fox Chapel Publishing

\$12.99 ISBN: 978-1-56523-997-5



Two new books from Fox Chapel Publishing showcase collections that take traditional storage options from functional to downright fun!

Peter Korn, curator and founder of the Center for Furniture Craftsmanship, introduces us to contemporary makers from various artistic backgrounds who push the limits of wooden box design. While there is something to be said for the classic, four-sided box, this book features cases and containers that come in unexpected shapes, colors, and textures. (Be on the lookout for the carrot cabinet!)

In the second book, Kevin Wallace and Terry Martin have compiled an assortment of head-turning bowls and wooden vessels. The artist profiles and accompanying galleries remind us that woodworking is a deeply personal art form in which the wood speaks to individual makers in different ways.

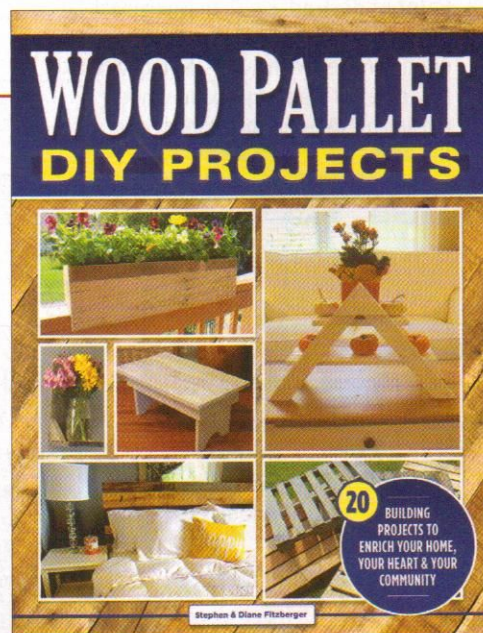
If you're the type of box and/or bowl maker who enjoys coming up with your own original works, these collections of cutting-edge designs should be on your shelf.

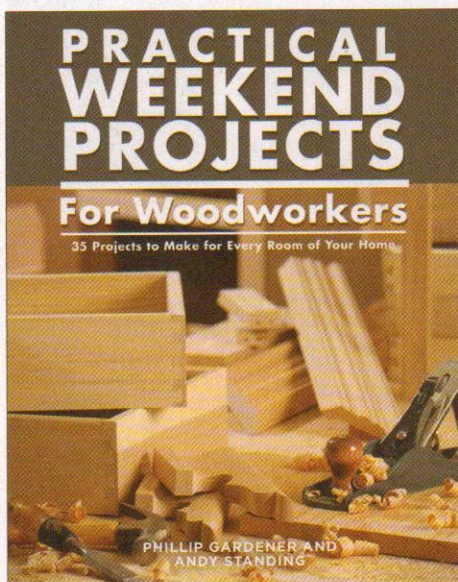
Wood Pallet DIY Projects

Stephen and Diane Fitzberger © Fox Chapel Publishing

\$19.99 ISBN: 978-1-56523-930-2

Take it from us—this book will make you rethink pallets completely. With contagious energy and a fresh, clean aesthetic that minimalists will love, Stephen and Diane Fitzberger share all the tips and tricks you'll need to turn a "trash" pallet into any number of functional items around your home. From headboards to raised garden beds and spice racks, the authors walk you through each of the book's 20 projects with illustrated steps and detailed materials lists. Whether you're new to woodworking or have been making sawdust for decades, this book is a DIYer's dream.





Practical Weekend Projects for Woodworkers: 35 Projects to Make for Every Room of Your Home

By Philip Gardener and Andy Standing © Fox Chapel Publishing

\$19.99 + S&H ISBN: 978-1-5048-0106-5

Here you'll find everything you need to know to make all manner of beautiful and useful household items out of wood. Wardrobe? Check. Shoe Rack? Check. Coffee table, knife rack, picture rail? Check, check, check. Organized by room (living room, kitchen, bedroom, etc.), each entry comes with materials and tools list, diagrammatic plans, and clear, step-by-step instructions complete with helpful photographs—just like your favorite magazine! There are also well-written, comprehensive chapters on the tools you need, how they work, and how to use them. If you're just getting into this type of woodworking, you couldn't find a better introduction—and if you're itching to expand your repertoire, you'll find plenty to challenge you here.

Wood & Steam: Steam-Bending Techniques to Make 16 Projects in Wood

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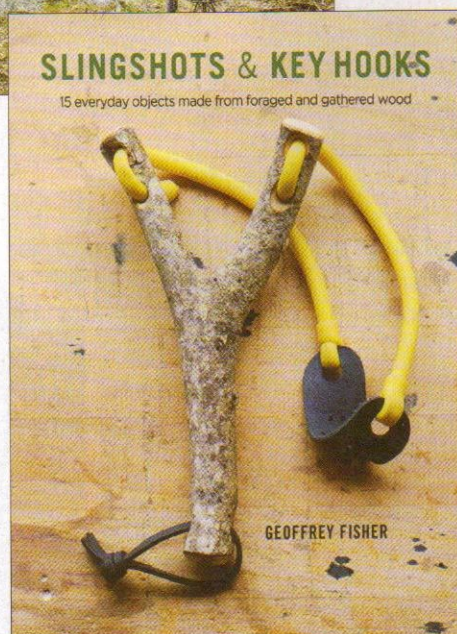
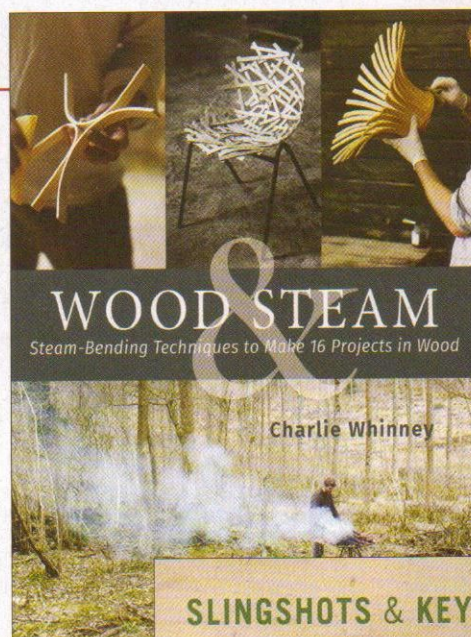
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Slingshots & Key Hooks: 15 Everyday Objects Made from Foraged and Gathered Wood

By Geoffrey Fisher © Fox Chapel Publishing

\$19.99 + S&H ISBN: 978-1-4971-0004-6

And now for something completely different! These two stunningly beautiful books from England take you out of the workshop and back in time, back to when “the very act of making was what separated humans from the other animals,” as Charlie Whinney, author of the first volume, puts it. Charlie's book focuses on steam-bending techniques to make elegant chairs, bowls, vases, and other items, all using three basic ingredients: wood, water, and fire. Geoffrey Fisher's volume is devoted to simpler projects: jump ropes, slingshots, key fobs, cobweb brushes, and the like. Importantly, both books emphasize the use of found wood—downed tree limbs that you come across hiking in the forest and think, *Hmmm, that'd make a nice...something*. Both books are also spectacularly photographed, suitable for the coffee table as well as the workshop. If you love wood and a good amble outdoors, you'll enjoy the lore and learning contained in these impressive volumes, even if you never make one of the fun projects outlined within them.



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Finding Healing in the Frets

See David Best's 500,000-piece *Temple* installation at the Smithsonian—before it goes up in flames at Burning Man

David Best and the Temple Crew, *Temple*, 2018. Exhibit photos by Ron Blunt.

The materials I have determine the structures I make,” said California-based artist David Best. “It’s more spontaneous to work from a garbage can.” An artist for most of his life, Best, 74, has worked with discarded everything from ceramics to steel, but it was the acquisition of scrap plywood from a toy manufacturer twenty years ago that spurred the construction of an elaborate wooden temple. His latest work, now on view at the Smithsonian American Art Museum’s Renwick Gallery in Washington, D.C., has enveloped the entire Bettie Rubenstein Salon in intricately cut Baltic birch plywood. Layers of floral fretwork glow in the warm light, creating an atmosphere of peace.

The inspiration for these beautiful structures, however, was born out of tragedy. Best created his first temple to honor a friend

who died in a motorcycle accident. Never meant to be a permanent structure, he set the wooden edifice ablaze in a cathartic act of healing at Burning Man, an annual event in Nevada’s Black Rock Desert that began as a summer solstice bonfire and has grown into an international artistic movement. Through the construction and ceremonial burning of this first temple, Best came to an important realization: “There are very few places in our society where people can address loss.” Now, he provides those spaces, albeit temporary ones.

Since 2000, Best has built and burned more than a dozen massive temples, some towering fourteen stories high. He raises them in the Black Rock Desert and in grieving communities around the world, the most recent being Parkland, Fla. And while his designs are reminiscent of Balinese and

Chinese temples, Best’s inspiration is not religious in nature. Rather, he is influenced by people and their personal experiences with bereavement. “My work comes from somebody willing to share their loss,” he explained. Visitors to the non-denominational temples are encouraged to express their pain in writing on the façade and, ultimately, watch it burn.

Along with a willingness to share their loss, Best works with people who are willing to share their time and talents. He collaborates with the “Temple Crew,” a team of skilled and unskilled volunteers, to bring his visions to life. While some members are trained in the building arts, others have no background in woodworking. Learning is part of what Best calls “an organic process.” Another important aspect of the collaboration is equality; Best



Members of the Temple Crew assemble in the Penngrove, Calif. warehouse.

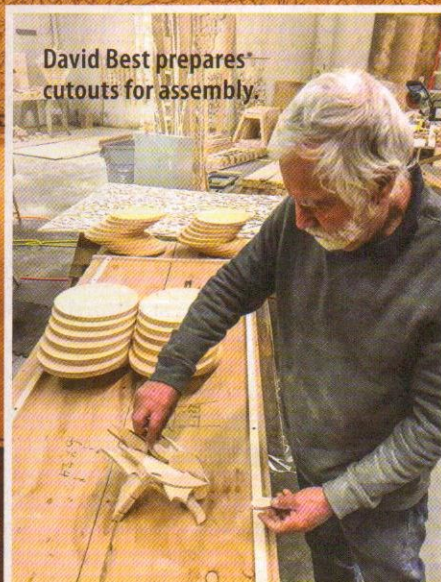
works with a team that is equally male and female, encouraging women to take their place in a traditionally male-dominated field.

A crew of 16 people began work on the Renwick Gallery temple in a vacant warehouse in Penngrove, Calif. Referring to vector files of Best's original sketches, they used scroll saws, table saws, chop saws, and CNC routers to create the fretwork panels and altars, which were then shipped to Washington D.C. During the month-long exhibit assembly at the Renwick Gallery, the Temple Crew grew to 25 as local residents heard about the project and offered to help, many hoping to channel their own grief and pain into a creative project. The crew finds a similar response wherever they build a temple. "We don't recruit them," said Freddy Hahne, president of the nonprofit organization David Best Temples, "we recognize them."

All are welcome to visit *Temple* at the Renwick Gallery, but Best hopes woodworkers find an additional message in his art: "Start making things that heal," he urged. For Best, the healing process will continue when the exhibition is disassembled, transported to the Black Rock Desert, and burned, taking with it all the messages and inscriptions of visitors from around the world.

ON THE WEB See exhibit construction photos on our website.
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Thousands of cutouts stand ready to become the temple.



David Best prepares cutouts for assembly.

Temple will be on view until January 5, 2020. For visitor information, visit americanart.si.edu.

Unicorn SPiT

Purchase at Jo-Ann, Home Depot, Woodcraft, and other retail locations as well as at eclecticproducts.com. Matte varieties offered in 14 colors; sparkling in six. Available in 4oz. and 8oz. bottles.



With 20 vivid color choices, this nontoxic gel stain is perfect for projects that need a visual pop

By Danielle Schagrin, Kaylee Schofield, and Llara Pazdan

When Michele Nicole, art director at an adult day care center, couldn't find a nontoxic stain that satisfied her need for color, she invented her own. The result is Unicorn SPiT.

"In order to keep the adults safe and engaged, she created a solvent-free color stain for restoration projects to stimulate their minds and senses," said Theresa Waugh, Vice President of Sales and Marketing for Eclectic Products (Unicorn SPiT's manufacturer). Michele's son came up with the catchy name.

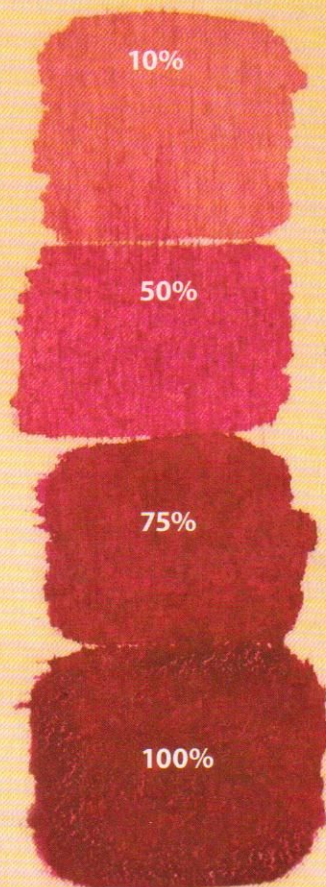
Properties

We found, when working with this product, that it engaged most of our senses on a high level (though

not taste; Unicorn SPiT is nontoxic but NOT edible). Its vivid hues and kooky color names—among them Dragon's Belly, Squirrel, and Pixie Punk Pink—engaged us visually, while its gel texture (thinner than acrylic but thicker than most oil-based stains) made us want to finger-paint on all the workshop walls. It proved easy to mix—with other Unicorn SPiT colors and with average water-based craft acrylics—and, when applied in one or two coats, it dried as quickly as an acrylic paint would.

Also worth noting is Unicorn SPiT's unique scent. Most of the stains, paints, and other materials we work with smell anywhere from neutral to just plain rank (we're looking at you, epoxy putty).

The beauty of Unicorn SPiT is that when diluting, a little goes a long way.



The swirl technique created the base of this wooden tray.

Uses

Unicorn SPiT is designed for use on wood, glass, metal, fabric, pottery, wicker, concrete, and laminate. In this review, we focused on woodworking projects, testing the product in the following ways:

Uses for Unicorn SPiT

Application	Stain (excavator puzzle, see pg. 18)	Paint base (Frankenstein, below)	Tabletop finish (see pg. 18)	Detail work (galaxy tray, above; ghost, below)
Strength	10%	75%	100%	100%
Comments	Color stayed vibrant while allowing the wood grain to show through	Smooth and easy to work with; light texturing was possible	Weathered Daydream, coated with a high gloss craft resin, made for a smooth, consistent, attractive finish	Colors didn't bleed or run; faded slightly as they dried

Unicorn SPiT, however, has a flowery aroma that makes using it quite pleasant—the matte variety radiates a light jasmine scent, while the glittery ones smell like lemongrass.

General Notes

We noticed early on that although the glittery variety looked striking when wet, most of the glitter rubbed off when dry. If you plan to use this version, apply it to areas you won't frequently touch—like we did with the freestanding “Boo” ghost on page 49—or coat the glittery areas with a thin layer of resin or varnish.

With thicker applications of the matte variety—as in the galaxy swirl breakfast tray—we noted very slight surface cracking as it dried, but this did not occur in any other instance.

Artist and pattern designer Janette Square noted that this product works well in segmentation and intarsia projects, as long as you budget for slight swelling of the wood when diluting. Also, keep in mind that



Unicorn SPiT adorns these colorful Halloween word art projects (page 49).

Swirl Technique

Before adding the galaxy design to the breakfast tray, we tested it on a piece of scrap plywood. We added dots of Sapphire Swift, Violet Vulture, White Ning, and Midnight's Blackness to a sandwich bag, and then flipped it over and twisted it to create a swirl design.



Place blobs of Unicorn SPiT on a plastic bag.



Flip the bag onto your surface of choice.



Twist to create a galaxy effect.

Unicorn SPiT works best on items without an existing finish. For upcycled furniture and similar projects, remove the previous finish with stripping gel and/or a sander before applying Unicorn SPiT to the surface.

For tutorials on dozens of Unicorn SPiT-based projects from stained glass to canvas shoe art, check out the company's YouTube channel.

Pricing

Unicorn SPiT is available at various craft stores and online retailers, and ships to locations in the United States, Canada, Australia, South Africa, and the United Kingdom. Prices vary slightly per seller, but an individual 4oz. bottle will generally run you about \$8, whereas a set of 10 4oz. bottles costs around \$70.

While this sounds pricey, keep in mind that Unicorn SPiT is highly pigmented, so a little bit goes a long way. It's also an affordable option for adding color to wooden projects like intarsia—without having to drop \$100 on tropical hardwoods.

Conclusion

Versatile, colorful, and aromatic, Unicorn SPiT is a great addition to any craft closet. Kids and adults alike will enjoy experimenting with this unique stain—we sure have!

For more information about Unicorn SPiT, visit eclecticproducts.com, or call 800-349-4667.



Rolf Beuttenmuller, who cut this dragonfly from a pattern by Ben Kwok, said he "immediately fell in love" with Unicorn SPiT's intense colors and "will be ordering several more" for Christmas projects.

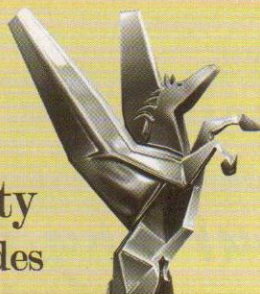


Unicorn SPiT stays vibrant—even at a 10% dilution. See the construction vehicle puzzles project on page 32.



The top of this accent table was coated with a two-part epoxy resin to protect the Unicorn SPiT finish.

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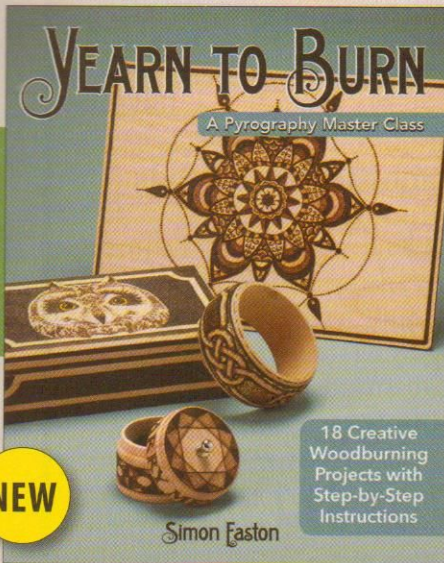
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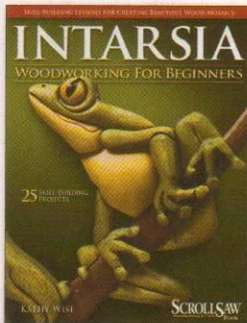
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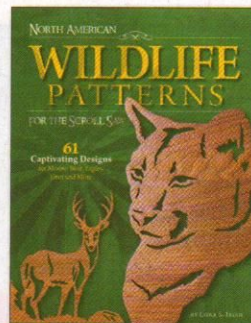
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Poplar wood bangles are perfect for completing the bracelet project inside *Yearn to Burn*.

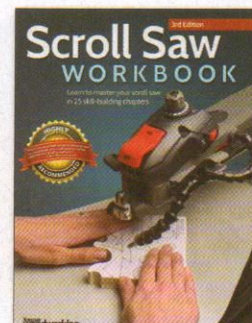
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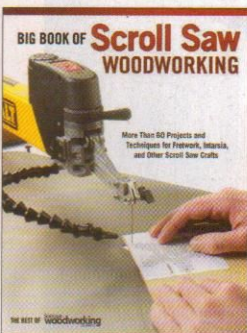
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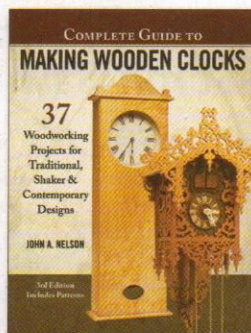
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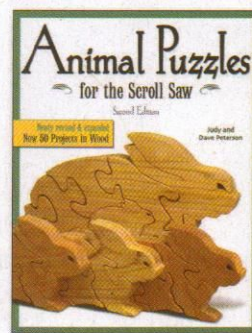
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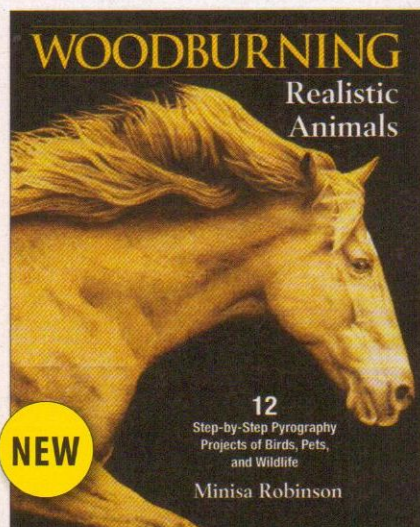
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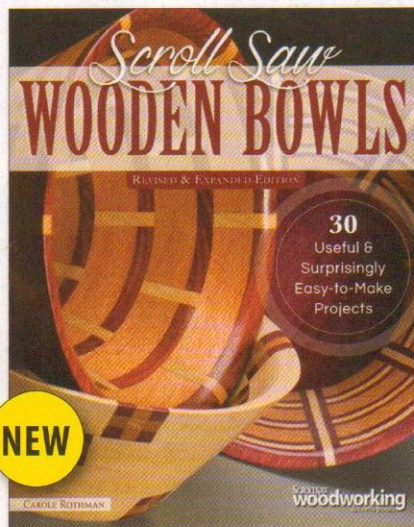
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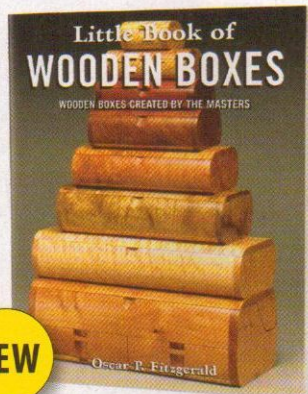
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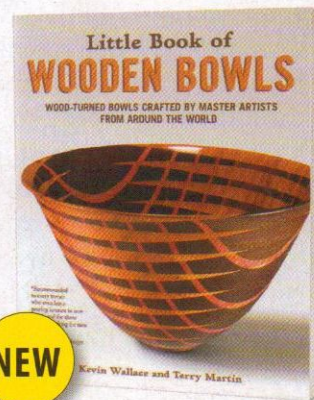
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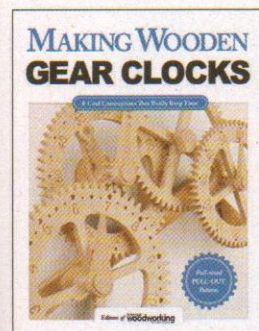
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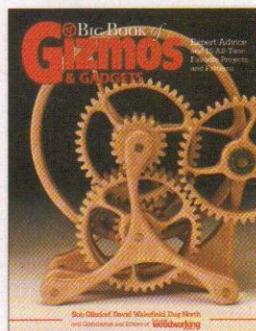
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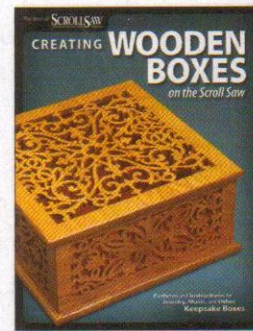
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Kindhearted Dragon

This friendly fire-breather is the ultimate intarsia challenge

By Judy Gale Roberts

Dragons make me think of medieval times and the age of the Italian Intarsia Renaissance. “Intarsiatori” used different colors of wood to “paint” a picture. Thicker than marquetry, the wooden pieces were inlaid to create one cohesive composition. Artists hinted at dimension by inlaying highlights and shadows to a flat surface.

Today, intarsia incorporates an additional component, which my father and I developed in the late 1970s—true dimension. Taking advantage of how the human eye perceives things, we heighten the illusion of depth. Areas of an intarsia project that are farthest from the viewer are sanded to be the thinnest; the closest parts become progressively thicker as they “move” toward the viewer. This dragon project will show you how to achieve dimension by lowering some parts of the project and raising others.

Wood Choice

I used a piece of walnut that had lighter sapwood turning gradually into a darker center. I just love to find wood like this; it gives you the opportunity to use the natural colors to help shade the piece. The wood for the head gradually darkens toward the neck; the neck is darker under the head and lighter toward the belly; the backside of the tail darkens as it tapers. I used spalted hackberry for the wings and underside, and aspen for the horns, claws, teeth, and eye highlight.

Getting Started

The most accurate way to cut the parts for any intarsia project is to make multiple copies of the pattern. You need multiples because you will be cutting up the pattern parts and gluing them to the wood. For this

dragon, you will need to make five copies—one for each type of wood and one to keep as a master. Cut each piece of the pattern that has a different color or grain direction. I leave $\frac{1}{8}$ " (3mm) to $\frac{1}{4}$ " (6mm) protruding beyond the pattern line; this gives me a lead-in line to get my blade on track before I start cutting the actual part. Attach the pattern pieces to the wood using spray adhesive.

Cutting the Pieces

Control and consistency are the cornerstones of accurate sawing, and control comes from cutting at a comfortable speed. I usually run about 85% of the speed range on my variable-speed saw. Scrollers should practice keeping the blade in the center of the line. A foot switch and a magnifier with a light are very helpful if you're sawing for accuracy.

Before you start cutting each part, take a few minutes to come up with an overall plan. You don't want to end up with a very small part that's difficult to hold onto. Whenever possible, cut the individual pieces so the last cut will “drop” off the larger piece of wood.

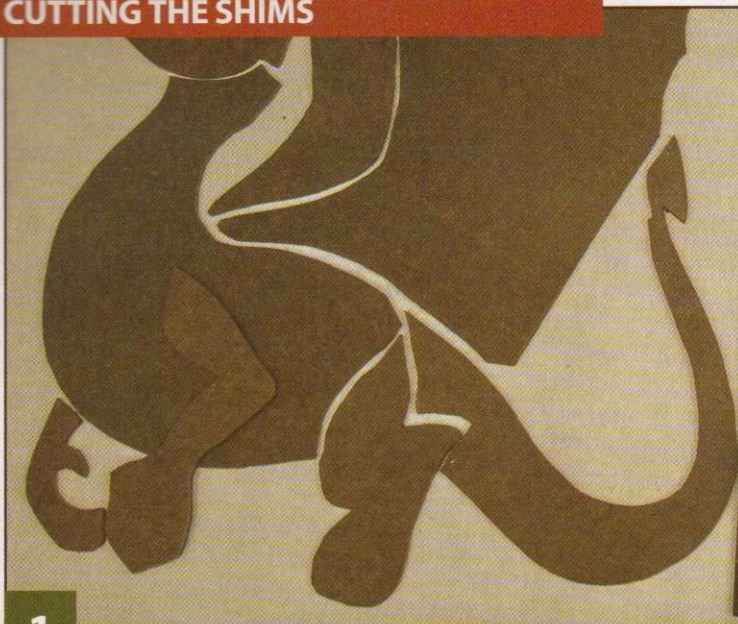
Cut the main pieces with either a #3 or #5 reverse-tooth blade. Then make the interior cuts with a #2/0 or #1 blade; this will remove less wood. It is important to check your cuts often with a square. Change blades often, do not push too hard, and let the blade do the cutting. Pushing will make the blade bow, giving you angled edges that won't fit together tightly. Pushing will also dull your blade faster. Drill the highlight for the eye before cutting it out.

Leave the pattern on the wood until you cut all of the parts. If the parts do not fit, trim them on the scroll saw with a new blade as needed.

Carefully selecting and placing your wood based on its color and grain direction will bring your piece to life and raise your intarsia skills to new heights!



CUTTING THE SHIMS



1

Cut all the sanding shims for the main components of the dragon. This includes the head, main body, each wing, both arms with hands, hind leg, and tail.

Before You Sand

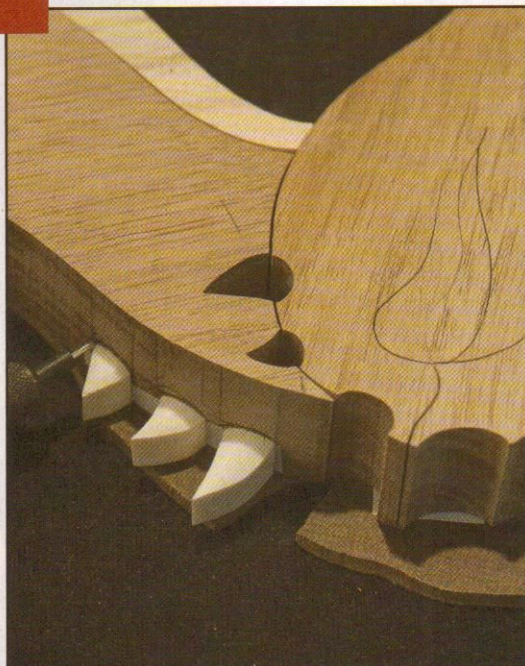
Inflatable and foam-based sanders make it easier to sand contours; they are softer than hard drums or belt sanders. Rough-in the entire project with an 80-grit sleeve. Sand opposite the grain when you need to remove lots of material. After all pieces are roughed in, sand with the grain as much as possible, using finer grits up to 220. I like to start with the background pieces. A safe amount to start with is half the thickness ($\frac{3}{4}$ " thick down to $\frac{3}{8}$ " or 1.9cm thick down to 1cm).



2

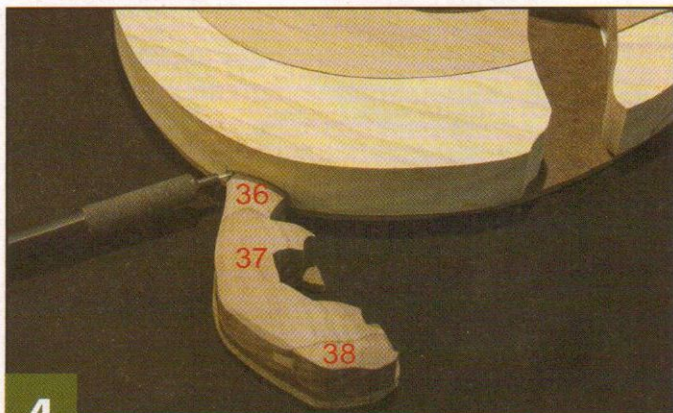
Use light traffic vinyl double-sided carpet tape to attach the pieces to the sanding shims. Make sure you remove the dust before taping. Apply the tape to the back of the pieces then press the sanding shims in place. Do not tape the arm and the hand at this time.

SHAPING THE BODY PIECES



3

Sand the neck spikes down to about $\frac{3}{8}$ " (1cm) thick. These are small parts, and sanding them down can be quite a feat. Cut a piece of scrap wood (I used tempered hardboard) about $\frac{3}{8}$ " (1cm) wide by 2" (5.1cm) long and a few pieces with a notch close to the size of the nails, points, and teeth. Secure each small piece with double-sided tape and sand it down, rounding it slightly to create dimension. After sanding, I use a little tape to attach the spikes temporarily to the neck; this makes it easier to mark the thickness along the edge.



4

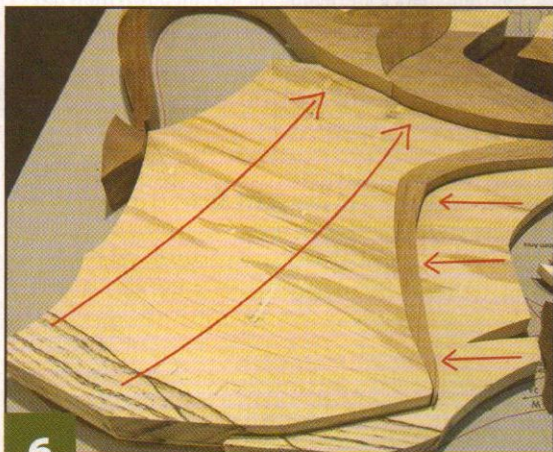
Sand the right (background) arm down to $\frac{3}{8}$ " (1cm) thick.

Keep section 37 slightly thicker than 36 and 38. Using a pencil, mark where the arm joins the body.



5

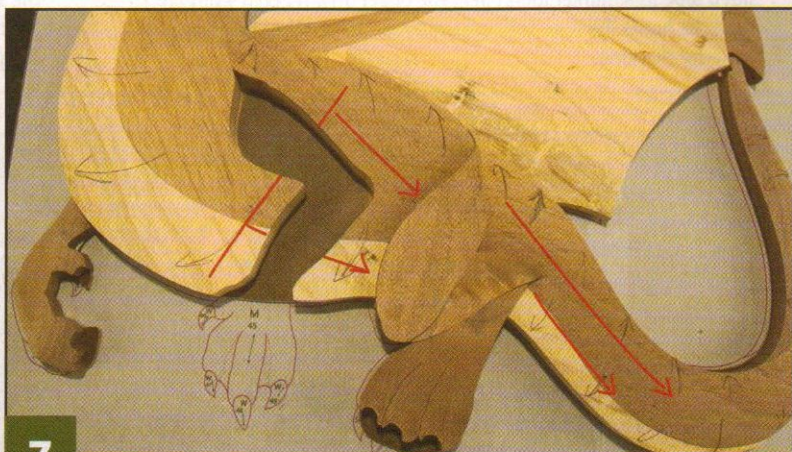
Sand the tail down to at least $\frac{3}{8}$ " (1cm) thick. Make it thinner than the wings.



6

Sand the background wing down to about

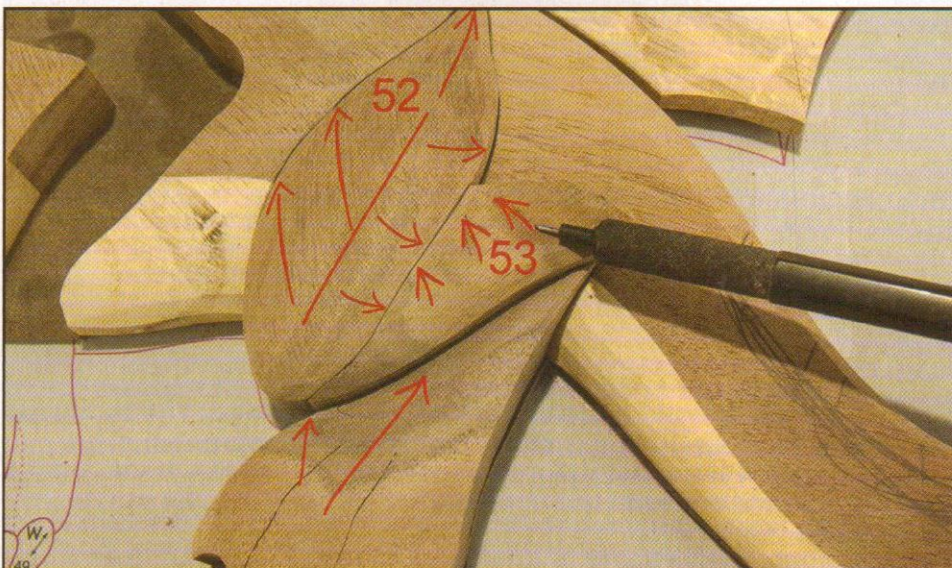
$\frac{3}{8}$ " (1cm) thick. Taper it down to around a $\frac{1}{4}$ " (6mm) where it joins the foreground wing. Sand the foreground wing down to $\frac{1}{2}$ " (1.3cm) thick, and then taper it down about $\frac{3}{8}$ " (1cm) toward the body. Mark the thickness of the wings along the edge of the body.



7

Shape the torso. Sand the neck down to about $\frac{1}{2}$ " (1.3cm), with the lowest

point at the joint between the neck and chin. *Note: it is easier to visualize depth if you sand the surface before rounding the sides.* Gradually taper the mid-body section toward the tail to about $\frac{1}{2}$ " (1.3cm) thick. The hind leg is not raised with a shim, so the wood around it needs to be thinner to make it stand out. Round the sides of the body, being careful to reduce the thickness only to the pencil lines you made before sanding.



8

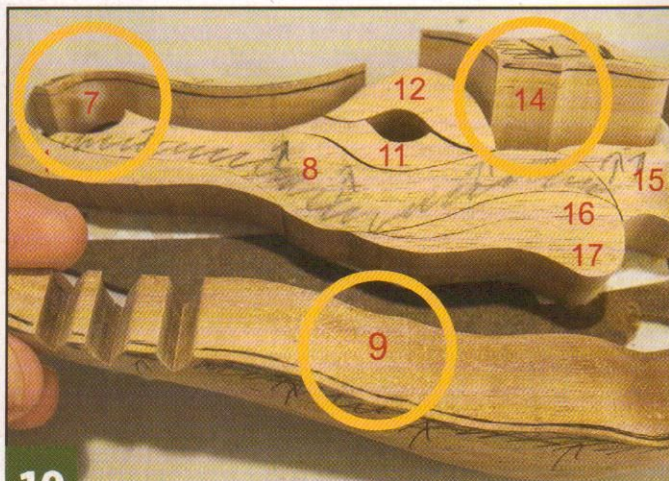
Sand the hind leg. I didn't

include the foot portion in the sanding shim because I wanted to shape just the leg and knee as a unit. Taper the foot down to $\frac{1}{2}$ " (1.3cm) thick, so it is thinnest at the joint between the foot and leg. Round the knee so it slopes down $\frac{1}{8}$ " (3mm) at a sharp angle toward the foot and tail. Sand the upper leg area at a gradual angle toward the belly and midsection.

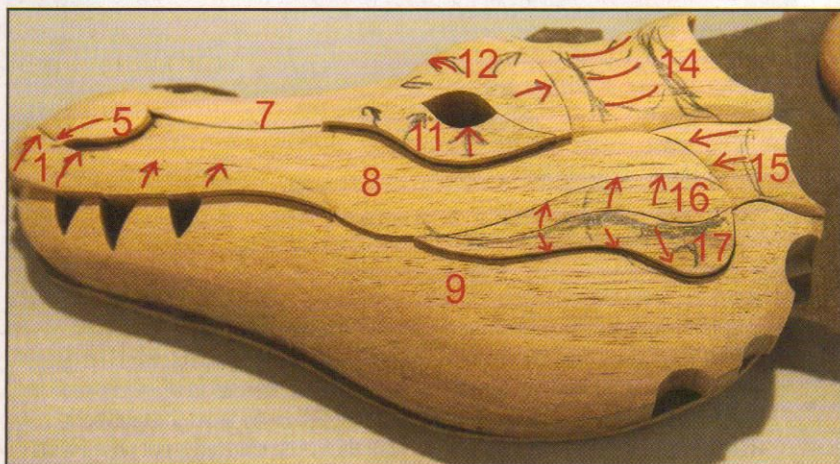
SHAPING THE FACE



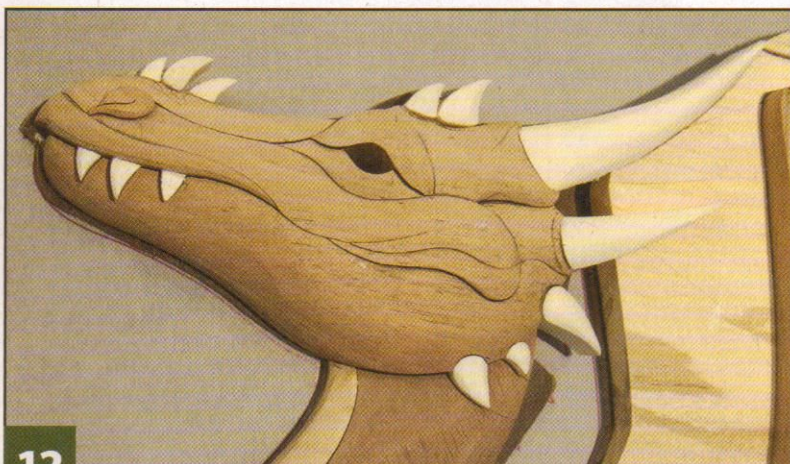
9 Mark the areas where the horns will go. I used double-sided tape as a marker (don't peel the paper off). When it's time to sand the horns the tape will make it easier to hold the small horns in place for marking.



10 Separate the face parts. Remove parts 9, 7, and 14 from the sanding shim and mark a line about $\frac{1}{16}$ " (2mm) down from the top on their outside edges. Sand down to this line; focus more on removing wood from the surface than on rounding.

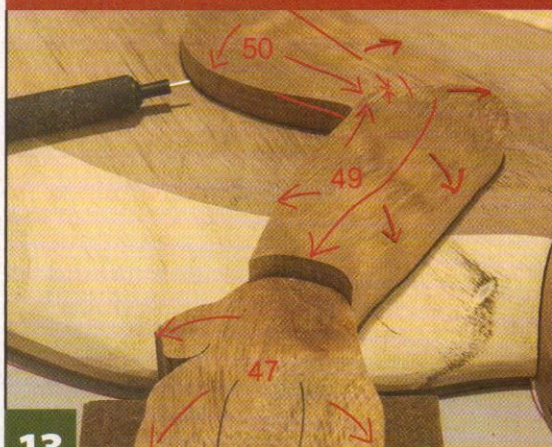


11 Sand the mid-jaw (part 8). Taper it down to meet the thickness of the upper snout (part 7). Sand a similar angle on the lower eyelid (part 11), continuing to watch your pencil lines to prevent over-sanding. Sand the upper eyelid (part 12) so that it follows a similar angle to part 7 but remains thicker than its adjacent parts. Taper the ear area (part 15) toward the face to the thickness of part 8. Taper the upper lip areas (parts 1 and 16) slightly toward part 8. Taper the lower lip (part 17) toward the lower jaw (part 9). Sand the nostril (part 5) slightly, tapering it down toward part 1 but keeping it about $\frac{1}{16}$ " (2mm) thicker than its adjacent parts.

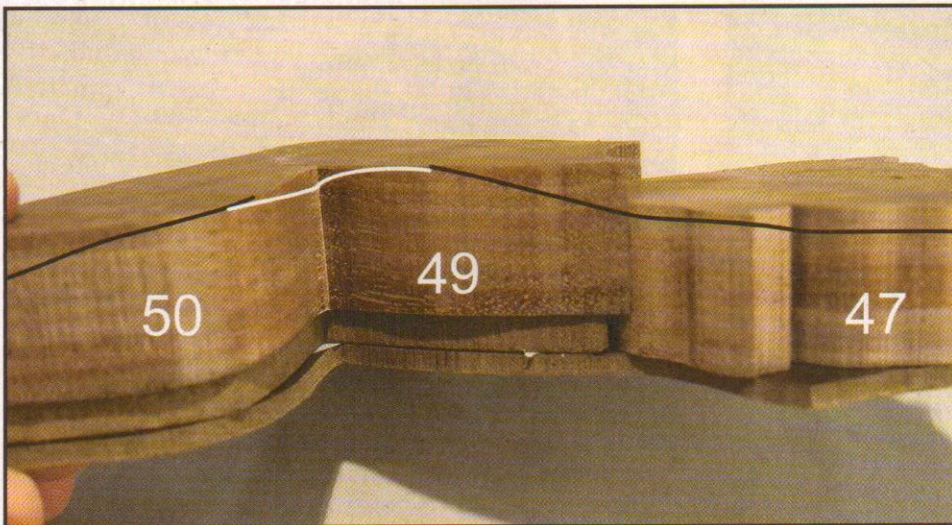


12 Sand the horns, teeth, and eye. Remove the paper from the tape added to the horn area. The tape will make it easier to hold the pieces while marking the thickness of the face along the edge. Sand the horns and teeth down; then round the edges. The teeth should be thicker than the lower mouth and slightly thinner than the upper lip. The larger horns should be slightly thinner than the head. The eye should be about $\frac{1}{16}$ " (2mm) lower than the eyelids.

SHAPING THE ARM



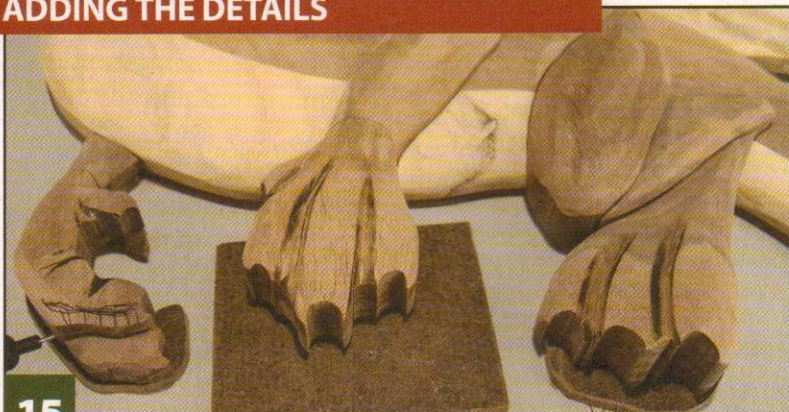
13 Plan how you will shape the left (foreground) arm. Mark the thickness of the back and belly along the edges of the arm pieces.



14

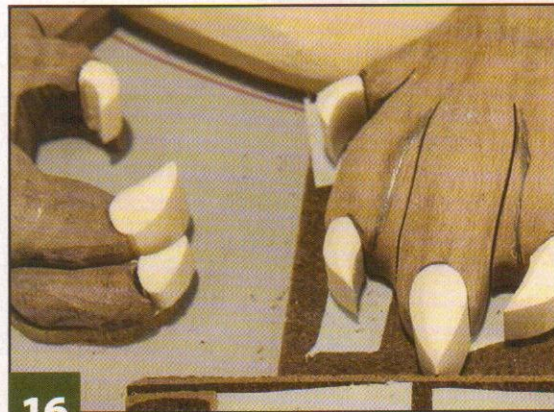
Attach the arm pieces to the sanding shim. Use double-sided tape, and include the $\frac{1}{4}$ " (6mm) raising shim under the two arm pieces (parts 49 and 50). Taper the tip of the upper arm (part 50) from the elbow down to the thickness of the body. Taper the forearm (part 49) down to the hand, blending and rounding the two sections. Round the outside edge of the arm toward the body. Sand the inside edge of the arm to form the inner bend, as shown by the white line in the photo at left. Both arm parts should taper slightly toward the bend.

ADDING THE DETAILS



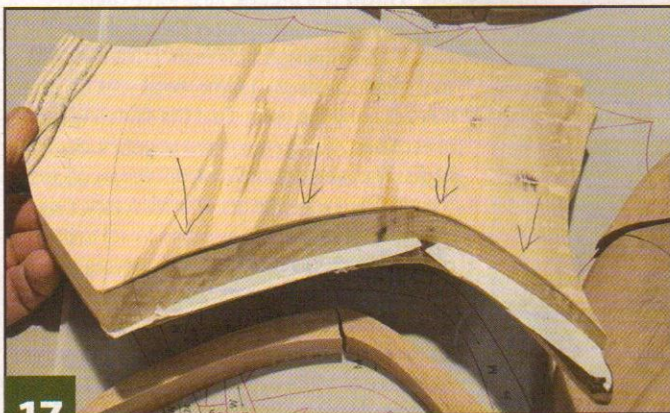
15

Detail the hands and feet. I used the Wonder Wheel (shown on page 28) with a 6" (15.2cm) diameter, dressed to a V-point, to carve between toes. Use the cut lines as a guide. You can use a gouge or a rotary tool to define the toes between the webbing. Use a small sander or hand sand the groove to remove the burns created by the Wonder Wheel.



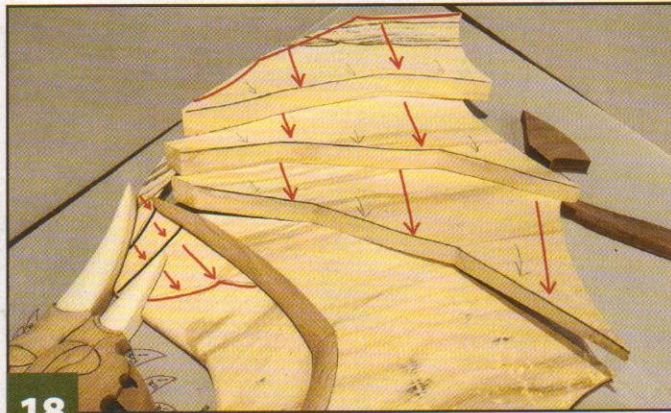
16

Shape the claws. Sand the claws down to the same thickness as the toes. Then round the outside edges. If desired, use the shop-made jig you used in Step 3.



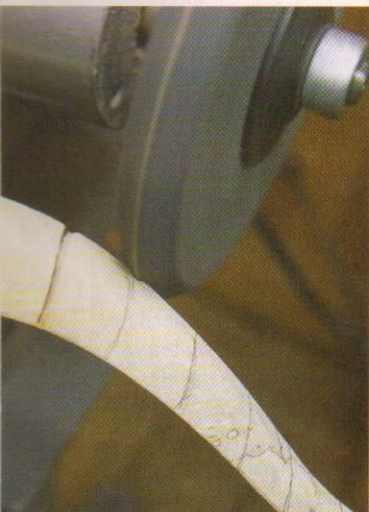
17

Shape the wings. Remove the two parts marked "M" on the pattern from the sanding shim. Taper the inner wing very slightly toward the body. Put these two parts back in place and mark the thickness of the inner wing. Round the edge toward the inner wing.



18

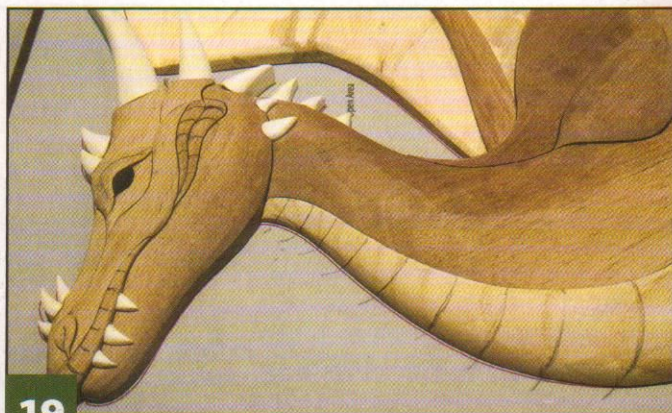
Detail the wings. Remove all wing parts from the sanding shim, and taper each section about $\frac{1}{16}$ " (2mm) down to create a layering effect. Mark a line along the inner ridge to sand down to; this will make it much easier to sand a consistent amount of wood off the surface. I sanded a sharp angle along the upper edge of the front wing to catch more light.



The Wonder Wheel

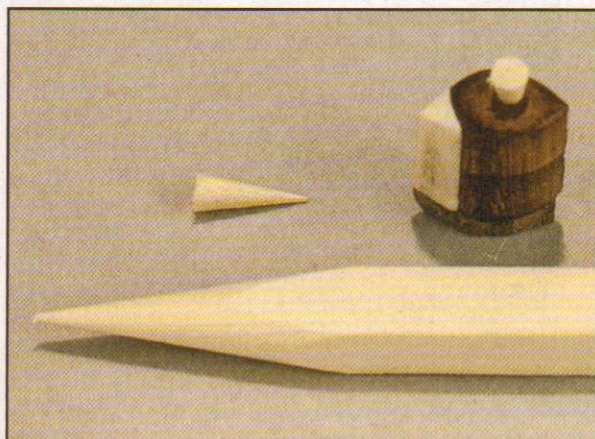
I use a Wonder Wheel to add detail to many of my pieces. It is great for fur and hair textures, along with defining sections like the belly of the dragon. The wheel is $\frac{1}{2}$ " (1.3cm) wide with a 6" (15.2cm) diameter. I dress to a "V" point which makes it easier to carve fine lines. The wheel is softer than a sharpening wheel, like a hundred Scotch-Brite

pads glued together—but with a more abrasive grit. It carves and burnishes the wood, which leaves a smoother finish rather than tearing through the grain. It takes a little practice—the key is to be very light-handed.



19

Transfer the lines onto the lip and chest areas. Use the dashed lines as a guide. Put the "V" corner of the wheel on the lower outside edge of the belly (as shown in the Wonder Wheel photo), then press the wood lightly against the wheel to carve a line across the surface. Gently sand all the parts with the grain with a 180- then a 220- grit sleeve. I hand sand each part with a 220-grit paper.



20

Add the eye highlight. Cut a piece of holly or aspen about the size of a pencil ($\frac{1}{4}$ " by $\frac{1}{4}$ " by 8" or 6mm by 6mm by 20.3cm). Sharpen both ends with a pencil sharpener. This makes a perfect cone shape that you can use for any size of highlight. Drill a hole with a $\frac{1}{16}$ " (2mm) bit. Add a dot of glue and insert the cone. Sand the cone flush with the surface of the eye. If using aspen, *do not hand sand the eye*; the dust from the walnut is hard to remove from the fibrous aspen. Sand it flush; try not to sand onto the dark eye.

A Final Inspection

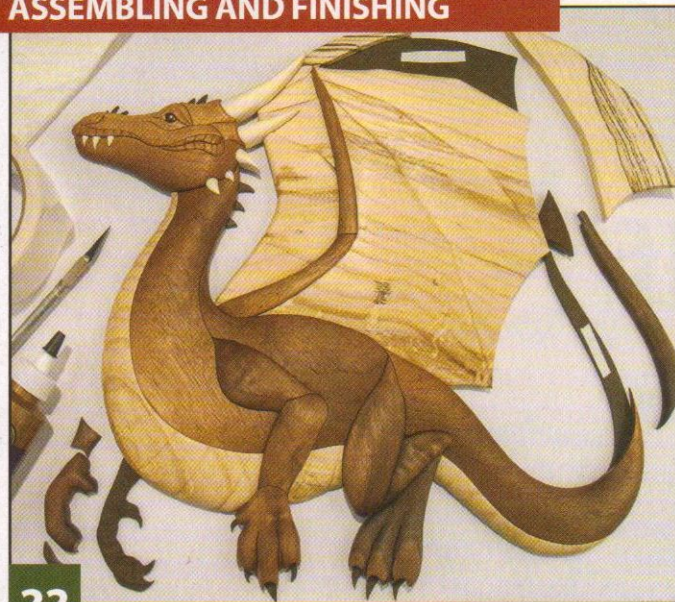
Check your work for cross-grain scratches and any noticeable pencil marks. I use an air compressor to blow the dust off the more delicate parts. As you do this, check to make sure you've sanded everything smooth. Sometimes the dust gets into a scratch and you cannot see it until the dust has been blown away.



21

Finish the pieces. I use three coats of polyurethane gel. Apply the gel with a 1" (2.5cm) disposable foam brush. The first coat should be heavy; let the wood soak up what it needs to fill the grain. Coat the sides and surface of each part, being careful not to get much on the backs. Wait about a minute to let the wood absorb the gel. Then wipe the gel off with a paper towel; as it gets saturated, use a second towel to buff it completely dry. Let the finish dry overnight. Apply the second and third coats six to eight hours apart, covering only exposed surfaces. To make a pattern for the backing, trace around the finished project on a piece of white paper dusted lightly with spray adhesive, just enough to keep the parts from sliding as you trace. Use reposition spray to attach the tracing to the backing board, cutting a little over $\frac{1}{16}$ " (2mm) inside the line. I use $\frac{1}{8}$ " (3.2mm) thick tempered hardboard. If using plywood, stain the edges dark. Seal the backing board with polyurethane gel and let it dry.

ASSEMBLING AND FINISHING



22

Assemble the parts on the backing board. I place the piece on white paper so I can see the edges more clearly and rotate the project without shifting the parts. Glue a few exterior pieces down to lock in the project; securing the tail, top part of the upper wing, and background hand will help keep pieces from shifting. Let it dry. *Note: I rarely edge-glue any parts; a backing works better for my purposes. Whenever you cut into the same piece of wood, like I did for the face, the blade removes a small amount of wood along the cutting line. If you edge-glue all the parts, you will end up with a gap somewhere. Therefore, I space the parts to make up for the width of the saw blade. Having this space will give the wood room to expand and contract due to humidity and temperature changes.*



23

Glue the rest of the pieces to the backer. I use tacky glue, such as Aleene's®, as it is flexible, allowing me to adjust parts during the 10 to 15 minutes before the glue sets up. Keep in mind that a little glue goes a long way. Use just a few dots on the back of each part. Leave the raised left arm for last. Then glue in the shim, and add the arm parts on top of that. Let the assembly dry. Find a center point on the back and attach your hanger; I used a triangular mirror hanger. Sign your work.

Pattern for the
KINDHEARTED DRAGON is in
the pullout section.

Materials & Tools

Materials

- Dark wood, such as dark western red cedar, $\frac{3}{4}$ " (1.9cm) thick: eye pupil, 2" (5.1cm) square
- Medium dark wood, such as black walnut, $\frac{3}{4}$ " (1.9cm) thick: torso, 3" x 6" (7.6cm x 15.2cm)
- Medium wood, such as black walnut, $\frac{3}{4}$ " (1.9cm) thick: torso, 6" x 21" (15.2cm x 53.3cm)
- Light wood, such as spalted hackberry, $\frac{3}{4}$ " (1.9cm) thick: wings and underside, 9" x 17" (22.9cm x 43.2cm)
- White wood, such as holly or aspen, $\frac{3}{4}$ " (1.9cm) thick: claws, horns, teeth, and eye highlight 4" x 5" (10.2cm x 12.7cm)
- Tempered hardboard or Baltic birch plywood, $\frac{1}{4}$ " (6mm) thick: shim for arm, 2" x 6½" (5.1cm x 16.5cm)
- Tempered hardboard or Baltic birch plywood, $\frac{1}{8}$ " (3mm) thick: 2 each backing board, sized for pattern

- Spray adhesive
- Pencil
- Permanent marker (optional)
- Sandpaper: 220-grit
- Sanding sleeves: 80- to 220-grit
- Glue: Aleene's Tacky®
- Carpet tape: double-sided light-traffic
- Finish, such as polyurethane gel
- Paper towels

Tools

- Scroll saw blades: #2½ or #1, and #3 or #5 reverse-tooth
- Sander: flex drum, handheld
- Wonder Wheel, ½" (1.3cm) wide: 6" (15.2cm)-dia. (optional)
- Rotary tool with sanding drum
- Pencil sharpener
- Drill with bits: ¼" (1.6mm)
- Square
- Paintbrush: 1" (25mm) foam

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

WANT MORE INTARSIA?

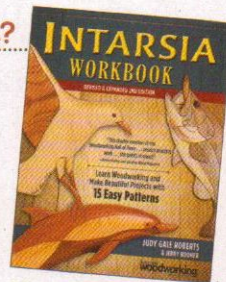
Intarsia Workbook Revised and Expanded 2nd Edition

By Judy Gale Roberts

Master intarsia, the art of making picture mosaics in wood, with 15 skill-building projects that can be completed in just a weekend.

Learn how to cut, shape, and assemble your own intarsia masterpieces with step-by-step instructions and all-new color photography.

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

intarsia.com. Judy's numerous intarsia books are available at foxchapelpublishing.com.

Maple Leaf Bracket Shelf

Adorn your home with a fanciful fall masterpiece

By John A. Nelson

Cut by Rolf Beuttenmuller

I think of fall as one gigantic party of leaves—the way they look and behave is reminiscent of a birthday gathering, where all the guests have donned their best clothes and arrive ready to dance. I tried to capture some of that dynamism in this bracket shelf design. The sharp angles of the interwoven leaves present a unique challenge for scrollers; make sure to anticipate each turn well before you reach it, or you'll compromise the symmetry and accuracy of the cuts.

Cutting and Finishing

Select a kind of wood; I chose cherry for its rich, autumnal color and resawed mine from a larger plank. Sand the pattern stock with

180-grit sandpaper, working up progressively through the grits until you reach 320. Cover the blank with removable shelf paper and attach the patterns with spray adhesive. *Note: Make sure to orient the pattern pieces so the grain runs vertically on the two fretwork sections and horizontally on the shelf section.*

Drill blade-entry holes for the fretwork and slowly make the interior cuts; I used a #2/0 reverse-tooth blade. Then make the exterior cuts; I used a premium #1 reverse-toothed blade, such as a Pégas MGT blade. Once you are done making the cuts, hand-sand to remove any fuzzies. Finish as desired; I used three coats of satin spray lacquer, and added a D-ring hanger to the back.

Materials & Tools

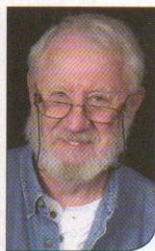
Materials

- Cherry, 1/4" (6mm) thick: backing board, 7 1/2" x 9 3/4" (19.1cm x 24.8cm); brace, 3 1/2" x 4 1/4" (8.9cm x 10.8cm); shelf, 3 3/4" x 7 3/4" (9.5cm x 19.5cm)
- Sandpaper: 180- to 320-grit
- Clear shelf paper, such as Con-Tact removable adhesive creative covering
- Spray adhesive
- Finish, such as Minwax satin spray lacquer
- Hanger: D-ring (optional)

Tools

- Scroll saw blades: #2/0 reverse-tooth, premium #1 reverse-tooth blade, such as a Pégas MGT blade
- Drill with bits: assorted small

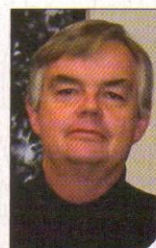
The author used these products for the project. Substitute your choice of brands, tools, and materials as desired.



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

Patterns for the **MAPLE LEAF BRACKET SHELF** are in the pullout section.

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





Construction Vehicle Puzzles

Can you scroll it? Yes, you can!

By Sarah Lyn Chamberlain

ScrollSchool
Family Workshop Project

My crane, plow, truck, and excavator puzzles are a perfect project for any time of year. Not only are these vehicles incredibly easy to cut—but because they use pine and basic stains (which you probably have lying around) as raw materials, they're also an inexpensive way to introduce scrolling (and staining) to kids.

Getting Started

I prefer pine, but any wood will do. (If you use $\frac{3}{4}$ " (1.9cm)-thick or a thicker stock, you can show the puzzles off when you're not playing with them.) Print the patterns, and then use an adhesive spray to secure them to the wood. The grain should flow horizontally.

Making the Puzzles

Drill blade-entry holes for the windows and the center of each tire (for the plow and truck) and track (for the crane and excavator). Cut the outside shape of each puzzle, and then work through the rest of the cuts. It helps to start with unwieldy areas, like the crane hook; this way, you can set it aside early on and more easily maneuver the remaining stock. After you've made all cuts, reassemble the puzzles and use a random orbital sander on the fronts and backs. Sand the edges by hand and stain as desired. When all the pieces are dry, apply a clear gloss finish.

Materials & Tools

Materials

- Pine, $\frac{3}{4}$ " (1.9cm) thick: snow plow, dump truck, 6" x 10 $\frac{1}{2}$ " (15.2cm x 26.7cm); crane 8 $\frac{1}{2}$ " x 10" (21.6cm x 25.4cm); excavator, 7" x 9 $\frac{1}{2}$ " (17.8cm x 27.1cm)
- Sandpaper: 180-, 220-grit
- Finish: clear spray, such as Rust-Oleum 2X Gloss
- Spray adhesive

- Assorted stains, such as Minwax: dark walnut, gunstock, red oak

Tools

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

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

Patterns for the **CONSTRUCTION VEHICLE PUZZLES** are in the pullout section.



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



Burrowing Owls

These little birds live underground and can rattle and hiss like snakes

By Charles Hand

Burrowing owls barely clear 8" (20.3cm) in height and five ounces in weight. But don't let their size fool you—these cute little creatures are clever and opportunistic! The only owls to live underground, they often move into abandoned burrows rather than building their own. They've also developed a unique self-defense mechanism: when threatened, they scare away predators by imitating the sounds of a rattlesnake.

Prepping and Cutting

Sand the front and back of the blank thoroughly. Blow off the dust or remove it with a tack cloth. Attach removable Con-Tact® creative covering paper to the top of one blank. Apply spray adhesive to the back of the pattern. Let the adhesive set for two to three minutes, and then press the pattern down onto the paper. Eliminate any air bubbles, and then stack the portrait blanks with the pattern on top. Hold the wood flat and the stack securely while you wrap blue painter's tape around the perimeter. Drill blade-entry holes and cut the frets. Since I use spiral blades, I sand the bottom of the stack every 10 cuts to remove the fuzzies.

Finishing

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

Remove sander dust with compressed air. Apply a clear spray finish if you don't plan to use a picture frame with glass. Remove

the backing board and mat from the picture frame, and line up the portrait to the back side of the mat opening. Attach black felt to the back of the portrait with blue painter's tape. Add the backing board and secure the portrait in the frame.

Framing Notes

A standard 11" by 14" (27.9cm by 35.6cm) mat opening is normally 10½" by 13½" (26.7cm by 34.3cm), so I design my patterns to suit that size. Take a tape measure when shopping for a picture frame and make sure the mat opening is exactly 10½" by 13½" (26.7cm by 34.3cm).

Materials & Tools

Materials

- Baltic birch plywood, ⅛" (3mm) thick: 11" x 14" (27.9cm x 35.6cm)
- Sandpaper: 180- to 220- grit
- Tack cloth
- Tape: blue painter's
- White shelf paper, such as Con-Tact® removable adhesive creative covering
- Spray adhesive: Elmer's or 3M Super 77
- Finish: clear spray lacquer (optional)
- Felt backing, black: 11" x 14" (27.9cm x 35.6cm)
- Photo frame, matted: standard 11" x 14" (27.9cm x 35.6cm)

Tools

- Scroll saw blades, #0 or #1 flat-end spiral (interior cuts), #3 reverse-tooth flat blades (straight cuts)
- Drill press with bits: ⅜" (1.1mm) dia. or #56 wire size, ⅛" (2mm) dia. or #53 wire size
- Palm sander
- Needle files (optional)
- Air compressor (optional)

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



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

Pattern for the
BURROWING OWLS is in the
pullout section.

Anatoly Obelets

This Ukrainian master combines intarsia and segmentation to create sensational works of art

By Kaylee Schofield

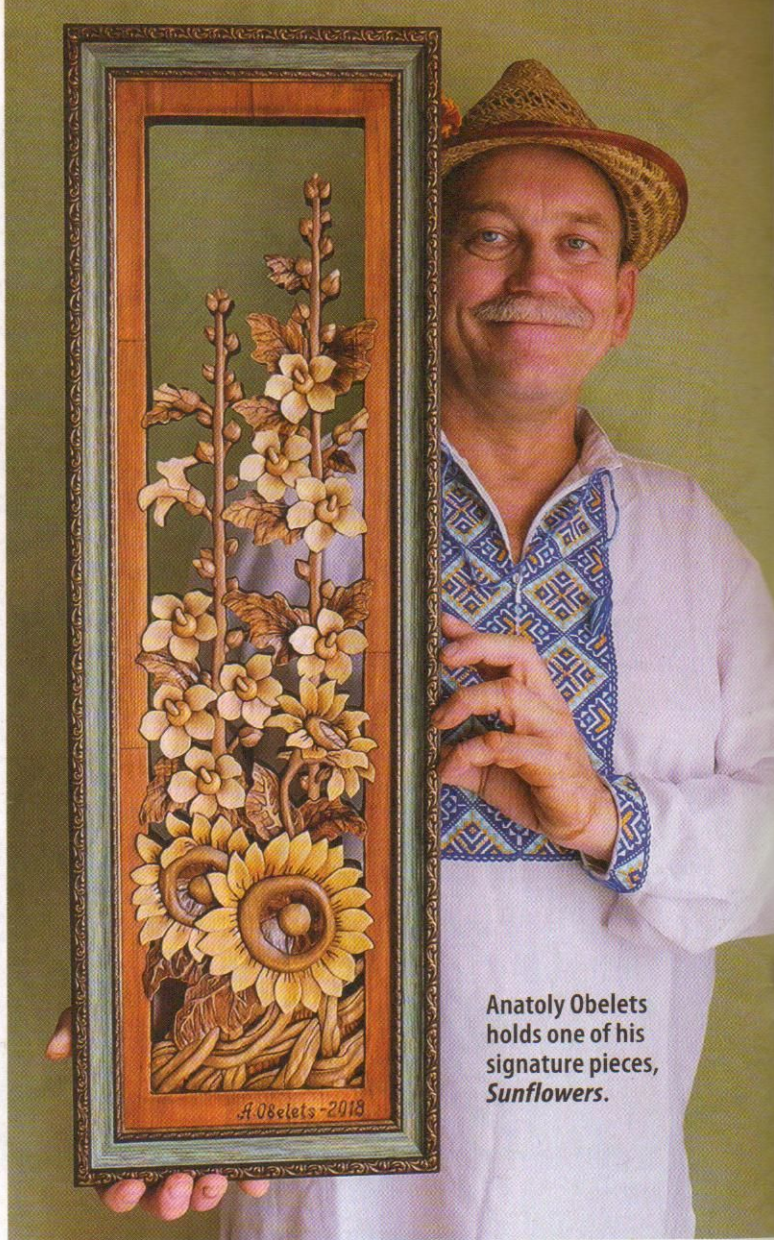
For proof that art can be both soulful and defiant, look no further than Anatoly Obelets. In the last few years, this Ukrainian maker has honed a style of wooden “pop-out” art that blurs the line between segmentation and intarsia. While drawing from traditional folk styles and Byzantine iconography, Anatoly’s compositions—among them a girl running with her cat at moonrise and two angels playing chess in space—have a dreamlike, surrealist quality entirely their own. But his style isn’t the only part with a rich history—his tool of choice got its start in Soviet prisons, where just a few decades ago, art itself was forbidden.

SSW: How did you start in the creative arts?

Anatoly: As a student at Odessa State University in the 1980s, I studied mechanics and math but began to feel a thirst for art and creativity. You need to understand—at that time, postmodernism, surrealism, and other styles of art were prohibited in Ukraine. But students still sought that knowledge. It soon became clear that I had artistic



Tea Party



Anatoly Obelets holds one of his signature pieces, *Sunflowers*.

abilities and could draw quite well. My wife, who studied architecture at the same school, has been my best advisor and critic.

SSW: You designed a special, one-of-a-kind tool for your intarsia work. How did that come about?

Anatoly: That’s an interesting story. When I was a young man, the USSR tried to repress people’s freedoms, their personalities. Many engineers and artists (including woodworkers) became victims of the totalitarian regime, and talented people went to prison. Their knives and other sharp woodworking tools were taken away.

However, in the jails, these artists found a way to decoratively process wood using ordinary-voltage transformers and red-hot wire. The artwork they created was rough but interesting in appearance.

Fate brought me to one such prisoner who had passed through the Soviet jails. He shared this woodcutting method with me and we decided to make a safer, more modernized version of the device. The Pyrosegmentator (page 41) was born. We produce them

in small batches (about three to five at a time). Really, it's an analog of the classic scroll saw in that it allows me to cut very small, complex details in wood—and move the wire in any direction I want. And it allows me to cut wood up to 1½" (3.8cm) in thickness.

SSW: Your body of work covers a diverse range of styles. What inspired that?

Anatoly: In the last five years, intarsia has changed from a hobby into my full-time job. I work on commissions that cover a range of themes—nature, human relations, religion, music. My favorite pieces have a sacral theme and follow the Coptic and Byzantine style; these often develop into icons for people's homes. Pieces such as my Palm Sunday icon require a lot of research; I need to study all nuances in the associated religious texts to make sure the composition is accurate and responsibly done. I'm also inspired by traditional folk styles native to western Ukraine, so that affects my work, too.

SSW: What is your favorite wood to work with and why?

Anatoly: For my intarsia projects, I prefer ¾" (1.9cm) pine and larch; for bijouterie (jewelry or trinkets), I use linden, because it lends itself to curved surfaces. Coniferous wood has a distinctive grain, so I choose each piece carefully to make sure the texture is right for the scene I'm planning.



Girl and Cat

SSW: How do you color your work?

Anatoly: I'm a big fan of tinting and don't hesitate to use a whole palette of colors in my art. Currently, I'm using water- and alcohol-based mordants (ingredients used to adhere dye to a particular material, such as wood or cloth) and dyes.

SSW: What advice do you have for beginners who are just getting into intarsia and segmentation?

Anatoly: For those who have just stepped into the intarsia world, it's important to experiment with classic patterns by established designers; you have to build a foundation before branching off and establishing your own style. Take in as much intarsia as you can—this will improve your skills and help you collect experience for future development.

SSW: What do you have planned for the future?

Anatoly: At the moment, I'm preparing for a personal exhibition in the National Folk Decorative Art Museum in Kiev, which is gratifying for me. I hope it will spread the word about this art form.

In the end, I never make art for the sake of *sale* but for the sake of *soul*—it's my small business secret. The art should begin as self-realization and self-growth; then, it contains a positive charge. Only then will people want to own it.

Contact Anatoly at obelets1960@gmail.com.



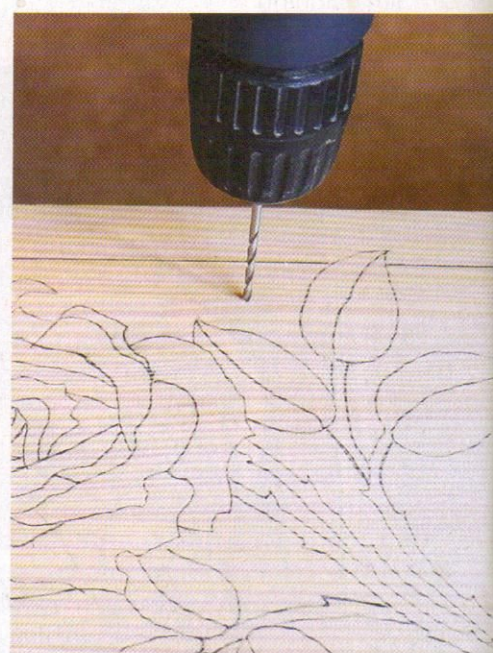
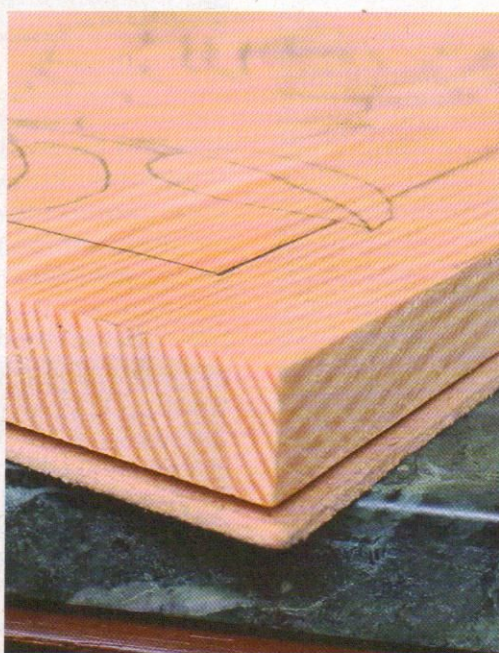
Mary and Christ

Timeless Red Rose

Express your fondness with the flower that says it best

By Anatoly Obelëts

There's a reason Chanel No. 5 perfume has such a rich, sumptuous scent: approximately twelve roses go into every bottle. Roses are romantic and nostalgic; they remind us of fairy tales—Briar Rose and Beauty and the Beast, anyone?—and the gradual movement of summer into autumn. My rose project is a little bit intarsia and a little bit segmentation; it allows you to practice shaping while keeping to one easy-to-find variety of wood. You get the best of both worlds!



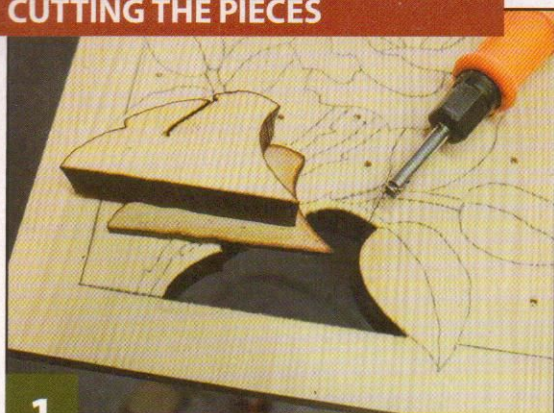
Getting Started

Cut the pine to size and sand it smooth with 180-grit sandpaper. Photocopy the pattern and transfer it to the blank; I use graphite transfer paper and a pencil, but you can save time by attaching the design directly. Cover the wood with blue painter's tape and stick the pattern to the tape with spray adhesive. Cut the plywood backer; it should be only slightly larger than the pine you'll be cutting on the saw. Attach the backer to the pine with clear packaging tape; you'll remove it about halfway through the cutting process. Then drill all blade-entry holes; these will go around the perimeter of the flower and stem.



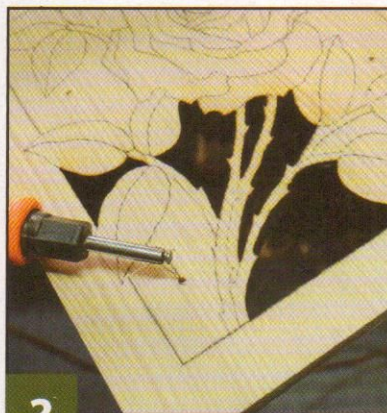
Add a dark wooden
frame for a haunting
wall hanging.

CUTTING THE PIECES



1

Make the outside cuts, starting with those around the stems. (I used a Pyrosegmentator, but you can use a regular scroll saw.) Only make cuts in the areas with blade-entry holes; we will deal with the more intricate parts, such as the flower petals, later.



2

Gently work through the rest of the blade-entry hole areas. You should now see the outlines of the stem, rose, and individual leaves. Make sure to maintain especially straight lines in the inner rectangle, as this will frame the finished piece. Separate the pine from the backer.



3

Separate the rose scene from its frame. Only cut along the lines that connect the leaves and buds to the rectangle. Sand down the pine frame $\frac{1}{4}$ " (6mm), place it on top of the completed backer, and glue and clamp the pieces together.

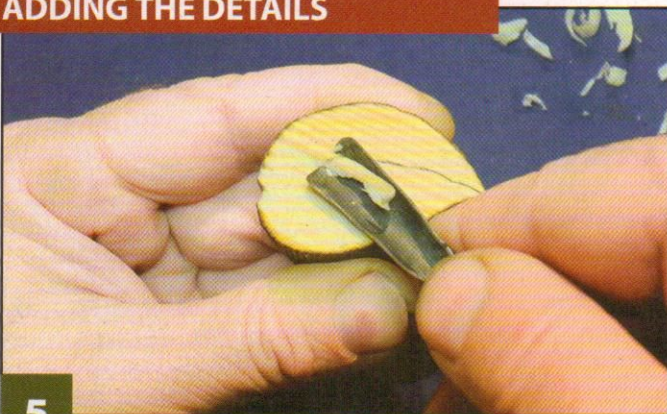


4

Carefully cut the remainder of the pieces. Only cut the outlines of the leaves; you'll detail them later.

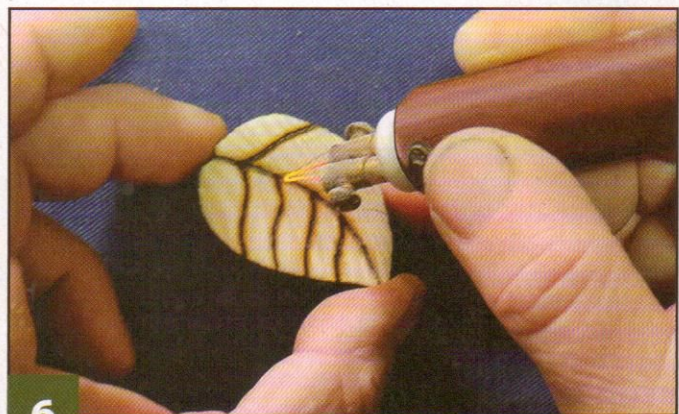


ADDING THE DETAILS



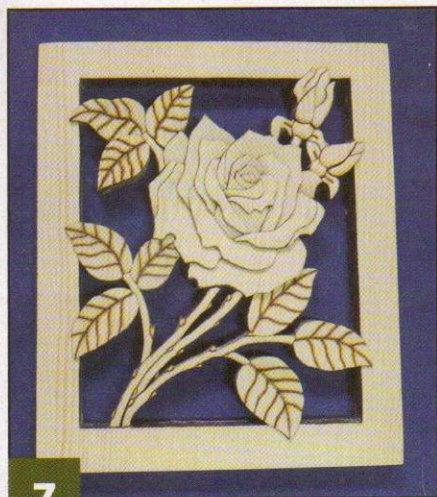
5

Add dimension to the leaves. Draw a curved line down the center of each leaf and create a small valley along the line. Use a $\frac{1}{2}$ " (13mm) #5 gouge.



6

Add the leaf details. Using a round writing nib in a woodburner, make a vein running down the center of each leaf. Then add four or five lines branching out from the central vein on both sides. Draw lines along the center of each bud leaf and separating each thorn from the stem; use the same tool.



7

Shape the petals. This will create subtle differences in orientation and height. Use a flex drum sander. Round each piece so that once assembled, the rose appears to be opening. Soften the edges slightly and round the stems and buds. Dry-assemble the scene to ensure proper fit, but do not glue it together yet. Make final tweaks to the pieces.



Assembling and Finishing

Add color to the pieces as desired. The advantage of a light wood like pine is that many color tones will work for this project—your rose could be red, blue, yellow, purple, or any other color you choose. (I used alcohol-based stains.) Once the pieces are dry, gently sand along the edges to create a faded, antique look. Glue the pieces to the backer and finish with clear satin varnish.



Materials

- Pine, $\frac{3}{4}$ " (1.9cm) thick: 8" x 9 $\frac{1}{2}$ " (20.3cm x 24.1cm)
- Plywood or similar, $\frac{1}{4}$ " (6mm) thick: backing, 8" x 9 $\frac{1}{2}$ " (20.3cm x 24.1cm)
- Sandpaper: 180-, 220-grit
- Tape: blue painter's, clear packaging
- Spray adhesive
- Wood glue
- Assorted alcohol stains, such as light oak, dark oak, mahogany, and teak
- Varnish: clear satin
- Graphite transfer paper (optional)

Tools

- Scroll saw blades: #2, #7 reverse-tooth
- Drill with bit: small
- Sander: flex drum
- Clamps
- Paintbrushes
- #5 gouge: $\frac{1}{2}$ " (13mm)
- Woodburner with nib: round writing

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

Pattern for the
TIMELESS RED ROSE is in
the pullout section.



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

The Pyrosegmentator

The Pyrosegmentator is Anatoly's tool of choice for intricate intarsia and segmentation projects. Comprised of a portable power source and wand containing a (0.3-0.4mm)-thick metal wire, this unique machine allows him to make clean, decisive cuts in wood up to 1 $\frac{1}{2}$ " (3.8cm) thick. But what's the process?

- Drill blade-entry holes, as one would with a regular fretwork project.
- Pass the wire part of the first wand through the hole and attach the other end to a second wand.
- Turn the heat on. This will allow the wire to cut through wood with the precision of a scroll saw or laser (see photos 1, 2, and 4).
- Make the cuts, manipulating the wire with the wands at each end.

Slightly larger than an average woodburner, the Pyrosegmentator comes equipped with a transformer to lower voltage and boasts a simple, straightforward design. The pyrosegmentator is not currently sold by U.S. retailers. For pricing and details on how to order your own, contact Anatoly Obelets at obelets1960@gmail.com.



The cutting wire is connected to the ends of the two wands.

Natural Wonders

The nocturnal woods come to life in this rustic scene

By Alison Tanner

Cut by Rolf Beuttenmuller

This woodsy fretwork reminds me that some wonders—small and simple as they appear—are closer than we think, perhaps right in our own backyards. (As the writer G. K. Chesterton once mused, “we are perishing for lack of wonder, not for lack of wonders.”) This fall, consider spending more quality time outside. The woods offer a renewal—and artistic inspiration—you won’t find elsewhere.

Cutting and Finishing

Choose a kind of wood; because this project contains many thin bridges, I used $\frac{1}{8}$ " (3mm) Baltic birch plywood. Sand the pattern stock with 180-grit sandpaper, working up progressively through the grits until you reach 320. I stack-cut two blanks to save

time. Cover the blanks with removable shelf paper and attach the patterns with spray adhesive.

Drill blade-entry holes for the fretwork and slowly make the interior cuts; I used a #2/0 reverse-tooth blade. If desired, add more blanks or colored craft paper to the stack, so you’ll have backer options. Then make the exterior cuts; I used a premium blade, such as the Pégas© #1 MGT blade. Separate the stack and hand-sand to remove any fuzzies. Finish as desired; I used a medium stain, coated with satin spray lacquer, and added a D-ring hanger to the back.

Pattern for the **NATURAL WONDERS FRETWORK** is in the pullout section.

Materials & Tools

Materials

- Baltic birch plywood, $\frac{1}{8}$ " (3mm) thick: 8" x 10" (20.3cm x 25.4cm)
- Sandpaper: 180- to 320-grit
- Clear shelf paper, such as Con-Tact removable adhesive creative covering
- Spray adhesive
- Tape: blue painter’s
- Stain, such as Minwax colonial maple
- Finish, such as Minwax satin spray lacquer

- Colored craft paper: sized for pattern (optional)
- Hanger: D-ring (optional)

Tools

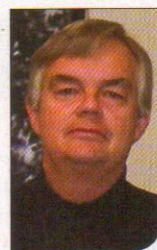
- Scroll saw blades: #2/0 reverse-tooth, #1 MGT
- Drill with bits: assorted small

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



Alison Tanner began cutting paper at the age of 8, inspired by a visit to the home of fairy-tale writer Hans Christian Andersen in Denmark. She is the owner/creator of Papercuttings by Alison, which carries a large variety of patterns and supplies for the scissorist. For more of her work, visit papercuttingsbyalison.com.

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





A complementary craft paper backing brings out the details in this forest scene.

Fretwork Guitar And Violin

These stringed beauties are sure to strike a chord with the music lovers in your life

*By Sue Mey
Cut by Joe Pascucci*

These guitar and violin projects are enchanting on many levels—they're elegant, relatively easy to cut (with a little patience), and adaptable to a variety of color tones. Pensive concert types might prefer walnut with a natural finish, whereas grade school music instructors might lighten things up with lime green polka dots. As Joan Jett said, "My guitar...is an extension of myself. It is who I am." Make it yours!

Cutting and Finishing

Stack together the backing board and overlay pieces; I chose contrasting woods, such as maple and walnut, to make the frets stand

out. Wrap clear packaging tape around the edges of the stack; otherwise, you'll skew the cuts. Cover the top layer with blue painter's tape and attach the pattern with spray adhesive. Cut around the perimeter and set the backing board aside. Drill blade-entry holes in the top layer and cut the frets.

Remove the tape and pattern. Gently sand the pieces smooth with 180-grit sandpaper, working up progressively through the grits until you reach 320. Attach the overlay to its contrasting backer with wood glue, and finish as desired. I added several coats of semigloss spray lacquer. Once the assembly is dry, add a hanger to the back.

Materials & Tools

Materials

- Dark wood, $\frac{3}{8}$ " (1cm) thick: guitar backing board, $5\frac{3}{8}$ " x $13\frac{3}{8}$ " (13.7cm x 34cm)
- Light wood, $\frac{1}{4}$ " (6mm) thick: guitar overlay, $5\frac{3}{8}$ " x $13\frac{3}{8}$ " (13.7cm x 34cm)
- Dark wood, $\frac{1}{4}$ " (6mm) thick: violin overlay, 4 " x $10\frac{3}{4}$ " (10.2cm x 27.3cm)
- Light wood, $\frac{3}{8}$ " (1cm) thick: violin backing board, 4 " x $10\frac{3}{4}$ " (10.2cm x 27.3cm)
- Sandpaper: 180-, 220-, 320-grit
- Tape: blue painter's, clear packaging
- Spray adhesive

- Wood glue
- Finish: semi-gloss spray lacquer or Danish oil
- Hanger

Tools

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

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

Patterns for the **FRETWORK INSTRUMENTS** are in the pullout section.



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



Trick-or-Treater Silhouettes



These costumed kiddos are sweeter than Halloween candy

*By Gloria Cosgrove
Cut by Dennis Knappen*

It's late on Halloween night, and costumed kids count their loot after a productive haul, bartering over Twizzlers and Reese's Cups. A pile of Tootsie Rolls sits forgotten in the corner, condemned to pass from hand to hand forever, wandering the earth in search of a glory that will never come. Sorry, Tootsie Rolls. The good news is that this project, unlike some sweets, will never grow stale; you can set these cuties out year after year.

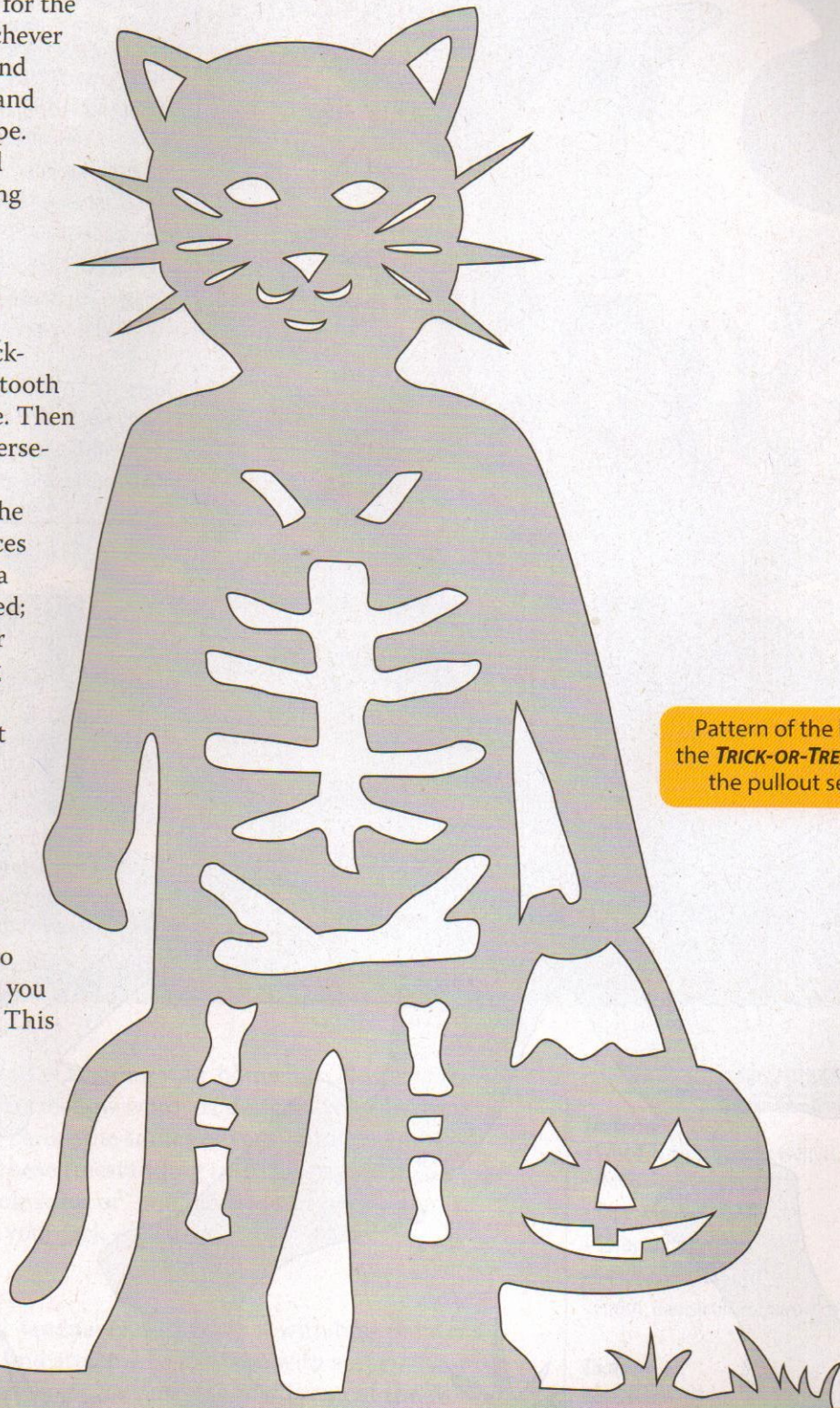
Trick-or-Treater Cat Pattern

Cutting and Finishing

Select a wood. I chose wenge for the trick-or-treaters and maple for the bases, but you can use whichever wood variety you prefer. Sand it with 240-grit sandpaper and cover with blue painter's tape. Photocopy the patterns and attach them to the tape using spray adhesive.

Drill the blade-entry holes for the frets. Make all interior cuts first, and then cut the perimeter of the trick-or-treater. Use a #1 reverse-tooth blade. Set the uprights aside. Then cut the bases using a #5 reverse-tooth blade.

Round the top edge of the base and sand all of the pieces with 240-grit sandpaper in a mop sander. Finish as desired; I applied three coats of clear satin polyurethane, sanding gently between coats with 320-grit sandpaper so as not to snap the delicate pieces. If you used plywood, paint the pieces with full-strength acrylics to make them stand out. Once all the elements are dry, attach the trick-or-treaters to their bases. If the fit is snug, you can refrain from using glue. This way, you can take apart the pieces for easy storage.



Pattern of the base for the **TRICK-OR-TREATERS** is in the pullout section.

Trick-or-Treater Witch Pattern

Materials & Tools

Materials

- Wood, such as plywood or wenge, $\frac{1}{4}$ " (6mm) thick: skeleton, $6\frac{1}{2}$ " x 9" (16.5cm x 22.9cm); witch, $8\frac{1}{4}$ " x $10\frac{1}{2}$ " (21cm x 27.7cm)
- Maple, $\frac{1}{2}$ " (1.3cm) thick: base, 3" x 10" (7.6cm x 25.4cm)
- Tape: blue painter's
- Spray adhesive
- Sandpaper: 240-, 320-grits
- Acrylic paint: black (optional)
- Finish: clear satin polyurethane
- Wood glue (optional)

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

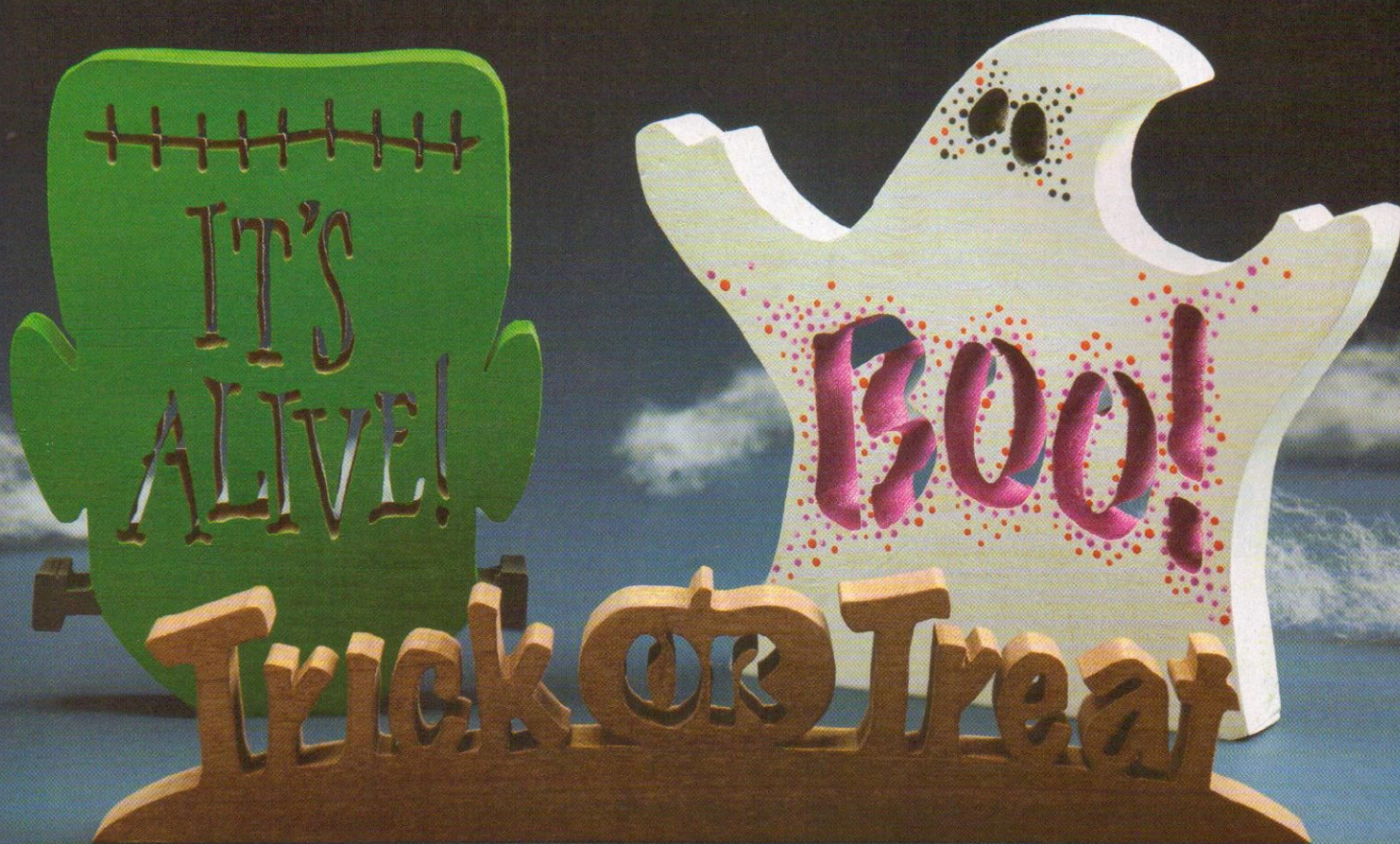
Tools

- Scroll saw blades: #1, #5 ultra reverse-tooth
- Drill with bits: micro
- Mop sander: 240-grit



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

Halloween Word Art



Terrify all your ghoul-friends with these freestanding expressions

By Kaylee Schofield

Design by Jon Deck

Cut by Jon Deck, Danielle Schagrin, and Kaylee Schofield

Have you always dreamed of turning your home into Nosferatu's lair? Now, with these fresh, new word art designs, you can. No need to send us a thank-you card—the smiles of your family members and friends when they spot these freestanding frills are payment enough. Now go make a whole mess of “boo” ghosts and trick them out as desired—the world is your jack-o'-lantern.

Cutting and Finishing

Sand the blank with 220-grit sandpaper, and cover it with blue painter's tape. Photocopy the pattern and attach it to the tape with spray adhesive. Drill the blade-entry holes for the frets, and then cut the word art. Gently sand again to remove all sharp edges and fuzzies. Finish as desired; for attractive hardwood, we used Danish oil, and for bland wood, we used Unicorn SPiT™ in various colors. (For our review of Unicorn SPiT, turn to page 16.)

Materials & Tools

Materials

- Wood, such as pine or walnut, $\frac{3}{4}$ " (1.9cm) thick: sized for pattern
- Tape: blue painter's
- Spray adhesive
- Sandpaper: 220-grit
- Finish: Danish oil or Unicorn SPiT™

Tools

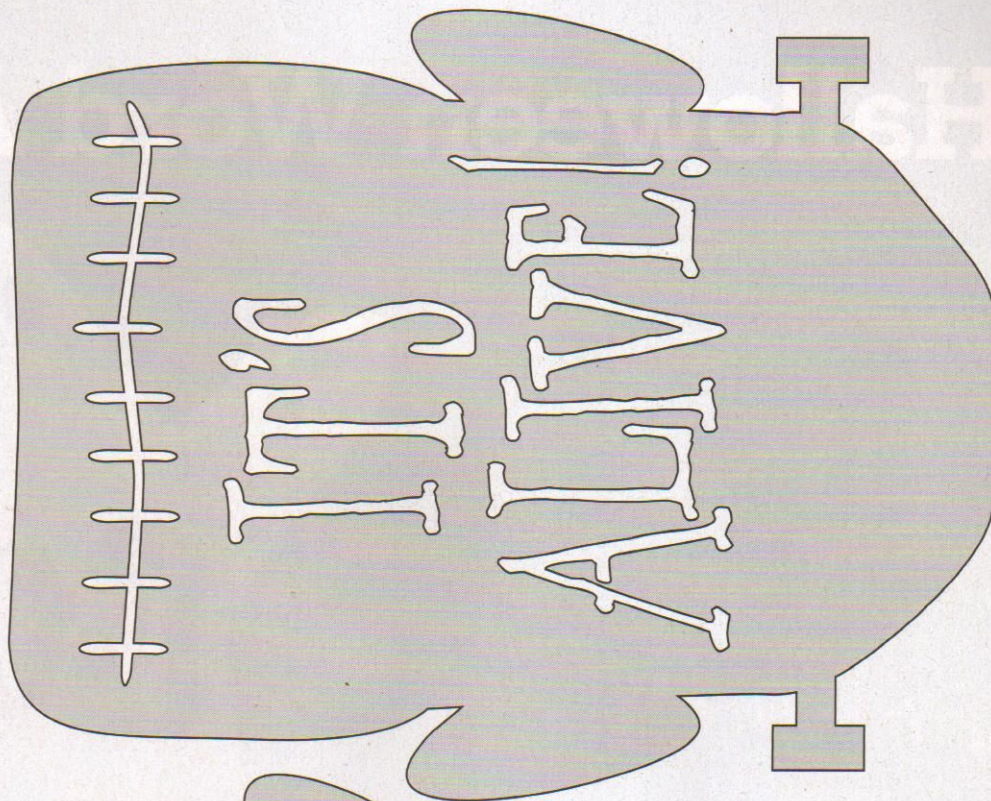
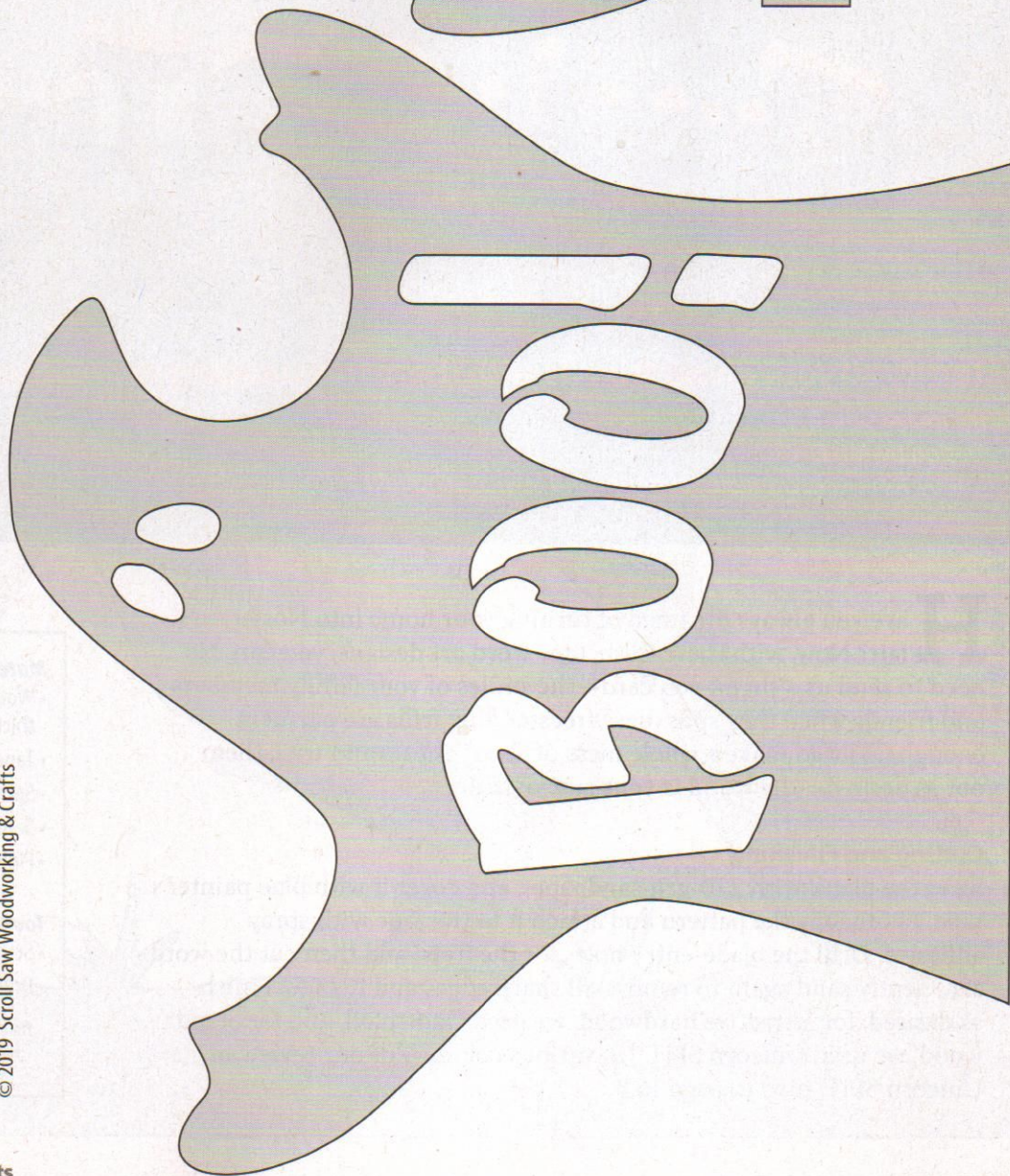
- Scroll saw blades: #1, #5 reverse-tooth
- Drill with bits: assorted

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

Halloween
Word Art
Patterns

Trick or Treat

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A wooden watermill puzzle is the central focus, resting on a dark wooden surface. The puzzle depicts a rustic wooden watermill with a large wheel, situated in a lush forest with vibrant autumn foliage in shades of yellow, orange, and red. A wooden fence runs across the foreground. To the right of the puzzle, several red puzzle pieces are scattered. In the bottom right corner, a white bowl is filled with a mix of colorful M&M's candies and pretzels. A few more candies and a pretzel are scattered on the table near the bowl. In the top left corner, a black circular object, possibly a lid or a part of a tool, is partially visible.

Making a Flat Puzzle From Scratch

Turn a favorite photo into a clever brain game for under \$5!

By Judy and Dave Peterson

Over the last few years, I have taught myself to cut “picture” or “flat” puzzles, usually with photos I’ve taken during my travels. I started with the classic puzzle piece shape and later experimented with more advanced designs, like figural pieces and triangles with trick edges. The resulting project presents an extra challenge to puzzle lovers and offers endless opportunities for personalization—it also makes for a high-value, low-cost gift.

Getting Started

Choose your photograph or printed picture. Any print will work if you’re not going to sell your puzzles. If you do plan to sell them, use your own photographs or investigate copyrights to avoid legal issues. We print our photographs on an HP Envy Photo 7155 printer, but any standard computer printer will do.

Load the paper; I prefer photo paper (any heavier paper cuts better), although I have cut prints on plain paper in a pinch. I use a #1 or #3 premium reverse-tooth blade, such as Flying Dutchman ultra reverse, for most flat puzzle projects; the smaller blade size allows for more accuracy with fine cuts. When cutting, slow your saw down to a comfortable speed for the thickness of wood you plan to use.



To cut the perimeter of the photo, enter through the surrounding scrap wood.

Preparing the Blank

Cut your blank about $\frac{1}{2}$ " (1.3cm) wider than the picture on every side. This allows for mistakes in placement. Spray both the front of the board and the back of the picture liberally with spray adhesive. Center the picture on the board, cover with waxed paper, and roll it down flat. Use a rolling pin or a brayer if you have one. **MAKE SURE** that the photo adheres fully to the plywood; otherwise, sawdust may enter the non-sticky areas and make for an imperfect surface.

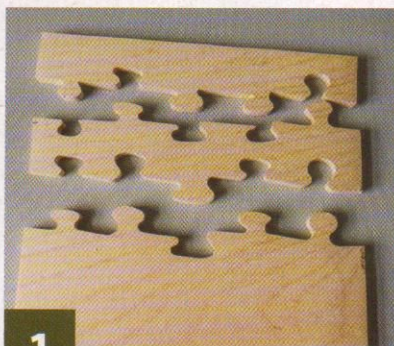
Remove the wax paper. Cut your picture free, staying just inside the line so as to slice off any overspray. Remove it from the surrounding scrap wood, which you will later discard. *Note: If you get glue on the face of a photograph, an adhesive remover, such as Goo Gone®, will take it off without damaging the photo paper.*

Flip the scrap frame over onto a piece of cardboard. Use the frame to place the pieces in as you cut them free. Plan to put the pieces in place after cutting five or six. You will also use it to hold the pieces in place as you sand the back of your finished puzzle.

Cutting the Pieces

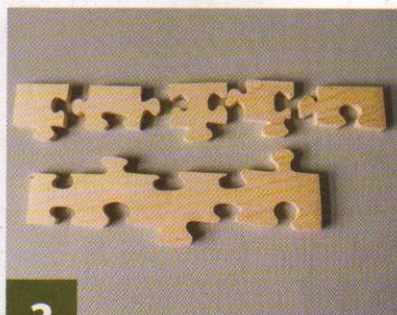
Cut the puzzle with the photo side up (*Note: the step-by-step directions at right are shown with blank wood just so you can see the shape of the cuts better.*) This way you can use shapes in the photo to guide your saw (see "Making a Signature Puzzle," page 54). Alternatively, you can cut random shapes as you go, using one of the following approaches:

STRIP CUTTING



1

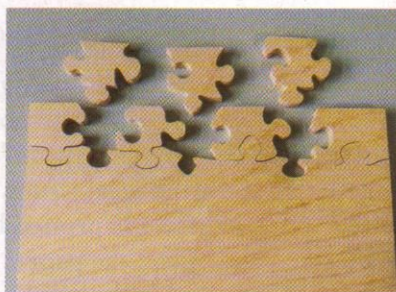
The easiest way to start is to cut a "keyed" strip. Decide how big you want the pieces to be. For instance, a good size to start with is 1" (2.5cm) wide. Start about 1" (2.5cm) down from the edge of your puzzle blank. Cut in, and then circle around to cut the key. Continue cutting them at about 1" (2.5cm) apart. Be sure you've left enough space between the keys to cut the interlocking ones. Vary the direction of the keys. When you reach the end of the strip, separate it from the blank.



2

Cut the strip into pieces. Make sure to include interlocking keys to hold the pieces together.

CUTTING INDIVIDUAL PIECES



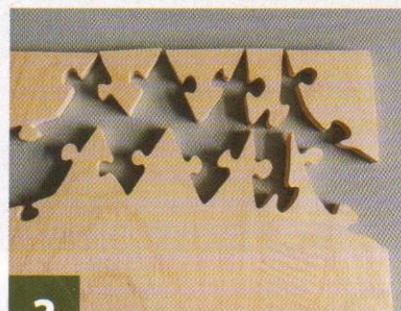
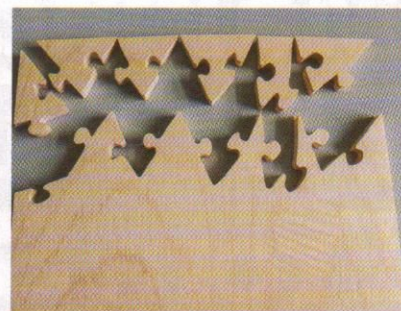
Cutting pieces one by one is a little more challenging. But it's a good option if, like me, you tire of easy strip cutting. Cut alternate pieces across one edge of your puzzle blank, then go back and cut the in-between pieces.

SPLIT CORNERS/TRICK EDGES



1

Daring scrollers may choose to incorporate more difficult shapes into their puzzles. This style of cutting can be a little more individualized. You can vary the shapes, sizes, and placement of the keys more easily than with strip cutting. Place your blade just barely to one side of the puzzle corner, and cut in at a 45° angle. Cut the key, continue in, turn the corner to cut the second key, and continue out. Cut the other half of the corner.



2

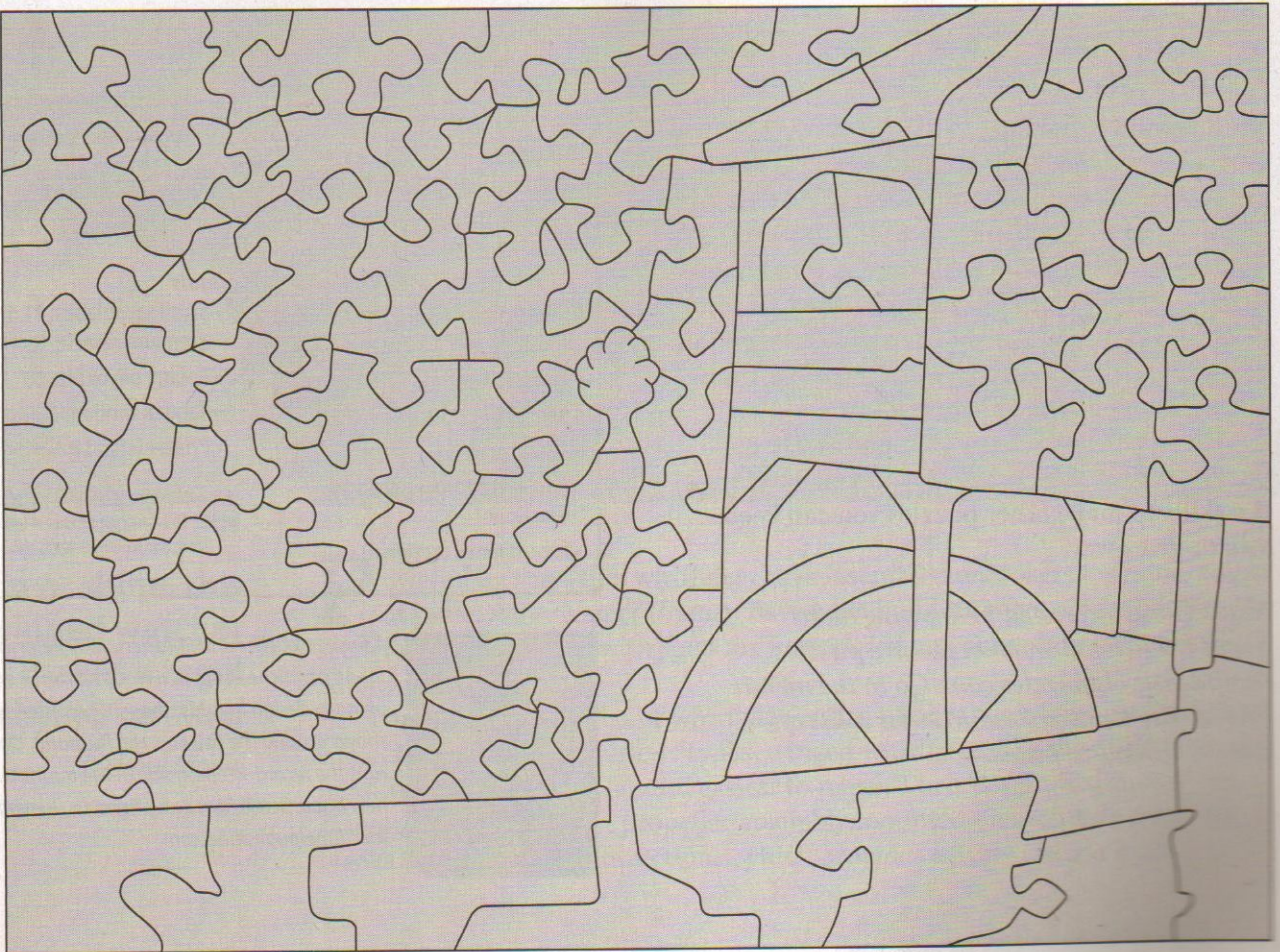
Cut a series of triangles with keys along the edge of your puzzle blank. The result is that no two edge pieces connect to each other. Cut the bases of the remaining pieces so they resemble triangles.

To practice making differently shaped pieces, affix the photo at right to a piece of plywood. Cover the photo with a second piece of plywood and secure the stack with clear packaging tape. Use spray adhesive to attach the pattern at right to the top of the stack. This method will protect your photo while you cut.



Photo by Judy Peterson

Old Mill Photo and Pattern *(Instructions on opposite page, lower right)*

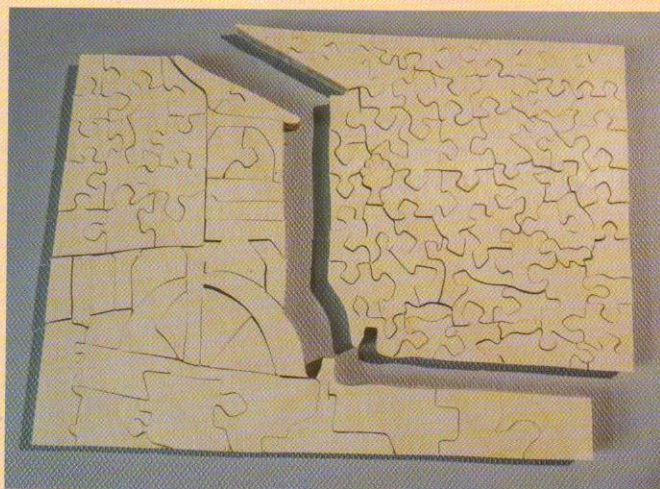


Making a Signature Puzzle

Step 1: Plan the techniques you will use on your own puzzle. I cut the main project using two different techniques—the old mill section was cut in places along the structure's architectural lines, and the river, wall, and trees were cut in a typical interlocking style.

Step 2: Add the final details to your pattern and cut the puzzle. It has become traditional for each puzzle-cutter to choose a whimsy or figural as a signature piece. My piece is the tree, which you will find in the woods beyond the stream. There is also a bird in the tree, a squirrel on the ground, and two fish in the river. I chose whimsies appropriate to the scene and placed them carefully. Draw your figurals on the sticky bits of Post-It notes. Then you can place them where you want them on the picture, cut them out, and remove the Post-It note.

The back of the puzzle shows how pieces are cut in both architectural shapes and in traditional shapes.



Whimsy pieces (squirrel, bird, tree, and fish) are integrated into the design. Find them in the pattern on page 53.

Sanding and Finishing

Once you're done cutting, flip the puzzle over onto a second piece of scrap wood or cardboard. Gently sand the back and sides with 150-grit sandpaper in a random orbit sander, removing all fuzzies. I left my mill puzzle unfinished, as spray lacquer and similar finishes can cause the photo paper to curl and warp. Discard the scrap frame or save it for ease of transport.

Clearly, there is no single right way to cut a puzzle. With a little practice, you will develop the skills to make other puzzles you can keep, sell, or give away.

Note: Those interested in knowing more about traditional wooden picture puzzles should visit oldpuzzles.com. Go to the menu and choose Related Resources for a list of puzzle-related websites.

Materials & Tools

Materials

- Baltic birch plywood, 1/4" (6mm) thick: 6" x 8" (15.2cm x 20.3cm)
- Scrap wood or cardboard: 2 each 6" x 8" (15.2cm x 20.3cm)
- Photo paper, such as matte or satin finish: 5" x 7" (12.7cm x 17.8cm)
- Waxed paper
- Sandpaper: 150-grit
- Spray adhesive
- Adhesive remover, such as Goo Gone®
- Post-It notes (optional)

- Tape: clear packaging (optional)

Tools

- Scroll saw blades: #1 or #3 premium reverse-tooth blades
- Rolling pin or brayer
- Sander: random orbital
- Printer (standard color)

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



A former teacher and librarian, Judy Peterson found her niche in life as a woodworker. A winner of many design awards, she sells her puzzles at art shows around the country. Her husband, Dave, runs the record-keeping side of the business. Their new book, *Scroll Saw Baby Animals*, is available at foxchapelpublishing.com.

Bald Eagle Whirligig



Rain or shine, this winged watcher makes a regal backyard sentinel

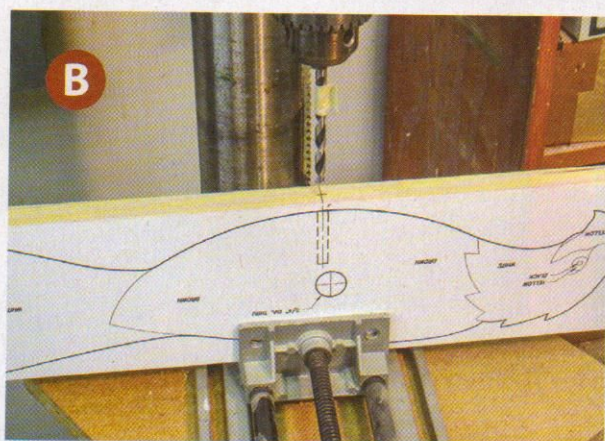
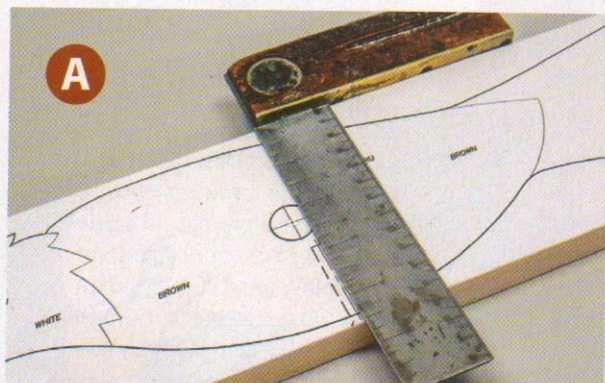
By Paul Meisel

Powered by the wind, whirligigs have fascinated onlookers for hundreds of years. American craftsmen have been building them since the first settlers arrived. Today, whirligigs are considered an enchanting facet of American folk art.

There are many styles of whirligigs with a wide range of complexity and subject matter. Of the various types, winged whirligigs, like the eagle featured here, are the most popular and easiest to make. Their design is simple—essentially a body with a propeller assembly mounted on each side. The twin blades spin in opposite directions, which provides a lively visual display.

Getting Started

Photocopy the patterns and attach them to the pine and plywood using temporary-bond spray adhesive. A) Attach the pattern so that the centerline of the $\frac{1}{4}$ " (6mm) hole will be perpendicular to the bottom edge of your wood. B) Position the wood with the centerline of the $\frac{1}{4}$ " (6mm) hole parallel with the drill bit. Wrap a piece of masking tape around the bit to mark the $1\frac{1}{2}$ " (38mm) hole depth. Drill the $\frac{1}{4}$ " (6mm) hole, remove the wood from the drill press vise and drill the $\frac{3}{4}$ " (1.9cm) hole.



CUTTING & ASSEMBLING

- 1 Cut the eagle's wings and body.** The wings are designed so that, with careful positioning, all four can be cut from one square foot of plywood. *Note: stack-cutting the wings in pairs (see below) saves time and will insure the wings will be identical in size. This is important for balance.*
- 2 Make the wing hubs.** (Follow this instruction if you are not ordering precut hubs.) Secure the hub blanks in the table saw jig (page 58) with wood shims, and cut diagonal slots $\frac{7}{8}$ " (2.2cm) deep and $\frac{1}{8}$ " (3mm) wide in each end on the table saw. Use a carbide tipped blade. *Note: Make sure the angles are opposite to each other. Drill a $\frac{1}{4}$ " (6mm)-dia. hole in the center of each hub.*
- 3 Prepare the dowel.** This will be an attachment point for the wing assemblies. Drill a $\frac{7}{64}$ " (2.8mm)-dia. by $1\frac{1}{8}$ " (2.9cm)-deep hole into the center of each end. To be sure the holes are correct, I use a drill press vise or a "V-block" to hold the dowel perpendicular on my drill press table.
- 4 Prepare the mounting stake.** Drill a $\frac{5}{16}$ " (8mm)-dia. by $1\frac{1}{2}$ " (3.8cm)-deep hole on one end. Point one end of the stake by sawing 30° angles on all four sides. Use a scroll saw or a band saw.
- 5 Insert the $\frac{3}{4}$ " (1.9cm) dowel into the drilled hole in the eagle's side.** Use water-resistant wood glue. Then glue the fiberglass rod into the bottom of the body.
- 6 Slip the wings into the slots in the hubs.** Glue them in place. For additional stability, pin the blades in place by driving wire brads through the hubs and into the wings. *Note: Take care as to which way you place the wings into the hub. Remember that the wings rotate in opposite directions. Make sure the feathered edge of each blade is positioned so they are angled to the outside (away from the body). Refer to the exploded assembly drawing.*
- 7 Slip a $\frac{1}{4}$ " (6mm) nylon-flanged bushing into both sides of each hub.** With #6 by 2" (5cm)-long round-head wood screws, temporarily attach one wing assembly to each end of the $\frac{3}{4}$ " (1.9cm) dowel.
- 8 Mount the completed whirligig on the stake.** Keep the mounting stake held vertically in a vise during this process. Spin one wing at a time and let it come to a stop; if the wing is out of balance, it will stop in the same place each time. Sand some material away from the heavy side until the wing is balanced.

Parts List

Part	Quantity	Materials	Dimensions	Presentation
Body	1	Pine, $\frac{3}{4}$ " (1.9cm) thick	$4\frac{1}{2}$ " x $17\frac{1}{8}$ " (11.4cm x 43.5cm)	Pattern
Wings	4	Baltic birch plywood, $\frac{1}{8}$ " (3mm) thick	$3\frac{1}{4}$ " x 10" (8.3cm x 25.4cm)	Pattern
Wing Hub	2	Pine, $\frac{3}{4}$ " (1.9cm) thick	$1\frac{1}{2}$ " x 3" (3.8cm x 7.6cm)	Pattern
Dowel	1	$\frac{3}{4}$ " (1.9cm)-dia.	4" (10.2cm) long	Pattern
Stake	1	Pine, 2" (5.1cm) square	6' (1.8m) long	Pattern/Dimensions
Nylon Bushing	4	$\frac{1}{4}$ " (6mm)-dia., flanged		Dimensions
Nylon Bushing	1	$\frac{5}{16}$ " (8mm)-dia., flanged		Dimensions
Fiberglas Rod	1	$\frac{1}{4}$ " (6mm)-dia.	3" (7.6cm) long	Dimensions
Screw	2	Round head, stainless steel	#6 x 2" (5cm)	Dimensions

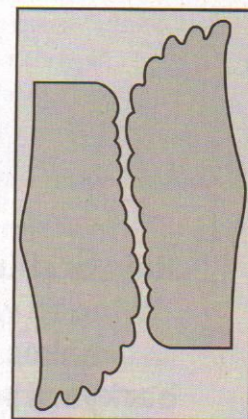


Diagram to cut wings in pairs on a 6" x 12" (5.1cm x 30.5cm) two-panel stack.

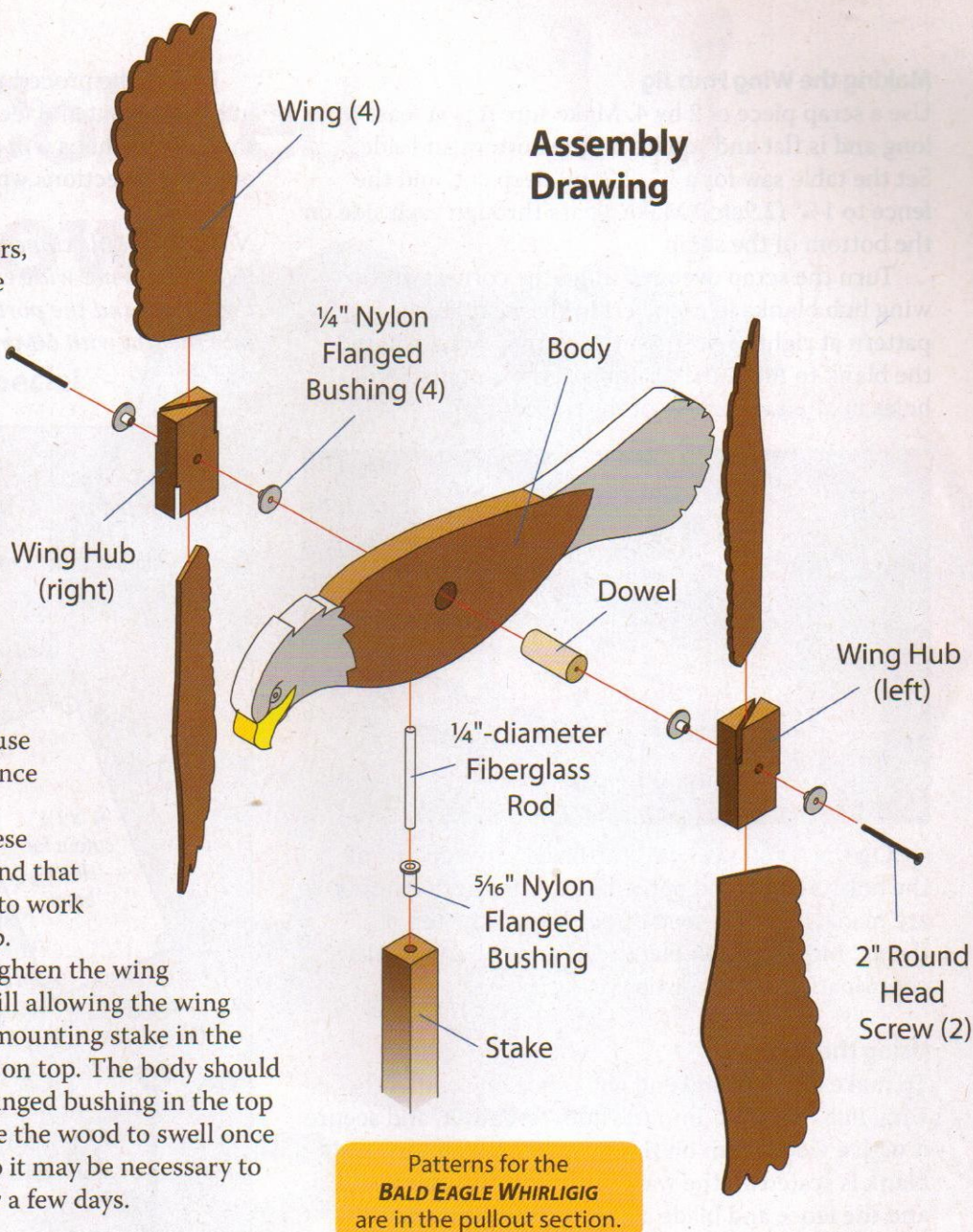
Painting and Finishing

Since whirligigs are used outdoors, it is essential that you choose the best primer and paint. I prefer acrylic latex primer and paints (as opposed to solvent-based paints) for a few big reasons.

Wood naturally absorbs moisture from its surroundings. Unlike oil-based paints, latex paint is permeable (breathable), which allows the moisture to vaporize and escape through the paint. Changes in temperature, especially freeze/thaw cycles, cause wood to expand and contract. Since latex paint is more flexible than oil paint, it better withstands these stresses. Additionally, you will find that water-based latex paint is easier to work with and much easier to clean up.

After painting the project, tighten the wing screws as far as possible while still allowing the wing blocks to spin freely. Install the mounting stake in the ground and mount the whirligig on top. The body should rotate freely in the $\frac{5}{16}$ " (8mm) flanged bushing in the top of the stake. Humidity may cause the wood to swell once the project is placed outdoors, so it may be necessary to back the screws out slightly after a few days.

Assembly Drawing



Materials & Tools

Materials

- Pine, 1" (2.5cm) thick: body, 6" x 18" (15.2cm x 45.7cm)
- Pine, 2" (5.1cm) thick: stake, 2" x 6" (5.1cm x 1.8m)
- Baltic birch plywood, $\frac{1}{8}$ " (3mm) thick: wings, 12" (30.5cm) square*
- Whirligig hardware package (#3309); includes all hardware except hubs (optional)*
- Hubs, two*
- Scrap of 2 x 4: jig, 6" (15.2cm) long (optional)
- Wood shims (optional)
- Sandpaper: 80-, 220-grit
- Wood glue
- Spray adhesive: temporary-bond

- Primer: acrylic latex
- Acrylic paints, such as black, brown, white, yellow
- Dowel, $\frac{3}{4}$ " (1.9cm)-dia.: 4" (10.2cm) long
- #6 stainless steel screws, 2 each: 2" (5cm)-long round-head
- Fiberglass rod, $\frac{1}{4}$ " (6mm)-dia.: 3" (7.6cm) long
- Bushing, nylon-flanged: 4 each $\frac{1}{4}$ " (6mm) square; 1 each $\frac{5}{16}$ " (8mm) thick: $\frac{3}{4}$ " (1.9cm) long
- Wire brads: $\frac{5}{8}$ " (1.6cm) long

Tools

- Scroll saw blades: #5 skip-tooth
- Band saw
- Table saw with carbide tipped blade (optional)

- Drill press with bits: $\frac{7}{64}$ " (2.8mm), $\frac{1}{4}$ " (6mm), $\frac{5}{16}$ " (8mm), $\frac{3}{4}$ " (19mm)-dia. (I use twist bits)
- Square
- Paintbrushes: assorted

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

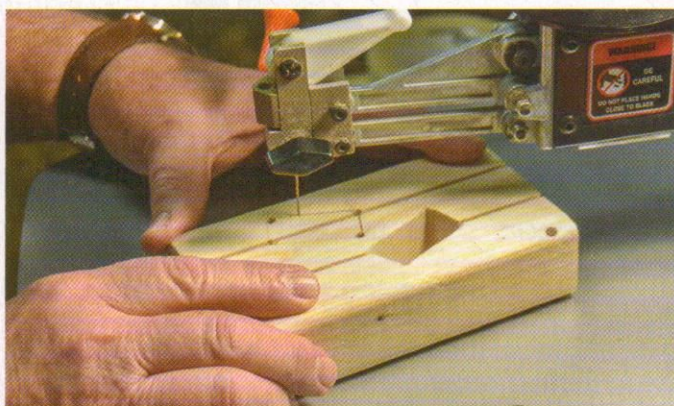
SPECIAL SOURCES

All of the products marked with an * are available from Meisel Hardware Specialties, 800-441-9870, meiselwoodhobby.com.

Making the Wing Hub Jig

Use a scrap piece of 2 by 4. Make sure it is at least 6" long and is flat and square on the bottom and sides. Set the table saw for a $\frac{7}{8}$ " (2.2cm) deep cut, and the fence to $1\frac{1}{8}$ " (2.9cm). Make a pass through each side on the bottom of the scrap.

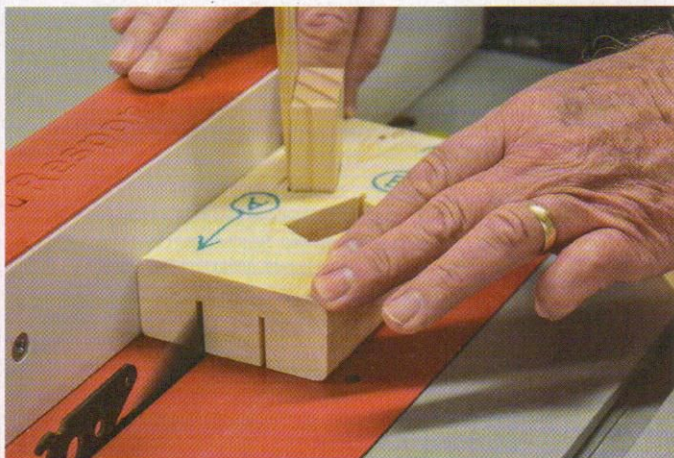
Turn the scrap over and align the corners of the wing hub blanks to each kerf in the scrap, using the pattern at right to position the blanks. Trace around the blank to mark the position of the cutouts. Drill holes in all four corners of the traced lines.



On the scroll saw, feed the blade through one of the holes and cut along the lines. After both cutouts are made, mark the feed directions on the top of the jig. Mark the hub blanks "A" and "B" and use the coordinating cutouts when using the jig.

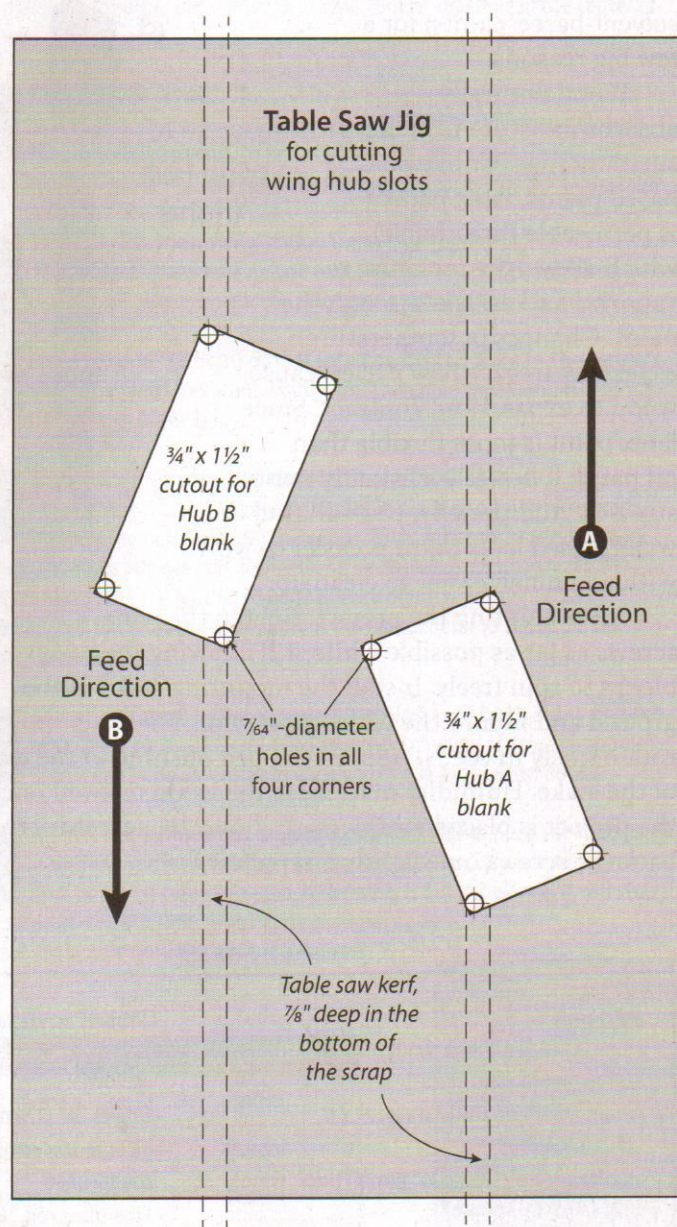
Using the Jig

To make the diagonal end cuts, slide one end of the wing hub blank "A" into the hub "A" cutout, and secure it with a wood shim on the long side. Make sure the blank is seated all the way to the table saw surface and the fence and blade are in the same position as the original kerf cuts. Run the jig and blank through the blade in the "A" feed direction. Remove the hub "A" blank, flip it over and repeat the procedure for the other end.



Repeat the procedure for hub blank "B", using the hub "B" cutout and feed direction. When cut correctly, the finished hubs will allow the wing sets to rotate in opposite directions when driven by the wind.

Note: A carbide tipped blade usually cuts a $\frac{1}{8}$ " kerf, but if the kerf is not wide enough to accept the thickness of the wing, sand the portion of the wing where it inserts into the slot with 60-grit sandpaper until it fits.



Paul Meisel and his team at Meisel Hardware Specialties have designed over 3,500 projects and plans for the home hobbyist woodworker. Dozens of projects from Paul's collection have appeared in *Scroll Saw Woodworking & Crafts* magazine.

Multi-Colored Yarn Bowl

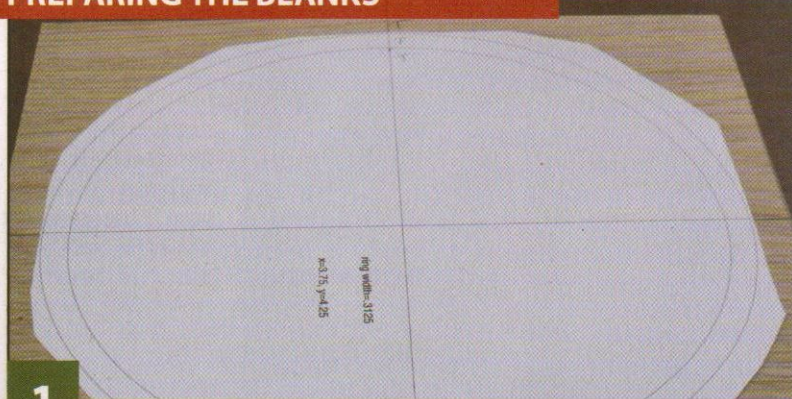
This beautiful vessel can be rendered plain or with special cuts for knitters

By Carole Rothman

Yarn bowls need considerable weight to remain stable when the yarn is pulled through an opening cut in the side of the bowl. Several years ago I created a version that incorporated a separate, weighted base into the bottom of the bowl. This new version integrates the weighted piece into the bowl design, undetectable until you lift the project. I also used two blanks for the rings, alternating them to create stripes. In addition to adding interest, this allows you to drill all blade entry holes into waste areas, leaving no unsightly drill marks to sand away. I've included instructions for two variations: a standard oval bowl with alternating stripes and a weighted yarn bowl cut from a single blank (see page 65).

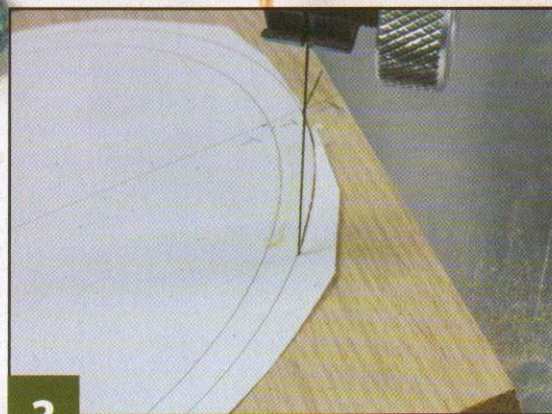


PREPARING THE BLANKS



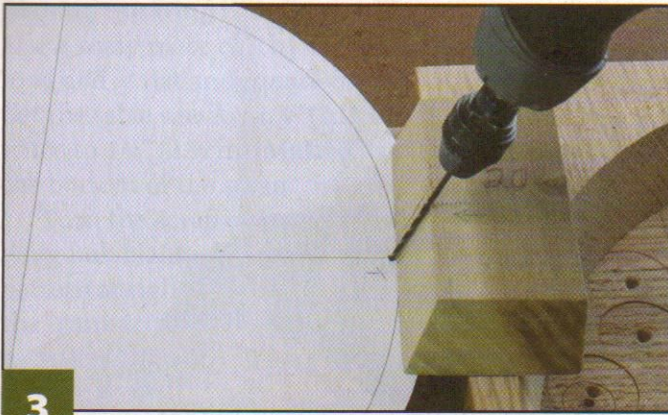
1

Prepare the blanks. Draw intersecting registration lines on your selections of light and dark wood. I chose oak and walnut. Mark one edge of each piece as the "top" to help maintain grain orientation when rings are glued together. Attach the bowl pattern to the oak blank with repositionable adhesive, aligning the registration lines.



2

Tilt the left side of the saw table down to 20°. Use a #7 blade to cut around the circumference in a clockwise direction.



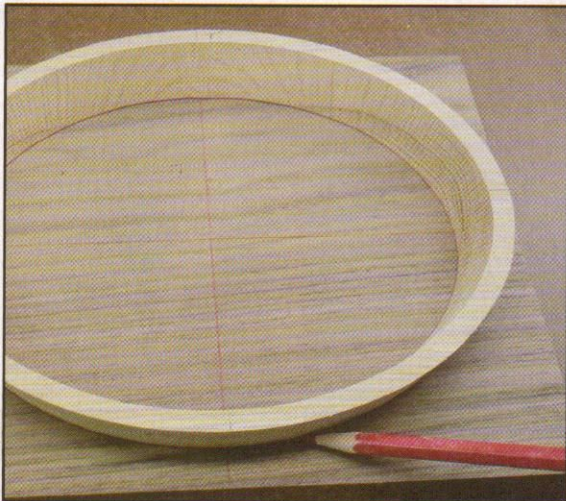
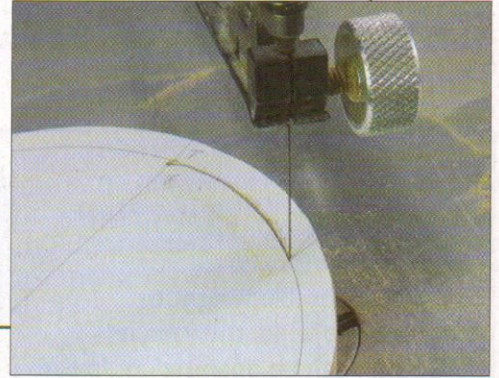
3

Mark the drilling point where indicated on the pattern. Use an awl. Position a shop-made 20° guide facing the center of the blank and use the guide to drill a blade-entry hole. Insert the saw blade, and cut around the line in a clockwise direction to complete the first ring. Remove the pattern from the ring and blank and transfer the top mark to both. Sand off any fuzzies from the lower edges of the ring.

TIP

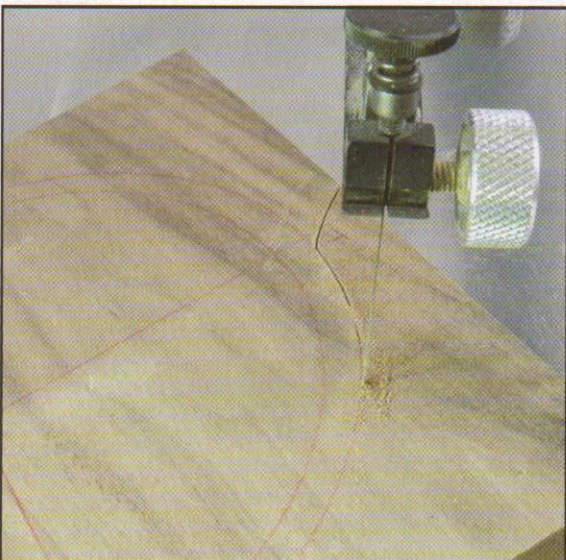
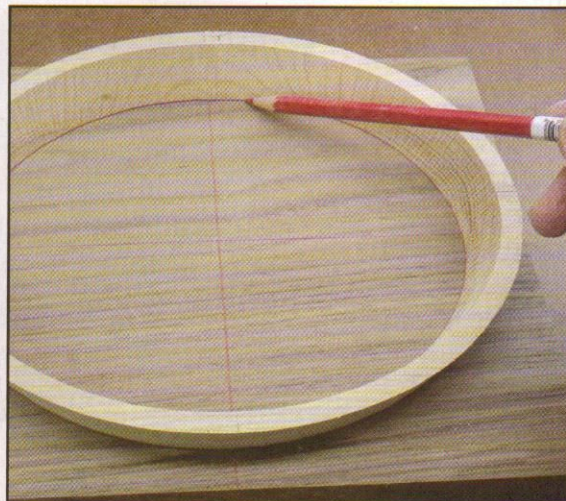
USING ALTERNATING BLANKS

When making a bowl with two alternating blanks, drill the blade-entry hole about 1/16" (2mm) away from the inside edge of the cutting line. Insert the blade, cut directly to the cutting line, and complete the cut in the usual way. This places the drill mark at the edge of the remainder of the blank where it will be removed when the next ring is cut from that blank.



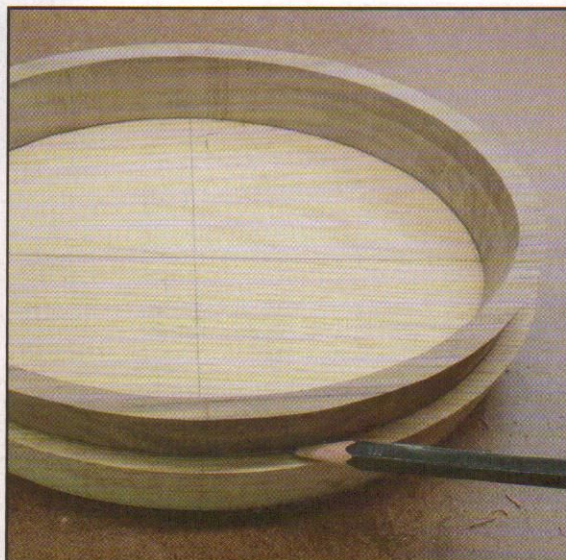
4

Place the oak ring on the walnut blank. Carefully align the registration marks. Using a sharp pencil, trace the inner and outer edges of the ring to form cutting lines on the walnut blank for the second ring.

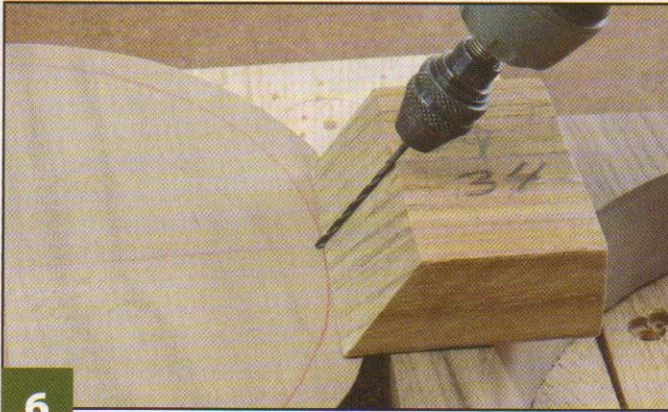


5

Cut the outer line as in Step 2. Drill and complete the ring as in Step 3. Mark the top of the ring and remainder of the blank. Place the walnut ring on the oak blank and follow the same procedure to draw and cut the third ring.

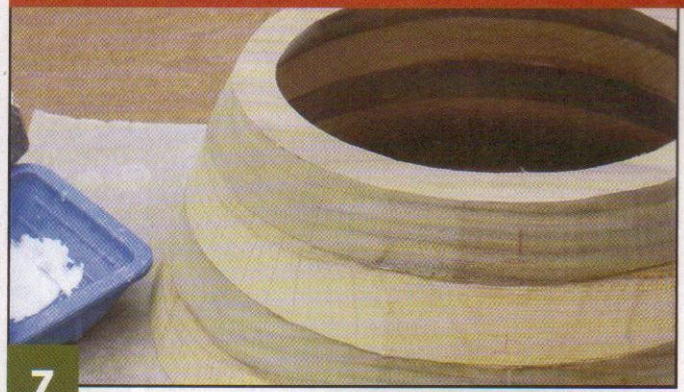


ASSEMBLING AND SHAPING



6

Place the third ring on the walnut blank. Draw the cutting lines as in Step 4. Tilt the left side of the saw table down to 25°. Cut the outer line in a clockwise direction. Mark a drilling point for the inner line and drill a blade-entry hole at a 34° angle. Tilt the left side of the saw table down to 34°. Insert the blade and cut clockwise along the line to complete the fourth ring. Mark the top of the ring. The difference in cutting angles will create a wider gluing surface for the bottom ring. *Note: The remainder of the walnut blank is not used for this project.*



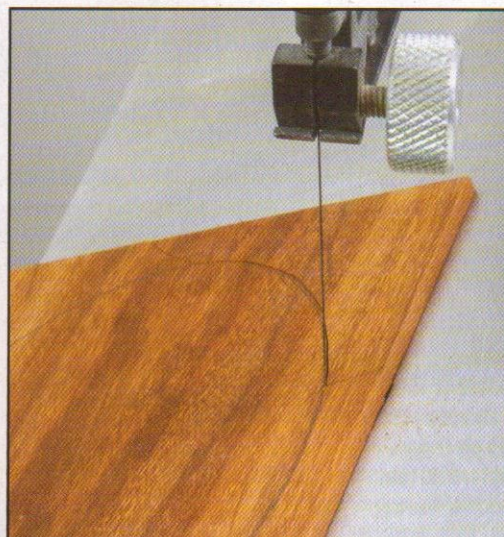
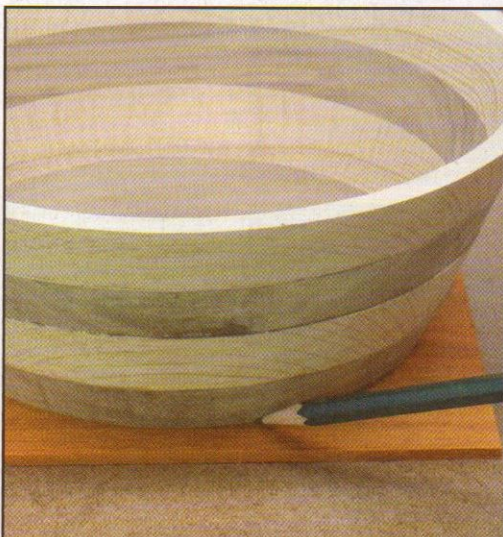
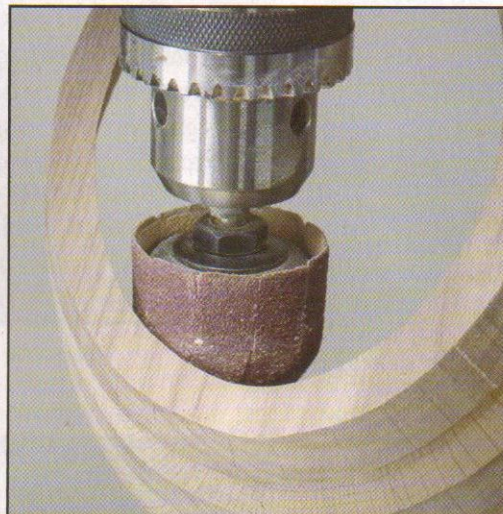
7

Stack the four rings. Check for gaps and correct any using a sanding tile made from a sheet of 150-grit sandpaper attached with repositionable adhesive to a 12" (30.5cm) square flat tile. Sand away fuzzies from the edges of the gluing surfaces, and pencil marks from the lower edges of the rings. Transfer the "top" marks to the sides of the rings. Do not remove the registration or top marks from the upper surface of the top ring. Glue the rings together, clamp in a press, and let the assembly dry.



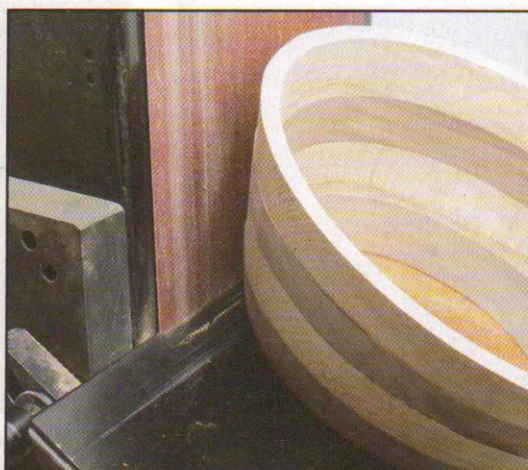
8

Sand the inside of the bowl. Use the round inflatable sander. Start with the coarse sleeve, and then move progressively up to the medium and fine sleeves. The inside needs to be completely smooth because sanding will be more difficult once the cutouts are made. Sand the bottom edge into a smooth oval.

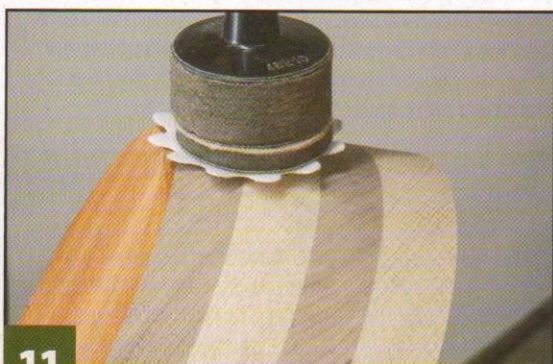


9

Prepare the first piece of accent wood. Place the ring assembly on one of the pieces of your accent wood selection. I chose padauk. Trace the outer edge of the bottom ring. Tilt the left side of the saw table down to 25°. Use a #2 blade to cut clockwise around the line. Sand the upper surface of the padauk progressively through the grits to 220.



10 **Glue the padauk to the ring assembly.** Keep about $\frac{1}{16}$ " (2mm) free of glue at the inner edge of the bottom ring to minimize squeeze-out. Clamp for five minutes, and then remove the bowl to clean away any glue on the surface of the padauk. Reclamp and let the bowl dry fully. Tilt the table of a belt sander to 25° and sand the padauk even with the walnut ring.

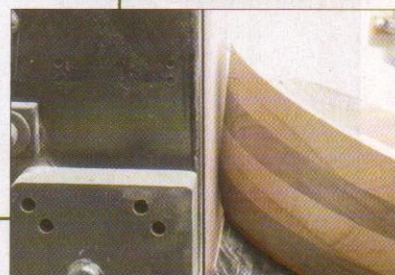
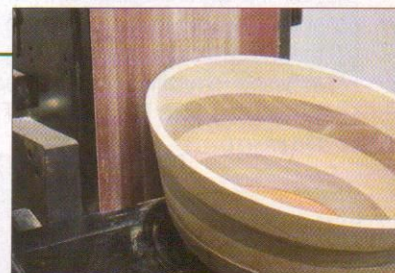


11 **Sand the bowl exterior with the 2" (51mm) flexible pad sander.** Start with an 80-grit disc and sand progressively through the grits to 220. Be careful not to contour the bottom $\frac{1}{2}$ " (1.3cm) of the bowl. If needed, use a small detail sander to even out the sides. Shaping will be completed after the weighted base is attached in Step 22.

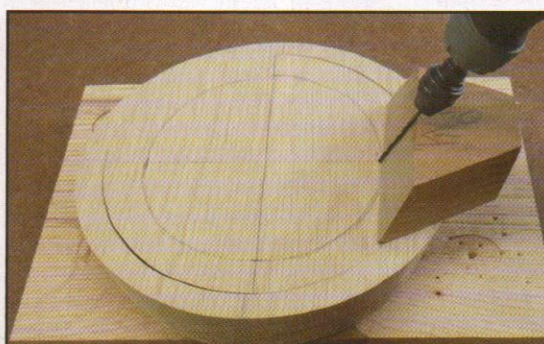
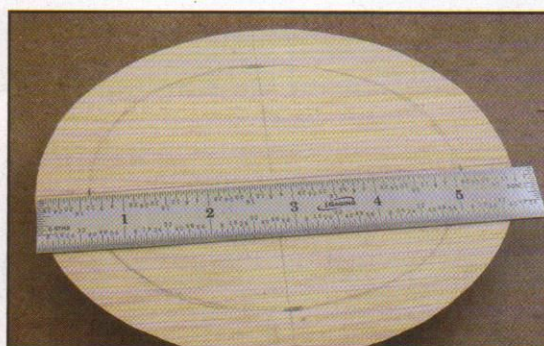
TIP

SANDING THE EXTERIOR

If you're careful, you can use the belt sander for a preliminary sanding of the exterior. Tilt the sander table to 20°, position the bowl against the belt, and rotate it to remove excess wood and glue from the first three rings. Increase the tilt to about 23° and sand the joint between the third and fourth ring. Switch to the 2" (51mm) flexible pad sander to complete the job.



12 **Place the bowl on the remainder of the oak blank.** Be sure to keep the grain alignment. Trace the outline of the padauk bottom piece onto the oak. Tilt the left side of the saw table to 30° and cut along the line in a clockwise direction to form the base. Mark the top edge.

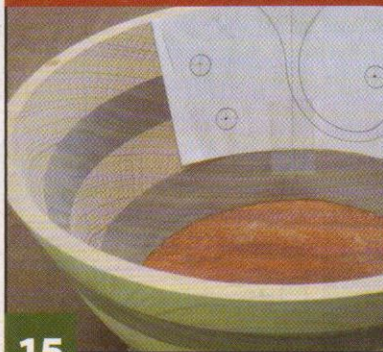


13 **For each registration line on the base, mark points $\frac{5}{8}$ " (1.6cm) in from the ends.** Use these marks as guides for drawing an oval, $\frac{5}{8}$ " (1.6cm) from the outer edge of the base. Drill a 30° blade-entry hole in the oval, facing the center. Tilt the left side of the saw table down to 30°. Insert the blade and cut clockwise along the line to form a recess for the weights.

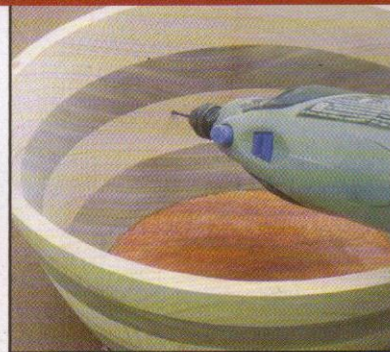


14 Place the base on the remaining piece of padauk. Trace around the lower edge. Tilt the left side of the saw table down to 30° and use a #2 blade to cut clockwise along the line. Glue this piece to the bottom of the base, clamp, and let dry. Sand away irregularities on the outside with a belt sander set at 30°. Set the base aside until Step 22.

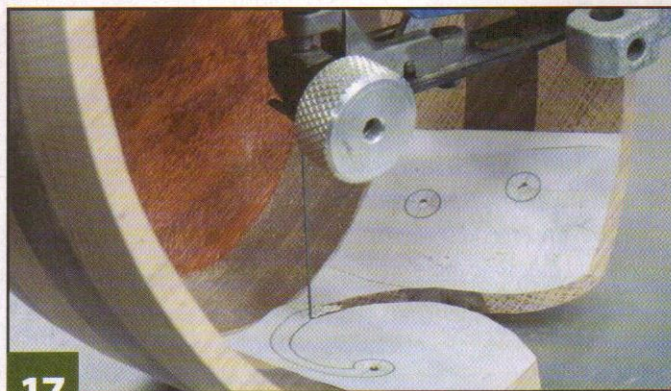
ADDING THE DETAILS



15 Place the bowl bottom-down. Make sure that the inside face of the front points toward you. Locate the registration mark at the center of the top edge of the front. Tape the drilling and cutting template to the inside face of the front, aligning the tops and center points of the template and bowl. Use the bottom walnut ring as a reference point to ensure that the template is vertical. Pierce the center of each of the three holes with an awl. Remove the template and set it aside. Drill through the bowl at the awl marks using a 1/16" (2mm)-diameter bit.



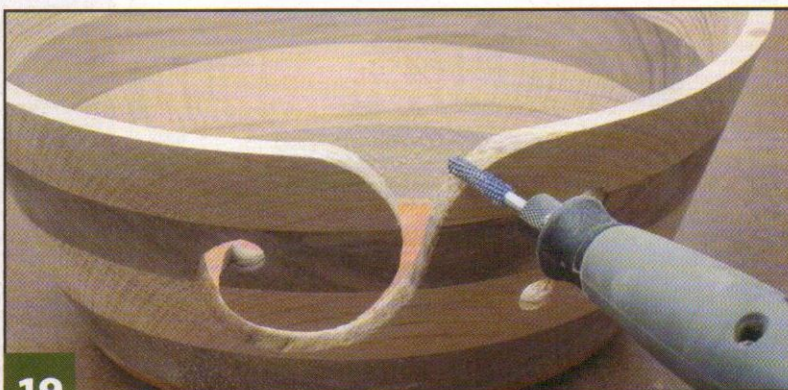
16 Invert the bowl. Drilling from the outside in a downward direction, use a 3/8" (10mm)-diameter brad-point bit to bore a hole at each drill mark, just until the point of the bit protrudes on the inside face. Check frequently to avoid drilling completely through the side. Place the bowl right side up and complete the holes by drilling from the inside.



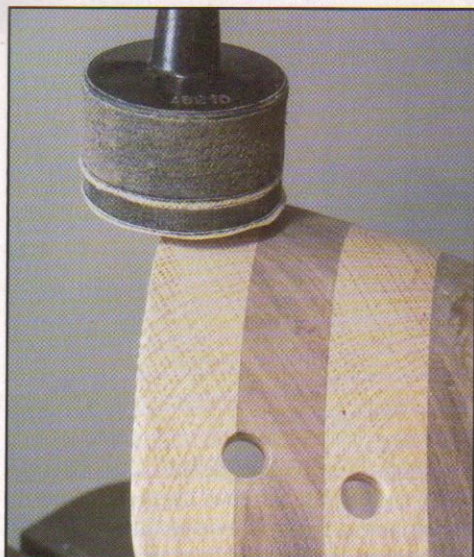
17 Use a glue stick to reattach the pattern to the inside of the bowl. Attach it in the original position, using the centerlines and holes as guides. Using a #3 blade, cut along the pattern lines, starting at the top edge of the bowl and cutting as far as you can before the bowl hits the arm of the saw.



18 Insert the blade into the drilled hole at the end of the opening. Cut from that hole toward the areas already cut. If you cannot reach those areas, switch to a #2/0 spiral blade to complete the cut. Irregularities will be corrected in the next step.



19 Smooth and widen the channel. Use a small carbide carving burr in a flexible-shaft tool. With a small sanding drum, smooth the edges of the channel and the knitting needle holes. You can also use small files to correct any irregularities, and a sandpaper-covered dowel to smooth the holes and curved areas. When complete, the cutout area should be nicely shaped, with all edges completely smooth to avoid snagging the yarn.



20

Soften and shape the upper edge of the bowl. Using the round inflatable sander on the inside and flexible pad sander on the outside, sand the top edge of the bowl to an even thickness, about 1/4" (6mm). Then sand an outward flare on the inner top edge and a slight inward flare on the outer top edge. Sand the sides so they blend into the shaped areas. As you sand the inside face, be sure to keep the bottom part of the round inflatable sleeve from snagging the edges of the cutout areas. The smaller size round inflatable can be used for spot sanding, or you can sand those areas by hand. Finish shaping the upper edge by hand.

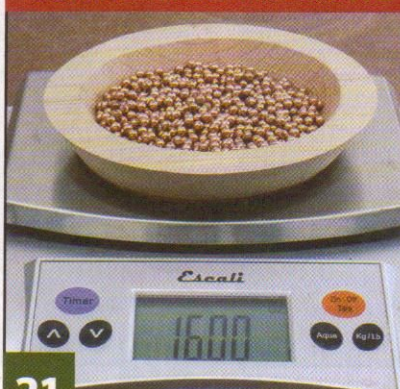
TIP

USING INFLATABLE SANDING SLEEVES

The open bottom area of the round inflatable sander sleeves can easily catch on edges and result in loss of control of the workpiece. Finer grit sleeves are especially vulnerable. To prevent this, sand those areas using only the solid upper part of the sleeve.

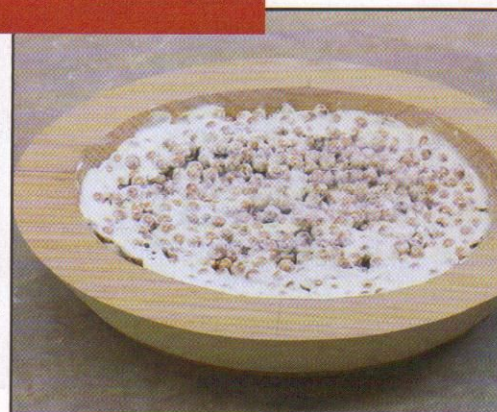


COMPLETING THE BOWL



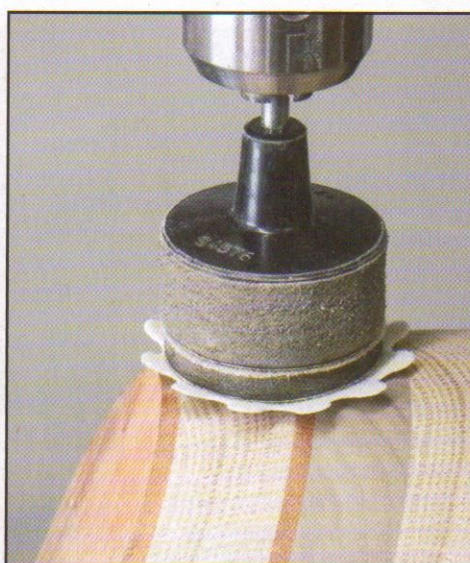
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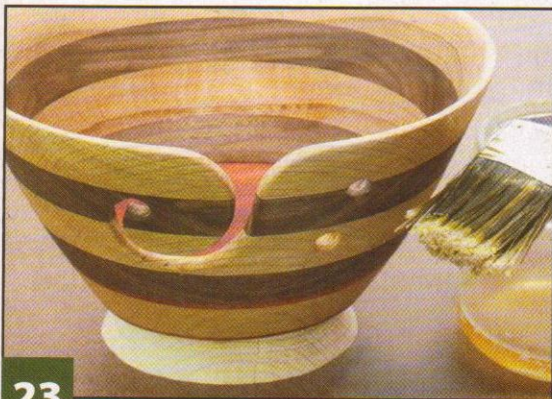
Place the bowl on the base to check for spaces and correct as needed. Scale out about 1lb. (454g) of weights, such as BBs, slingshot ammo, or lead fishing weights. Check that they won't protrude above the top of the recess and use a stabilizing material such as caulk, cyanoacrylate (CA) glue, such as Super Glue®, or epoxy to secure them. Then let the material cure completely.



22

Glue the bowl to the weighted base. Make sure to keep the grain alignment consistent. Carefully invert the bowl, place it in a press, clamp, and let it dry thoroughly. Finish sanding the bowl exterior and soften the bottom edge.





23

Apply a coat of shellac to seal the wood. When dry, sand the surface lightly with 320-grit sandpaper. Check the surface carefully for sags and glue spots, and sand away any that appear. Apply several coats of shellac, buffing between them with 0000 steel wool.

Materials & Tools

Materials

- Light wood such as oak, $\frac{7}{8}$ " (2.2cm) thick: $8\frac{1}{2}$ " x $9\frac{1}{2}$ " (21.6cm x 24.1cm)
- Dark wood: such as walnut, $\frac{3}{4}$ " (1.9cm) thick: 8" x 9" (20.3cm x 22.9cm)
- Accent wood such as padauk, $\frac{1}{8}$ " (3mm) thick: 2 each 6" x 7" (15.2cm x 17.8cm)
- Glue stick
- Pencil
- Steel wool: 0000
- Sanding sleeves: assorted
- Sanding discs: assorted
- Sandpaper: assorted grits up to 320
- Spray adhesive: repositionable
- Glue: wood, such as Weldbond; cyanoacrylate (CA), caulk, or epoxy
- Shellac: spray, or 2 or 3 pound cut

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

Tools

- Scroll saw blades: #2, #3, and #7 skip-tooth; #2/0 spiral
- Drill with bits: $\frac{1}{16}$ " (2mm)-dia. twist and $\frac{3}{8}$ " (10mm)-dia. brad-point
- Shop-made angle drilling guides: 20°, 30°, 34°
- Inflatable sanders: small round, round
- Bowl press or clamps and clamping boards
- Belt sander: vertical
- Pad sander: 2" (50mm)-dia.
- Shop-made sanding tile (150-grit sandpaper attached to a flat tile)
- Rotary tool with accessories: small carbide carving burr, $\frac{1}{4}$ " (6mm)-dia. sanding drum
- Weights: small fishing weights, lead shot, or BBs, about 1lb. (454g)
- Awl

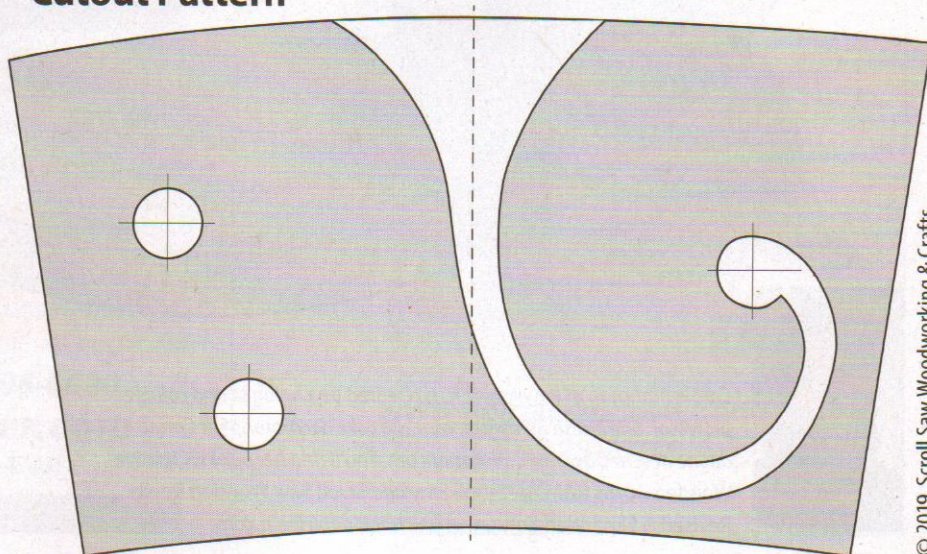
Design Modifications

Variation 1: To make a striped oval bowl without weights or cutouts, follow the instructions through Step 8. Place the ring assembly on the remainder of the blank used for the first and third rings, keeping the alignment. Trace the outline of the fourth ring to form the cutting line for the base. Tilt the left side of the saw table down to 30° and cut the base in a clockwise direction. Follow the procedures in Step 10 to glue on the base; however, do not use the belt sander as directed. Instead, you can follow the Tip for pre-sanding the exterior, using a tilt of about 28° to sand the joint between the fourth ring and the base, or go directly to Step 11 and sand the entire exterior. Skip to Steps 20 and 22 to complete the shaping, and Step 23 to apply the finish.



Variation 2: To make a yarn bowl from a single $\frac{7}{8}$ " (2.2cm) thick blank, draw registration lines and attach the pattern as in Step 1. Follow Steps 2 and 3, but drill the blade entry hole directly on the inner cutting line, using a wire size #54 or smaller drill bit. Follow Steps 4 and 5, but trace only the inside of each ring to form the cut line for the next one. Next, place the third ring on the blank. Trace the inside to form the cut line for the fourth ring. Tilt the left side of the saw table down to 25° and re-cut the outside of the blank, cutting clockwise, using the top edge of the blank as a guide. Drill and cut the inner line at a 30° (not 34°) angle to complete the fourth ring. Set aside the remainder of the blank to use for the base. Follow Steps 7 and 8 to glue the four rings and sand the bowl interior. Follow Steps 9 through 11 to cut and attach one piece of the accent wood and to sand the bowl exterior. Follow Steps 12 through 14 to prepare the base, using the remainder of the $\frac{7}{8}$ " thick blank and the remaining piece of accent wood. Then, follow Steps 15 through 20 to add the cutouts, Steps 21 and 22 to add the weights, and Step 23 to complete the project.

Yarn Bowl Cutout Pattern



© 2019 Scroll Saw Woodworking & Crafts

Yarn Bowl Pattern

Oval measures $7\frac{1}{2}" \times 8\frac{1}{2}"$ (19cm x 21.6cm)

Ring width - $\frac{5}{16}"$ (7.9mm)

Blade entry hole



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

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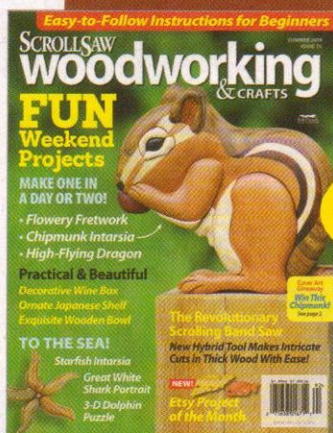
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9	.053"	.018"	11.5	1 1/2" to 2 1/2" hardwood	\$9.95	\$65.00
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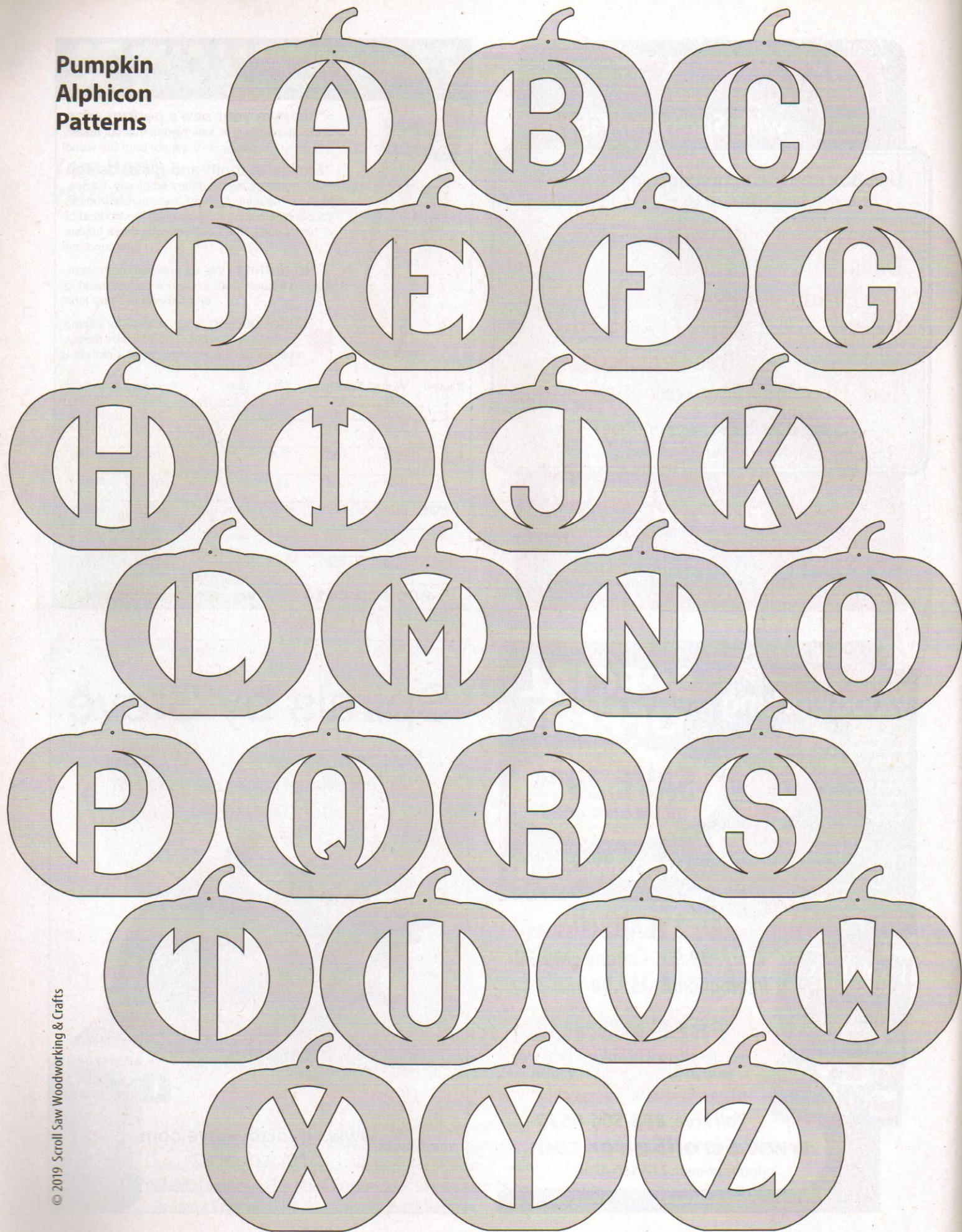
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**Pumpkin
Alphicon
Patterns**



Fall Alphicons



These might be the easiest jack-o'-lanterns you've ever cut

By Dave Van Ess

Every season has its charm, but let's be honest—fall is just about perfect. Nothing beats bundling up for a football game on a crisp day, with a million leaves swirling around your feet. Add a thermos of hot chocolate and a hint of wood smoke on the breeze, and it's poetry. These pumpkin alphicons are a great starting point for any Halloween or Thanksgiving decoration you can imagine—just think “cozy” and you're already halfway there!

Cutting and Finishing

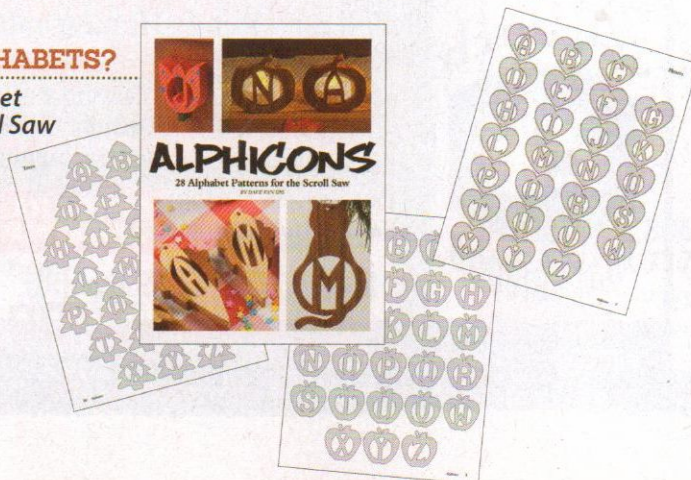
Choose a kind (or kinds) of wood; I chose hardwoods with naturally deep, autumnal colors. Cut the wood to size and sand with 120-grit sandpaper, working up through progressively finer grits until smooth. Photocopy the pattern. (Scale it up or down as needed.) Cover the wood with blue painter's tape (or any appropriate tape) and attach the pattern to the tape with spray adhesive. Drill the holes for the frets, cut the alphicons, and remove all of the sawdust. Finish as desired; I used natural Danish oil and then drilled small holes in the scrap wood base and bottoms of the letters for wooden skewers. This way, the letters on this DIY tealight holder are interchangeable.

WANT MORE ALPHABETS?

Alphicons: 28 Alphabet Patterns for the Scroll Saw

By Dave Van Ess

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



Materials & Tools

Materials

- Wood, such as cherry or sassafras, ¼" (6mm) thick: each 1¾" x 2" (4.4cm x 5.1cm)
- Sandpaper
- Tape: blue painter's
- Spray adhesive
- Finish, such as natural Danish oil

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

Tools

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



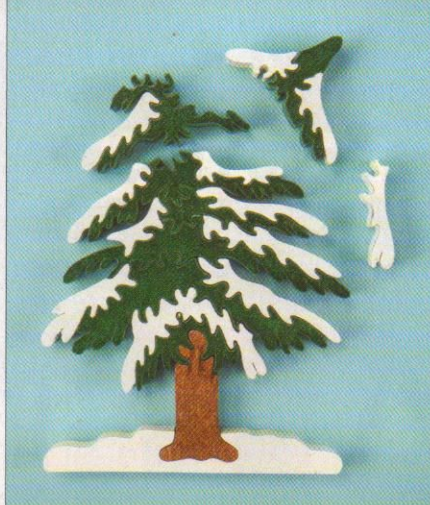
Dave Van Ess is a retired engineer living in Chandler, Ariz. He has been woodworking for 40 years and scrolling for 30. He is the president of Arizona Woodworkers (a greater Phoenix area

woodworking club) and volunteers one day a week teaching woodworking to four-year-olds at a local daycare. Contact him at davevaness21@gmail.com.

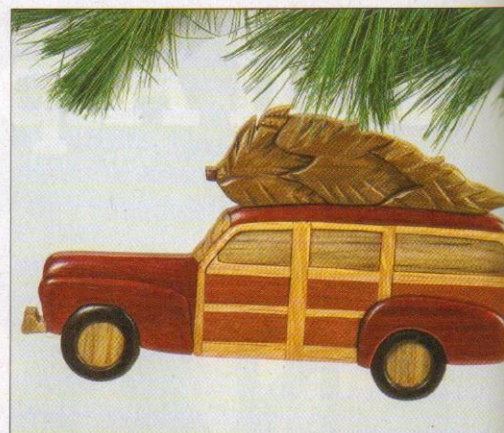
**IN OUR
NEXT ISSUE**



Making wooden toys is a boatload of fun for scrollers and kids.



Snow-laden branches make the perfect shapes for puzzle pieces.



This classic Woody not only hangs on the tree, it brings it home.

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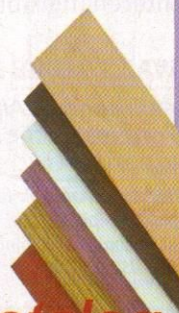


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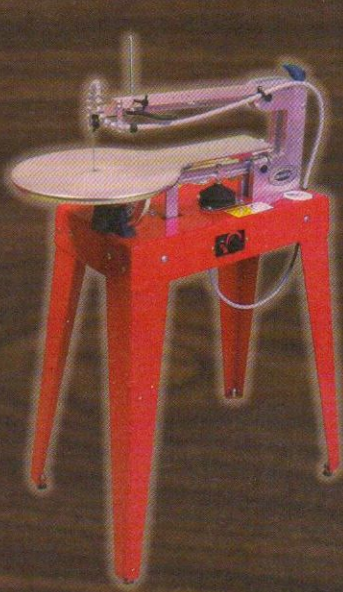
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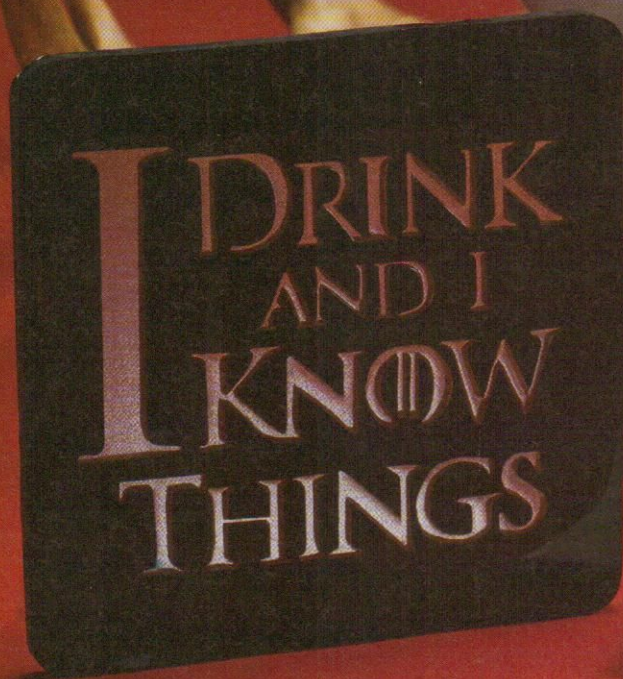
Game of Thrones Coasters

Now your watch is ended,
but your crafting is just beginning!

By Danielle Schagrín

Cut by Jo Schwartz and Kaylee Schofield

Along with years of entertainment and suspense, the hit HBO series *Game of Thrones* gave us a plethora of memorable quotes. With our new booklet of patterns (see below) for scrolling, pyrography, and carving, you can show loyalty to your favorite house or character for years to come! If your coffee table is looking a little “stark,” why not begin with this clever coaster quoting an especially wise Lannister?



Cut and finished.



Wood burned.

Cutting and Finishing

Choose a wood and cut it to size. We chose ¼" (6mm) plywood. Photocopy the pattern and scale it up or down as needed. Cover the wood with blue painter's tape and attach the pattern to the tape with spray adhesive. Drill the blade-entry holes, and then cut the coaster, starting with the frets. Take care around the font's thin, decorative elements. When you're done cutting, remove the pattern and tape along with any excess sawdust. Gently sand your coaster with 220-grit sandpaper and finish as desired. We used Unicorn SPiT™ and filled the frets with two-part epoxy.

Patterns for the **GAME OF THRONES COASTERS** are in the pullout section.

Materials & Tools

Materials

- Plywood, ¼" (6mm) thick: 4" (10.2cm) square
- Tape: blue painter's
- Spray adhesive
- Sandpaper: 220-grit

- Unicorn SPiT (optional)
- Two-part epoxy (optional)

Tools

- Scroll saw blades: #1 reverse-tooth
- Drill bits: assorted small

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

WANT MORE GAME OF THRONES?

Patterns for Crafters Inspired by Game of Thrones
13 Favorite Quotations For Scroll Sawyers, Pyrographers, and Carvers
By the Staff of
Scroll Saw Woodworking & Crafts
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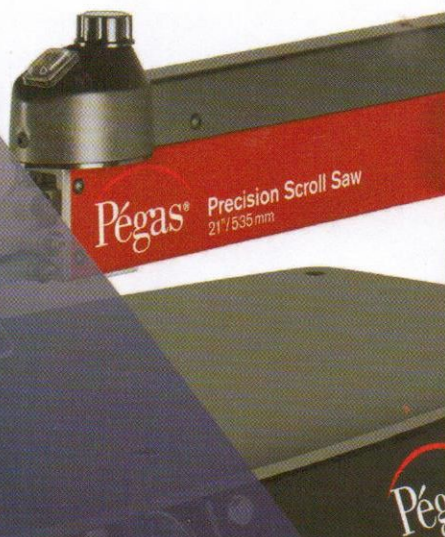
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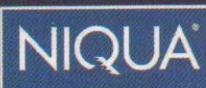
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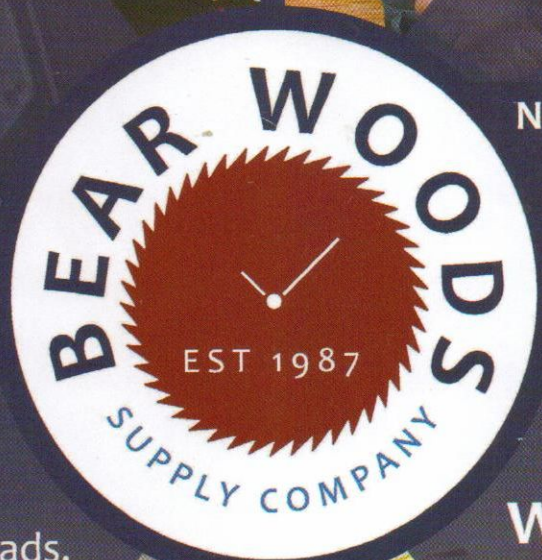
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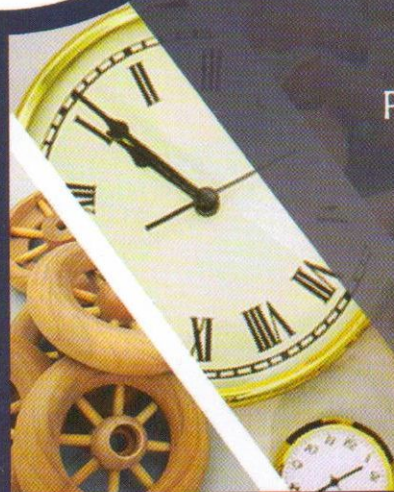
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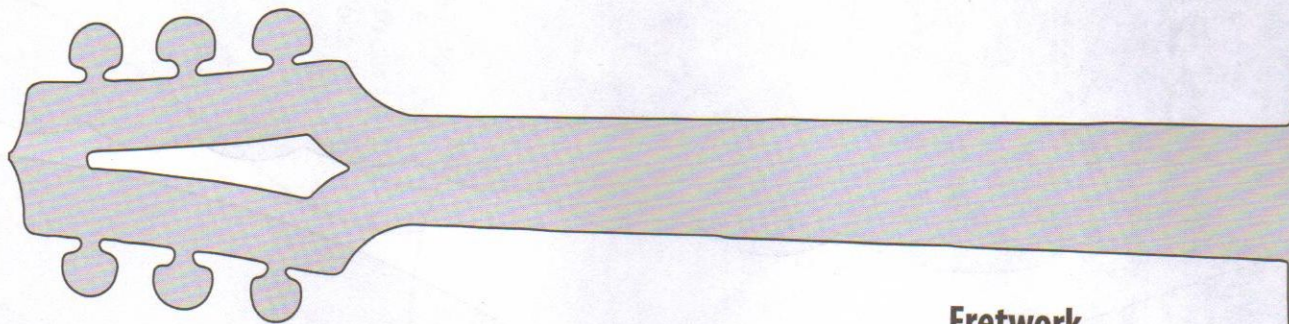
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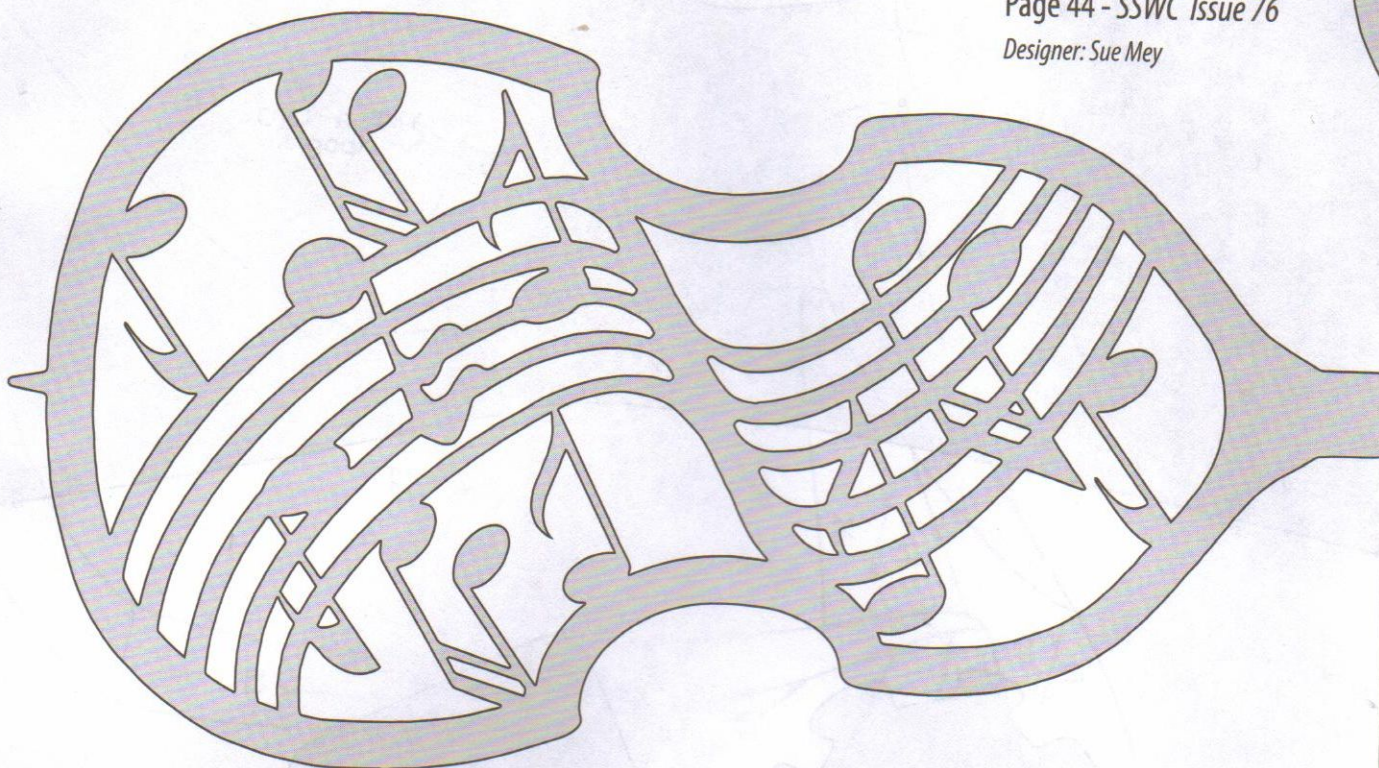
Natural Wonders
 Page 42 - SSWC Issue 76
 Designer: Allison Tanner

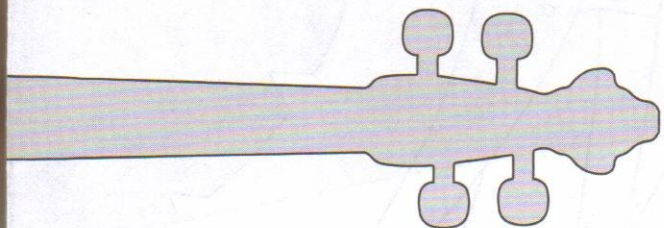


**Fretwork
 Guitar & Violin**

Page 44 - SSWC Issue 76

Designer: Sue Mey

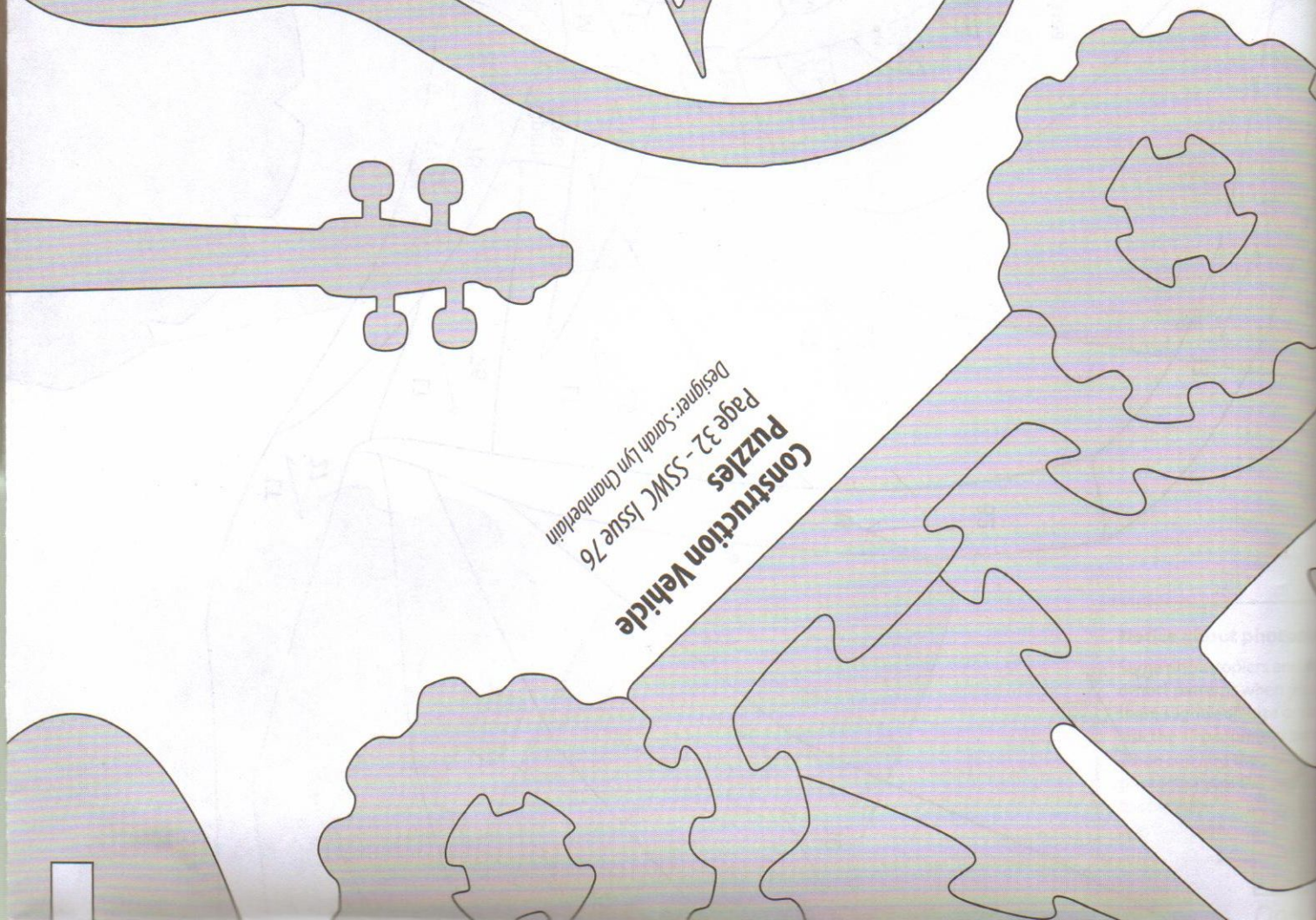




Construction Vehicle
Puzzles
Page 32 - SSWC Issue 76
Designer: Sarah Lyn Chamberlain

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1/2 inch

Game of Thrones Coaster

Page 72

SSWC Issue 76

Designer: Jon Deck

I DRINK
AND I
KNOW
THINGS

Scroll saw pattern

I DRINK
AND I
KNOW

5A

Burrowing Owls

Page 34 - SSWC Issue 76

Designer: Charles Hand



6A



**Trick-or-Treater
Silhouettes**

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Designer: Gloria Cosgrove

7A

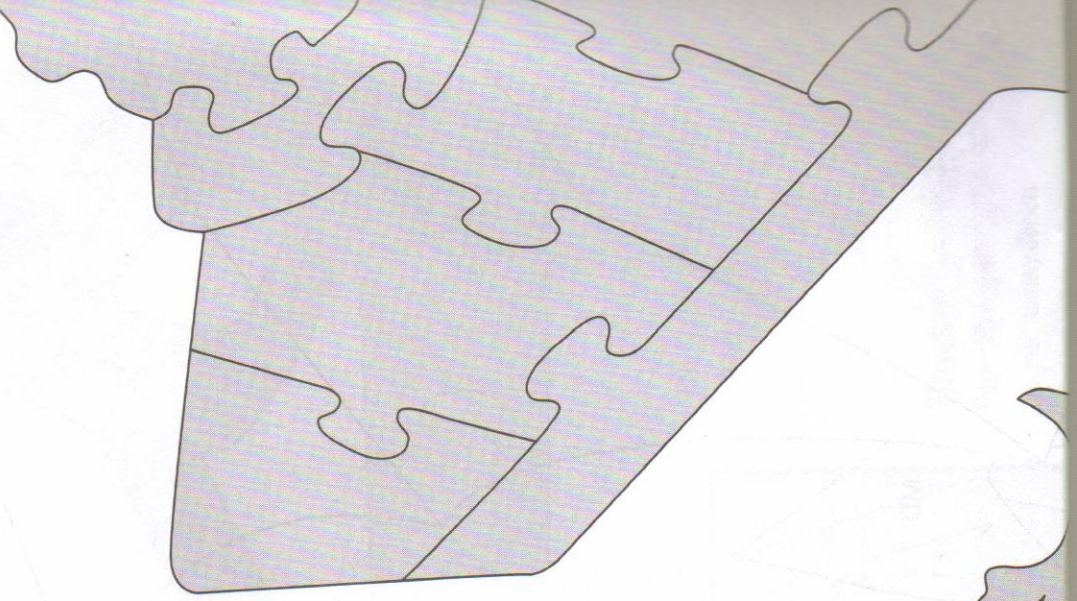
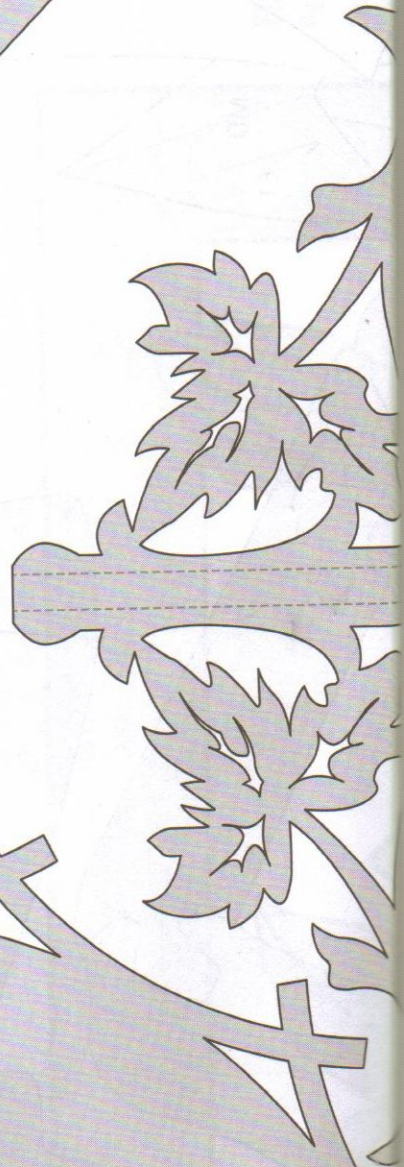
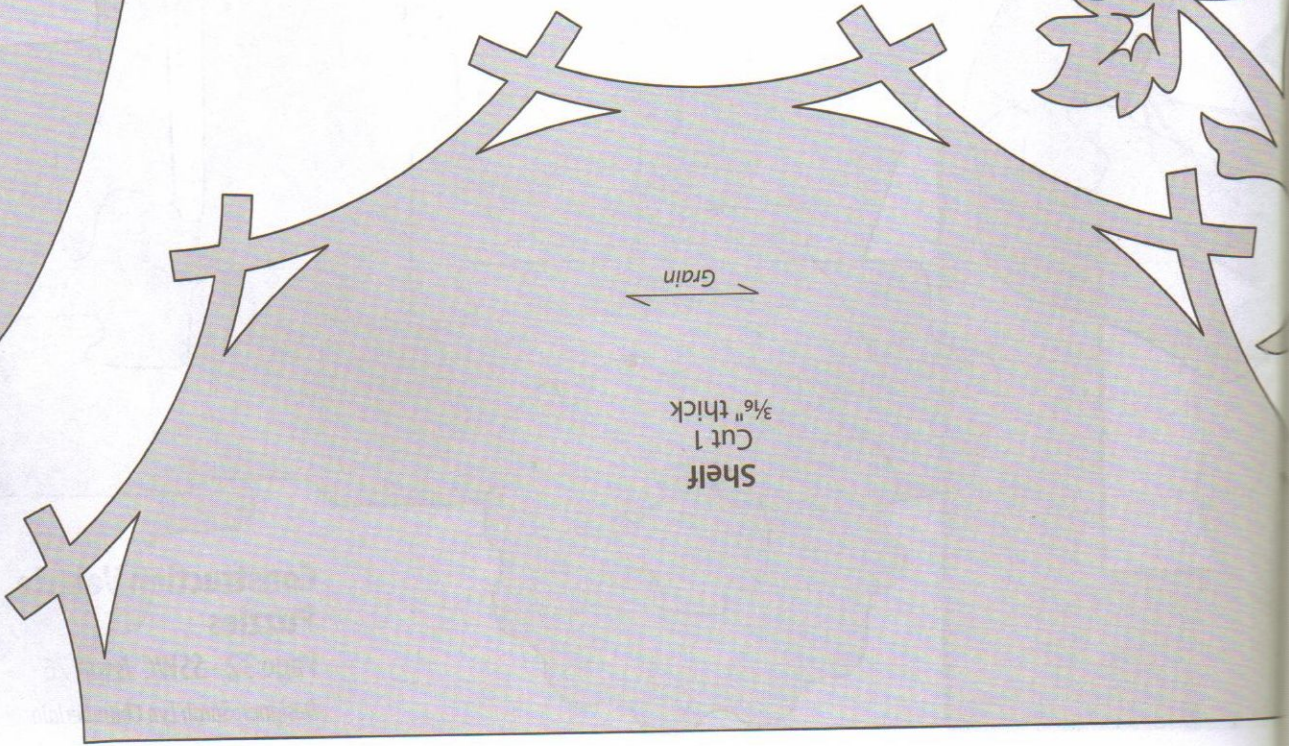
Designer: John A. Nelson

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Maple Leaf Bracket Shelf

Shelf
Cut 1
3/16" thick

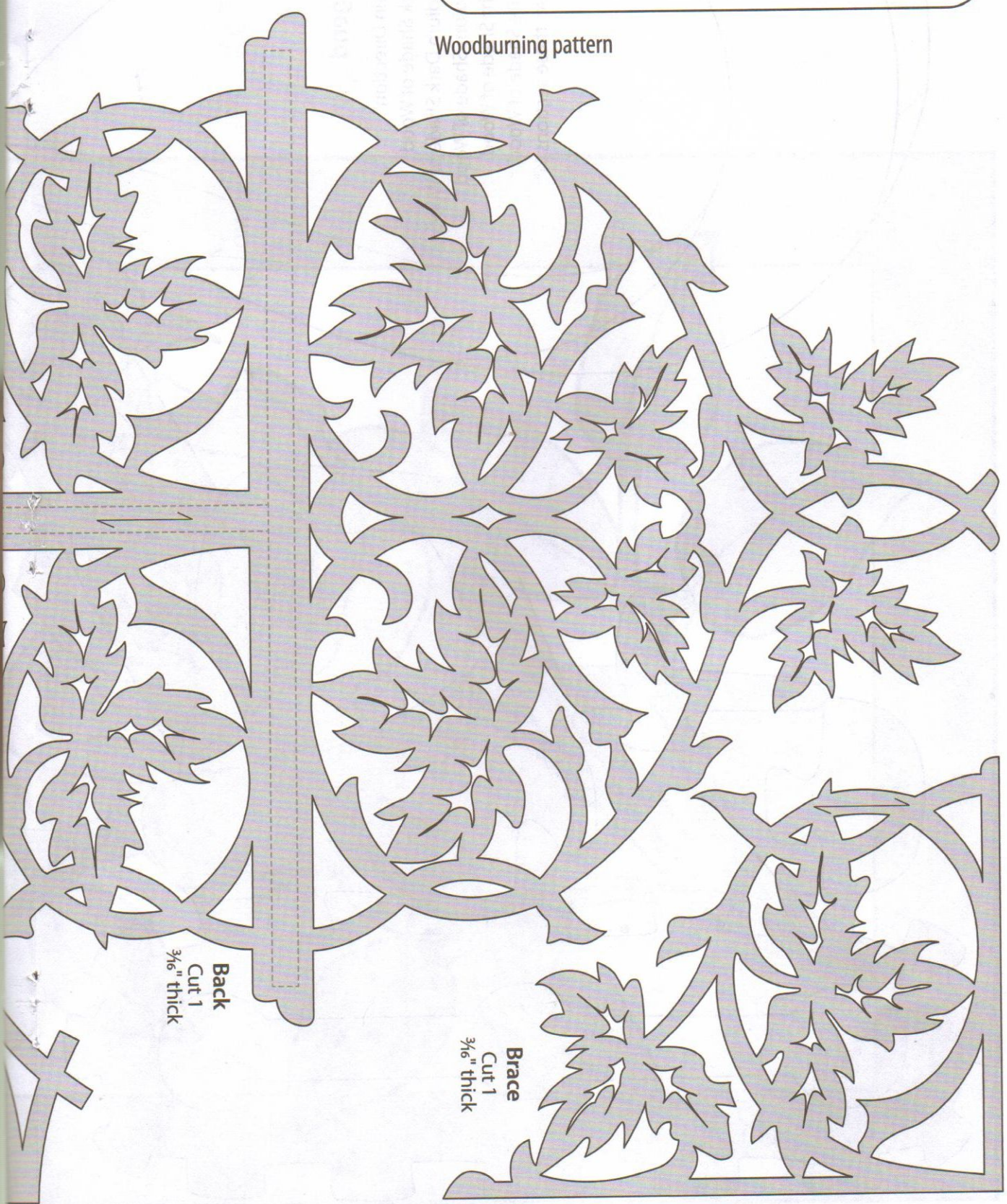
Grain



5A

THINGS

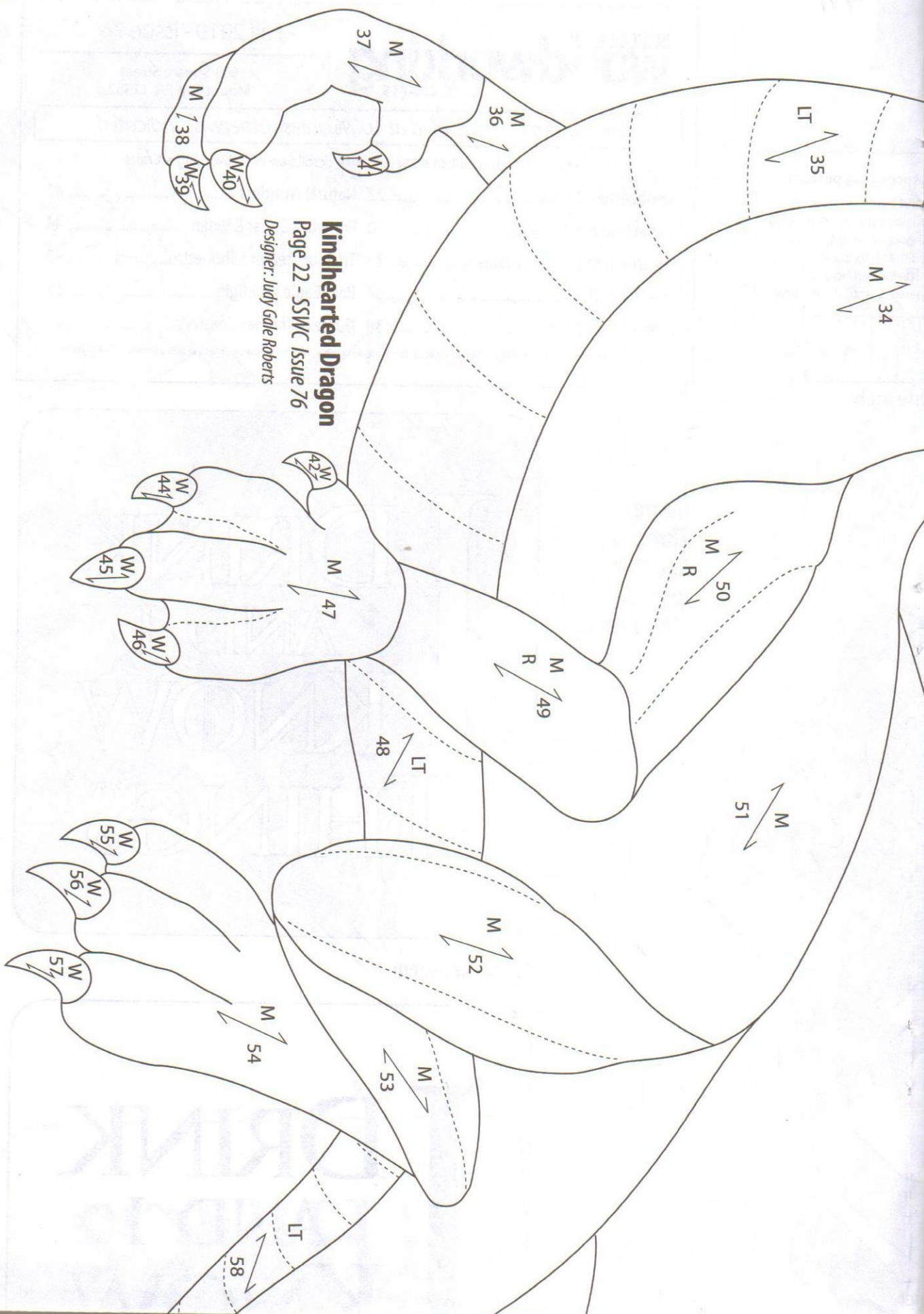
Woodburning pattern

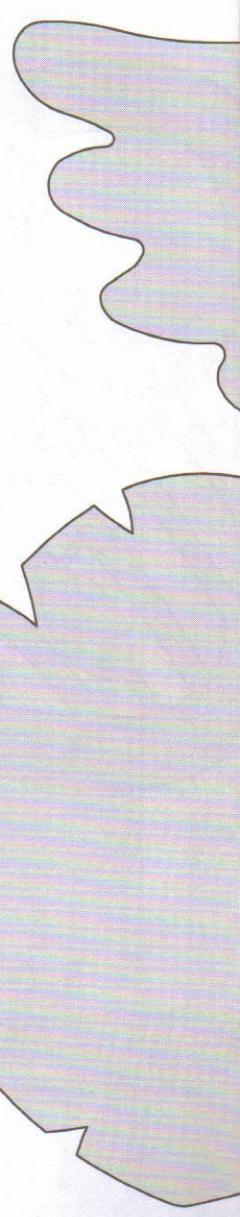


Back
Cut 1
 $\frac{3}{16}$ " thick

Brace
Cut 1
 $\frac{3}{16}$ " thick

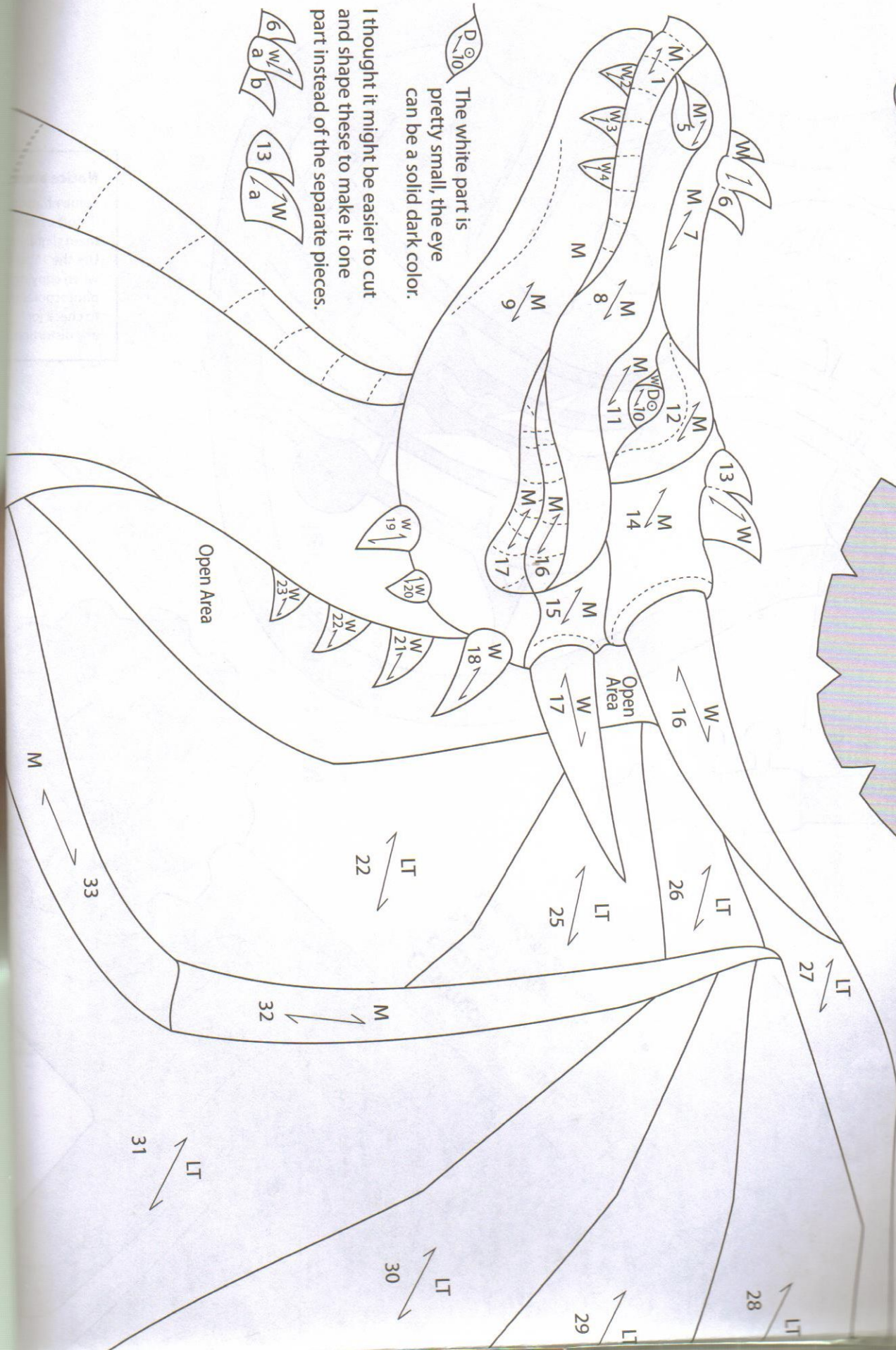
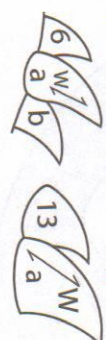
Kindhearted Dragon
 Page 22 - SSWC Issue 76
 Designer: Judy Gale Roberts





The white part is pretty small, the eye can be a solid dark color.

I thought it might be easier to cut and shape these to make it one part instead of the separate pieces.



Wing
Cut 4 - 1/8" thick

Body
Cut 1 - 3/4" thick

Notice about photocopying

Some photocopiers and their copies distort patterns when you copy them slightly off-size or at an angle. Use the 1" bar printed below when copying the patterns. Use photocopies of the patterns to check for any distortion.



One inch

Bald Eagle Whirligig

Page 55 - SSWC Issue 76

Designer: Paul Meisel

1/4"-diameter
1 1/2"-deep hole
Drill before cutting
out silhouette

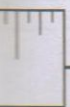
3/4"-diameter
hole

1/8"-wide cut (2)
made with
table saw jig

1/4"-diameter
hole

Wing Hub
Cut 2 - 3/4" thick

Printing patterns
Printers can
print them, making
a guide
to hold the
original



Stake
Cut 1

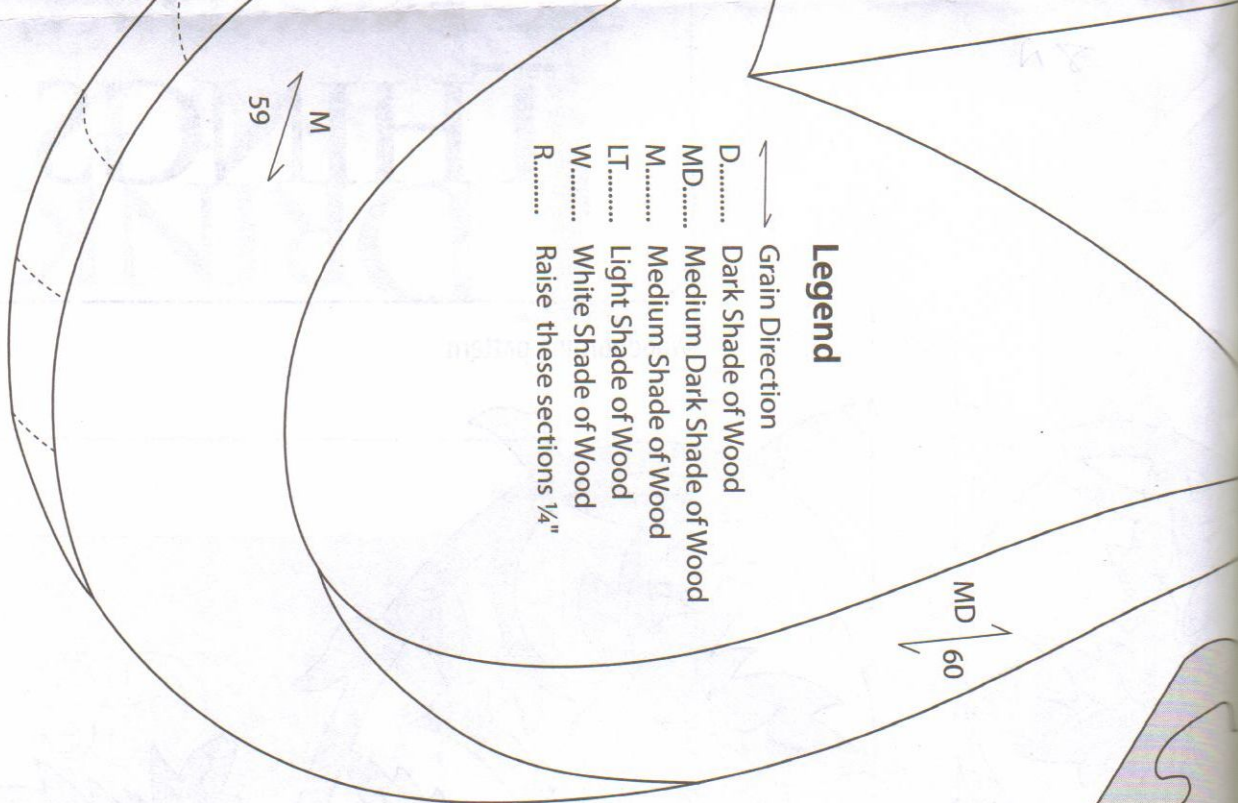
30° All
four sides

Dowel
Cut 1
3/4"-diameter

7/64"-diameter,
1 1/8"-deep holes (2)

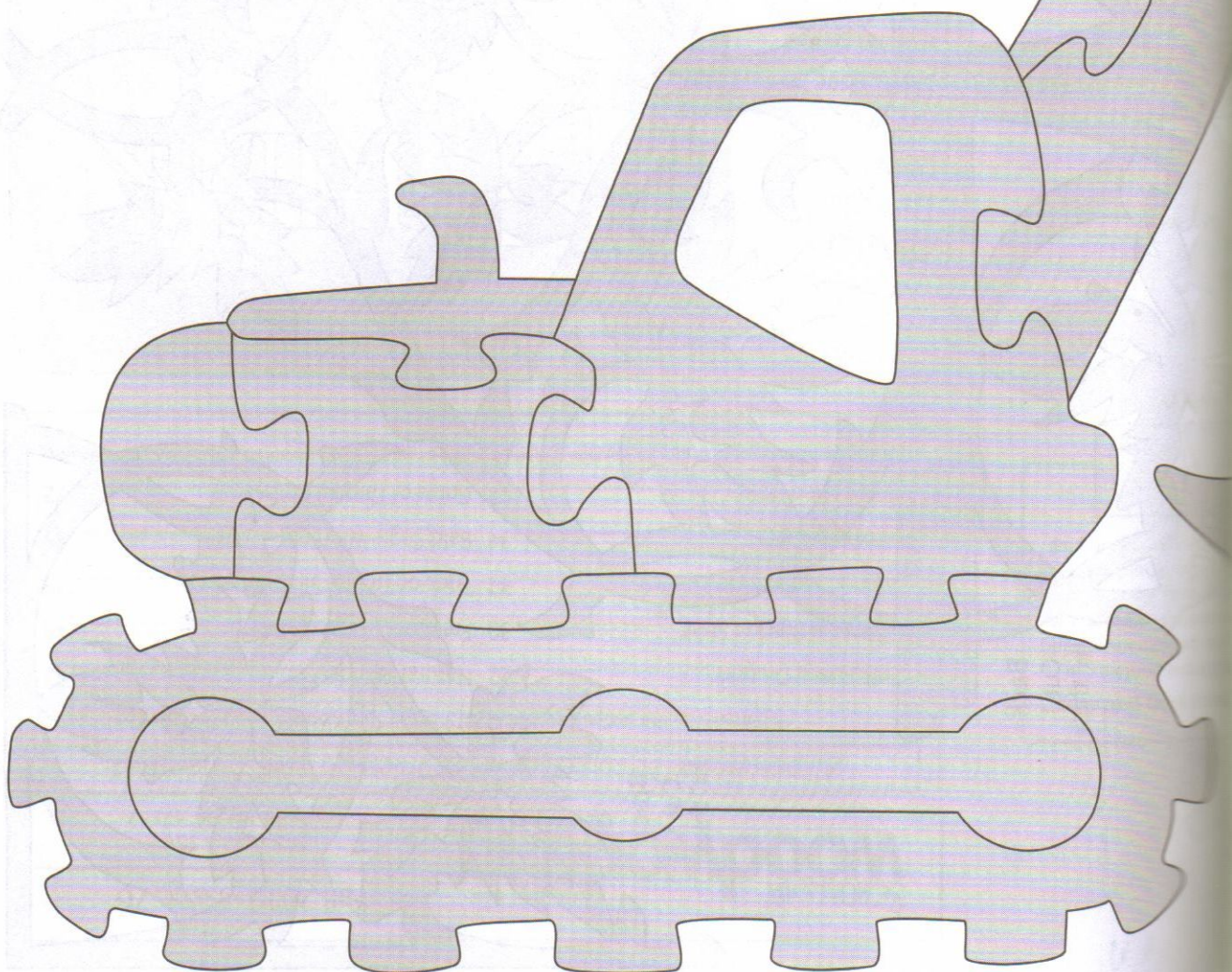
5/16"-diameter,
1 1/2"-deep hole

4B

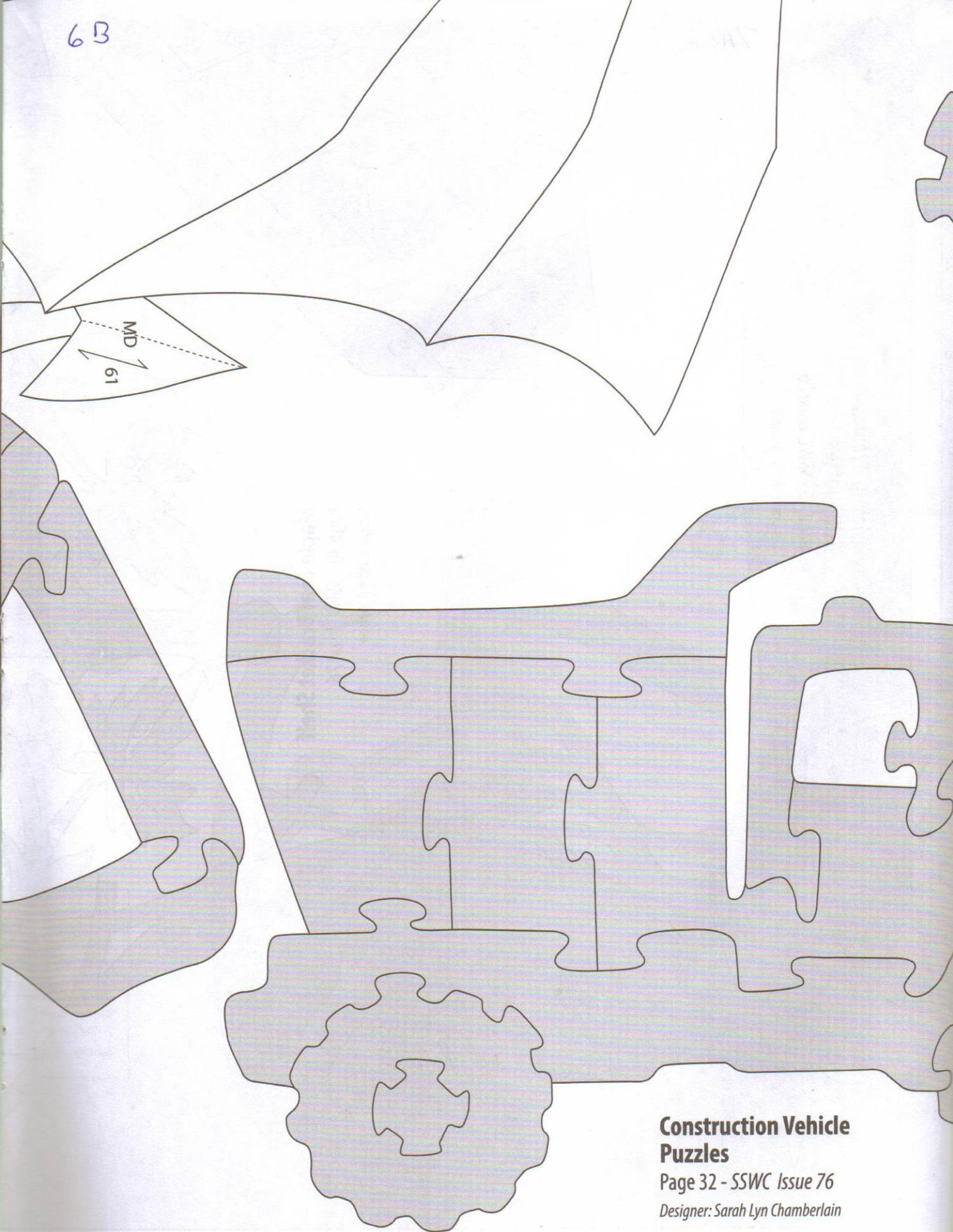


Legend

- ← Grain Direction
- D..... Dark Shade of Wood
- MD..... Medium Dark Shade of Wood
- M..... Medium Shade of Wood
- LT..... Light Shade of Wood
- W..... White Shade of Wood
- R..... Raise these sections 1/4"



6B



Construction Vehicle Puzzles

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Designer: Sarah Lyn Chamberlain

