

Better Homes and Gardens®

WOOD®

THE WORLD'S LEADING WOODWORKING MAGAZINE
NOVEMBER 1998 ISSUE 109

Resaw your own thin stock

Get great
results with our
supersmart jig

Page 41

GOTTA-BUILD PROJECTS

- Fanciful bird feeder • Tabletop Noah's ark
- Miniature carousel horse • Nativity music box
- Happy holiday penguins • Precision router table

112 U.S.A. \$5.95



0 172440 14072 1

GRIZZLY INDUSTRIAL

PURVEYORS OF FINE MACHINERY

FINE WORK DEMANDS FINE TOOLS

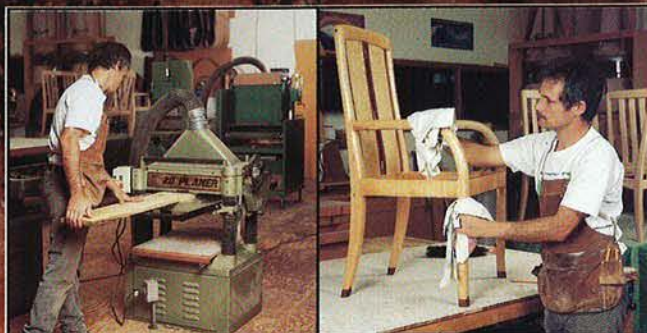
No matter what your level of expertise, GRIZZLY INDUSTRIAL offers heavy-duty woodworking equipment that will transform raw lumber into personal works of art.



ALL MACHINES R.O.B. OUR WAREHOUSE



INDUSTRIAL, INC.



"My Grizzly 20" planer has been a real workhorse in my shop and has planed over 200,000 board feet over the last five years with no problems. It required very little set-up when I bought it and has stayed in good adjustment ever since!" - Al Rosen



10" HEAVY-DUTY TABLE SAW
MODEL G1023
SPECIAL PRICE \$695.00



1-1/2 H.P. SHAPER
MODEL G1035
ONLY \$449.00

Shown with optional wing.



6" X 47" HEAVY-DUTY JOINTER
MODEL G1182Z ONLY \$395.00



HEAVY-DUTY COMBO SANDERS
6" X 48" BELT - 12" DISC
MODEL G1183 -3450 R.P.M. ONLY \$399.00
MODEL G1276 -1725 R.P.M. ONLY \$439.00



HEAVY-DUTY 16" BANDSAW
MODEL G1073
ONLY \$595.00



10" HEAVY-DUTY TABLE SAW
MODEL G1022Z ONLY \$449.00



VARIABLE SPEED WOOD LATHE
MODEL G5979 ONLY \$295.00



HOLLOW CHISEL MORTISER
MODEL G3183
ONLY \$225.00



OSCILLATING SPINDLE SANDER
MODEL G1071
ONLY \$495.00



12" PLANER
MODEL G1017 ONLY \$399.95



20" PLANER
MODEL G1033 ONLY \$1,295.00



HEAVY DUTY BENCH-TOP DRILL PRESS
MODEL G4008
ONLY \$189.95

HEAVY DUTY FLOOR DRILL PRESS
MODEL G4009
ONLY \$239.95



CALL TODAY FOR YOUR FREE 1998 WOODWORKING CATALOG — ORDER 24 HOURS A DAY!

189798658

1 - 8 0 0 - 5 2 3 - 4 7 7 7

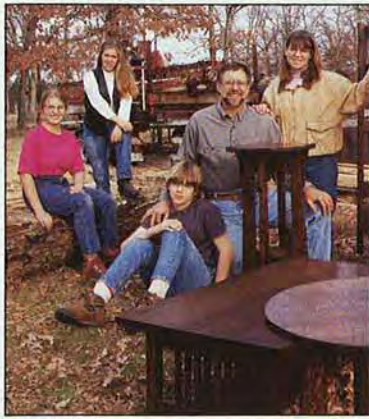
CUSTOMER SERVICE: (717)326-3806 FAX: (800)438-5901 WEB SITE: www.grizzlyindustrial.com

VISIT OUR 3 SHOWROOM LOCATIONS:

MEDIA CODE 1821 Valencia St., Bellingham, WA — 4651 Hickory Hill Rd, Memphis, TN — 2406 Reach Road, Williamsport, PA

Circle No. 860





Page 49



Page 58



Page 68

Better Homes and Gardens® WOOD

THE WORLD'S LEADING WOODWORKING MAGAZINE

CONTENTS

- 41 Precision resawing**
Try our shop-tested methods for cutting thin stock on a bandsaw and tablesaw.
- 49 Mission on a mountaintop**
See how one successful Arkansas furniture maker has turned his business into a family affair.
- 58 Project showcase**
Marvel at this turning display from Oklahoma.
- 60 Belt/disc sanders under \$600**
Check out the results of our tool test on five 6x48" combination sanders.
- 66 Wood look-alikes**
Looking for inexpensive substitutes for oak, walnut, and maple? Here's help.
- 74 Arts and Crafts finish**
Learn to apply an authentic-looking fumed finish without the hazards of fuming.

Woodworking projects

- 16 Music-box manger**
Make this scrollsawn Christmas project, then see the turntable rotate while a melody plays.
- 54 Victorian-style bird feeder**
Treat your fine-feathered friends to a free lunch with our cedar-shingled eatery.
- 68 The ultimate rainy day project**
You need not work in cubits when making this charming shelftop Noah's Ark.
- 76 Fairgrounds prancer**
Capture the excitement of carnival time by carving this spirited tabletop steed.
- 80 Tilt-top router table**
The lift-up top of this full-featured shop project makes changing bits a breeze.
- 86 Penguins on parade**
Dress up your holiday decor with this handsome trio of fun-loving flightless birds.



Page 76



Page 16



Page 80

SHORT-SUBJECT FEATURES

- | | |
|--|---|
| 4 The Editor's Angle | 22 Tool Industry Insider: Ridgid Tools |
| 6 Talking Back | 24 Tips From Your Shop (And Ours) |
| 10 Great Ideas For Your Shop: Tool Crib | 38 Wood Anecdote: Sassafras |
| 12 Where Safety Begins: Miter Saw Cutting | 92 Ask WOOD |
| 14 Router Bit Review: Rabbit-Bit Bearings | 106 Products That Perform |

112 Finishing Touches

JOB:

**ADD 200
SQUARE FEET
OF SPACE
TO TINY
MANHATTAN
APARTMENT.**

SOLUTION:

REPLACE CLOSET DOOR.

HARDWARE

FASTENING SYSTEMS

MECHANICS TOOLS

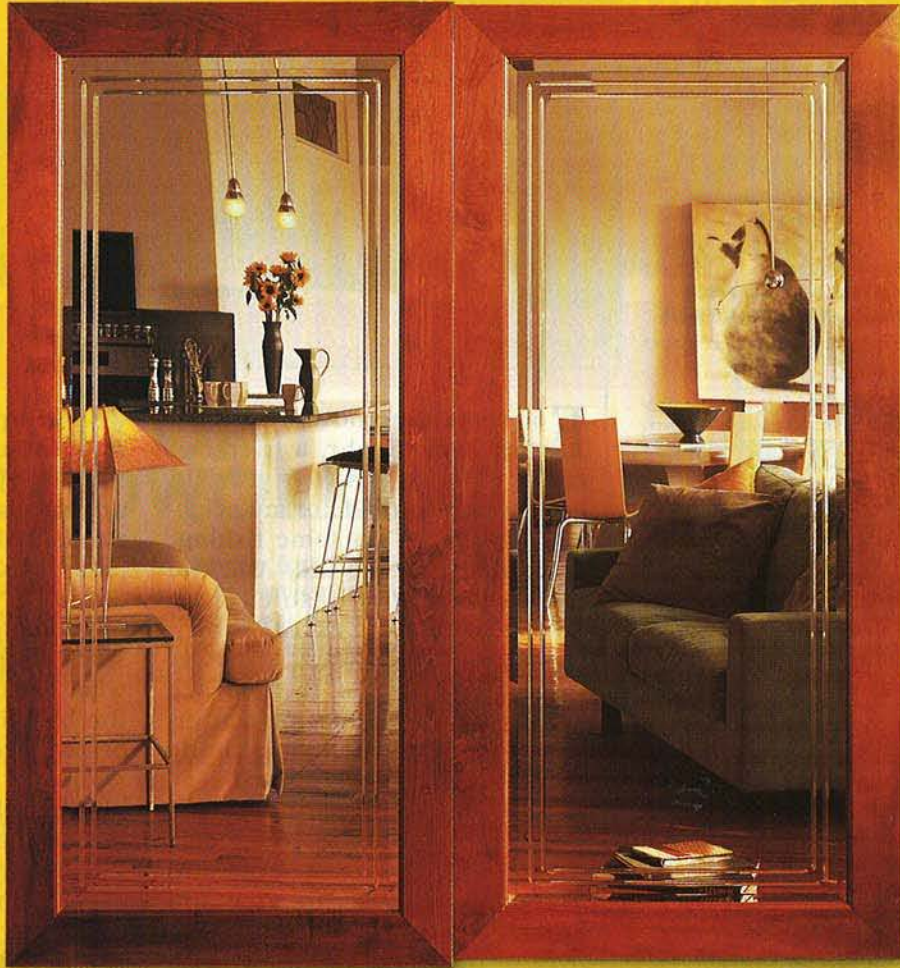
HAND TOOLS

DOORS

AIR TOOLS

HYDRAULIC TOOLS

AUTOMATIC DOORS



When there's no more room to expand, there's always the illusion.

With Stanley® mirror doors, you can create a brighter, more spacious feeling in less than an hour. They're available framed or frameless, and in sliding, swing or bi-fold styles. Perfect for tight budgets. And even tighter quarters.

1-800-Stanley. www.stanleyworks.com

©1998 The Stanley Works. Product featured is a Model 440V Real Wood Framed Sliding Mirror Door.

STANLEY®

MAKE SOMETHING GREAT™

Editor **LARRY CLAYTON**
 Managing Editor **JIM HARROLD**
 Art Director **C. L. GATZKE**
 Design Editor **JAMES R. DOWNING**
 Senior Editor/Features **PETER J. STEPHANO**
 Senior Editor/How-To **MARLEN KEMMET**
 Assistant Managing Editor/Products **BILL KRIER**
 Senior Editor/Special-Interest **LARRY JOHNSTON**
 General-Interest Editor **DAVE CAMPBELL**
 Associate Art Director **PERRY A. McFARLIN**
 Assistant Design Editor/Project Builder **JAN HALE SVEC**
 Project Builder **CHARLES I. HEDLUND**
 Senior Graphic Designer **CHERYL A. CIBULA**
 Production/Office Manager **MARGARET CLOSNER**
 Administrative Assistant **SHERYL MUNYON**
 Art Business Office Secretary **BARBARA HELPS**
 Correspondence Writer **ROBBY PEDERSEN**
 Contributing Editors **KIM DOWNING, DAVE HENDERSON,**
LORNA JOHNSON, ROXANNE LeMOINE, BOB McFARLIN

©Copyright Meredith Corporation 1998
 All rights reserved. Printed in the U.S.A.

Better Homes and Gardens® **WOOD**® magazine (ISSN-0743-894X) is published nine times a year in January, February, March, April, June, August, October, November, and December by Meredith Corporation, 1716 Locust St., Des Moines, IA 50309-3023. Periodicals postage paid at Des Moines, Iowa, and additional mailing offices. *Better Homes and Gardens* trademark registered in Canada and Australia. Marca Registrada en México. **ONE-YEAR SUBSCRIPTION PRICES:** U.S. and its possessions, \$27; Canada, \$39; other countries, \$47. Canadian GST Reg. #BN 12348 2887 RT. **POSTMASTER:** Send address changes to *Better Homes and Gardens WOOD Magazine*, P.O. Box 55050, Boulder, CO 80328-5050.

CUSTOMER SERVICE INFORMATION: For service on your magazine subscription including change of address, phone toll-free **800/374-9663**. Or, write to *Better Homes and Gardens WOOD Magazine*, P.O. Box 55050, Boulder, CO 80328-5050. Please enclose your address label from a recent issue.

EDITORIAL INFORMATION: Send your letter and a self-addressed stamped envelope to THE EDITOR, *WOOD Magazine*, 1716 Locust Street, GA310, Des Moines, IA 50309-3023.

ATTENTION RETAILERS: To carry *WOOD* magazine in your store, call 800/659-5990, or write: Select Title Program, *WOOD Magazine*, 900 Kingsland, Batavia, IL 60510.



Better Homes and Gardens®



<http://www.woodmagazine.com>

Sometimes you could just scream. You know you saw a project or a technique you want to try in *WOOD* magazine, but you just can't remember which issue. If you don't feel like thumbing through your stack of old issues, go to *WOOD ONLINE*. There you'll find two ways to locate things in back issues—the searchable online index and our printable index. For keyword searches, rely on the online version. Then, download the printable one and print it out with your word-processing program for a handy in-shop reference. 🍷

THE EDITOR'S ANGLE

Keeping Important Traditions Alive!



Jim Downing and his good woodworking buddy Carson like to share quality time in Grandpa's home workshop.

For some time now, I've been after Kenn Spahr, a friend of mine, to bring his four-year-old grandson over to one of my neighbor's ponds to do some fishing. The other day, he did. And the results were predictable. Little Robbie, with some excellent help from Grandpa, managed to reel in four small bluegills. In total, we caught eight keepers that afternoon, although later Robbie clearly recalled catching nine himself.

This adventure reminded me once again how much young children look to their parents and grandparents for guidance and inspiration. Chances are that after a few more successful outings, Robbie will be a fisherman for life, and, in turn, Grandpa will have a fishing buddy who thinks he's pretty darned special. What a deal!

The fact is that many kids will become interested in most anything you expose them to. Jim Downing, *WOOD*® magazine's design editor, is experiencing this phenomenon with his five-year-old grandson Carson right now.

Jim remembers with fondness the times he spent with his own dad. "I always looked forward to helping him with whatever he was working on. He made me feel like he actually needed my help." So when Carson came into Jim's

workshop one day wanting to make something, Jim said, "It was a special day for me. It was time to begin passing on what I know about making projects, and the pride associated with being able to do it well."

According to Jim, he and Carson start their projects by brainstorming what Carson wants to build. Then, Jim has him draw out the design before beginning construction.

Carson's first projects were simply small boards nailed together, but to him they looked like airplanes. And as you can see, he's come a long way since then.

Like any self-respecting woodworker, this young guy can't wait to show off his completed projects. And Jim says that seeing him smile is well worth the time invested.

His favorite tool? It's a small cordless drill his dad bought him. And, of course, Carson has his very own downsized *WOOD* magazine shop apron. Folks, he's official.

My thanks go out to both of these grandpas for taking the time to have a positive influence on the younger generation. With role models like these, we surely will have plenty of woodworkers and fishermen now and in the future. 🍷

Larry Clayton

Photograph: Hetherington Photography

DISCOVER SHOP SECRETS OF THE PROS THE EASY, AT-A-GLANCE WAY!

ROUTING AND SHAPING IS PACKED WITH

- More than 200 full-color photos and how-to illustrations
- Scores of special Shop Tips that make routing a breeze
- 144 pages jammed with tricks and secrets of the pros



SHOP-TEST THIS AMAZING ROUTER-SECRETS GUIDE FREE FOR 21 DAYS!

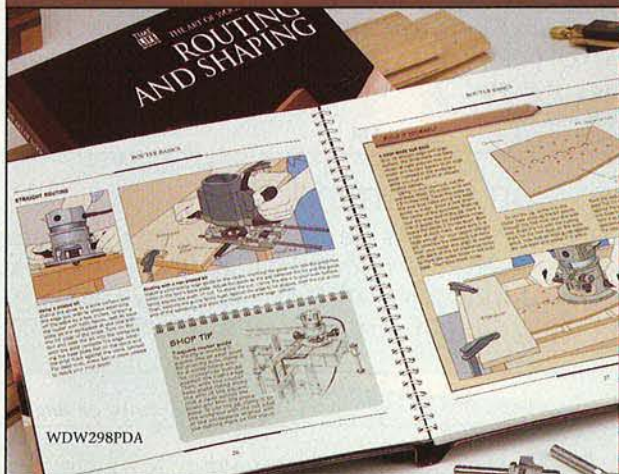
Now there's one, jig-packed, skill-building, *fully illustrated* book that lets you tap into your router's amazing versatility the easy visual way! It's *Routing and Shaping* from **TIME-LIFE**, and you can shop-test it **FREE** for 21 days if you act now!

Learn the best way to make mortise-and-tenon joints. Find out how to create raised panels in minutes. See how easy it is to build doors and drawers. Discover the 12 most useful router-made joints. And get plans for more than 40 of the most useful routing jigs ever invented!

You'll learn how the pros do all this and more —

and you'll learn the *quick, easy* way with at-a-glance visuals, plus easy-to-follow instructions that guide you through every step.

Try *Routing and Shaping* for 21 days *free* as your introduction to **THE ART OF WOODWORKING**. If you decide to keep it, pay just \$9.99*, — an unbeatable deal. We'll send you another volume in the series about once a month with the same **FREE** preview at the regular price of \$16.99*. There's no commitment. No obligation. No minimum. And no reason to wait — order now!



Preview ***Routing and Shaping*** without risk!

YES! I want to shop-test *Routing and Shaping* for 21 days, free. If I keep it, I'll get to preview other books in the **THE ART OF WOODWORKING**, without risk or commitment, as described in the terms above.

KGEOUO

SEND NO MONEY NOW!

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE _____ SIGNATURE _____

*PLUS \$3.95 shipping & handling. © 1998 Time Life Inc. Orders subject to approval.

Mail to **TIME-LIFE BOOKS, P.O. Box 85563, Richmond, VA 23285-5563.**

For that
"SPECIAL"
project

See Us In
Booth #3654
IWF Atlanta
Aug. 22-25



Table
Bases



Table Legs

IN STOCK
NO
MINIMUM
VARIOUS
WOODS

FREE
COLOR
CATALOGUE



Kits Ready to Assemble &
Finish

Adams Wood Products, LTD. LP.
974 Forest Dr., Dept. M 34
Morristown, TN 37814 • Phone (423) 587-2942

Circle No. 1002

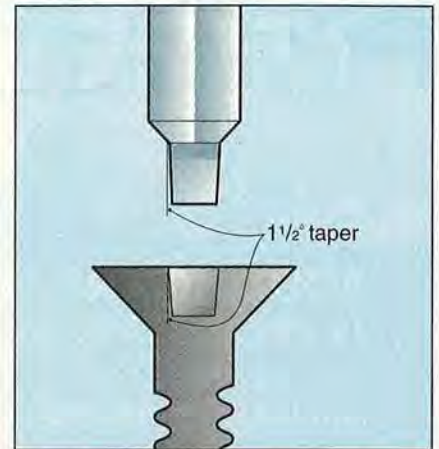
TALKING BACK

Square-drive and Robertson screws: The difference is in name only

It was quite a surprise to read the recent letter (issue #107) from Tom Rawley of Cambridge, Ontario, concerning the "differences" between square-drive and Robertson screws.

According to Bill Weston, vice president and general manager of Robertson, Inc., the Canadian firm that manufactures the "Original Robertson" screw and the owner of P.L. Robertson's original Canadian and U.S. patents, it's unlikely that there ever was a restriction that Robertson screws be manufactured exclusively in Canada. In fact, Robertson, Inc. or its sister company has manufactured Robertson screws outside Canada for more than 50 years and in the United States for almost 20 years. Since 1969, "Robertson" has been the trademark for the square recess drive screw manufactured by Robertson, Inc. Trademarks offer protection only for the name given to a product, not for the design of the product itself, however. Since the original patents date from 1908 and have long expired, there is no legal restriction on the manufacture of square-recess-drive-screws.

As the first successful recess style drive system, the Robertson screw relied on a slight "draft" or taper to the drive recess to allow for the reliable extraction of the punch that forms the recess during manufacture. It is possible that someone has manufactured a square recess screw without tapering the recess, but I am not aware of it. The Industrial Fasteners Institute is the governing body for standardization of most industrial fasteners, and in the Sixth Edition of its seven-pound reference manual, they list the specifications for "square-recessed-



head-screws" (designated as a Type III recess), including the requirement for a 1½-degree taper on all four sides of the recess. The IFI is an independent organization composed of member companies dedicated to the advancement of fastener technology, and therefore refers to a square-recess-head-screw instead of a Robertson-drive-screw to avoid appearing to endorse a trademarked product.

Finally, within the recreational and custom cabinet markets, much of the blame for the confusion over terminology must be laid on my company, McFeely's-Square-Drive-Screws. Back when we began advertising them heavily in magazines and through our catalog, the term "Robertson screw" was meaningless to most woodworkers in the United States. In fact, the concept of a non-Phillips-drive-screw was rather foreign. I made the decision to refer to the Robertson-drive-screws we sold by the more descriptive name "square-drive screw."

*James C. Ray, President
McFeely's Square Drive Screws,
Lynchburg, Va.*

Let us know what's on your mind

We welcome your comments, criticisms, suggestions, and yes, even compliments. We'll do our level best to publish letters of the great-

est benefit to all our readers. Write to us at: Talking Back, WOOD Magazine, 1716 Locust St., GA310, Des Moines, IA 50309-3023.

Continued on page 8

Better Homes and Gardens®

WOOD Advertising
& Marketing

THE WORLD'S LEADING WOODWORKING MAGAZINE

Publisher WILLIAM R. REED

Advertising Director MARK HAGEN

Manager, Marketing and New Business Development

CATHERINE BJORK

Asst. Advertising Services Supervisor PAT HENDERSHOTT

Display Advertising: 333 N. Michigan Ave., Suite 1101, Chicago, IL

60601 Phone: 312/853-2890 FAX: 312/580-7906

Eastern Advertising Manager JAMES N. FORD

Western Advertising Manager WILL MURPHY

Administrative Assistant GERALLIE LEGASPI

Direct Response Advertising: 1716 Locust St., GA204, Des Moines,

IA 50309-3023 Phone: 515/284-3785 FAX: 515/284-3343

Direct Response Advertising Manager RICH RAINFORTH

Direct Response Advertising CINDY ANDERSON,

PATRICK MADDEN

Administrative Assistant KRISTI HASEK

Classified Advertising: Phone: 800/424-3090 FAX: 312/464-0512

Circulation Director LIZ BREDESON

Associate Circulation Director KATHI PRIEN

Business Manager JANET DONNELLY

Senior Product Manager RICK GROW

Publishing Director JERRY WARD

MEREDITH PUBLISHING GROUP

CHRISTOPHER M. LITTLE, President

BILL MURPHY, Custom Marketing; JERRY KAPLAN, Group Sales;

MAX RUNCIMAN, Finance and Administration; BRUCE HESTON,

Manufacturing; HAL ORINGER, Circulation; DEAN PIETERS,

Operations

Meredith
CORPORATION

WILLIAM T. KERR, President and Chief Executive Officer

E. T. MEREDITH III, Chairman of the Executive Committee



ADJUSTS TO ANY SETTING:

STICKLER, PERFECTIONIST,
OBSESSIVE,
TOTALLY NEUROTIC.



BOSCH

EVERY NOW AND THEN IN LIFE SOMETHING COMES ALONG TO PROVE THAT ABSOLUTE FULFILLMENT IS ATTAINABLE. BEHOLD THE WORLD'S MOST ACCURATE SHOP ROUTER. A BOLD PROCLAMATION MADE POSSIBLE BY THE FINEST PRECISION-CENTERING SYSTEM EVER CONCEIVED. NO WALKOFF. NO VARIANCE. ZERO TOLERANCE FOR ERROR. YOU CAN NOW DIE A HAPPY MAN.

MAGNESIUM SHOP ROUTER

3 NEW MODELS | 1 $\frac{1}{4}$ -2HP | WWW.BOSCHTOOLS.COM

ENGINEERED FOR PERFORMANCE

TALKING BACK

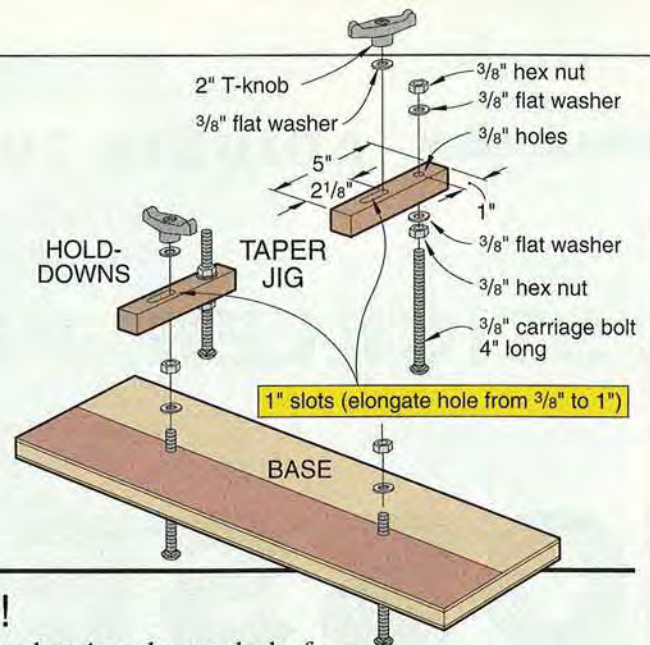
Continued from page 6

How to make our super-simple taper jig even better

I built the super-simple taper jig shown on *page 84* of issue #102. It's 100 percent better than the aluminum jig I'd been using—and I've discovered a way to make it better.

The hold-downs require continual adjustment as stock thickness changes. So, after drilling the $\frac{3}{8}$ " holes in the hold-downs, I elongated the two holes (for the T-knobs) to 1" each running the length of the blocks. This modification makes the jig work much like handscrew clamps. Now I rarely have to adjust the jig for work-piece thickness as I cut different tapers.

—Gilbert Vonk, Phoenix



Oak for 90 cents or less a board foot!

I enjoyed your article "Why You Pay What You Do for Wood" by Peter Stephano in issue #104. Fortunately, I've found a way to get around those high retail prices.

Here in northwest Arkansas some old lumber mills still saw railroad ties. They slab white-oak logs down to the heartwood for the ties. The rest of the 1"-thick boards are sold at 30-90 cents per board foot, depending on their grade.

I try to get the boards with the fewest knots, attached bark, and sap stains. Once home, I square

and paint the ends before weighing each of the 8'-long boards.

An 8"-wide board tips the scales at about 30 lbs. before I sticker and stack it. Five months later that same board weighs just 22 pounds. Air-drying releases almost an entire gallon of water in that time!

I let the lumber air-dry for at least a year before planing it down to $\frac{1}{16}$ ". Then, I restack the oak boards inside until I'm ready to use them.

—John Frey, Eureka Springs, Ark.

Own a Complete Home Shop

It's 10 tools in 1!

Do the work of 10 tools with 1 compact, affordable machine

- Work on wood, metal, or plastic
- Easy, fun to use
- Built to last a lifetime

The perfect friend to relax with,
the perfect partner to help
get work done

WOOD		METAL
34" Lathe		Lathe
12" Table saw	Router	Mill
12" Disc sander	Shaper	Drill
Horizontal boring		
Drill press		

OWNERS SAY:

"This isn't the Cadillac®, this is the Mercedes® of combination woodworking tools. My old 5-in-1 is going to be very lonely over in the corner."

—Edward Zych (TN)

PLUS! Each machine includes:
Premium Tool Pak • Toll-free Helpline
2-year Warranty

SUPER SHOP

1-800-345-6342

Ask for operator WDW

or
write

SuperShop
Dept. WDW
PO Box 1517
Ann Arbor, MI 48106-1517

**FREE
Info Pak
Call today!**

CMT™ A perfect SET UP



item 800.505.11

The CMT 13 Piece Set includes a selection of our most popular bits in the most requested cutting diameters: 3 Straight bits (1/4", 1/2" and 3/4"), a 1" Flush Trim bit, 1/2" Mortising bit, 1/8" Round Nose bit, a 90° V-Groove bit, a 1/2" - 14° Dovetail bit, 1/2" Cove bit, 3/8" Rabbeting bit, 3/8" Roundover bit, 1/4" Ogee bit and a 1-3/4" - 45° Chamfer bit. Beautifully packaged in our hardwood case and marked with each profile on the outside for easy reference.



item 800.515.11

The CMT Sommerfeld 6 Piece Cabinetmaking Set features the uniquely designed Raised Panel bit with Back Cutter that mills both the front and back of the floating panel in one pass and the new cove profile Drawer Front bit. You also get the Ogee Rail and Stile matched pair, Ogee Door Edge bit and Super-Duty Flush Trim bit. Cathedral, French Provincial, Classic Country or Roman style templates are available separately from the CMT catalogue along with a companion video by Marc Sommerfeld.

If you work wood,
get set with *the only* **ORANGE** one



PLYWOOD GROOVE SET

The CMT Plywood Groove Set has been specially designed with bit diameters slightly smaller than purported plywood thicknesses so you get accurate, tight fitting joints. Each bit guarantees super clean grooves in the three most popular thicknesses of plywood: 1/4", 1/2", and 3/4".

item 811.501.11



ROUNDROVER SET

The CMT Roundover Set gives you the maximum flexibility when doing edge work and borders by putting the most requested diameters in one package - 1/4", 3/8", and 1/2".

item 838.501.11



RABBETING SET

The CMT Rabbeting Set includes a 1-3/8" diameter micrograin carbide tipped rabbeting bit and 6 interchangeable bearings (hex key and screw included) to let you flush trim and make 6 different rabbet depths ranging from 1/8" to 1/2".

item 835.502.11

These CMT sets give you only the best - quality super strength steel shanks and bodies and micrograin carbide-tipped bits, each one protected with CMT's trademark orange Teflon® coating. There's no better value for the price.

Circle No. 1312

FOR THE NAME OF THE CMT DEALER NEAREST YOU OR A COPY OF OUR CATALOGUE CALL CMT USA

CMT USA, Inc. 307-F Pomona Drive Greensboro, NC 27407 Toll free 1-888-CMT-BITS Free fax 1-800-268-9778 cmtusa@aol.com

CMT Utensili Srl Via della Meccanica - 61020 Chiusa di Ginestreto PS - Italia - cmtsr@pesaro.com www.cmtutensili.com

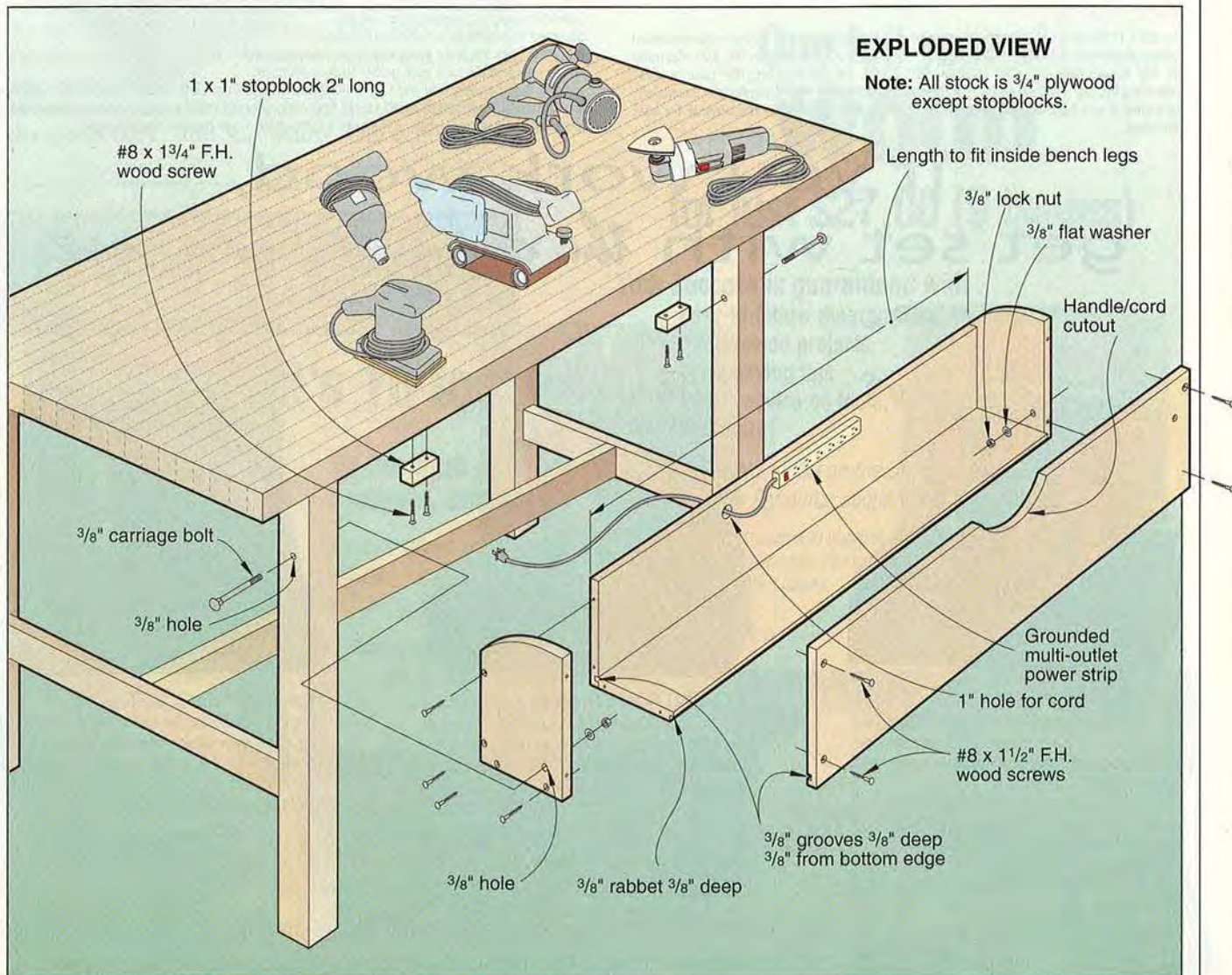
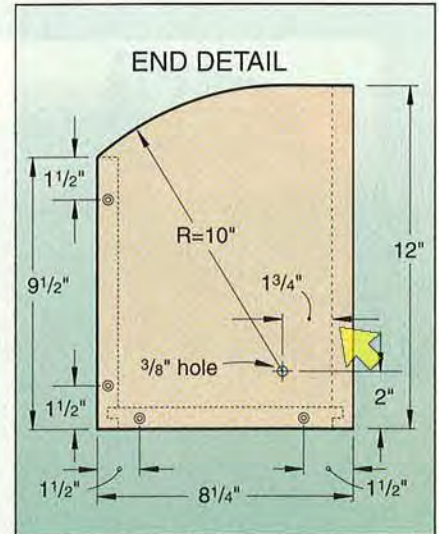
Out-of-sight WORKBENCH TOOL CRIB

To store his tools close at hand, reader Donovan Nagel designed and built this hanging tool crib that neatly secures in place beneath the benchtop. He stores power tools in it, but you can use it to best suit your needs.

Simply build the crib as shown to fit between the legs of your workbench. Fasten it in place

with two $\frac{3}{8}$ " carriage bolts. To put your crib into action, simply pull on the handle cutout and swing it out. A pair of stops screwed to the bottom of your workbench prevent the crib from falling too far forward.

As an added feature, cut a hole in the back piece and install a multiple outlet in the tool crib. ♣



Project Design: Donovan Nagel, Madison, Wisconsin

Illustrations: Kim Downing

EXTRA VALUE

The Grand Edition 14" Band Saw is one grand value. Rides around the shop on a mobile base and sports an 18" rip fence and Cool Blocks™. More than \$225 in extras. Then top it off with a **\$50 rebate**.



Model 28-270

EXTRA VALUE

The Grand Edition 10" Contractor's Saw. Loaded with over \$200 in extras. A 30" Unifence Saw Guide, cast iron extension wing, white laminated table board and white adjustable support legs, plus a 50-tooth AT&R carbide-tipped blade. Then add your **\$50 rebate**.



Model 36-455

Newly designed, 3-piece stand cuts 70% of your assembly time. Flared legs improve stability. New see-through blade guard locks in the "up" position to facilitate blade changes.

White Hot.

EXTRA VALUE

Grand Edition Unisaw extras add up to over \$300. Then add a **\$100 rebate** on top of that.



Unisaw™ stands alone for quality and precision. Every single arbor is flange-faced after assembly to reduce run-out. An extra step that other manufacturers don't bother with.

We've added an extra cast iron extension wing to start with. Then a 52" Unifence™ Saw Guide, white laminated table and shelf board, white adjustable steel support legs and a 50-tooth AT&R carbide-tipped blade.

Each Grand Edition Unisaw™ carries the personalized name plate of its owner. Namely you.

Grand Edition Unisaw
Manufactured by Delta Especially for
SCOTT BOX

Model 36-920

The Grand Edition series from Delta. Each a Delta classic. Each done in white. And each made in the USA and loaded with extra goodies. These babies are hot. And they'll be built in limited quantities, for a limited time only. (Extra values and rebates in effect, July 1, 1998–December 31, 1998.) For the name of your nearest participating dealer call Delta International Machinery Corp., 800-438-2486. In Canada, call 519-836-2840. Rebates are available in Canada (in Canadian funds) on these models only.

**THE
POWER
OF THE
PROS**

DELTA
A Pentair Company

www.deltawoodworking.com

Proud sponsor of *The New Yankee Workshop* with Norm Abram and *The American Woodshop* with Scott Phillips.



Clean Cutting With A Mittersaw

If you call it a chop saw, you're not using it right

Power mitersaws rank second only to tablesaws in woodshop popularity, and behind only circular saws at construction sites. So if you're among the many who regularly use a mittersaw, you'll find these tips will make your sawing safer and easier.

Always cut, don't chop

Hurried house framers are particularly guilty of this: physically pushing the blade down into the wood as fast as they can. Of course, a good mittersaw with a sharp blade will cut faster than you can push it down anyway, but don't! All you end up doing is making a lousy cut. And how can you be sure your other hand will always be out of harm's way? Just take your time and let the mittersaw do the work.

Make good contact

Starting your cut when the work isn't flush against the fence and solidly on the table is the surest

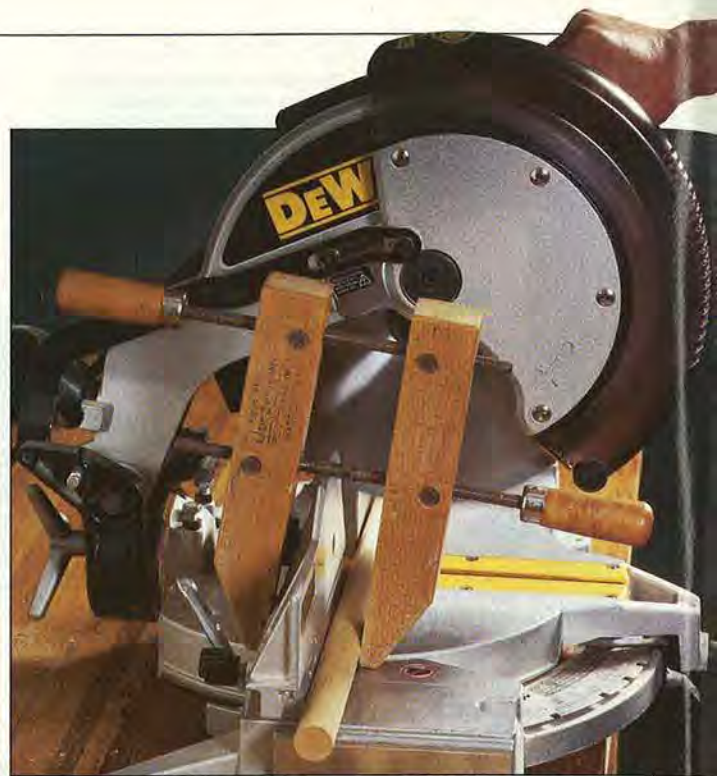
way I know of to destroy a good piece of wood—and a mittersaw. It can result in broken fences, broken blades, broken or cut upper and lower guards, and if you're lucky, only a general bad attitude for the rest of the day. Before you make a cut on your mittersaw, *always* make sure you have the board completely on the table and flush against the fence.

Support compound cuts

Cutting accurate miter angles on crown moldings with a standard (not compound) mittersaw can be one of the hardest trim jobs imaginable. That's because you mount most crown molding at an angle of 38° to the wall. Therefore, you need to hold the molding at this angle when you make the cut—not

easy to do. And because there's not solid contact with both the fence and the table, a slip could put you in danger as well as damage the workpiece.

Here's a good way to make those cuts. Simply make a filler block by ripping a 2x4 to a 38° bevel on your tablesaw. Then, attach the filler block to your mittersaw fence with the 38° angle up, as shown in the drawing *left*. When you place the crown molding upside down against the filler

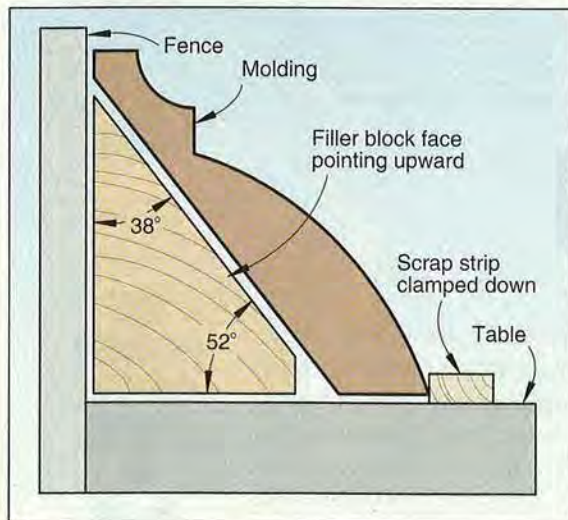


Cutting round stock on a mittersaw can be tricky, even scary, unless you clamp it tightly so that it won't roll.

block, the cut will come out perfectly. For even more control, clamp a scrap-wood stop at the base of the molding to prevent any tipping during the cut.

Cut irregular shapes with control

Unfortunately, I've not seen a universal fixture for cutting irregularly shaped wood, such as a dowel. But I do know that the trick to doing it safely is to clamp the work firmly against the fence and on the table. As shown *above*, a handscrew will work, even for dowels. ♣



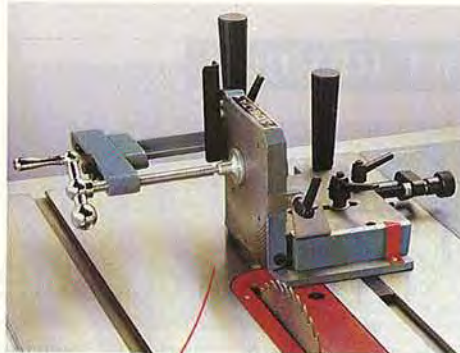
Mike Gililand is a lifelong woodworker and an engineer with 25 years' experience designing and working with wood-working power tools to make them safer. A Missouri resident, he owns and runs a safety consulting firm there.

Send your safety-related questions with an SASE to: The Safety Man, WOOD® Magazine, 1716 Locust St., GA310, Des Moines, IA 50309-3023. Not all questions can be published, but all will receive a reply.

Tool photograph: Hetherington Photography Drawing: Roxanne LeMoine

MORE PRECISION

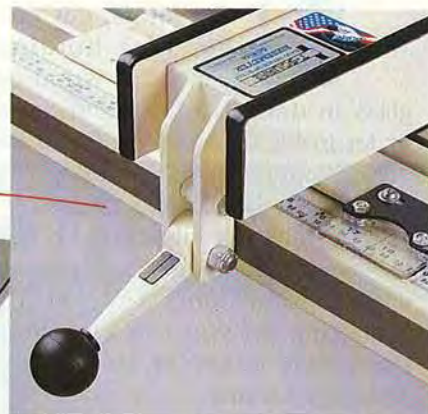
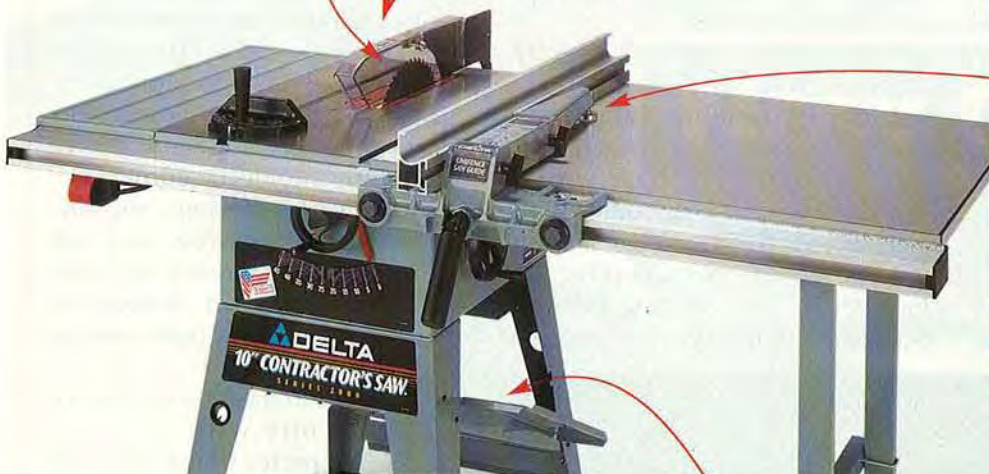
A full line of saw blades, dado sets and cutter heads deliver the perfect cuts.



MORE VERSATILITY

Table top accessories such as a Delta tenoning jig or extra miter gages or hold downs can make your saw work harder.

Ask for Genuine Delta Accessories when you visit your Delta dealer. Whether you're buying a new Delta machine or upgrading an old one, (even another manufacturer's machine) the good stuff is the stuff in the Delta package.



MORE OPTIONS

Specify a Unifence® or Biesemeyer Fence, depending on your needs.

More Of A Good Thing.



MORE SAFETY

Various table extensions or a Deluxe Uniguard® Blade Guard let you handle large jobs.

MORE MOBILITY

Shuttle any machine to wherever you need it with a hefty mobile base.



LESS DUST

Breathe easy. Delta has a full line of dust collection accessories.

Your Delta dealer can accessorize any machine—from band saws to drill presses, to shapers, to table saws—with the stuff that'll make that machine more valuable in your shop. For the name of the Delta dealer nearest you, call Delta International Machinery Corp., 800-438-2486. In Canada, 519-836-2840.



Proud sponsor of *The New Yankee Workshop* with Norm Abram and *The American Woodshop* with Scott Phillips.



www.deltawoodworking.com



RABBETING BIT BEARING SETS

They add a new dimension to this bit

With a rabbeting bit like this one, you can make rabbet joints, cut rabbets for holding panels of wood or glass in doors and other frames, or let in back panels on furniture and cabinet carcasses. Unlike the rabbets that you cut with a table-saw or jointer, a rabbeting bit will follow curved edges such as an arch-topped door. And, with a rabbeting bit you can cut along the inside edges of an already-assembled frame.

A typical rabbeting bit comes with either a 1 1/4"-diameter cutter

and a 1/2" bearing for cutting a 3/8"-deep rabbet, or a 1 3/8"-diameter cutter and 3/8" bearing for cutting 1/2"-deep rabbets. With either bit, you can greatly expand its versatility by purchasing a matching set of high-speed bearings like the ones shown *bottom*.

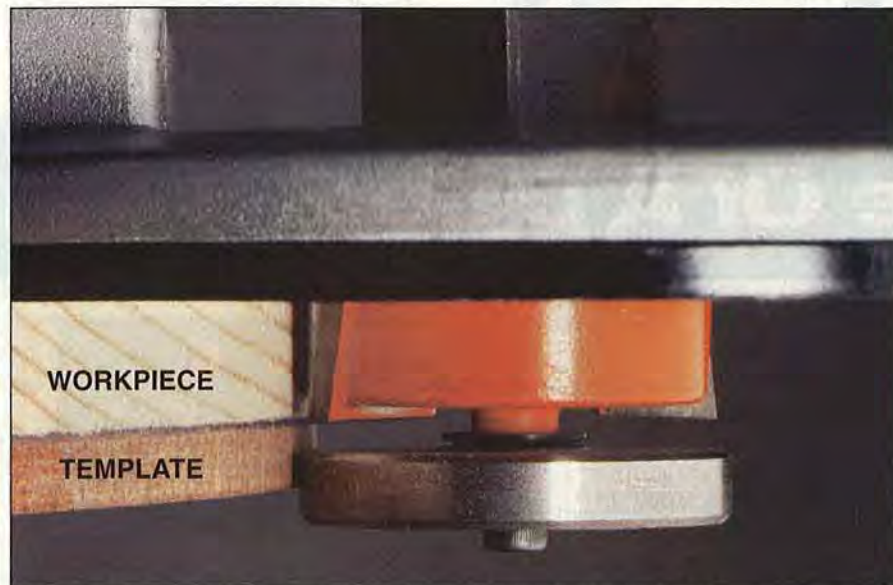
These bearing sets vary slightly by brand, but most consist of six bearings in these outside diameters: 1/2", 5/8", 3/4", 7/8", 1 1/8", and 1 3/8". Most of these sets mate with a 1 3/8" rabbeting bit that comes with a 3/8" bearing. With such a set you can cut rabbets in six depths: 1/2", 7/16", 3/8", 5/16", 1/4", 1/8" (the smallest bearing gives the deepest cut). To

cut rabbets at depths between these, remove the bearing completely and use the bit with a router table and fence.

Outfitted with the largest bearing (1 3/8"), you can flush-trim workpieces less than 1/2" thick using a template as shown *below left*. You also can flush-trim veneers and plastic laminates, although the large-diameter bit and bearing will not allow you to trim tightly into inside corners.

To change the bearings, you simply loosen a tiny screw atop the bit with an allen wrench included with the bearing set. Remember to place the bearing right side up when reassembling.

You can purchase these sets for rabbeting bits with 1/4" or 1/2" shanks. We prefer to use bits with the sturdier 1/2" shanks when cutting 1/2"-deep rabbets. ♣



Outfit a rabbeting bit with a bearing of the same outside diameter and you have a flush-trimming bit.

For more information call:
CMT
 888/268-2487
Freud
 800/472-7307
Jesada Tools
 800/531-5559
MLCS
 800/533-9298 Woodline
Arizona
 800/472-6950

Written by Bill Krier with Chuck Hedlund
 Photographs: Marty Baldwin

RABBET DEPTH REFERENCE CHART (with a 1 3/8" diameter rabbeting bit)

0" (flush trimmer) 1/8" 1/4" 5/16" 3/8" 7/16" 1/2"



BEARING DIAMETER

One thing's for sure. You don't mess with success. The massive cast iron table and trunnion and power and precision are right where they've been since the day we built the first one of these critters. And we're still building them right here in the good ole US of A.



Newly designed see-thru blade guard with splitter and anti-kickback attachment locks in the "UP" position for blade changing. Releases automatically when insert is replaced.



Smooth. Sweet. New UniRip™ T-Square style fence with single locking handle and extruded aluminum front rail, extends your capacity to 30" right of blade. Built-in T-slots accommodate jigs and other accessories.



New Original.

Solid footing. Redesigned stand with splayed legs, integral dust chute and built-in storage for rip fence, miter gage and wrenches. Three-piece assembly can save 70% of your assembly time. And all of the aggravation.

DELTA
10" CONTRACTOR'S SAW
SERIES 2000

Model 36-444

Your Series 2000 Contractor's Saw® is also available with a Unifence®, Precision Saw Guide, or Biesemeyer Fence.



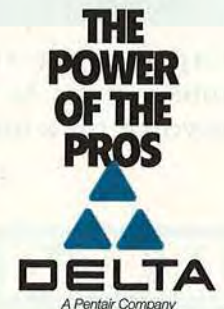
EXTRA EXTRAS!

A tenoning jig or dado set or mobile base can make any saw perform better. Be sure to check out all the accessory possibilities when you purchase your new Delta machine.

Believe it. We've just improved on one of the industry's "standards." We've taken the original Contractor's Saw® that we designed some 46 years ago and moved it into the future. *Introducing the new Delta Series 2000 Contractor's Saw®.* New fence. New stand. *Old Delta Quality.* For the name of your nearest Delta dealer, call Delta International Machinery Corp., 800-438-2486. In Canada, 519-836-2840.



Proud sponsor of *The New Yankee Workshop* with Norm Abram and *The American Woodshop* with Scott Phillips.



www.deltawoodworking.com

MUSIC-BOX MANGER

This scrollsawn nativity scene sounds as good as it looks



Capture the spirit of the season with this lovely music box. As the melody plays, scrollsawn figures revolve on a turntable beneath the star of Bethlehem.

 Print this article

First, build a housing for the musical movement

1 Photocopy the full-size patterns in the *WOOD PATTERNS*® insert in the middle of the magazine. Make two copies of the top and bottom pattern.

2 Attach the canopy pattern (A) to a $\frac{3}{8} \times 8\frac{1}{2} \times 8\frac{1}{2}$ " piece of cherry with spray adhesive or rubber cement. Adhere the top and bottom patterns (B, C) to two $\frac{3}{8} \times 5 \times 8\frac{3}{4}$ " pieces of walnut.

3 Scrollsaw the canopy. First, drill blade start holes, and cut out inside the large central star. Continue with the cutouts surrounding the star, then saw around the canopy outline. Rout $\frac{1}{8}$ " round-overs along the outside edge on both sides, shown on the Exploded View drawing.

4 Form the mortises in the top (B) where shown. To do this, first lay the cut-out canopy on the patterned top to verify the mortise locations and dimensions. Then, drill a $\frac{3}{8}$ " hole centered in each square. Complete the mortises by chiseling out the corners.

Drill holes in the top (B) and bottom (C) where shown. Countersink the screw holes on the bottom side of part C.

5 Cut out the top and bottom. Rout a $\frac{1}{8}$ " round-over around the top and bottom edge of each piece.

6 Cut two $\frac{3}{8} \times 2\frac{3}{8} \times 6$ " walnut box sides (D) and two $\frac{3}{8} \times 2\frac{3}{8} \times 3\frac{3}{8}$ " ends (E). Drill the keywind hole in one side (D) where shown.

Miter-cut both ends of all four pieces. Then, saw spline slots in the miters. To saw them, attach an auxiliary fence to your miter gauge, and set up your saw as shown in the Cutting the Spline Slots drawing. Set the blade depth and place the stopblock to put the $\frac{1}{8}$ "-deep slot approximately $\frac{1}{8}$ " from the short side of the miter.

7 Cut four $\frac{1}{8} \times \frac{1}{4} \times 2\frac{3}{8}$ " hardboard splines. Glue the box sides and ends together, reinforcing the joints with the splines, as shown.

8 Cut the $\frac{3}{4} \times 1\frac{1}{8} \times 2\frac{1}{8}$ " spacer (F) to size. Drill a $\frac{5}{16}$ " hole through it where shown, then scrollsaw from the bottom of the hole to form a slot as shown. Referring to the Exploded

Continued on page 18

ACCURACY AND CAPACITY ANY WAY YOU CUT IT.



DW705
Heavy-Duty 12"
Compound Miter Saw



DW730
Heavy-Duty
Miter Saw Stand



DW708
Heavy-Duty 12" Double-Bevel Sliding Compound Miter Saw

Bevels 45° to the left and right, with the ability to bevel 48°, allowing users to flip the saw, not the work

Crosscut capacity of 12" at 90° to make cuts other saws can't

Extra-high fence accommodates molding up to 5-1/2" standing vertically

Miters 50° to the left and 60° to the right

Stainless steel miter scale with 11 positive stops and an unprecedented cam-action, miter locking system for making precise cuts

For years, the family of **DEWALT HEAVY-DUTY 12" COMPOUND MITER SAWS** has delivered levels of accuracy and capacity that have become the industry standard. Our miter saws are designed to make it easier than ever to get the finest cuts possible. The saws provide the capacity to cut 5-1/2" molding standing vertically, or a 4" X 4" at a 45° miter. The DW708 has the capacity to cut a 2" X 12" at 90° while the DW705 can cut a 2" X 8" at 90°. The extra-high fence provides superior material support and slides out of the way to make bevel cuts. An easy-to-read, stainless-steel miter scale provides up to 11 positive stops for ease and accuracy. What's more, our miter saws work perfectly with the Miter Saw Stand. Weighing only 35 pounds, it has a seven foot beam and supports loads of up to 300 pounds.

For more information, call 1-800-4 DEWALT or visit our web site at www.dewalt.com.

DEWALT
High Performance Industrial Tools

MUSIC-BOX MANGER

Continued from page 16

View drawing, glue two $\frac{3}{8} \times 1\frac{3}{4} \times 2\frac{1}{8}$ " side pieces (G) to the spacer. Glue the assembly into the box, aligning the top of the slot with the hole through the side (D).

9 Glue the box to the underside of the top (B). The keywind hole should be near the bottom.

10 Center the bottom on the box. Drill pilot holes into the box, using the screw holes through the bottom (C) as guides. Temporarily screw on the bottom.

11 Glue the canopy into the mortises in the top. Ensure that the canopy stands perpendicular to the top.

Add the nativity figures

1 To make the turntable (H), draw a 4"-diameter circle on a piece of $\frac{1}{4}$ "-thick cherry. Scrollsaw slightly outside the line, then sand to it. Rout a $\frac{1}{8}$ " round-over along the top edge.

2 Adhere the tree patterns (I, J) to $\frac{1}{8}$ "-thick cherry. Scrollsaw the parts, and glue them together as shown.

3 Stick the remaining patterns (K, L, M, N, O, and P) to $\frac{1}{8}$ "-thick maple. (They'll all fit on a $5 \times 7\frac{1}{2}$ " piece.) Scrollsaw the figures.

4 Snip the head from a 19-gauge wire nail, then chuck the nail in your portable drill. With it, drill $\frac{1}{4}$ "-deep holes in the bottom of each figure. Cut several nails into $\frac{7}{16}$ " lengths, and press one into each hole. Press figures against the top and turntable to mark positions, then drill $\frac{1}{4}$ "-deep holes at the marks with the nail and drill.

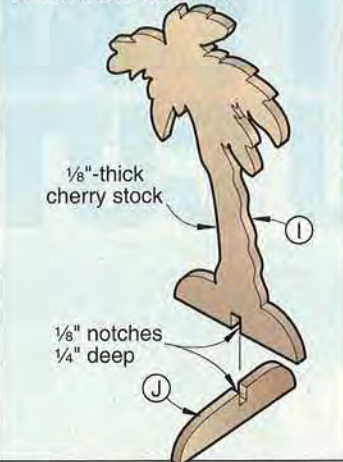
5 Apply a clear finish to the box, turntable, and figures. (We sprayed on semigloss lacquer.)

6 Remove the bottom of the box, and insert the musical movement, as shown *right*. Double-faced tape on the spacer block will hold the movement in place. Reattach the bottom.

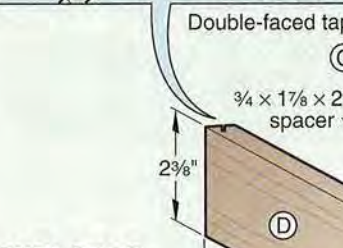
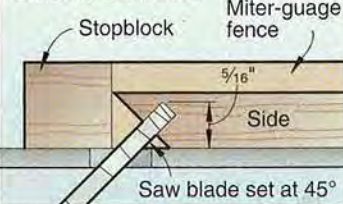
7 Glue the wooden disc onto the plastic music-movement turntable. (We glued it with five-minute epoxy.) Then, with a dab of five-minute epoxy on each nail, place the figures in position. Install the turntable on the movement shaft, and screw the key onto the winding shaft. ♣

SEE THE
WOOD PATTERNS® INSERT
FOR FULL-SIZE PATTERNS

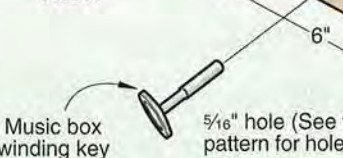
TREE ASSEMBLY



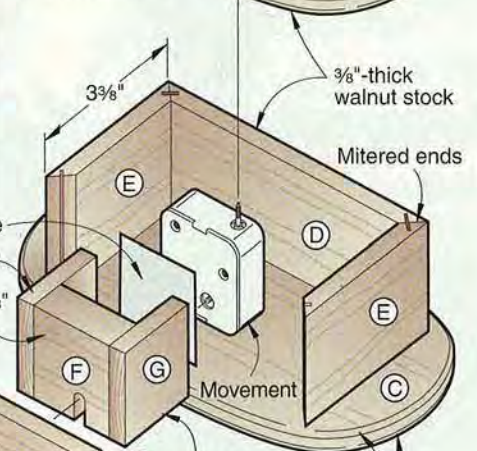
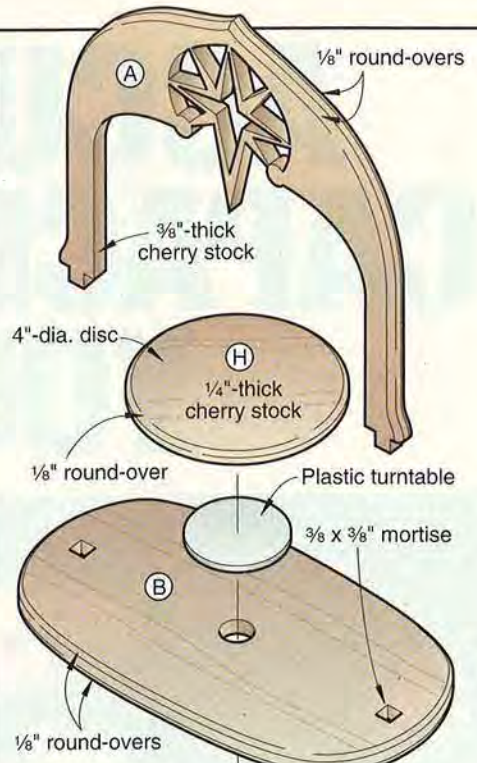
CUTTING THE SPLINE SLOTS DETAIL



EXPLODED VIEW



Slide the key shaft up the slot in the spacer block to install the movement.



Buying Guide

Music-box movement. 18-note movement, choose "Silent Night" (item A262) or "Away in a Manger" (item A276). Order movement desired, plus parts kit, item A269, for \$9.35 ppd. in U.S. Call for other tune choices and quantity discounts. The Berry Basket, P.O. Box 925, Centralia, WA 98531. Call 800/206-9009.

Project Design: The Berry Basket, Rick Longabaugh
Illustrations: Jamie Downing; Lorna Johnson
Photographs: Marty Baldwin; John Hetherington

imagine

the possibilities

Your vision as a woodworker is unique. At Freud Inc., we understand your vision as well as your needs and can provide you the quality and dependability you have come to expect.

Freud offers a full line of saw blades that are packed with extra features that ordinary saw blades just don't have.

Freud was one of the first manufactures to apply DuPont's Teflon® to saw blades. This reduces the amount of friction between the blade and wood and yields a blade that is protected from corrosion and easy to clean. Freud is one of the only manufactures who produce their own Super Micrograin Carbide with Titanium. Because we produce our own carbide, we can formulate our carbide mixtures to meet the need of any cutting requirement. Freud was one of the first manufacturers to laser cut saw blades. This technologically advanced procedure allows us to use higher strength blade bodies (40 to 45 Rc) than those who machine stamp saw blades. Freud's laser cutting process allows the blade to remain true, even after years of use.

Try a Freud blade for yourself on your next woodworking project and experience the difference a Freud blade makes. Let Freud help turn your imagination into reality.

Imagine the possibilities --

John McAlister Jr. did. John, a 73 year old North Carolina native, and self taught wood worker for the past 31 years, spent one year building and researching this Goddard-Townsend secretary.

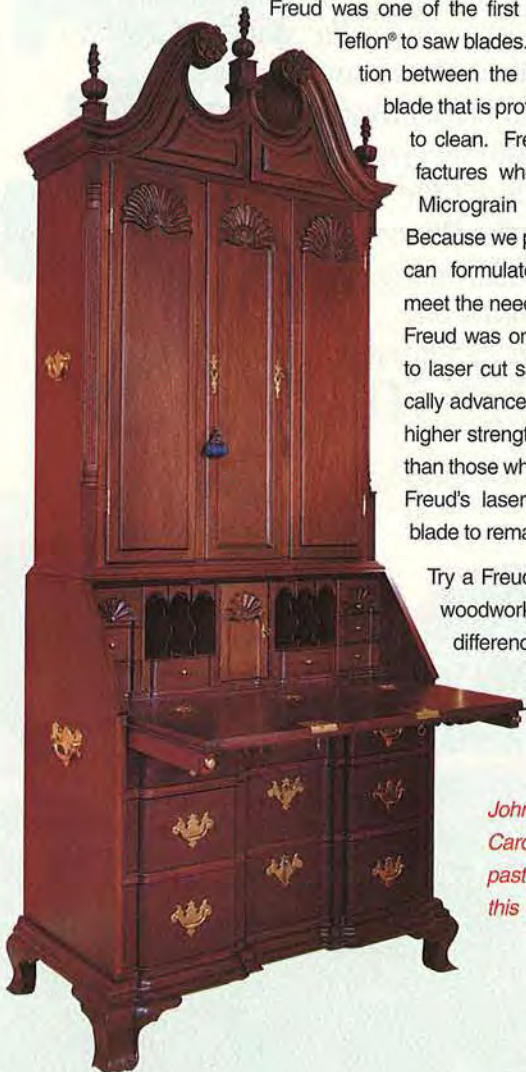
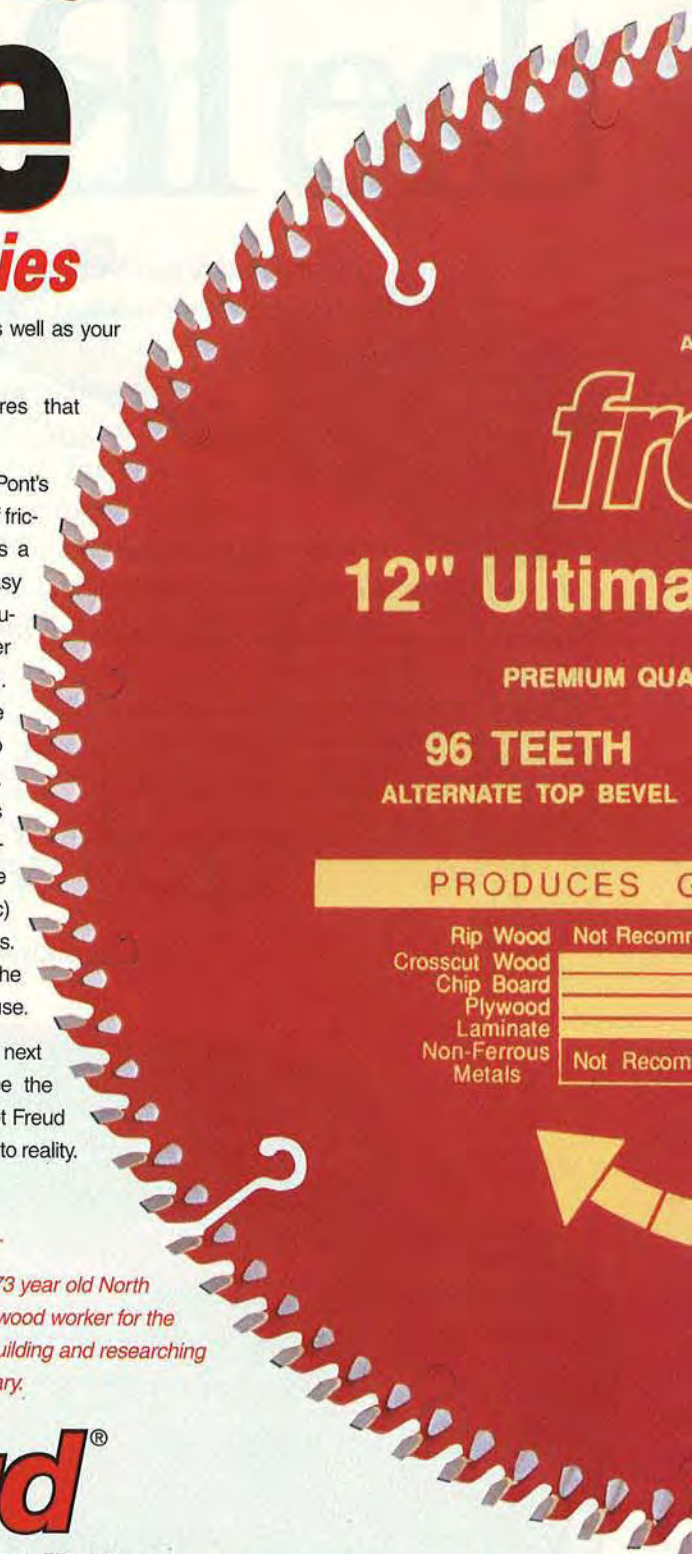


Photo: Pat Shanklin

freud®

Precisely What You Need.

For any comments or questions about our products we can be reached at
 1-800-472-7307 High Point, NC
 1-800-263-7016 Mississauga, Ontario
 or at freudinc@aol.com



freud

12" Ultima

PREMIUM QUALITY

96 TEETH

ALTERNATE TOP BEVEL

PRODUCES

Rip Wood	Not Recommended
Crosscut Wood	
Chip Board	
Plywood	
Laminate	
Non-Ferrous Metals	Not Recommended

"Information courtesy of DuPont Teflon® Industrial Coatings"

If horsepower the IRS would

If horsepower were taxable, our 8 liter Magnum® V-10 alone would be an auditor's dream. At 310 horsepower, we'd have to declare it the most powerful gasoline pickup engine available. A fitting title, indeed, for what was the very first 10-cylinder pickup engine the world had ever seen.

Dodge Ram's 5.9 liter Magnum V-8 is not easily overlooked, either. Put it down as a very substantial contribution of 245 horsepower. And while we're at it, we

mustn't forget to account for the other Magnum V-8, the 5.2 liter. That adds another 230 horsepower to the Dodge Ram Magnum engine lineup.

File away another 175 horsepower for the standard 3.9 liter V-6, and we're totaling close to a thousand horsepower. Impressive.

Then there's the matter of the Ram Cummins Turbo Diesel. That's an additional 235 horsepower.



were taxable, be all over us.



For you torque-crunchers out there, the 24-valve, 5.9 liter Cummins tops out at 460 lb-ft.

It's a good thing power isn't taxable.

Because with the Dodge Magnum engine lineup, we have, overall, the most powerful line of

pickups on the planet.

*We seem to have the power of endurance, too. Dodge Rams are the longest-lasting full-size pickups on the road.**

And Dodge Ram has been ranked number one in its class, winning Strategic Vision's Total Quality Award™ for "Best Ownership Experience" for four consecutive years.†

You know, that's got to be pretty taxing for those other guys.



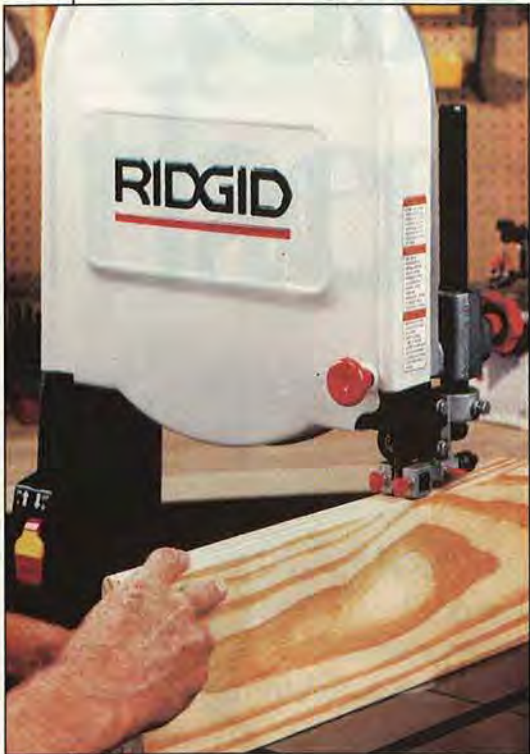
*Based on percentage of 7/88-7/97 new pickup registrations still registered on 7/1/97. Data source: The Polk Company. †Winner of Strategic Vision's 1995, 1996, 1997, and 1998 Total Quality Award™ for "Best Ownership Experience" in the Full-Size Pickup class. 1998 Vehicle Experience Study™ surveyed 32,191 Oct.-Nov. new vehicle buyers of 200+ models after the first 90 days of ownership. Always use seat belts. Remember a backseat is the safest place for children.

Ram  The New Dodge

1-800-4-A-DODGE or www.4adodge.com



Ridgid to provide stiff competition in power tools with lifetime warranty



If you've done any plumbing work you're probably familiar with Ridgid brand pipe-working and plumbing tools. Now, you can buy Ridgid power tools for woodworking at your local Home Depot.

The new line will be produced by Emerson Tool Co., primarily at plants in the U.S., although some products will be made in Taiwan and China. For now, the line consists of nine stationary and benchtop woodworking tools, including two 10" tablesaws (priced at about \$680 and \$500), a 10" compound miter saw (\$230), 16" variable-speed scrollsaw (\$190), 6 1/8" jointer (\$400), 15" drill press (\$300), 14" bandsaw (\$500), and lathe (\$300). Also in the line is a unique oscillating spindle/belt sander priced under \$240 which we'll review in an upcoming issue. (The prices listed here are approximate—none of

the tools were yet in stores as we prepared this article.)

With the exception of the bandsaw, all of the tools will have U.S.-made Emerson motors. Warranty service and parts will be available by calling Emerson Tool Co. at a toll-free phone number.

In the initial rollout you'll also find an abrasive cutoff machine and a variety of dust collection and air-filtration products, including four shop vacuums. More woodworking machines will be added to the line in the future.

Most of the tools should hit Home Depot outlets this fall, although Ridgid shop vacuums and air-filtration units have been available since mid-May. All of the products come with a lifetime warranty against defects in materials and workmanship, a first in the stationary and benchtop tool business. ♣

"All my tools should be this good!"

The **Accu-Miter®** is a professional miter gauge that makes perfect angles easily. Shot-pin action assures dead-on accuracy for common angles — plus a precise protractor scale for everything in between!



We do not recommend operating without the saw blade guard, as is shown here. US Patent #5,038,486

Optional accessories: manual clamp—pneumatic clamp—3/8" x 3/4" miter bar—

JDS COMPANY

Precision Woodworking Equipment

Call or write for our free brochure.

800 Dutch Square Blvd., Suite 200, Columbia, SC 29210
1-800-382-2637 / SC 803-798-1600

\$149

The Joy of Sanding

Right!? Who would believe a job as tedious and dusty as sanding could be a joy?

Thousands of Performax owners do. With their Performax® drum sander... no more sawdust in their faces, no more high and low spots on their finished pieces.

Imagine the satisfaction of sanding a wide surface (up to 32") to within .010" uniform thickness across its full width. Or sanding stock as short as 2 1/4" without a carrier board or scuffed up fingers. Fantasize sanding to as smooth a surface as you wish without any elbow grease.

Proudly Made in the USA



Make your woodworking the pleasure it was meant to be. Call us today for a free brochure and the dealer nearest you.

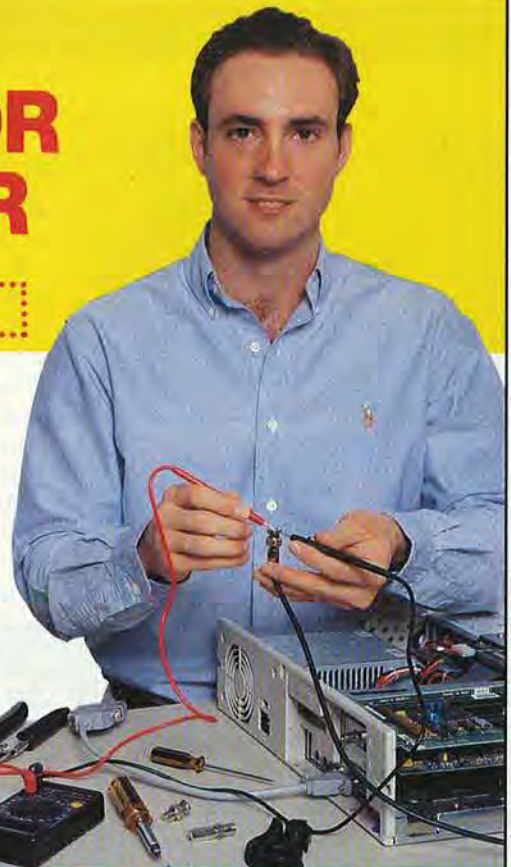
PERFORMAX PRODUCTS, INC.

12257 Nicollet Ave. So. Burnsville, MN 55337

1-800-334-4910 Fax (612) 895-5485

NEW - READY-TO-WRAP ABRASIVES

IF YOU THINK MAKING \$25, \$45 OR EVEN \$65 AN HOUR IS IMPOSSIBLE



John had a job that was O.K. But his paycheck was always gone before he cashed it. That all changed when he sent for his free Lifetime Security Kit from Foley-Belsaw! Today, he gets a big paycheck and it lasts a lot longer. He's living good ... he makes more money, loves his job, and can afford to buy his family the things they want and deserve.

**THINK
AGAIN**

His friends always ask, "How did you do it?" He tells them, "The free Lifetime Security Kit. It gave me all the answers I was looking for — and more!"



We'll Show You How!

It'll answer your questions too! Whether you want to start a business of your own or just want to make extra money in your spare time. It shows you how to do it in a

field you enjoy. It even tells you how to make good money while you're training at home, in your spare time.

So if you thought making \$35, \$45, even \$65 an hour was impossible, think again. The free Lifetime Security Kit will start you in the

right direction, just like it did for John.

Choose From 15 Fields

Look over the 15 high-paying fields below. Choose the one that's right for you and send or call for your free Kit. We'll rush it to you by first class mail.

Remember, the Lifetime Security Kit is free and you're under no obligation. Don't put it off any longer! Call Today.

Fill in and mail coupon below or
**CALL Toll-Free
1-800-487-2100**
to receive **Income Security Kit**
free by return mail.

1 Locksmithing. Millions of Americans demand greater protection. Cash in on a growing field and charge \$25 an hour.

2 Small Engine Service & Repair. With more than 65 million small engines in use today, you can make \$45 in half an hour for simple tune-ups.

3 Saw & Tool Sharpening. Ninety cents out of every dollar is cash profit! Pocket \$18 to \$35 an hour running machines that do the work.

4 VCR/DVD Cleaning & Repair. Troubleshoot and repair VCRs and charge \$65 for simple cleanings.

5 Computer Repair. Service computers as a highly paid technician or run your own profitable repair business.

6 TV/Satellite Dish Repair. Service the wave in entertainment. Make top dollar installing and repairing satellite dishes and the super-popular mini dishes.

7 Gunsmithing. Skilled gunsmiths charge up to \$50 an hour for repairs. Work part-time, full-time or open your own shop.

8 Professional Woodworking. Build over \$3,000 worth of valuable

furniture while you learn! Create heirloom-quality pieces and save thousands on your own repairs.

9 Upholstery. As furniture prices rise and quality noticeably decreases, it makes good sense to pursue a career in upholstery.

10 Vinyl Repair. Just a few days' practice and you're ready to do repairs for cash. It's easy and the demand never ends.

11 Electrician. Enjoy endless opportunity, security and top pay as a trained commercial or residential electrician in this fast-growing field.

12 PC Specialist. Employers want people with computer skills. Learn word processing, spreadsheet and data base applications.

13 Computer Programming. Skilled programmers are in big demand. Secure your future. Learn computer languages and programming skills.

14 Computer Networking. Fast-paced America depends on efficiency. Companies pay network techs great money linking PCs together for a more efficient office.

15 Home Inspection. Homeowners need this service to protect the biggest of all their investments.



Foley-Belsaw Institute

6301 Equitable Road • Kansas City, MO 64120

Please Check Only ONE of the Following:

YES! RUSH ME A FREE INCOME SECURITY KIT

- Locksmithing 13147
- Small Engine Repair 53021
- Sharpening 21953
- VCR/DVD Repair 62848
- Computer Repair 64750
- TV/Satellite Dish 31619
- Gunsmithing 92653
- Woodworking 43885
- Upholstery 81557
- Vinyl Repair 71488
- Electrician 95426
- PC Specialist 38388
- Programming 35566
- Networking 39375
- Home Inspection 76064

Name _____
 Street _____
 City _____ State _____ Zip _____
 Telephone No. (____) _____



Top Tip winner Kevin Boricic takes a break from horsing around in the shop to show off a project.

Apartment-dweller Kevin Boricic has built cedar chests, a full set of kitchen cabinets, and more. But he doesn't have a shop. He does, however, have a generous father-in-law who doesn't mind letting Kevin use his shop. These two also share a love of the in-laws' century-old home that they are painstakingly restoring

Whether or not Kevin is hard at work in the borrowed shop, he needs a place to stow and lay out his project plans—a place that's convenient, yet out of the way. That need inspired this issue's Top Shop Tip, *right*.

If you've come up with a time- or space-saving idea for your shop, share it with us. It may be worth \$40. If we choose your tip as our Top Shop Tip, we'll help fill your shop (or your father-in-law's) with a tool prize valued at \$250 or more. To submit a tip, send a letter, including your daytime phone number, and a photo or drawing of your idea to:

Tips From Your Shop (And Ours)
WOOD® Magazine
 1716 Locust St., GA-310
 Des Moines, IA 50309-3023

We try to publish original shop tips only, so please send your idea only to *WOOD* magazine. And please note that we cannot return submissions. Thanks!

Dave Campbell
 GENERAL-INTEREST EDITOR

Hideaway table: best thing since sliced bread

In the past when I built a project from plans, those plans either took up valuable benchtop space, or hid tools on the wall. I needed a place to put them where they'd be within easy reach, but out of the way.

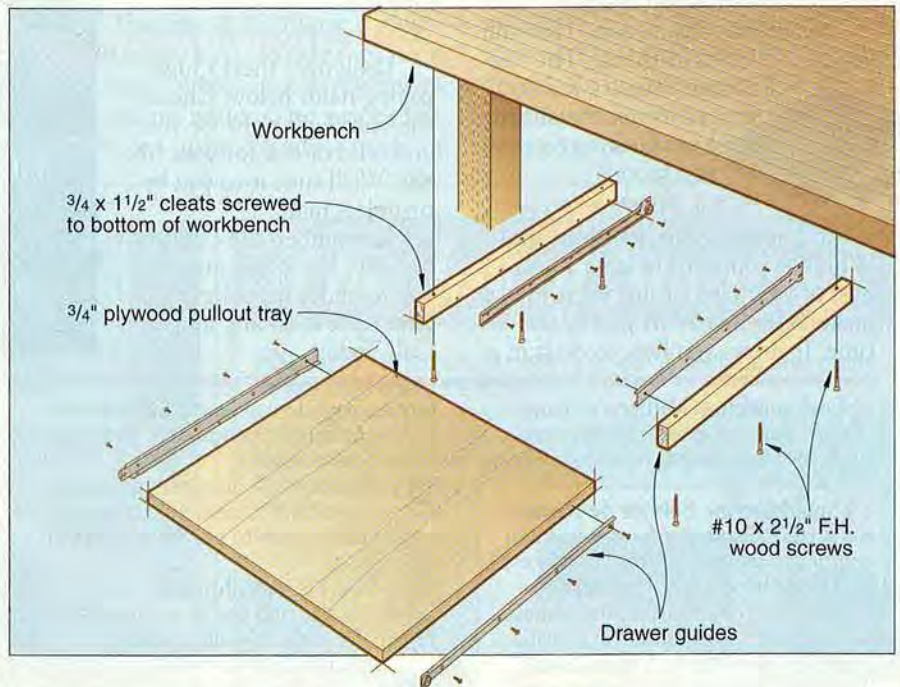


Inspired by the slide-away cutting board in my kitchen, I made the hideaway plan table, shown *below*. Because I left a $\frac{3}{4}$ " space between the plan table and the benchtop, I can slide the table away, even if plans are attached to it with thumb-tacks or push pins.

—Kevin Boricic, Mitchell, Ontario



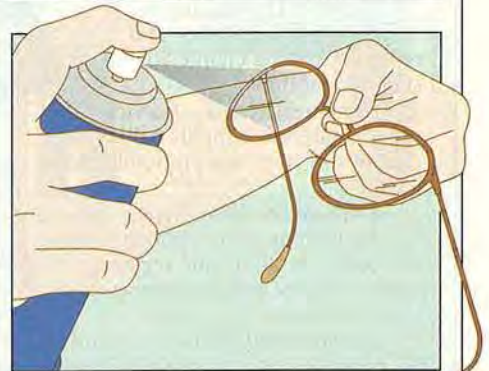
For sending the Top Shop Tip, Kevin Boricic will receive a Delta Q-3 variable speed scrollsaw. Kudos, Kevin!



When you're seeing spots before your eyes

To clean paint overspray off plastic eyeglass lenses, spray them with WD-40, then wet a fingertip with more WD-40 and rub it into the paint spatters. Let the WD-40 soak for a few minutes, then rinse it off with warm, soapy water.

—Charles Hand, Indianapolis



Continued on page 26



WE PUT EVERYTHING WE KNOW ABOUT CLAMPING INTO ONE HAND—YOURS.



Spring Clamp
1", 2", 3"
Jaw Openings



Micro Bar Clamp
4 1/2"
Jaw Opening



Mini Bar Clamp
6" and 12"
Jaw Openings



Bar Clamp
6", 12", 18", 24", 36", 50"
Jaw Openings



Macro Bar Clamp
10", 20", 33 1/2"
Jaw Openings

Presenting the QUICK-GRIP® Bar Clamp – one convenient tool for all your clamping needs. Whether you use them at the workbench or for jobs around the house, revolutionary one-handed QUICK-GRIP clamps provide an easier, faster way to help complete your projects (which means you can start on the next one even sooner).



Continued from page 24

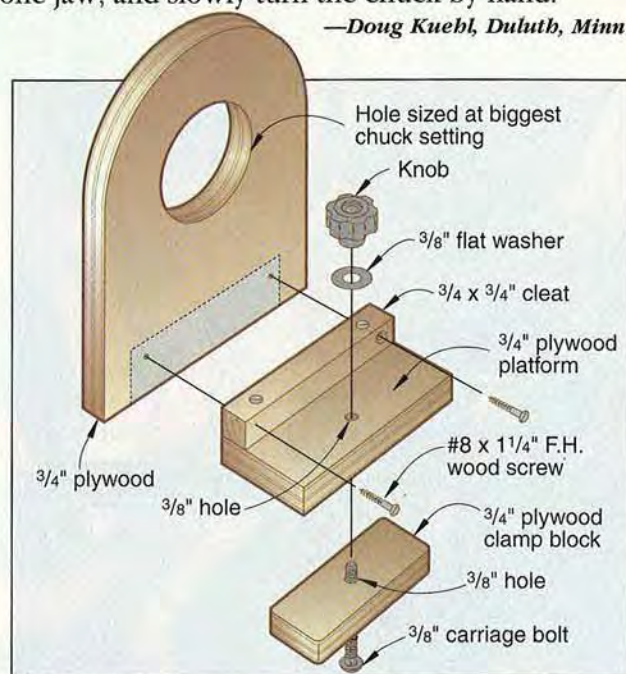
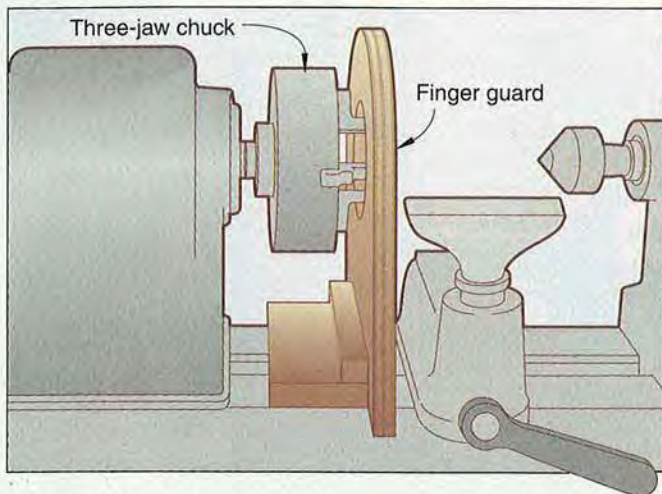
Plywood guard prevents lathe chuck mishaps

After nearly losing a finger to a spinning three-jaw lathe chuck, I came up with a guard that keeps my fingers safely away from the chuck. The base mounts on the lathe bed with a threaded knob so it can be removed easily to change turning stock or your lathe tool setup.

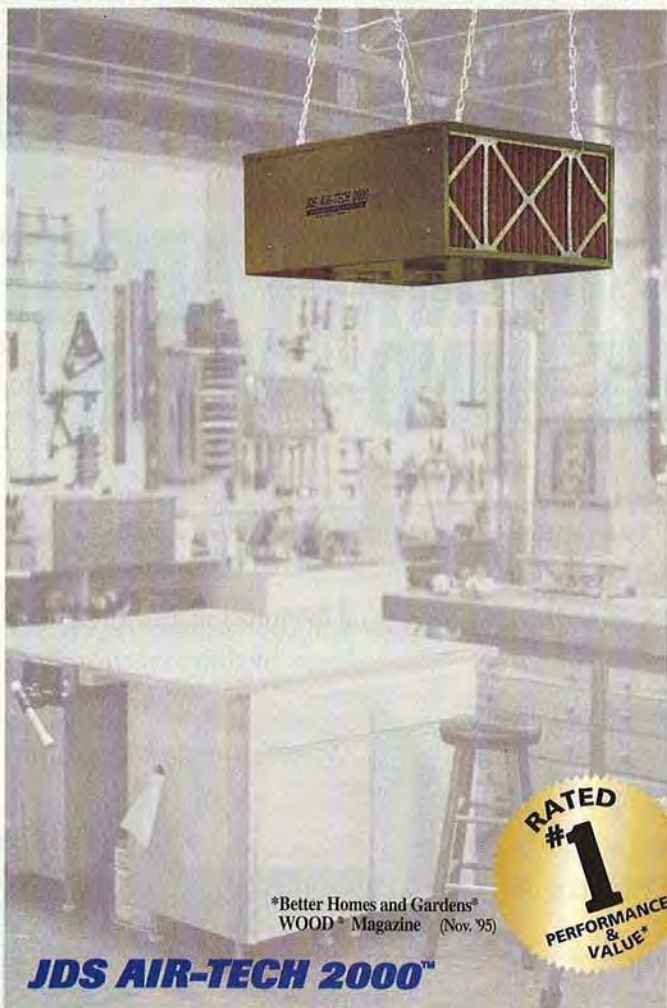
The 3/4" plywood guard plate attaches to the base with screws and the hole is sized to accommodate the chuck at its maximum diameter setting. To

mark the location of the hole, slide the guard plate up next to the chuck, hold a pencil against one jaw, and slowly turn the chuck by hand.

—Doug Kuehl, Duluth, Minn.



Continued on page 32



*Better Homes and Gardens®
WOOD® Magazine (Nov. '95)

JDS AIR-TECH 2000™



Let's Clear the Air...

Introducing The New Model 750

Simply The Best!

- **Variable Speed Control**
(200 CFM to 750 CFM
Filtered Air)
- **Two Speed On/Off Pull Chain**
- **Ultra Quiet**
- **95% ASHRAE Tested Main Filter**
- **Lifetime Warranty**
- **30 Day Money Back Guaranty**

The National Institute for Occupational Safety and Health (NIOSH) recommends limiting wood dust exposures. The JDS Air-Tech 2000 will dramatically improve the quality of the air you breathe. Our new model 750 variable speed allows you to dial in your desired air flow, from a whisper quiet 200 cfm to an ultra performance 750 cfm. This will clean the air in a 30'x30'x8' shop ten times per hour. For larger areas our models 8-12 and 10-16 are available. The JDS systems will remove 99% of particles as small as five microns and 80% of particles as small as one micron. For the removal of odors, fumes and smoke, our optional charcoal filter is available. To place an order or for the dealer nearest you call us toll-free.

\$259.00
Model 750

Another quality product from
Manufactured in the U.S.A.

JDS
COMPANY

1-800-382-2637

Makita

Ultimate Cordless



Model 6343DWA

Intense Power

- 404 in/lbs of Raw Torque
- 25% Longer Run Time than the Competition
- Industrial Metal Gear Housing
- 1/2" Keyless Chuck

It's a Real Saw

- Huge 6-1/2" Blade for Cutting 2x's at 45°
- 50% Longer Run Time – 47 2x10s Per Charge
- 20% Faster Cutting than the Competition
- 50° Bevel for Maximum Capacity



Model 5620DWA



Cuts a 2x4 at 45°

18VOLT

6 1/2" Circular Saw & 1/2" Drill

For more information,
call 1-800-4-MAKITA.

18V
2.0Ah

THE FAMOUS KLINGSPOR

Bargain Box

20 LB.
\$29⁰⁰



So you've got your project just two steps from completion - sanding and finishing. You're so excited and you head for your supply cabinet - but what do you find? You're out of sandpaper!! Now the project has to be put off for another couple of days while you round up the proper sanding product.

This would not have happened if you had the famous Klingspor's Sanding Catalogue Bargain Box. This is now known as the very best deal in the woodworking business. It's 20 pounds of the world's best sandpaper packed into a box and sent right to your doorstep. The perfect combination of coarse, medium and fine industrial sandpaper is the basis for the Bargain Box.

Use the generously sized pieces to hand sand or make discs and

other special sanding devices. This "leftover" (not seconds or inferior in any way) material from the world renowned Klingspor Abrasives is the best money can buy. And speaking of money, you're not paying much for this great deal - only \$29.95

Don't let yourself run out of sanding supplies. Try the virtually endless box of materials from Klingspor's Sanding Catalogue - the famous 20lb. Bargain Box!

20 LB BARGAIN BOX COARSE/MEDIUM/FINE	
#BB00006	\$29.00
10 LB BARGAIN BOX COARSE/MEDIUM/FINE	
#BB00010	\$19.95



Sanding Catalogue

Call, write, or fax your Bargain Box order today!

or call for your free 64 page catalog

1-800-228-0000

P.O. Box 5069, Hickory, N.C. • 28603-5069 • FAX 1-800-872-2005 • www.sandingcatalog.com

Visit our other popular web site: www.woodworkingshop.com

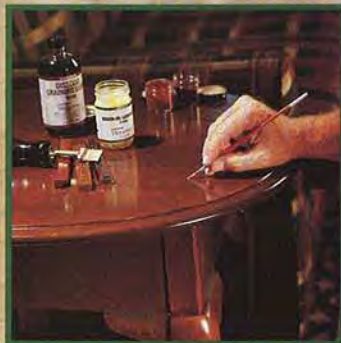
Circle No. 1240

Take your hobby on the road.



NEW!
Enviro-Plus®
Stripping & Refinishing
Program

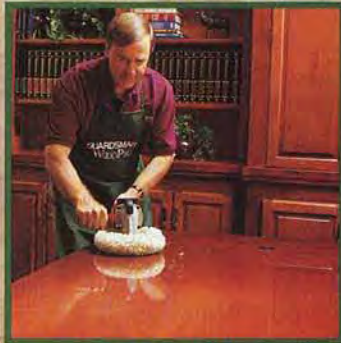
As a Guardsman WoodPro franchise partner, you'll have confidence knowing you're backed by the largest producer of furniture finishes in North America, supplying over 500 furniture manufacturers. Your customers will also have peace of mind knowing that the same company who made the finish on their furniture is repairing and restoring it.



Finish Repairs



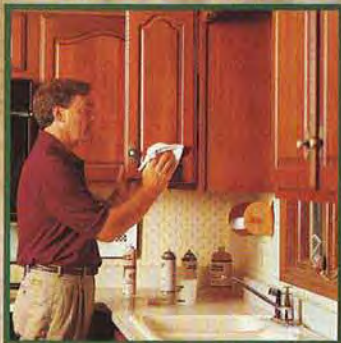
Structural Repairs



Furniture Enhancing



Upholstery Repairs



Cabinet Refurbishing



Deck Reconditioning

Initial Advantages

- Low Overhead
- Exclusive Territories
- Inventory Packages
- Training Programs
- Marketing Programs

Ongoing Advantages

- Field Support
- Regional Workshops
- National Advertising
- National Service Accounts
- R & D on New Products and Services

GUARDSMAN
WOODPRO®

The most trusted name in furniture repair.™

For information, call:

(800) 496-6377

In Canada: (888) 966-3232

www.guardsmanwoodpro.com

1998 Target Markets!

Dallas • Houston • San Francisco • Portland
 Seattle • Las Vegas • Chicago • Miami • St. Louis
 Kansas City • Nashville • Atlanta • Cincinnati
 Pittsburgh • Baltimore • New York City • Boston

Investment range: \$12,000 - \$22,000.

Offer made by Prospectus only.

Unit & Master Franchises available worldwide.



A division of Lilly Industries, Inc.



3.5-HP,
VARIABLE-SPEED ROUTER



4-POSITION, 1/2-HP
ORBITAL-ACTION SAW



7.5-AMP,
1-HP IMPACT WRENCH



CRAFTSMAN 3-AMP, 5"
RANDOM-ORBIT SANDER



5-1/2" TRIM SAW

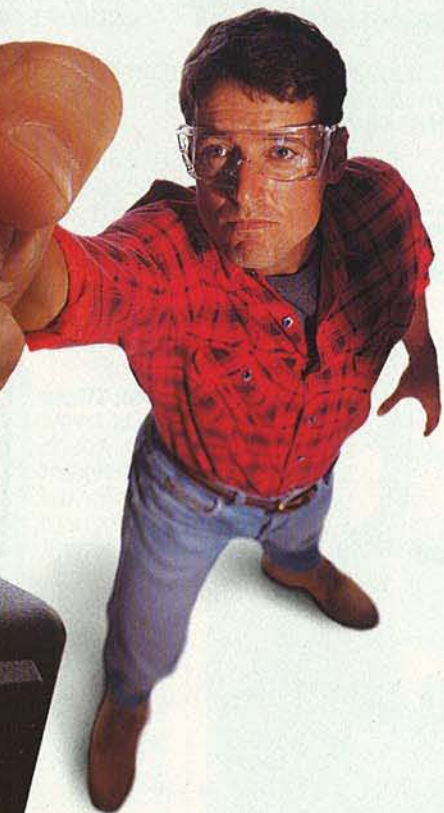
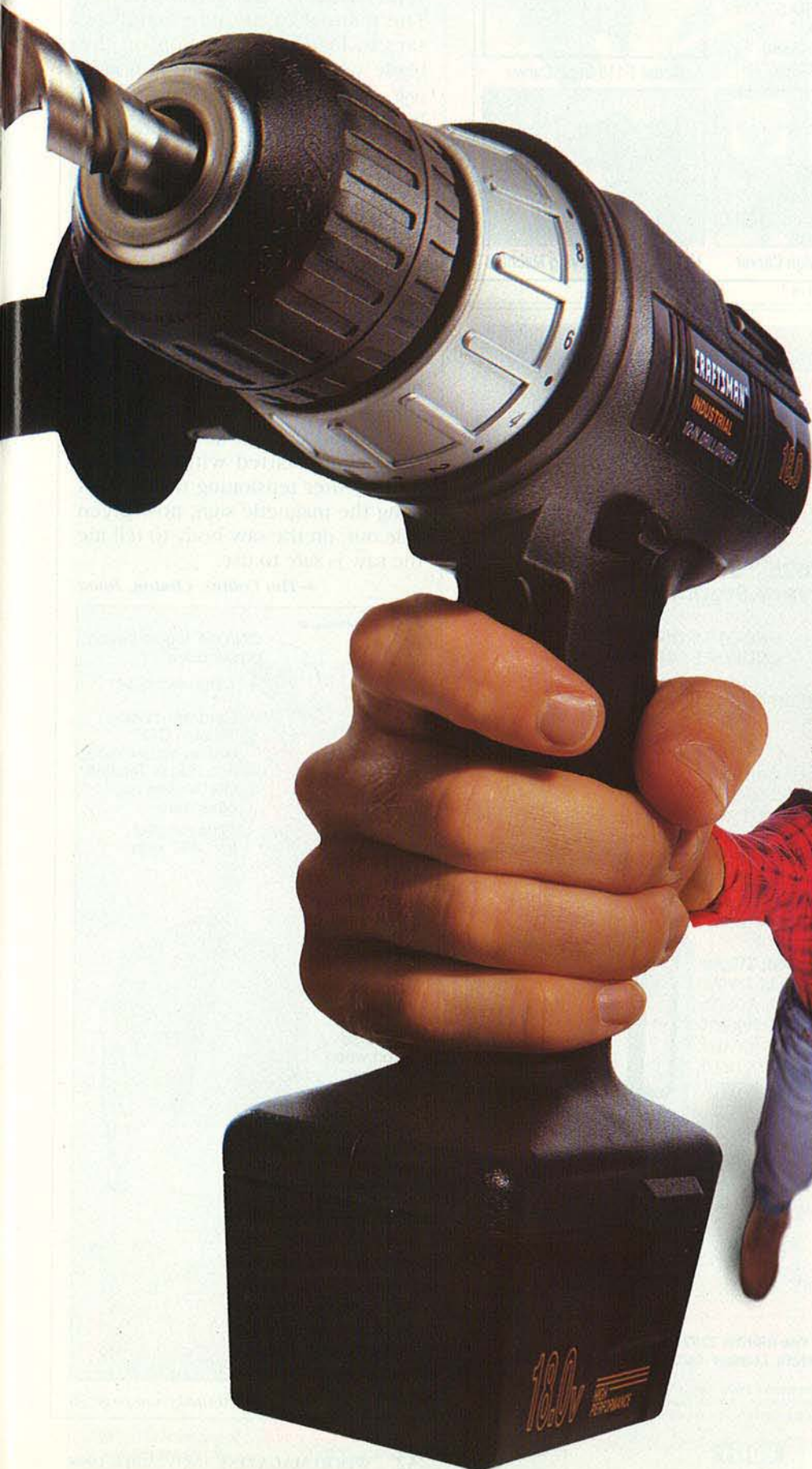


INTRODUCING 18 VOLTS OF PURE ADRENALINE. HANG ON TIGHT.

This is the drill that will give you a boost. Check out the new 18-volt cordless from Craftsman. Our most powerful cordless ever. Capable of driving through brick and concrete. Fully equipped with 345 lbs. per inch of torque, a two-speed gearbox, a 24-position clutch, 1400 RPMs and two rechargeable batteries. It's a drill you're gonna want to hold on to. And it's available only from Sears.



MAKES ANYTHING POSSIBLESM



For All Your Woodcarving & Sign Carving Needs

Terrco provides a full line of machine carving and sign carving equipment. Beginning models are the T-110 single spindle bench carver and our CM614 single spindle sign carver.

Intermediate models include the K-Star, a two-spindle heavy duty bench model, and the Northstar, a heavy duty floor model available in one to eight spindles.

Our advanced model is our Master Carver series, which is an extremely heavy duty floor model with from eight to forty spindles.

Write or call for more information.

Terrco, Inc.

222 1st Ave. NW
Watertown, SD 57201
USA
(605) 882-3888
Fax (605) 882-0778



Model T-110 Dupli-Carver



Model CM614 Sign Carver



Multi-Spindle Carving Machine

Circle No. 2175

TIPS FROM YOUR SHOP (AND OURS)

Continued from page 26

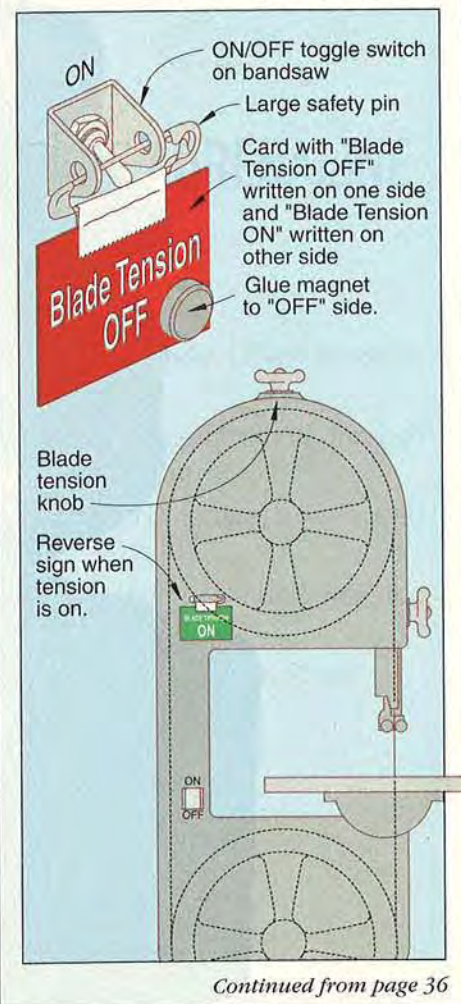
Warning flag prevents bandsaw accidents

The manual of my new bandsaw says to loosen the tension on the blade when the machine is not in use. But I was afraid that I would forget and turn the saw on when the blade was loose.

To avoid this mishap, I made a sign about the size of a credit card and attached it to a large safety pin. One side of the sign says "Blade Tension OFF" in red; the other side says "Blade Tension ON" in green. I also glued a small magnet to the red side of the sign.

After loosening the tension on the blade, I hang the sign, red side out, through the switch lock holes on my bandsaw. This keeps the saw from being started with the blade loose. After tensioning the blade, I hang the magnetic sign, now green side out, on the saw body to tell me the saw is safe to use.

—Tim Collins, Clinton, Iowa



Continued from page 36

ARROW® **NEW** THE ATTACKER™

Presents
The Dual Purpose T2025™ Staple Gun
That Attacks Almost Every Stapling Job!



SHOOTS FLAT
CROWN STAPLES



SHOOTS ROUND
CROWN STAPLES



ARROW T2025 brings you one of the most important advances in staple gun technology in decades — Its Built-in **STAPLE HEIGHT ADJUSTMENT GUIDE**.*

The *revolutionary* guide is easy to use. Just lock it in position and your T2025 will shoot Round Crown Staples SAFELY over wire and cable up to 1/4" (6mm) in diameter. Reset the **Staple Height Adjustment Guide** to drive Flat Crown Staples deeper.

Arrow T2025...The ONE Staple Gun THAT DOES IT ALL! Arrow makes 4 different size Round Crown Staples, and 3 different size Flat Crown Staples for the new T2025. You work hard for your money. Spend it wisely.

The ARROW T2025 is available at
Home Centers, Lumber Yards, and Hardware Stores.



ARROW FASTENER COMPANY, INC. 271 MAYHILL STREET, SADDLE BROOK, N.J. 07663
ARROW FASTENER (U.K.) LTD., 14 BARCLAY ROAD, CROYDON, SURREY CR0 1JN
JARDEL DISTRIBUTORS, INC., 6505 METROPOLITAN BLVD. EAST, MONTREAL, QUEBEC H1P 1K9



© 1997 ARROW FASTENER CO., INC.

*Patent Pending

FIND CENTER FAST

SIMPLE • ACCURATE • GUARANTEED

CenterPoint™ measuring tools have all standard markings, plus the new center-finding scale. Made in the USA.

Available from CenterPoint™

- Construction Grade™ tape measures
- Stainless steel flat rules
- 12 foot adhesive-back Bench Tapes™

800.540.6604

HOW IT WORKS

FIRST MEASURE THE DISTANCE

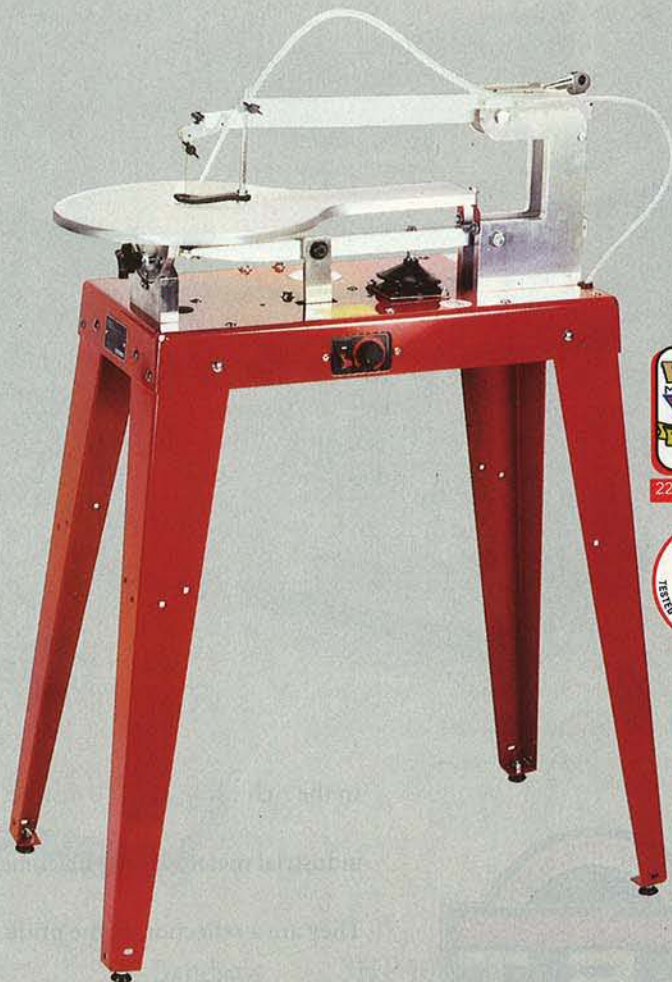
THEN FIND THE SAME NUMBER HERE—
THAT'S THE CENTER



BAKLUND-HELLAR, INC. • RT 1 BOX 623 • EASTSOUND WA 98245 • www.center-point.com

Circle No. 103

"JUST A CUT ABOVE THE REST!"



220 HAWK ULTRA



Copyright-1998 rbindustries. All rights reserved

CALL 1-800-487-2623 FOR YOUR **FREE** FACT KIT TODAY!

rbindustries, inc.

America's Woodworking Machinery Manufacturer

1801 Vine Street • Harrisonville, MO 64701

Visit the RBI Home page at
www.rbiwoodtools.com

H109

The Professional's Choice

for over 60 years

Tech Service
1-800-347-GLUE

Customer Service
1-800-669-4583

©1998 Franklin International

Titebond

It's our birthday, but



We're celebrating our 40th birthday,
and for a limited time, we're packaging
our best-selling woodworking tools
with the accessories you want,
priced to save you up to 71%.*

We've wrapped these Limited Edition tools



in the rich white of JET's distinctive
industrial metalworking machinery.
They are a reflection of the pride we
take in the beauty of a well-crafted
tool. There's a package with your
name on it at your local JET dealer.

Call (800) 274-6848 or visit www.jettools.com for a catalog or the name of a JET dealer near you!

* Savings vary by tool. Percentage reflects savings on accessories.

you get the presents!



6" Jointer
with two sets
of knives

Package savings: \$71.91
Now \$499,
plus \$20 rebate = \$479*

Total Package Savings
\$91.91

14" Bandsaw
with rip fence
and mitre gauge

Package savings: \$64.48
Now \$569,
plus \$25 rebate = \$544*

Total Package Savings
\$89.48

3HP 10" Tablesaw
Both left- and right-tilt
XACTA SAW™ with table and legs

Package savings: \$178
Now \$1,399,
plus \$100 rebate = \$1,299*

Total Package Savings
\$278.00

**1200 CFM
Dust Collector**
with 5 micron bag

Package savings: \$70.93
Now \$399,
plus \$20 rebate = \$379*

Total Package Savings
\$90.93

15" Planer
with enclosed stand
and rollers

Package savings: \$150
Now \$1,199,
plus \$100 rebate = \$1,099*

Total Package Savings
\$250.00

16 1/2" Drill Press
with mortise attachment
and 5-piece chisel set

Package savings: \$88.48
Now \$439,
plus \$20 rebate = \$419*

Total Package Savings
\$108.48

Package prices reflect savings. *After manufacturer's mail-in rebate, effective October 1, 1998 to February 28, 1999.

WOODLINE Bits & Cutters feature:

- Tough European Carbide
- Euro Anti-Kickback Design
- Super-slick Non-stick finish.



WOODLINE ARIZONA, Inc

P.O. Box 1530 • Payson, AZ 85547

Great Router Bits & Shaper Cutters!

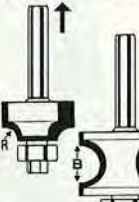
"Why pay more or accept less!"

Get your FREE catalog and see our great selection of Bits and Cutters
1-800-472-6950

Roundover Bits with Bearing

1/4" Shank Radius	Radius	Price
WL-1040	1/16"	\$9.
WL-1041	1/8"	\$9.
WL-1042	3/16"	\$9.
WL-1043	1/4"	\$9.
WL-1044	5/16"	\$10.
WL-1045	3/8"	\$11.
WL-1046	1/2"	\$13.

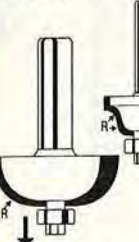
1/2" Shank	Price
WL-1049	1/8" \$9.
WL-1042-5	3/16" \$9.
WL-1050	1/4" \$9.
WL-1044-5	5/16" \$10.
WL-1051	3/8" \$12.
WL-1052	1/2" \$13.
WL-1053	5/8" \$16.
WL-1054	3/4" \$18.
WL-1055	7/8" \$25.
WL-1056	1" \$27.
WL-1057	1-1/8" \$30.
WL-1058	1-1/4" \$30.



Bullnose Bits with Bearing

1/4" Shank • Bead Opening	Price
WL-1100	1/4" \$12.
WL-1101	3/8" \$14.
WL-1102	1/2" \$16.
WL-1103	5/8" \$18.
WL-1104	3/4" \$19.

1/2" Shank	Price
WL-1110	1/4" \$12.
WL-1111	3/8" \$14.
WL-1112	1/2" \$16.
WL-1113	5/8" \$18.
WL-1114	3/4" \$19.
WL-1115	1" \$22.
WL-1116	1-1/8" \$25.
WL-1117	1-1/4" \$28.
WL-1118	1-1/2" \$32.



1/4" Shank • Radius	Price
WL-1159	1/8" \$10.
WL-1160	3/16" \$10.
WL-1161	1/4" \$11.
WL-1162	3/8" \$13.
WL-1163	1/2" \$14.

Cove Bits (continued)

1/2" Shank	Price
WL-1169	1/8" \$10.
WL-1170	1/4" \$11.
WL-1171	3/8" \$13.
WL-1172	1/2" \$14.
WL-1173	5/8" \$18.
WL-1174	3/4" \$20.

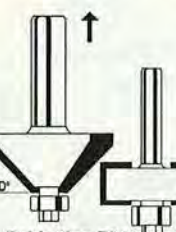
Chamfer Bits

1/4" Shank • Degree	Price
WL-1180	15° \$10.
WL-1181	25° \$10.
WL-1182	45° \$12.
WL-1183	45° \$14.

(for up to 3/4" material)

1/2" Shank	Price
WL-1184	45° \$10.
WL-1185	11-1/2° \$12.
WL-1186	15° \$12.
WL-1187	22-1/2° \$12.
WL-1188	30° \$14.
WL-1189	45° \$15.
WL-1190	45° \$22.

(for up to 1-1/4" material)



Rabbeting Bits

1/4" Shank • Kerf	Price
WL-1220	1/2" \$11.
WL-1220-2	1/16" \$10.
WL-1220-3	1/8" \$10.
WL-1220-4	1/4" \$10.
WL-1220-5	3/8" \$10.

1/2" Shank	Price
WL-1225	1/2" \$11.
WL-1225-2	1/16" \$10.
WL-1225-3	1/8" \$10.
WL-1225-4	1/4" \$10.
WL-1225-5	3/8" \$10.
WL-1225-6	3/4" \$12.

Roman Ogee Bits

1/4" Shank • Radius	Price
WL-1230	5/32" \$13.
WL-1231	1/4" \$15.

1/2" Shank	Price
WL-1235	5/32" \$13.
WL-1236	1/4" \$15.

Double Roman Ogee

1/4" Shank • Radius	Price
WL-1240	5/32" \$18.
WL-1241	1/4" \$20.

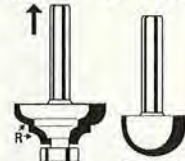
1/2" Shank	Price
WL-1245	5/32" \$18.
WL-1246	1/4" \$20.

Ask about our unique "Does It All" ROUTER TABLE

Classical Ogee Bits

1/4" Shank • Radius	Price
WL-1250	5/32" \$18.
WL-1251	1/4" \$20.

1/2" Shank	Price
WL-1252	5/32" \$18.
WL-1253	1/4" \$20.

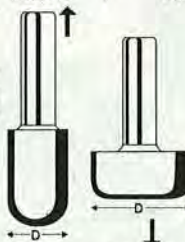


Core Box Bits

1/4" Shank • Diameter	Price
WL-1370	1/8" \$10.
WL-1371	1/4" \$8.
WL-1371-1	3/8" \$9.
WL-1372	1/2" \$10.
WL-1373	3/4" \$12.

Roundnose/Core Box

1/2" Shank • Diameter	Price
WL-1375	1/4" \$8.
WL-1375-1	3/8" \$11.
WL-1376	1/2" \$12.
WL-1377	3/4" \$14.
WL-1378	1" \$16.



Bowl & Tray Cutter

1/4" Shank • Diameter	Price
WL-1380	7/16" \$13.
WL-1381	3/4" \$15.

1/2" Shank	Price
WL-1385	3/4" \$15.
WL-1386	1-1/4" \$18.



Dado & Planer Bit

1/4" Shank • Diameter	Price
WL-1390	3/4" \$12.

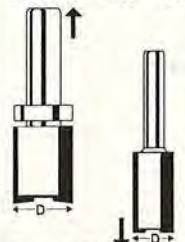
1/2" Shank	Price
WL-1391	3/4" \$12.
WL-1392	1" \$14.
WL-1393	1-1/4" \$15.
WL-1394	1-1/2" \$16.
WL-1394-1	2" \$28.



Pattern Cutting Bit

1/4" Shank • Diameter	Price
WL-1400	1/2" \$12.
WL-1401	5/8" \$12.
WL-1402	3/4" \$12.

1/2" Shank	Price
WL-1405	3/4" \$15.
WL-1406	1-1/8" \$16.



Straight Bits

1/4" Shank • Diameter	Price
WL-1001	1/8" \$10.
WL-1002	3/16" \$5.
WL-1002-5.5	5.5mm \$5.

(for undersized 1/4" plywood)

WL-1003	1/4" \$5.
WL-1004	5/16" \$5.
WL-1005	3/8" \$5.
WL-1006	15/32" \$5.

(for undersized 1/2" plywood)

WL-1007	1/2" \$6.
WL-1008	9/16" \$6.
WL-1009	5/8" \$7.
WL-1010	23/32" \$8.

(for undersized 3/4" plywood)

WL-1011	3/4" \$9.
WL-1012	1" \$10.

1/2" Shank	Price
WL-1020	15/64" \$5.
WL-1021	1/4" \$5.
WL-1019	5/16" \$5.
WL-1022	3/8" \$5.
WL-1023	7/16" \$5.
WL-1024	15/32" \$5.

(for undersized 1/2" plywood)

WL-1025	1/2" \$6.
WL-1027	5/8" \$8.
WL-1028	23/32" \$8.

(for undersized 3/4" plywood)

WL-1029	3/4" \$9.
---------	-----------



Corner Lock Mitres

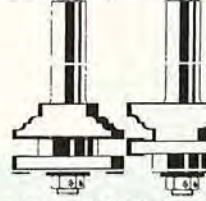
For up to 5/8" material
WL-1420-2 1/4" shank \$25.
For 1/2" to 3/4" material
WL-1420-1 1/2" shank \$30.
For material 3/4" to 1-1/4"
WL-1420 1/2" shank \$38.

For the Shaper Lock Mitre WL-1581 \$40.



Horizontal Panel Raiser with Undercutter

WL-1346	Ogee	\$49.
WL-1347	Traditional	\$49.
WL-1348	Convex (Cove)	\$49.
WL-1359	12" Facecut with Quarter Round	\$49.
WL-1363	Wave	\$49.



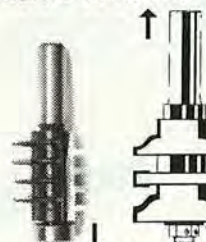
2-piece Rail & Stile Cutter Sets

1/2" Shank	Set	Price
WL-1360	Ogee Profile	\$59.
WL-1361	Roundover	\$59.
WL-1362	Cove & Bead	\$59.

1-piece Rail & Stile Cutter Sets

Just raise the cutter to make the matching cut. No changing or reversing.

1/2" Shank	Price
WL-1365	Ogee Profile \$49.
WL-1366	Roundover \$49.
WL-1367	Cove & Bead \$49.
WL-1368	Wedge \$49.
WL-1374	Dbt Roundover \$49.

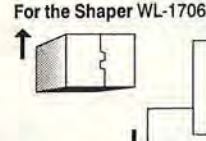


Finger Joiner Router Bit

WL-1429 \$39.
For the Shaper WL-1580 \$89.

Reversible Glue Joint

WL-1430 1-3/4" Diam \$35.
For the Shaper WL-1706 \$35.



Drawer Corner Lock

Makes drawer side separation virtually impossible
1/2" Shank
WL-1435 For 1/2" material \$30.

SHAPER CUTTERS 3/4" BORE

Corner Round	Price
WL-1509	1/8" \$22.
WL-1510	1/4" \$24.
WL-1511	3/8" \$26.
WL-1512	1/2" \$26.
WL-1513	3/4" \$30.
WL-1514	1" \$32.
WL-1515	1-1/4" \$38.

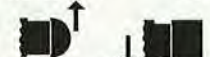


Bead

WL-1520	1/4" \$24.
WL-1521	3/8" \$26.
WL-1522	1/2" \$26.
WL-1523	3/4" \$28.
WL-1524	1" \$30.

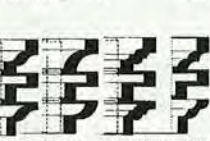
Flute

WL-1530	1/4" \$24.
WL-1531	3/8" \$26.
WL-1532	1/2" \$26.
WL-1533	3/4" \$28.
WL-1534	1" \$30.



Rabbeting/Straight

WL-1540	1/4" \$24.
WL-1541	3/8" \$26.
WL-1542	1/2" \$26.
WL-1543	3/4" \$28.
WL-1544	1" \$30.
WL-1545	1-1/2" \$32.
WL-1546	2" \$48.



SHAPER CUTTERS 3/4" BORE

1-piece Rail & Stile

Just raise the cutter to make the matching cut. No changing or reversing.

WL-1500	Roman Ogee \$89.
WL-1501	Roundover \$89.
WL-1502	Cove & Bead \$89.
WL-1503	Dbt Roundover \$89.

WL-1600
WL-1601
WL-1602
WL-1603
WL-1604
WL-1605

Panel Raisers (Shaper Cutter)

WL-1600	Ogee	\$59.
WL-1601	15" Facecut	\$59.
WL-1602	18" Traditional	\$59.
WL-1603	Convex (Cove)	\$59.
WL-1604	12" Facecut with Quarter Round	\$59.
WL-1605	Wave	\$59.

All Major Credit Cards Accepted • Shipping is only \$3.75 per order • Most items in stock • Same-day shipping!!

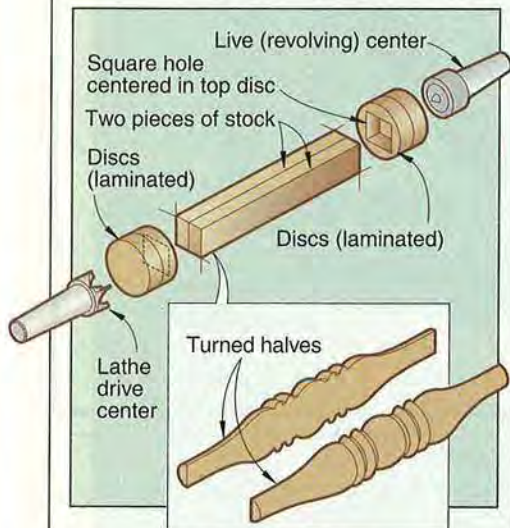
Order Toll Free **1-800-472-6950** • 24 hours a day • 7 days a week

Continued from page 32

Get a good grip on split turnings

When split-turning two pieces of wood for applied decorations such as the half-pillars that might go on the front of a cabinet or clock case, I mount stock on the lathe between two discs of laminated $\frac{3}{4}$ " plywood as shown below. The discs have square cutouts sized to fit the turning blank. This eliminates having to glue or tape the pieces together, and also prevents splitting.

—Mel Eitner, Pewaukee, Wis.



A FEW MORE TIPS FROM OUR WOODWORKING PROS

- Cut perfect miters with crown molding using your mitersaw. Learn how on *page 12*.
- For a reinforced miter joint, use a spline. The drawing with the Nativity music box on *page 18* shows how to do it.
- To draw one or more lines parallel to a curved edge, make the simple jig we used to draw deck planks on Noah's ark. You'll find it on *page 70*.
- Even if you don't build our tilt-top router table, you can use the process on *page 85* to rout an insert for a router plate in another worktop, say a table-saw extension table. 🪚



ControLok.[®] Measuring Made Easy to Use and Read.

Innovative features offer control and ease-of-handling.

- ◆ Blade auto-locks when thumb-pressure is released. No snap backs!
- ◆ Top-lever position eliminates accidental retraction (common in bottom-lever designs).
- ◆ Compact size and contoured ergonomic design features rubber top-grip for comfort and ease-of-handling.
- ◆ Rugged, high visibility yellow case with heavy-duty 1" x 25' blade and triple riveted Tough-Tip[®] blade protector to eliminate breakage.
- ◆ Also available with $\frac{1}{8}$ " fractions printed on the blade for fast, convenient reading.



Rapid-Read™ (Catalog #AR1-25F) is available in a high visibility yellow case with a 1" x 25' blade.

AMERICAN MADE
Starrett[®]

Innovation with value – nobody else measures up!

Visit Starrett on the web
at www.lsstarrett.com

The L.S. Starrett Company, 121 Crescent Street, Athol, MA 01331
Tel: 1-800-541-8887 • FAX: (978) 249-8495

The first high-fidelity system with a Napoleon complex.



It may be small. But the Bose[®] Acoustic Wave[®] music system is definitely an over-achiever. The unit features a compact disc player, an AM/FM radio, a handy remote control, and our patented acoustic waveguide speaker technology. And it produces a rich, natural sound quality comparable to audio systems costing thousands of dollars. We know that's hard to believe. So we're ready to prove it. Call or write now for our complimentary guide to this award-winning system. Because, like the system itself, it's available directly from Bose.

Call today. 1-800-897-BOSE, ext. G3485.
For information on all our products: www.bose.com/g3485

For FREE shipping,
order by
November 30, 1998.

Mr./Mrs./Ms. _____ ()
Name (Please Print) _____ Daytime Telephone _____
Address _____ Evening Telephone _____
City _____ State _____ Zip _____
Or mail to: Bose Corporation, Dept. CDD-G3485, The Mountain, Framingham, MA 01701-9168.

BOSE[®]
Better sound through research[®]

Our 10" Artisan table saw tilts the right way...

to the left!

**64A
Artisan
Table Saw**

- Left tilt
- Accu-Fence® system with 50" or 30" rails
- 1-1/2 HP motor
- Solid cast iron extension wings
- 40-tooth 10" carbide tipped blade
- Metal blade guard and splitter
- Efficient 3VX belt drive
- Easy access push button switch with safety key
- T-slot miter gauge
- Table and dado inserts
- Stand
- 4" dust collection shroud



This dramatically reduces the potential for binding or kickback. Add to this the exclusive Powermatic Accu-Fence®, and you have one of the best table saw packages money can buy!

\$749.00
Participating Dealers



Shown with optional Mobile Base and 471 Dust Collector




Circle No. 81

Call 1-800-248-0144 for your nearest dealer

E-mail: powermatic@worldnet.att.net

Web page: <http://www.powermatic.com>

WOOD ANECDOTE

 [Print this article](#)

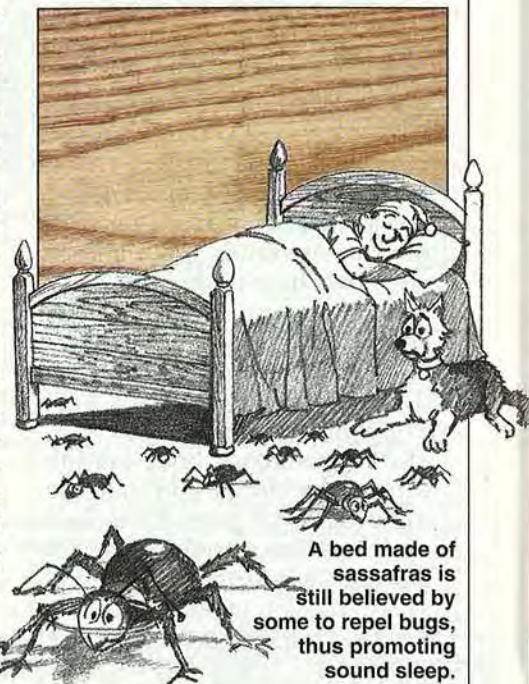
SASSAFRAS The tree that held the promise of good health

Sassafras (*Sassafras albidum*) grows large in Arkansas and Missouri—sometimes 100' tall and 3' to 4' in diameter. But as a smaller tree, even shrub-size in northern reaches, it's found from Massachusetts to Florida and west to Iowa. Because of its light weight and resistance to water, sassafras has been harvested for boats, barrels, and fence posts. But in early colonial days, the unfounded belief that the roots and bark of sassafras contained wonderful curative properties made them chief export items.

In the hills and hollows of the Ozark and Appalachian mountains, though, sassafras still remains a tree of medicinal folklore. Although sassafras's contribution to good health has been proven fictional, the notion persists that a bed crafted of sassafras promotes sound sleep and

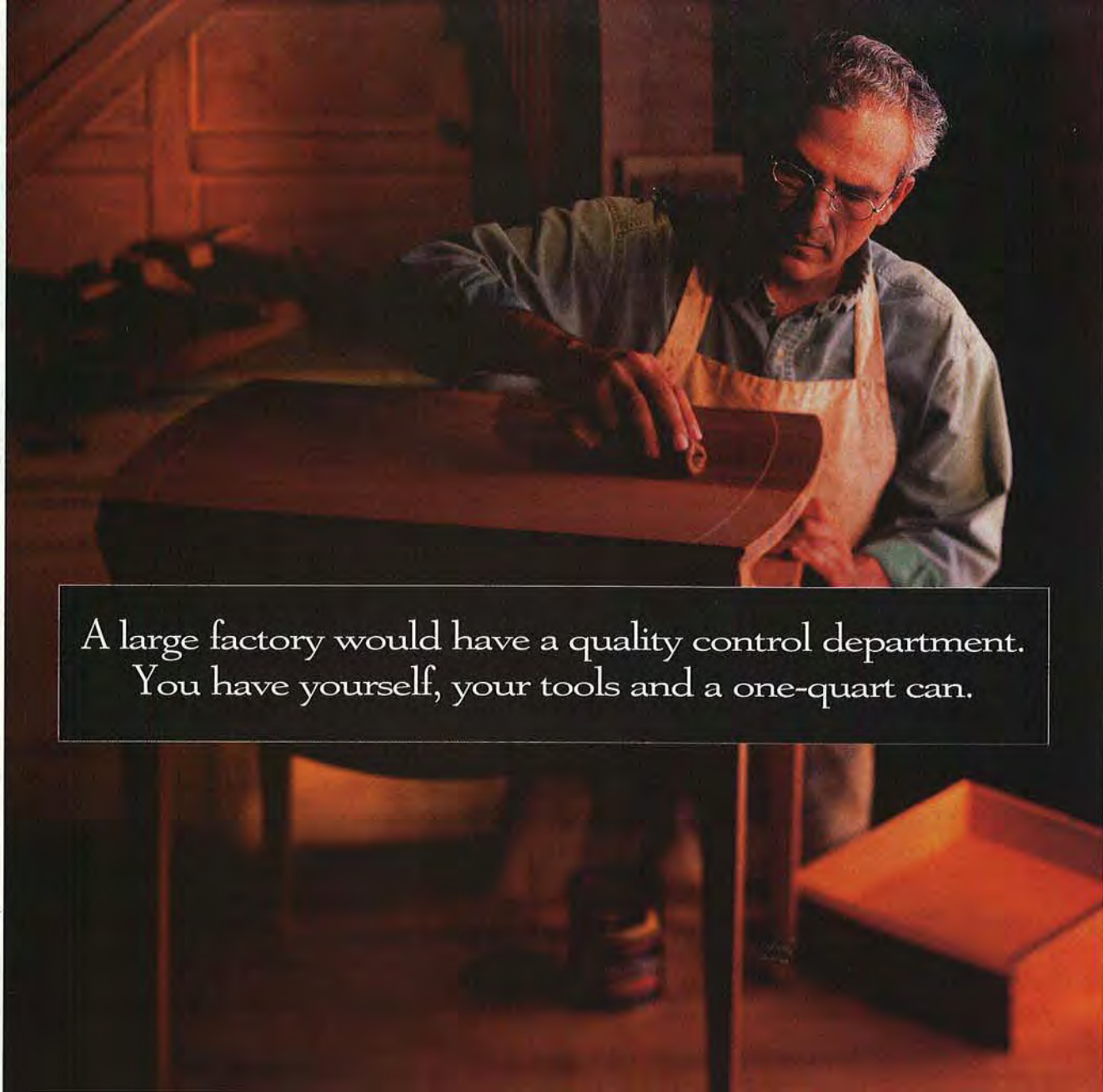
therefore longer life. That belief may be based upon the wood's odor, an aroma said to drive away bugs. Mountain folk continue to look to sassafras for hen roosts that check chicken lice, and cabin floors that discourage spiders and termites. And although little more than a bitter concoction, sassafras tea retains its traditional role as a spring tonic to "purify the blood."

Even without medicinal value, oil of sassafras—distilled from the tree's roots—continues as a common ingredient in many products. As flavoring, it finds its way into medicines and candies. For its aroma, it scents soap and candles. And should you happen to saw, plane, or sand sassafras, the sharp-smelling wood may lead you to wonder if the folklore concerning this wood is not somehow true. 🐜



A bed made of sassafras is still believed by some to repel bugs, thus promoting sound sleep.

Illustration: Jim Stevenson



A large factory would have a quality control department.
You have yourself, your tools and a one-quart can.

You've arrived at that moment. The design, the joinery, every surface on the piece is just the way you'd envisioned. Now it's time to bring it to life. Make it look as good as it did in your mind. Protect it for years to come.

When you open that can, it's reassuring to know that you're not alone. That our reputation is



right there on the line with yours, at this moment of truth.

Olympic® Interior Products are a group of professional quality stains and finishes that give you more control during that final step in the process. We've engineered these stains with our exclusive *Absorption Control*™ formula, so you won't have to

contend with blotching or streaking or lap marks.

Top off your work with *Olympic*® Antique Oil Finish or your choice of Oil or Water Based Polyurethane, engineered with our *Smooth Flow*™ formula and you've created a piece that begs to be touched. Call 1-800-441-9695 for a retailer near you.



Visit us at www.olympic.com.

Make perfect Raised Panel Doors

with your 1/4" or 1/2" Router, or your 1/2" or 3/4" Shaper.

It's simple, inexpensive, and easy with professional production quality MLCS carbide tipped door sets! Our reversible combination bit makes a matching rail and stile frame. The panel raising bit with ball bearing guide makes a perfect raised panel every time!

Includes Instructions and Professional Tips!

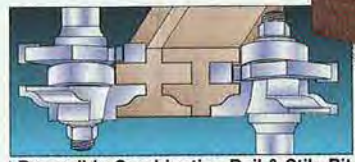
Raised Panel Door Sets

SET#	BIT STYLE	LRG. DIA.	SET PRICE
#1301	1/4" Shank Router	*2"	\$69.95
#1302	1/2" Shank Router	*3-1/2"	\$79.95
#1303	1/2" & 3/4" Shaper	4-5/8"	\$99.95

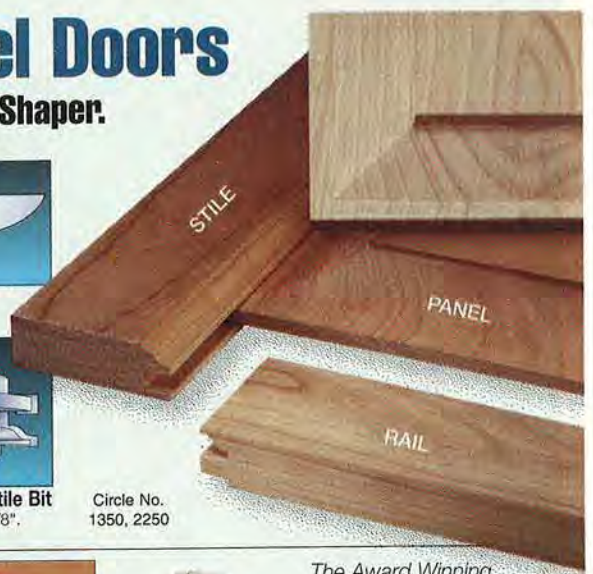
Raised Panel Door Instructional Video
#1438 Special Sale Price\$9.95



*Raised Panel Router Bit



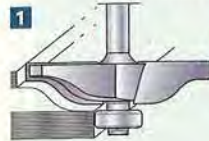
*Reversible Combination Rail & Stile Bit
Works with stock from 11/16" to 7/8".



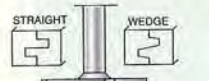
Circle No.
1350, 2250

1/4" Shank Carbide Tipped Router Bits

Professional Production Quality Guaranteed!



1 OEGE RAISED PANEL
#1423 2" Large Diameter\$29.95



2 TONGUE AND GROOVE
#1333 Straight.....\$29.00
#1335 Wedge\$29.00



3 BULL NOSE
#1330 1/2" Dia. of Circle.....\$16.00
#1331 3/4" Dia. of Circle.....\$21.00



4 LOCK MITRE BIT
#1433
2" Dia., Stock thickness: 1/2"-3/4" ..\$37.50



5 RABBETING KIT
4 depth of cuts: 3/8", 7/16", 5/16", 1/4".
Set: 1/4" shank rabbeting bit, 4 bearings
(3/8", 1/2", 5/8", 3/4") & hex key.
#1425 1-1/4" Large Diameter...\$25.00



6 BRASS PILOTED
Rout into tight spaces and sharp corners. These bits have Brass Pilots, measuring only 5/32" in dia., instead of usual 1/2" bearing.
#1428 1/8" R Round Over\$16.00
#1429 1/4" R Round Over\$17.00
#1430 3/8" R Round Over\$19.00



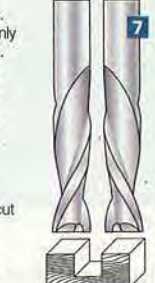
7 SOLID CARBIDE UPCUT AND DOWNCUT SET
2 flute flat bottom cutters. Upcut spiral ideal for mortise and tenon joints. Downcut will plunge cut and plane edges.
#1437 1/4" dia., 3/4" cutting length
Special Set Price\$19.95



5



6



7



The Award Winning MERLE ADJUSTABLE CORNER CLAMP®

- Adjustable, uniform clamping pressure on all corners • Great for wide cabinet frames (for center or edges)
- Forces a frame into perfect square
- Almost NO capacity limitation, ships with 23 ft. reel of steel banding!
- Aluminum & Steel construction

ITEM #1420 REG. \$39.95Sale \$24.95



The Can-Do Clamp

- Join picture and cabinet frames
 - Clamps to 2-34" wide
 - Easy Mounting • Use as bench vise
- Sturdy aluminum clamp is great for framing, drilling, doweling, and more.
- High clamping pressure
 - Movable jaws • Two swivel points

ITEM #1367 REG. \$29.95Sale \$24.95



16 Piece Forstner Bit Set

High Quality Steel - ground for heavy use
This set comes with the following sizes: 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-1/2", 1-5/8", 1-3/4", 1-7/8", 2", 2-1/8".

ITEM #1418 REG. \$141.20Sale \$43.95

Round Over/Beading Bit Set

1/4" shank, Carbide Tipped, 4 Round Over Bits with 1/2" OD bearing: (1/8", 1/4", 3/8", 1/2"), plus 3/8" OD bearing & allen wrench.



ITEM #1434 \$72 Individually.....Sale \$39.95

Biscuit Joining Set

5/32" Slot Cutter-1/4" Shank and 250 #20 Biscuits



Instruction sheet included.

ITEM #1385 REG. \$35.00.....Sale \$29.95



Solid Brass Router Inlay Kit

Makes perfect fitting recesses and inlays!

Easy to use inlay kit follows a 1/4" thick pattern template of almost any shape to produce the recess. Fits Porter Cable, Black & Decker or any router with an adaptor for Porter Cable bushings. Kit includes 1/8" solid carbide downcut spiral bit, brass bushing, brass template guide, brass retainer nut & instructions.

ITEM #1426 REG. \$35.95Sale \$21.95



Call us for your **FREE CATALOG**

Expert technical help before and after sale

©1998

MLCS

Router Bits & Professional Woodworking Products

ORDER TOLL FREE 24 HOURS A DAY! **1-800-533-9298**

Shipping is FREE!

*IN CONTIGUOUS USA FOR ALL ITEMS

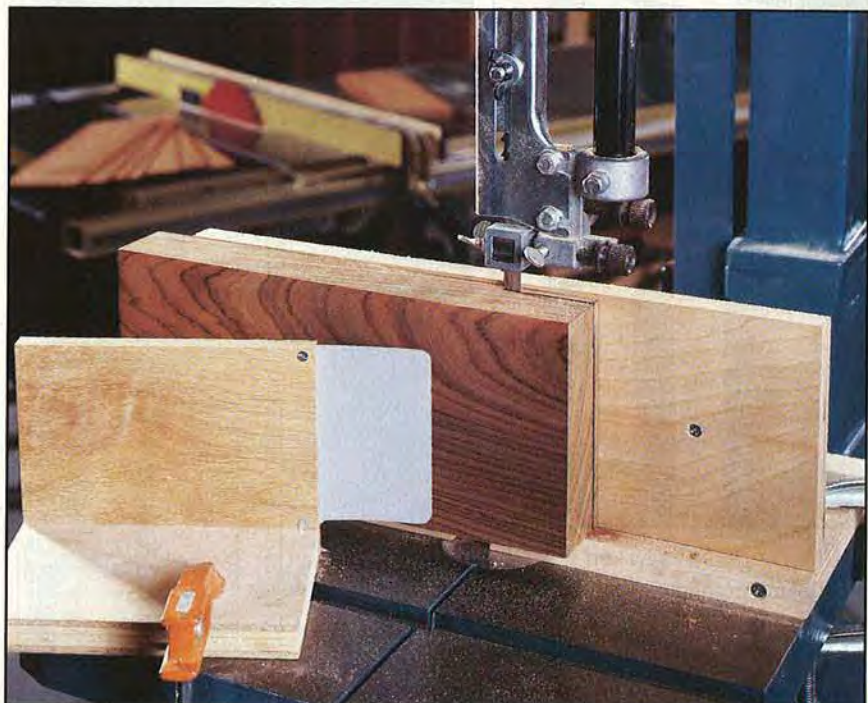


Order By Credit Card or Send Check To:
MLCS, P.O. Box 4053 DV, Rydal, PA 19046

www.mlcswoodworking.com

The Wondrous World of Resawing

Learn how we make thin stock from thick in the *WOOD*® magazine shop



To make the most of resawing, saw straight and true—simple work for a tablesaw. Our bandsaw jig prevents the blade twisting that would otherwise waste precious wood.

Wouldn't it be great if you could go to a specialty hardwood store or a home center and just order whatever thicknesses of wood you need for a project? It sure would save a lot of time. But we all know it's not that simple. That's why knowing how to resaw lumber is such a valuable woodworking skill.

First off, slicing your own stock saves you big bucks; you don't waste a lot of pricey material. And by resawing your own material, you can lay your hands on it when you need it.

Fortunately, there's nothing difficult about learning to resaw. And once you're set up to do it—with either a tablesaw or a bandsaw—you've got it made.

Continued

Resawing

Let's choose a cutting tool

Which method should you use? Well, a tablesaw does the job quickly and leaves a fairly smooth surface, but the size of the blade limits the width of stock you can resaw. With a 10" tablesaw, you can typically resaw stock that's about 3" wide, cutting from only one edge; less than 6" if you cut in from both edges. The downside: Most tablesaw blades waste a fair amount of wood to the kerf (see our chart *at right*).

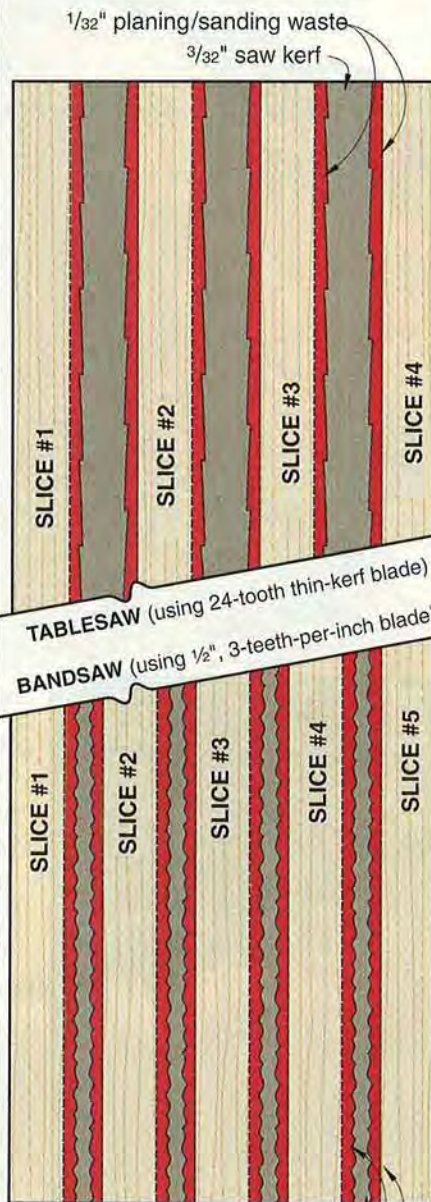
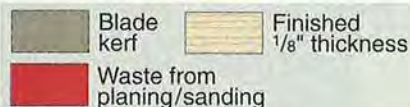
On the other hand, a bandsaw makes it easier and safer to cut thin pieces, and allows you to cut wider stock in one pass—about 5" on most stationary bandsaws, up to about 10" on bandsaws with risers. Resawing with a bandsaw also wastes less wood with a kerf of less than 1/16".

However, changing from a standard blade to a wider resaw blade (see "How Much Blade Do You Need?", on page 44) takes time. And, no matter how carefully you work, a bandsaw leaves marks that require planing or considerable sanding to remove. Also, small benchtop models aren't likely to give satisfactory results.

Regardless of which saw you use,

- Use a good sharp saw blade. You'll get faster, cleaner cuts and put less strain on your saw.
- Before you resaw a whole board into pieces, take the first sample and sand or plane it smooth to make sure you end up with the thickness you need.
- Resaw only thoroughly dried lumber. Inconsistent moisture content within the board can cause your resawn stock to cup, twist, and even split as it dries.

A tablesaw will do the job...



...but the bandsaw is our first choice.

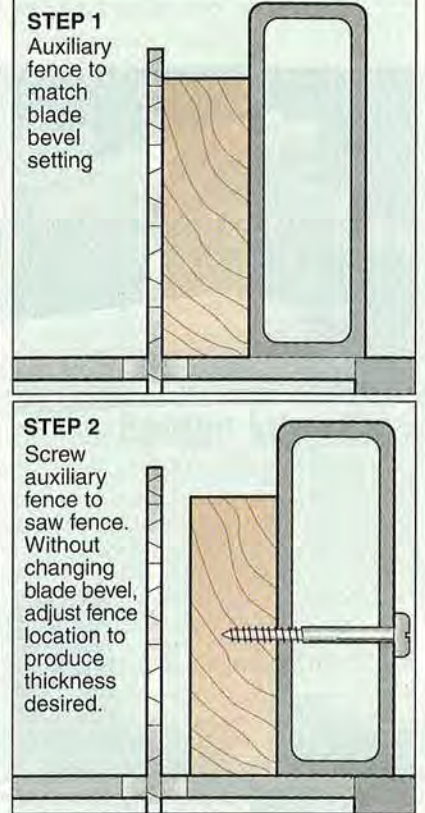
Slicing boards the tablesaw way

Resawing on a tablesaw calls for a zero-clearance insert to keep the thin-cut stock from dipping into the blade slot, and a splitter behind the blade, as shown *opposite*, to prevent binding. The splitter must be the same thickness as the blade, and lower than the cut you're making so the board can pass over the top. And, you'll find the cutting will go much more smoothly if you use a 24-tooth, thin-kerf ripping blade.

To get evenly cut slices, it's crucial to make the blade parallel to the fence. One way to make sure everything matches up is to rip a wooden auxiliary fence and attach it to your regular fence as shown in the drawing *below*.

Use a feather board to hold the stock tightly against the fence, and a pushstick to move it safely forward (see photo, at *top right*).

PERFECTLY PARALLEL FENCE



Resawing on your tablesaw calls for extra caution for a couple of reasons: A board placed on edge tips easily, and the blade will be hidden during most of the procedure.

Once you're ready to go, raise the blade to reach slightly more than halfway through the stock, and make the first cut. If you hear your saw bogging down, you're taking too much of a bite. Stop, and lower the blade to about 1" above the table. Complete the first cut, raise the blade $\frac{1}{2}$ -1", then make another pass. Raise the blade after each pass until you are more than halfway through the stock.

Now flip the workpiece over, keeping the same face against the fence. Finish the cut with a second pass (see photo *at right*). Again, if your saw bogs down, take gradually deeper cuts, as above.

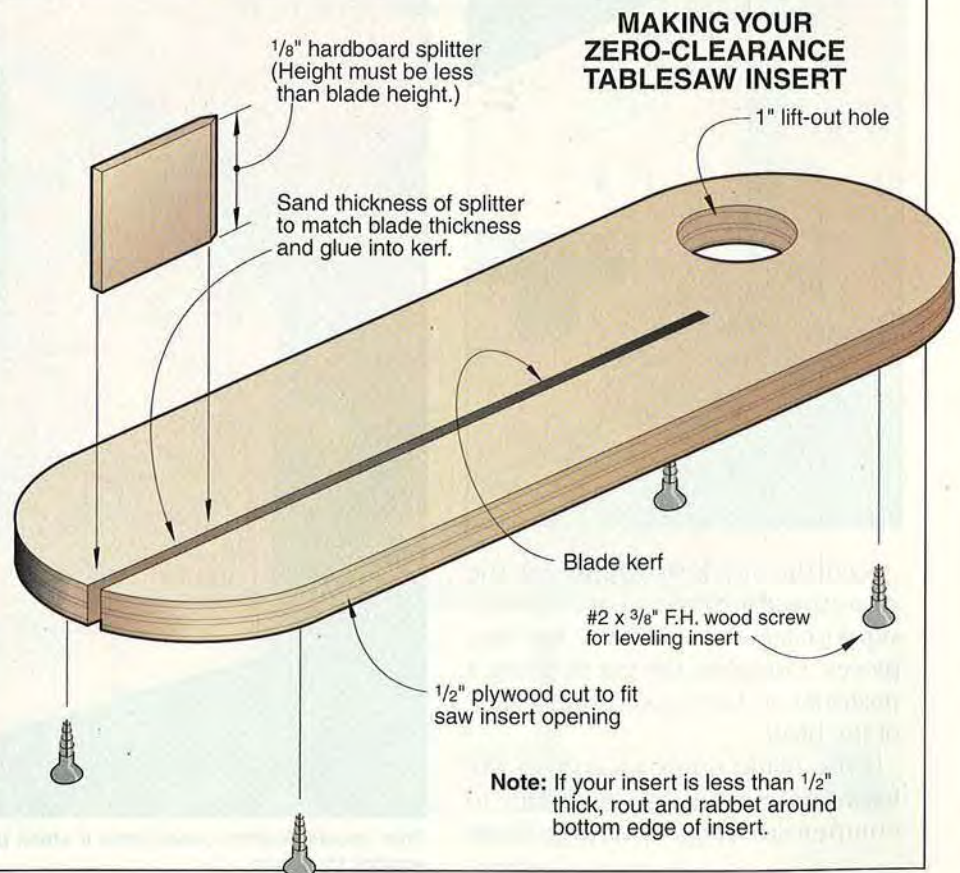
Continued



Because the fast-cutting teeth of the saw blade are hidden during the cuts, keep your fingers at a safe distance with a pushstick.



A splitter behind the blade keeps the kerf from closing up and binding while you cut.



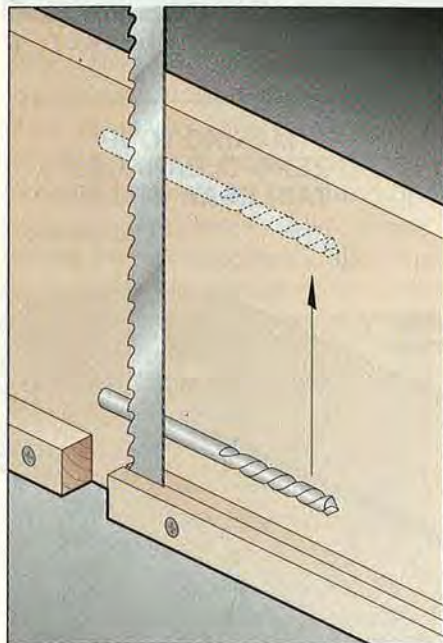
Resawing

Resawing with our bandsaw jig

Construct the resawing jig shown on the *opposite page* using a hard, dense wood such as maple for the blade guide. Parallel the jig to your bandsaw's miter slot by measuring from the jig's edge to the slot, first at the blade, then at the ends.

Adjust the fence for a cut that's $\frac{1}{2}$ " wider than the final thickness you want, to allow for sanding off saw marks. Position the upper blade guide so that it rests on the top edge of the fence.

Now, make sure that the blade parallels the fence from top to bottom. We used small drill bits as thickness gauges, as shown *below*. Clamp the feather board into the position where shown *below right*, so that it holds the resawing stock firmly against the fence. Now you're ready to resaw.



Feed the stock slowly to get the smoothest surface. A workpiece support may be necessary for long pieces. Complete the cut by using a pushstick to keep your fingers clear of the blade.

If the blade tends to drift to the left or right, rotate the jig slightly to compensate. For example, if the

Continued

How much blade do you need?

With a well-tuned bandsaw, you can successfully resaw using any standard blade that's wide enough and sharp enough for the job. But for the best results, choose the widest three teeth-per-inch blade that your bandsaw can handle. A wider blade tends to stay on course, guided by its own kerf. That means you'll make straighter, cleaner cuts. A $\frac{1}{2}$ "-wide blade works well; if your saw can handle a $\frac{3}{4}$ " blade, that's even better.

Of course, some blades definitely work better than others. Here in the *WOOD*® magazine shop, we

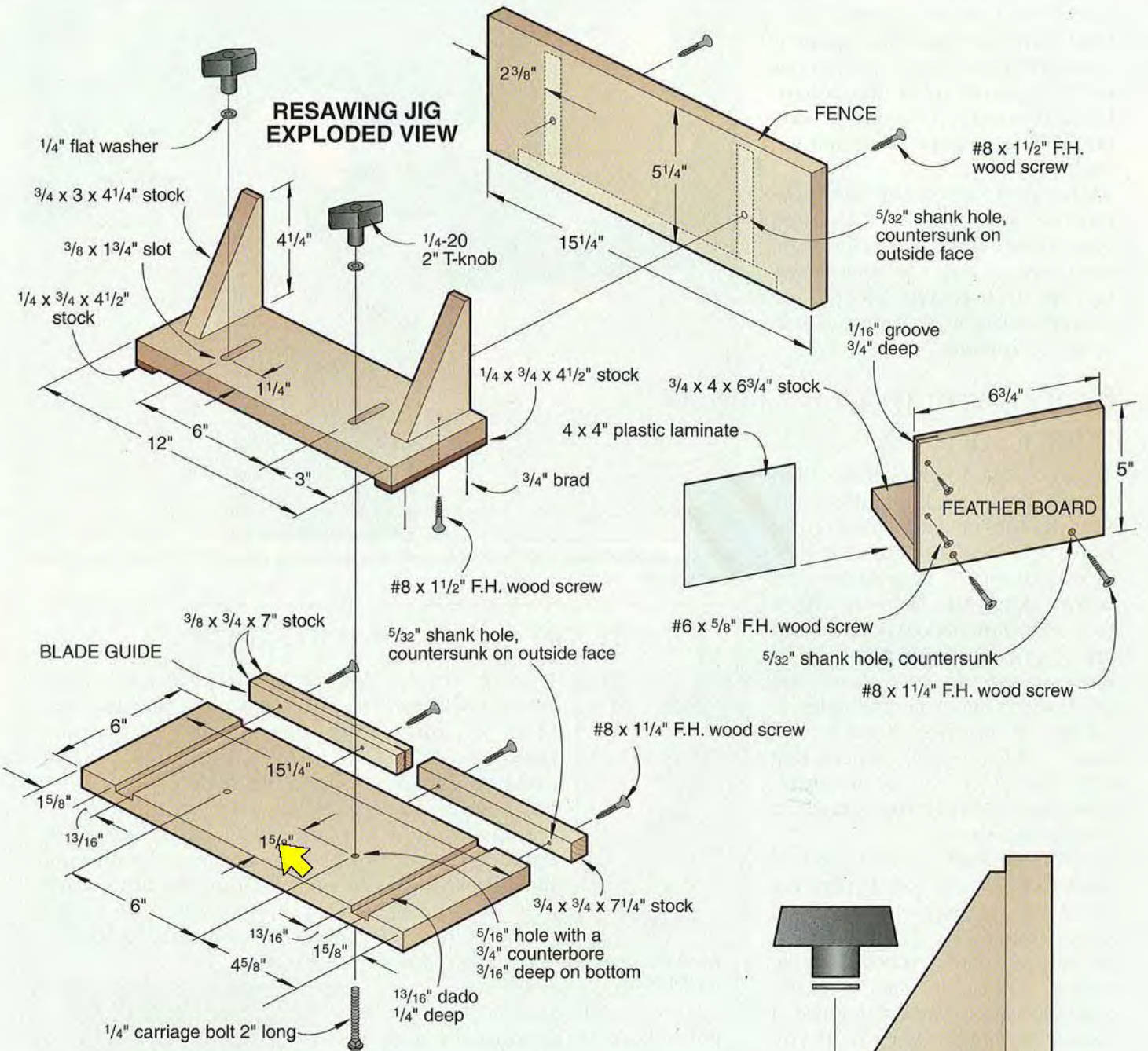
had excellent results with a new blade from Laguna Tools. It's called the Timbercut Barracuda and features teeth made from a hard steel called Stellite. It's not as hard as carbide, but Laguna claims it's more durable, less brittle, and can be sharpened up to 10 times. That could make up for the high initial cost: The Barracuda costs about \$10.50 per foot.

If you buy a Barracuda or another high-tech, high-cost bandsaw blade, it might be wise to save it for resawing and use a less-expensive blade for less-demanding tasks.

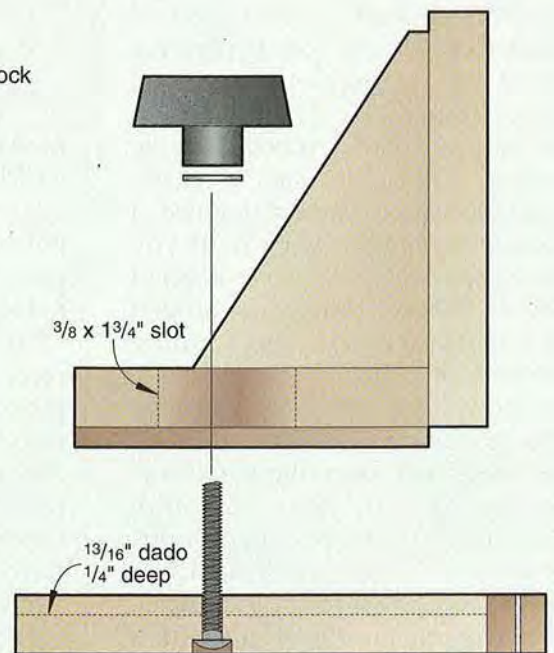
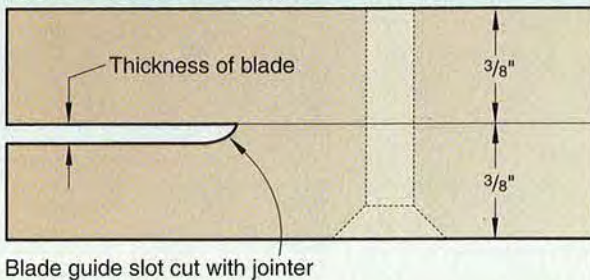


This special feather board uses a small piece of plastic laminate to hold the stock snugly against the fence.

RESAWING JIG EXPLODED VIEW



BLADE GUIDE DETAIL



SIDE SECTION VIEW

Resawing

blade wanders toward your right hand, move the jig slightly counterclockwise and reclamp it. A bowed cut will result from inadequate blade tension, a too-narrow saw blade, or feeding the stock into the blade too fast.

After each cut on the bandsaw, run the remaining stock through your jointer or planer. That way, you'll have at least one smooth surface on each resawn piece. One smooth surface might be enough, in some applications.

Smoothing the sawn surface

To remove the bandsaw marks from resawn stock at least $\frac{1}{8}$ " thick, use your thickness planer with a carrier board. Choose a flat board at least as wide as and 1" longer than your resawn stock. Attach the thin stock to it with cloth-backed double-faced tape. Now run both pieces, thin stock up, through your planer, and finish with a random-orbit sander.

If you're resawing wood to less than $\frac{1}{8}$ " thick to make veneer, first glue the veneer to its substrate. Then sand it smooth with a random-orbit or pad sander.

Lacking a planer, a portable belt sander can do the job. It removes wood quickly, but not always with precision, so be careful not to gouge the wood or round over the edges. And, this fast-working machine can heat up a thin piece of wood enough to warp it. If you have a sanding frame, place a rim of the desired final thickness around the workpiece for the sanding frame to ride on.

Start with 100-grit paper, and keep the sander moving. Let it float on the wood and rotate the wood end-for-end once or twice so you're sanding in different directions. Switch to a random-orbit sander or pad sander when just a few imperfections remain. Finish up with a block sander.



A bandsaw blade can't tell flesh and bone from wood, so use a pushstick to safely complete the cut.

Joining the edges of thin stock



Book-matched myrtle burl

Making panels from stock less than $\frac{1}{4}$ " thick requires a little creative clamping. Your big bar clamps would crush this super-thin stock like a bug. But, we've found a handy way to join those thin pieces.

Before you begin resawing, run both edges of the stock through your jointer. Then, slice and sand to thickness.

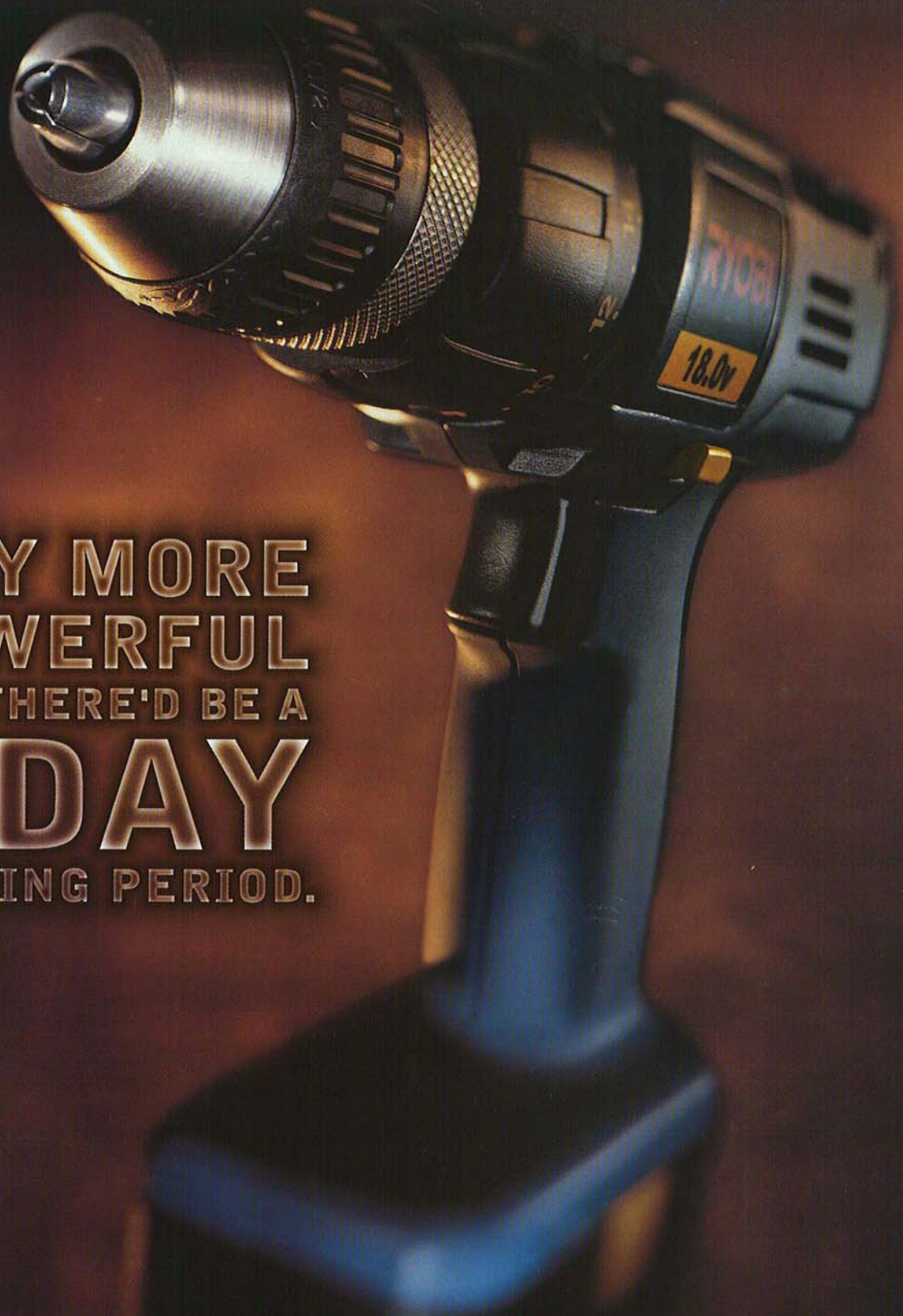
Flip, rotate, and shuffle the pieces until you find the most eye-pleasing pattern (see the book-matching *above*). After you find the right combination, place two pieces side-to-side, butt them together, and tape that joint in both directions with tightly stretched duct tape as shown *at right*. Flip the assembly over, fold open the joint, and apply a

line of glue to each edge. Close the joint and place the assembly, tape side up, on a flat surface covered with waxed paper. Weight the middle, tape down the edges, and let the glue dry.

If the resulting piece will be applied to a substrate—plywood or medium-density fiberboard, for example—white or yellow glue is a good choice for the adhesive. ♣



Duct tape makes a great clamp for thin stock. But, if removed before the glue is fully set, it can also pull the joint apart.



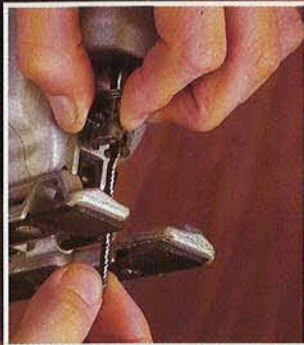
ANY MORE
POWERFUL
AND THERE'D BE A
5 DAY
WAITING PERIOD.

Introducing the professional 18 volt Ryobi cordless drill. With power like this, plus a 1/2" industrial chuck, dual range gear box, extended run batteries and cushioned grip, you gotta wonder. Do you need a license to carry it?

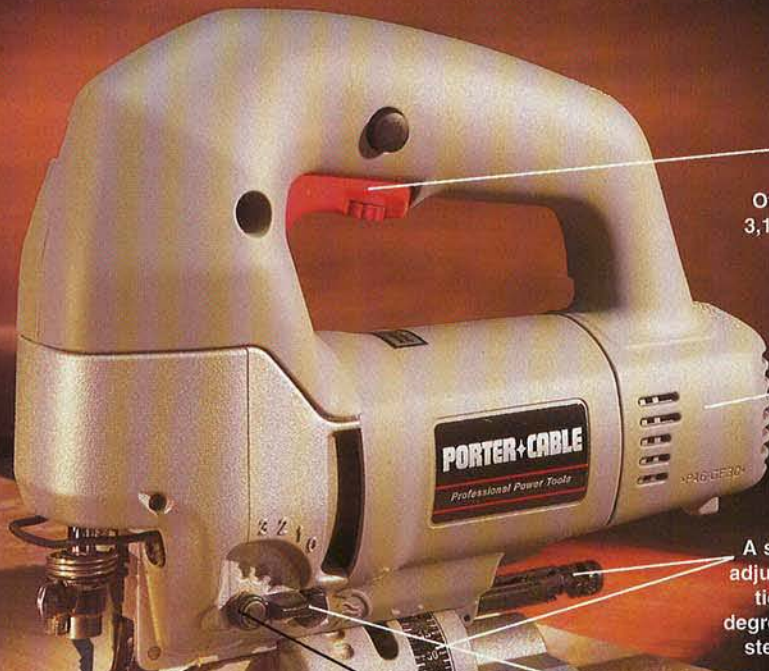
RYOBI

We Solved The Jig Saw Puzzle.

QUIK-CHANGE™ KEYLESS BLADE CLAMP



Revolutionary design makes changing blades fast and easy. Simply squeeze, insert blade and release.



VARIABLE SPEED DIAL IN TRIGGER
Offers a range of 500 to 3,100 strokes per minute.

POWERFUL 6.0 AMP MOTOR
The most powerful motor on the market.

QUIK-TILT™ BASE
A simple twist of the built-in adjustment lever lets you position the base from 0 to 45 degrees left or right in one swift step. No separate wrench is needed.

DUST BLOWER
Ensures a clear line of cut.

UNIQUE BLADE GUIDE SYSTEM
Prevents deflection and keeps the blade running true even when the base is tilted to a 45 degree angle.

FOUR-POSITION ORBIT SELECTOR
Gives you four different degrees of aggressive cutting strokes.

LONGER BASE
Adds stability and adjusts back for a near flush cut.



The 9543 kit includes heavy-duty carrying case and a non-marring plastic base insert for cutting delicate materials.

If you've been searching for a jig saw that's built for speed and precision, Porter-Cable has the answer: our new 9543 tilt base keyless jig saw kit. It combines quick, easy handling with high-level performance.

The ergonomic, low-profile design places the center of gravity closer to your work surface for increased stability and control. And, cutting is smoother than ever, with less vibration and noise.

A complete dust collection system is also available.

For a jig saw that puts all the pieces together, visit your local Porter-Cable retailer. Or call 1-800-487-8665 (519-836-2840 in Canada) for the dealer nearest you.

PORTER-CABLE

Professional Power Tools Since 1906
<http://www.porter-cable.com>



Porter-Cable is a proud sponsor of The New Yankee Workshop on public television.

MISSION

on a mountaintop



In the Arkansas Ozarks, Michael and Judy Schmitt make a family affair of building furniture in the Arts and Crafts style.

Mission on a mountaintop

**A****B**

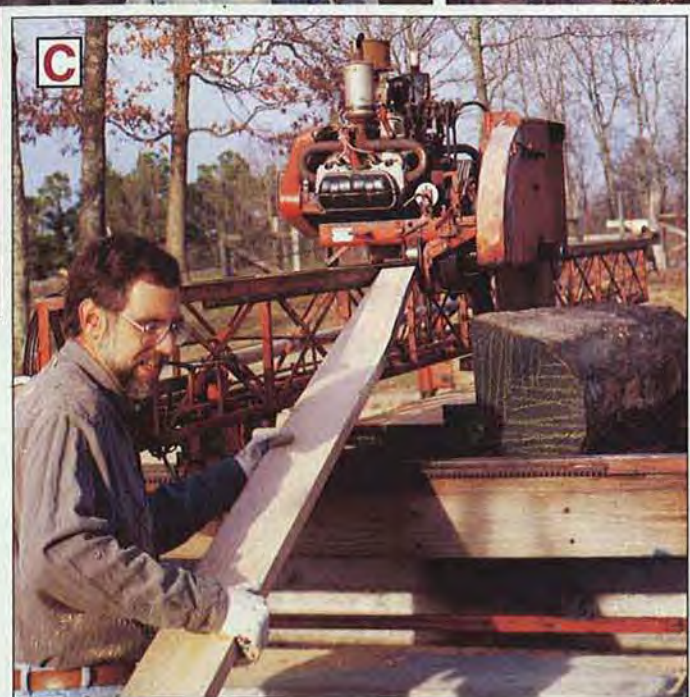
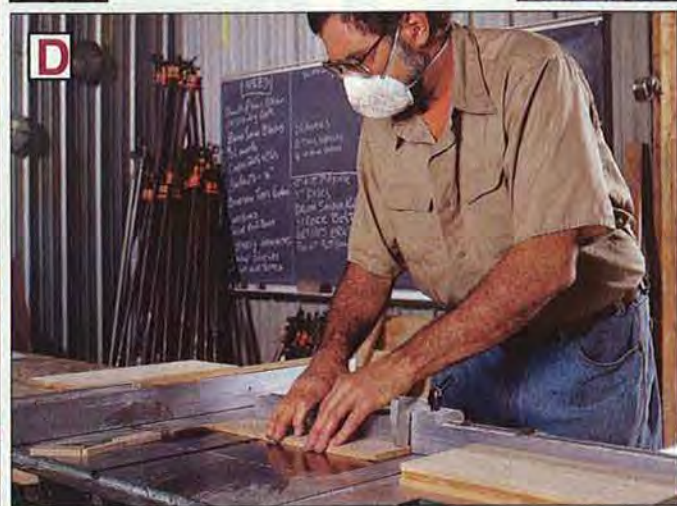
A On Coffman Mountain, Michael has had to learn practical forestry to manage his trees.

B In the timber tract, Michael excitedly describes how his white oak trees are growing.

C The Mobile Dimension Sawmill with its twin blades rips in two dimensions to produce a board without turning the log.

D After initial machine sanding, the woodworker cross-cuts the furniture parts to exact length on the tablesaw.

E Judy takes a joined top from the outfeed of their old but dependable double-drum sander.

**E****C****D**

The Buffalo River meanders its scenic way through sandstone bluffs just a 15-minute drive from Coffman Mountain, the highest point in northwest Arkansas's Carroll County. In one valley below, farmers graze Charolais cattle. In another, they grow field corn and tender blueberries. The hillsides and ridges between are cloaked with hardwood forest—ash, cherry, white oak and red, hickory, sycamore, maple, walnut, elm, basswood, black gum, and stands of sassafras.

Surrounded by a veritable sea of trees, the mountaintop seems perfect for a sawmill and woodworking shop. Michael Schmitt and his wife, Judy, thought so. That's why they bought 160 acres of it 19

years ago. And today, their Mountain Springs Woodcraft is a thriving family operation, hand-crafting incomparable Arts and Crafts furniture in the Gustav and L. & J.G. Stickley style.

From tree to board atop Coffman Mountain

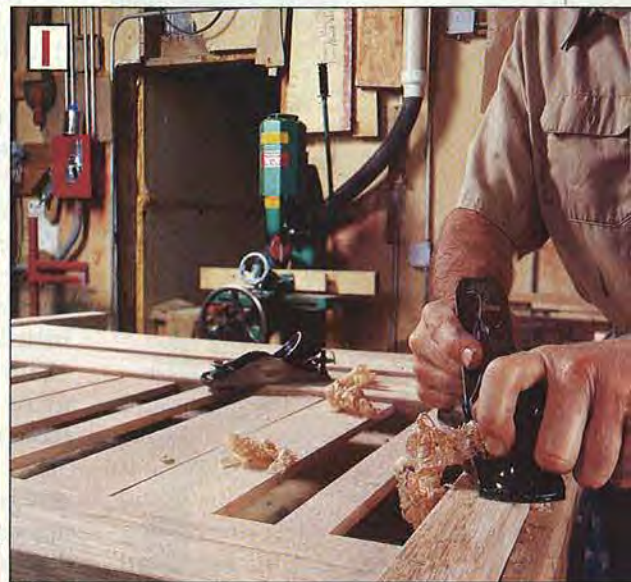
Walking through the mountaintop timber with Michael, 50, is like a personal tour through a rare-car collection by its proud and knowledgeable owner. "See that big red oak. Lightning hit it, but I'll still get \$2,000 worth of top-grade boards," he says, throwing his arms into the air as if measuring its width.

A little farther into the woods, he again stops. "Look at the

stumps scattered through here. I thinned 10 years ago so I'd get better growth from these white oaks. Seems to be working."

Leaving the trees, we hike to the mill, a Mobile Dimension Sawmill (Model 127) that Michael purchased in 1978. In one pass, its opposing blades can saw out a board as large as 7×12" and up to 20' long, with no edging required later. With a forefinger, Michael traces the crayon lines he's put on the end of the log in the carriage. "Here's how I'll saw this one," he explains. "Most will be 5/4 boards, some quartersawn and some rift-sawn, all without turning the log."

Finally sitting, Michael admits that he loves rough-sawing. "There are so many variables—



F Glued-up assemblies for 60 baby cribs await staining in a corner of the shop. They're all bound for a dealer in Long Island, New York.

G At the table saw, a shop-built jig holds the workpieces in exact position for tenoning.

H To cut a mortise, Michael first drills a hole at each end of the slot, then removes the wood in between.

I With a hand plane, the craftsman can smooth any rough spots on an assembly faster than with a sander.

compression wood, off-center heartwood, twisted grain. The list of gremlins in each log goes on and on. If you understand how to deal with them, you have tabletops. If not, you have firewood."

Although evident by now that this craftsman loves his stock as well as the trees from which it comes, this romance story needed another chapter. Michael leads the way to the kiln. "After air-drying on stickers from three to five months, depending on the species, I load it into the kiln, which holds 5,000 board feet," he says as we wander through the neatly stacked, air-drying lumber.

The Nyle Model L200 dehumidification kiln nestles against the rear of the workshop, into which

the kiln-dried wood is eventually unloaded for storage. Michael built the 14x14x25' kiln room, insulating it with rigid urethane foam under the concrete-slab floor and 12" of sawdust in the walls and 36" in the ceiling—all surface-sealed against escaping moisture from the wood.

"During the drying operation, I probe the wood at different places with sensors so I can continually monitor its moisture content," he says, proudly displaying a pair of cabled probes connected to the kiln controller. "I dry wood to 5 percent moisture content, then turn off the kiln, leaving the fans to run several days to equalize the load. If necessary, I turn it on for a day to bring the wood to

an exact 6 percent. Sawing and drying my own lumber is the way I'm able to stay competitive with the large quality shops that can buy 3,000-5,000 board feet of high-grade lumber at a time. I actually paid for the kiln with the first load I dried!"

All-in-the-family furnituremaking

Michael and Judy take seriously the original philosophy of the English Arts and Crafts movement: Enrich your life by making it simpler and by seeking a pleasing balance between living and making a living. That's why they homeschool their three children—twin daughters Alana and Jennifer, 14, and son Christopher, 12. On a



A fluorescent additive in the glue helps Alana and Jennifer spot any squeeze-out as it glows under a black light.

normal day, the youngsters' first priority is study—about half a day of it. The other half they devote to chores: feeding the poultry, tending the three-quarter-acre vegetable garden, getting firewood, and helping with the woodworking (although never touching the machinery). In exchange, they share in the woodworking profits, too, saving two-thirds of what they earn for college.

"The furniture begins with Judy," explains Michael, opening the shop door. "She has the artistic talent to do all the designs and drawings for the furniture. Then I figure out how to build it, such as with this high chair." (See photo, *opposite page*.)

Mission on a mountaintop

Michael and Judy have been infatuated with Arts and Crafts furniture since 1979, when they bought a houseful of the English variety for a song. "An antique dealer parted with it because most of the pieces needed repair," Judy notes. "Then, we read about Gustav Stickley and his American Arts and Crafts furniture that came to be called mission. We appreciated the sturdy simplicity of the style and the joinery."

"And the wood traditionally used in it is white oak," adds Michael. "That's what we mostly have growing here. So in a way, the trees dictated what to build."

By 1986, the nation's interior design community was starting to appreciate mission furniture, too. An ad that year placed in *The Crafts Report* for the reproductions Michael was building got immediate, positive response. The Schmitts' furniture also drew praise from collectors, who marveled at the authentic look and lustrous finish. "Thus began the accelerated alteration of all our previous processes—mainly sawing dimension lumber for construction—to the reality of sawing and working quartersawn oak for Stickley furniture," he laughs.

Stickley himself would have loved this mission

"Remember, the original Stickley that fetches such a high antique price today is really factory furniture. It wasn't handcrafted. There were tens of thousands, if not hundreds of thousands, of pieces made. Why isn't it all still around?" Michael questions. "Because it self-destructed. Most homes were heated with coal or wood, and the mission furniture dried out and ripped itself apart."

The mission furniture built at Mountain Springs Woodcraft sells for 30 to 50 percent more than the Stickley line that's available in stores. One hundred years from now it, too, may start to fail. But it won't be due to lack of effort on Michael's and his family's part.

"Even though we build 10 of the same pieces at a time, they're all handmade. And compared to [the new] Stickley, there is no comparison because of our careful grain matching and our finish," he explains. "Following final sanding, we go over the wood five or six times with up to 220-grit after wetting it with hot water to raise the grain. At Stickley, they can't take the time to do that."

Who is willing to pay for that price differential seems an obvious question. "People on the East Coast—especially New York—who want the quality," Michael says flatly. "But I also tell my clients that if they can buy at least \$5,000 to \$6,000 worth—maybe four or five pieces—at a time, then I can make it in a production run and usually knock 20 percent off from the price. And if they don't have the money available immediately, they can pay me over six months. I don't have the overhead that a lot of shops do, and I get an economy of scale. So it's as profitable for me as if I were making one piece at a time and charging more for the piece. Several clients have filled rooms



Michael and Judy's spindle coffee table of quartersawn white oak sells for \$1,100 at retail.

Stickley made one style of high chair at the turn of the century, and few are left. So Judy designed one. It costs \$1,600.

with three or four \$6,000 purchases. And we know they'll be getting more."

There's another interesting way Michael markets his furniture. Because he makes multiples, when he gets an order for a piece that he'll have to build, he calls other clients to see if they're interested, too. That way, he may sell six or eight and have two to keep on hand as inventory.

Working up the wood with an eye for the grain

Having his own sawmill has distinct advantages over and above the obvious cost savings, according to Michael. For one, he's able to saw boards to the widths he uses most frequently in the shop—4", 5", 6", and 8". "I always saw a 12" face into a 4" and an 8" or two 6" boards," he says. "That way, there's very little ripping except to edge a jointed board."

The radial-arm saw meets all boards as they come from the kiln. But it's not a random operation. "I have made up cutting lists that represent the parts for producing multiples of a piece as piles of a certain size," Michael begins to explain. "This way, whoever is cutting can concentrate on the grain pattern rather than the count. This process goes a long way toward getting a piece of furniture off to a good start. And because we can then select wood with matching grain from the cut pieces, the result is much more stunning furniture."

Following the cut-off sequence, the batch of boards moves to the 8" jointer. As Michael likes to say, it's there that they "find the board inside the lumber" as one side is faced and one edge-jointed. A light dressing at the planer then readies the boards for the double-drum sander where they receive a bit more finishing with 60-grit to arrive at $\frac{3}{32}$ " over finished thickness. "It's here where we can get

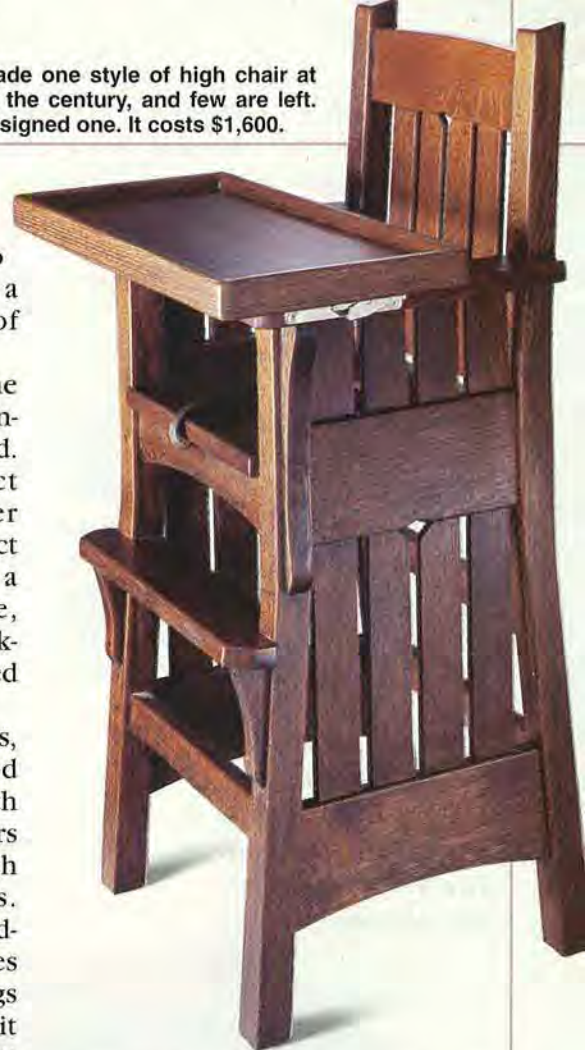
a good look at the available grain matches among the boards," says Judy. "We like to balance the rays and flecks in a piece so that you see some of them from every angle."

From the sander, they take the boards to a tablesaw with a thinner rip blade and a power feed. There they're ripped to exact dimension plus $\frac{1}{64}$ " for later cleanup. For crosscutting to exact length, the boards move to a tablesaw with a sliding table, then to either the mortising workstation or another tablesaw fitted with a dado set for tenoning.

After either of these operations, Judy or Michael runs the wood under another drum sander with 120-grit or to the stroke sanders where the boards pass through under 80-150-grit abrasives. "Many pieces, though, get hand-planed instead of sanded," notes Michael. "I can take a pile of legs that have been sanded to 60-grit and get them to a smooth finish in a third of the time of going through all the sanding grits."

The last step in preparing the wood is actually a four-part process. The crew wets the pieces with hot water, lets them dry, then sands them with random-orbit sanders. "First, we back up on the grit from the last sanding, to 120- or 150-grit," says Alana, "then we wet, dry, and sand three more times up through 220-grit. If Dad has hand-planed the pieces, the grain hardly rises, and we don't sand as much."

Once all the raised grain has been knocked down, Judy and the young craftsmen begin assembling the boards into furniture. As shown *opposite*, the glue contains a fluorescent additive that glows under black light, making it impossible to miss any squeeze-out. (The black-light fixture is the type used to light fluorescent posters and artwork. It's available at lighting stores for about \$25.



Mail-order woodworking supply companies offer a flashlight-type black light for about \$70.)

In the Schmitt workshop, Michael sprays on the final finish, but it's Judy and the kids who do the all-important staining. To find out how they achieve the rich tones that allow the grain of the quarter- and riftsawn wood to show so dramatically, turn to the article "An Arts and Crafts Finish Without the Fumes," page 74. ♣

More mission from the mountain, and plans, too

For the Schmitts' brochure and a list of available mission-furniture plans, send a business-size, self-addressed, stamped envelope to: Mountain Springs Woodcraft, 478 CR9590, Green Forest, AR 72638. Add \$6 (U.S.) for a complete 10-page finishing guide for mission furniture.

Written by Peter J. Stephano Photographs: Wm. Hopkins

Victorian-Style **BIRD FEEDER**

 Print this article

Looking for a gathering place for your fine-feathered friends? Then try this traditional tray feeder featuring painted columns and an attractive cedar-shingled roof. The screen on the bottom helps keep the feed dry and the birds healthy. And, the feeder mounts easily to either a pipe or deck railing for your viewing pleasure.

A sturdy base starts things off

1 Cut the two end blanks (A) to the size listed in the Bill of Materials. (Because of their rot resistance, we recommend using cedar or redwood.) Keeping the edges and ends flush, stick the two end blanks together with double-faced tape.

2 Cut the full-size end pattern (A) from the *WOOD PATTERNS*® insert in the center of the magazine to the outlined shape (1 $\frac{3}{4}$ ×10 $\frac{1}{2}$ "). Using spray adhesive, adhere the paper pattern to one of the endpieces (A).

3 Drill $\frac{1}{16}$ " holes through both blanks to mark the locations of the dowel-hole and the screw-hole centerpoints. Mark the locations along the top edge, and drill a $\frac{1}{4}$ " hole $1\frac{3}{16}$ " deep into each piece for attaching the columns to later.

4 Bandsaw and sand the taped-together ends (A) to shape.

Continued



Bill of Materials

Part	Finished Size			Mater.	Qty.
	T	W	L		
BASE					
A ends	3/4"	1 3/4"	10 1/2"	C	2
B cross members	3/4"	1 1/8"	9 1/2"	C	2
C* supports	3/4"	1 1/8"	11"	C	2
D* supports	3/4"	1 1/8"	8"	C	2
E bottom	3/4"	6 3/4"	7 1/2"	C	1
ROOF ASSEMBLY					
F supports	3/4"	2 1/2"	11 3/8"	C	2
G cross member	3/4"	1 1/2"	9 1/2"	C	1
H ridgeboard	3/4"	2 1/4"	13"	C	1
I* slats	9/16"	1 3/4"	13"	C	6
J top	3/4"	1 1/2"	13"	C	1
K* shingles	3/16"	1 5/8"	2"	C	16
L* shingles	3/16"	1 5/8"	2 1/2"	C	18
M* shingles	3/16"	1 5/8"	3"	C	16
N* shingles	3/16"	1 5/8"	1 3/4"	C	18
O ridge cap	3/16"	3"	13"	C	1

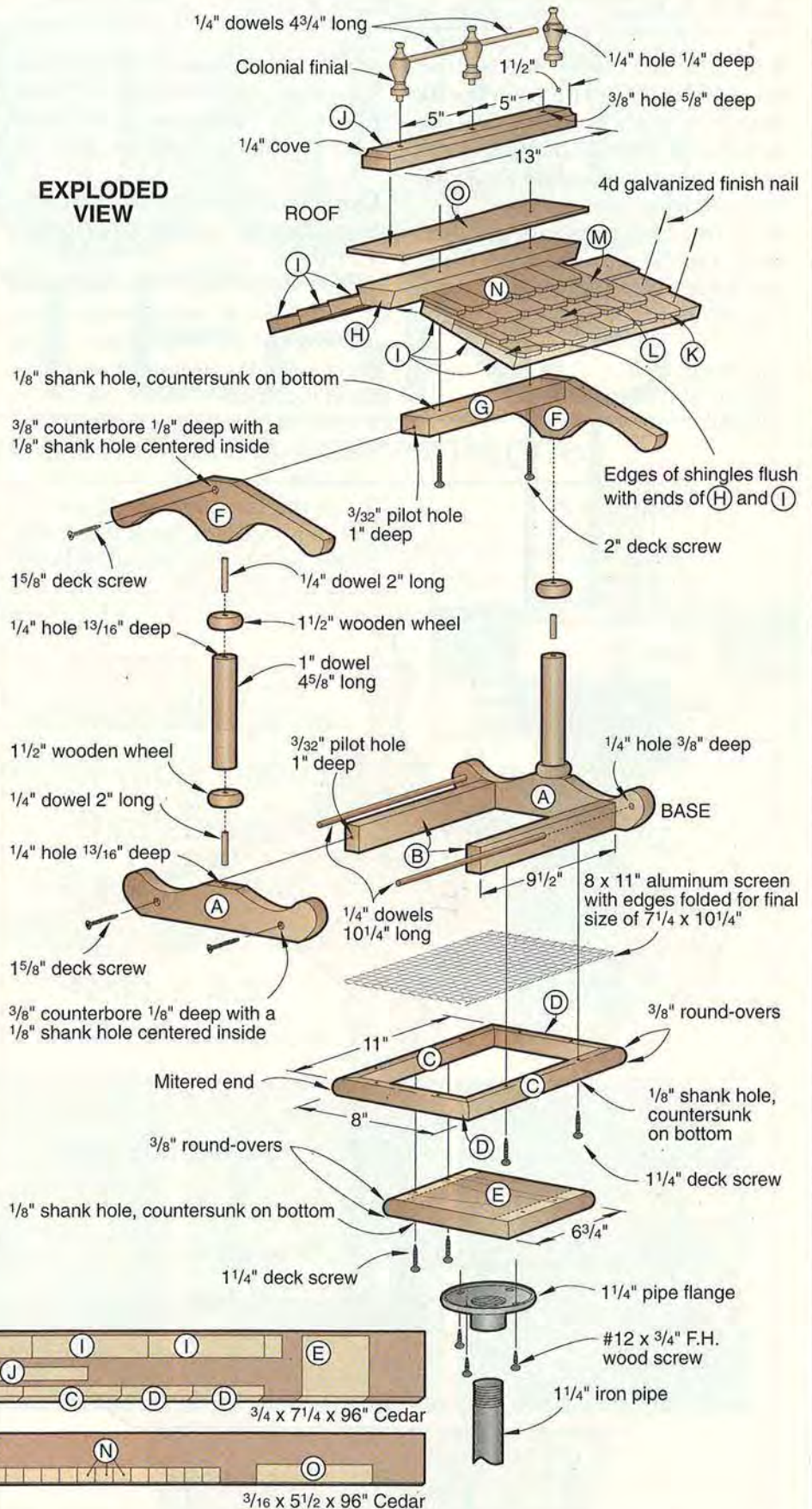
*Initially cut parts marked with an * oversized. Then, trim to finished size according to the how-to instructions.

Material Key: C—choice of cedar or redwood.

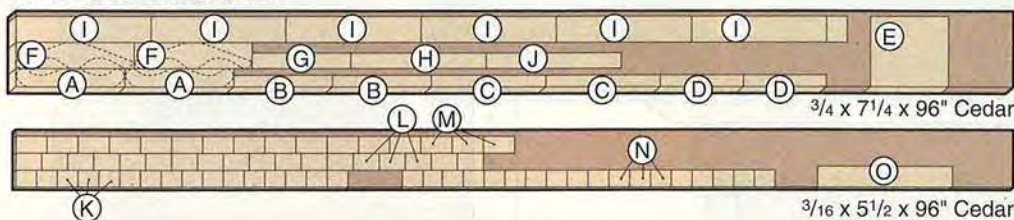
Supplies: 4—#12x3/4" flathead wood screws, 12—1 1/4" deck screws, 6—1 5/8" deck screws, 2—2" deck screws, 4—1 1/2"-diameter wooden wheels, 3—finials, 1/4" dowel stock, 1" dowel stock, 8x11" aluminum screen, 12—4d galvanized finish nails, 1 1/4" pipe flange, 1 1/4" pipe, exterior primer and paint.

Hardwood kit. All the individual pieces shown on the Cutting Diagram cut oversized from the thickness and species listed in the Bill of Materials. Plus, the hardware and dowels (not including the paint, primer, pipe, or pipe flange) noted in the supplies listing at the end of the Bill of Materials. Kit no. W109, \$36.95 ppd. Heritage Building Specialties, 205 North Cascade, Fergus Falls, MN 56537. Call 800/524-4184 to order.

EXPLODED VIEW



CUTTING DIAGRAM



BIRD FEEDER

5 Separate the blanks, and remove the tape. Using the previously drilled $\frac{1}{16}$ " holes as guides, drill the dowel and screw-mounting holes to the sizes noted on the Exploded View drawing.

6 Cut two $10\frac{1}{4}$ " lengths of $\frac{1}{4}$ " dowel stock. Cut the cross members (B) to size. Glue and clamp the cross members (B) and $\frac{1}{4}$ " dowels between the

ends (A). Drive the screws to further strengthen the base assembly. Later, remove the clamps and fill the holes with wood putty. Sand smooth.

Construct the base bottom support for extra strength

1 Cut a piece of stock to $\frac{3}{4} \times 1\frac{1}{8} \times 40$ " for the screen supports (C, D). Rout $\frac{3}{8}$ " round-overs along one edge of the strip. Miter-cut the pieces (C, D) to length and glue them together.

2 Drill the mounting holes in the bottom side of the screen support assembly.

3 Cut the base bottom (E) to size, and rout its edges. Mark the center-points, and drill the mounting holes.

A weathertight roof assembly comes next

1 Shape the roof supports (F) using the same method used to form the ends (A).

2 Cut the cross member (G) to size, making sure it spaces the roof supports so they align with the base ends. Glue and screw G between the two Fs. Fill the holes.

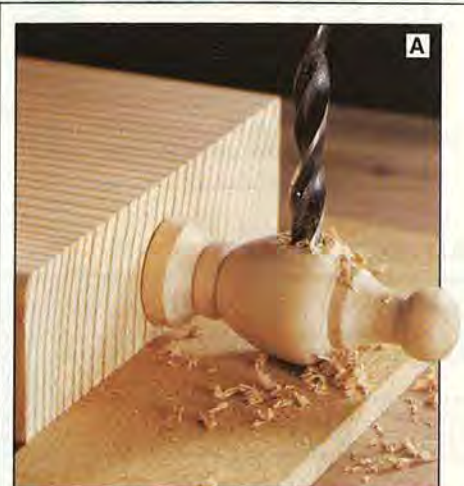
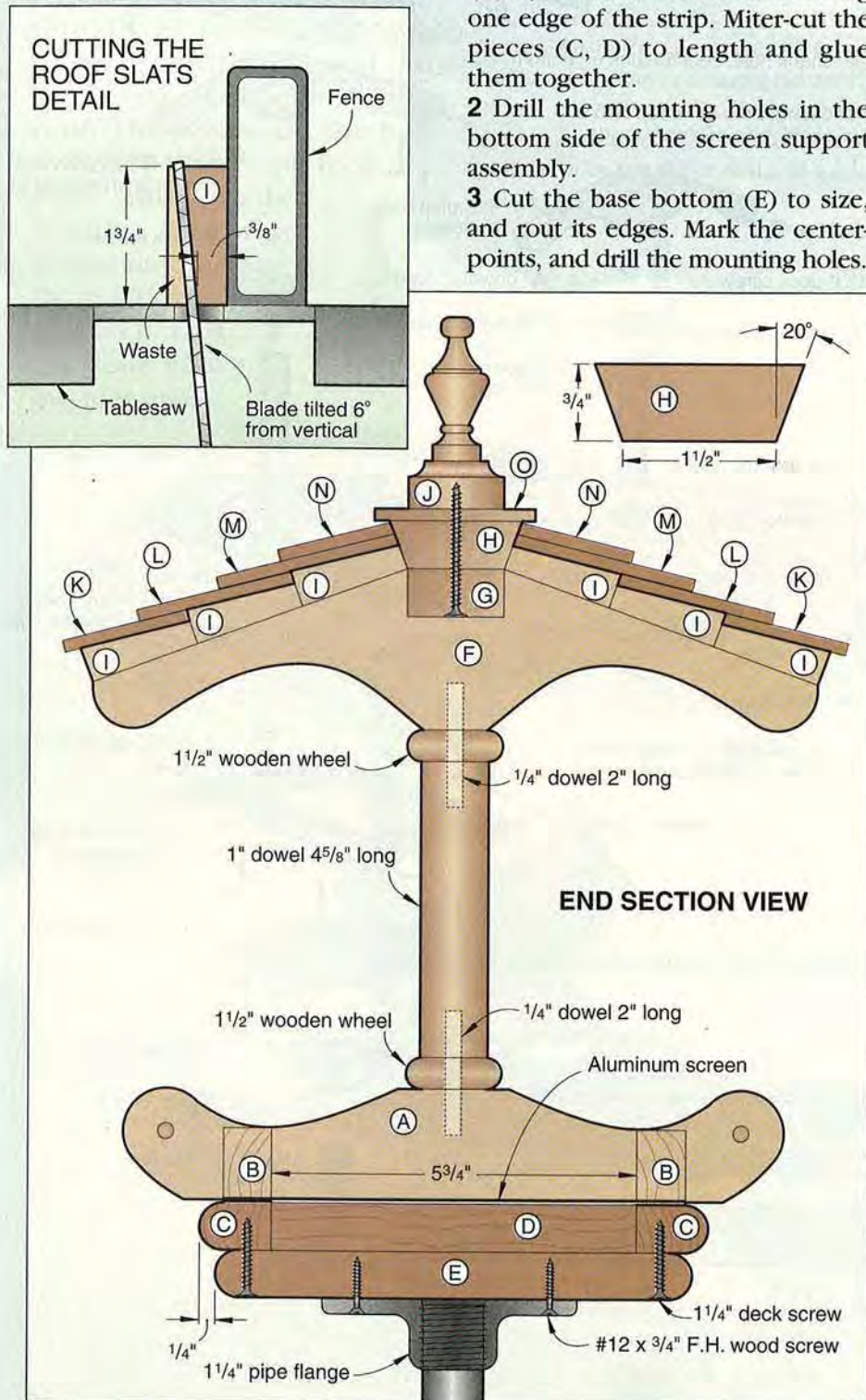
3 Cut the ridgeboard (H) to size bevel-cutting the edges at 20° .

4 Cut the roof slats (I) to size, bevel-ripping one surface at 6° . See Cutting the Roof Slats detail for reference. (To be safe, we used a pushstick when making this cut.)

5 Glue and nail the ridgeboard (H) and roof slats (I) to the roof assembly (F, G), keeping an equal overhang on each end. See the End Section View for reference.

6 Cut the roof top (J) to size. Then, rout a $\frac{1}{4}$ " cove along all top edges. Mark the centerpoints, and drill the holes for mounting the finials.

7 Drill a $\frac{3}{8}$ " hole centered in the end of a scrap piece of 2×4 . Fit the tenoned end of a finial into the hole. Place this on your drill-press table. Cut a spacer to fit snugly between the drill-press table and finial as shown in *photo A*. The spacer will keep the finial from flexing downward when drilling the hole in the side of the finial. Now, as shown in *photo A*, drill a



Support the finials when drilling the mounting holes for the dowels.

¼" hole ¼" deep into the outside finials, and drill a ¼" hole all the way through the middle finial.

8 Cut two 4¾" lengths of ¼" dowel stock. Glue the dowels into the finials, and then glue the finial/dowel assembly into the previously drilled ⅜" holes in the roof top (J). Wipe off any excess glue with a damp cloth.

A pair of stately columns come next

1 Cut two pieces of 1" dowel to length for the columns. Drill ¼" holes, centered in both ends of each.

2 Cut four pieces of ¼" dowel stock to 2" long each. Glue the dowels and wheels onto both ends of the columns. If the wheels have one dished side, orient this side down so they won't trap water on the finished feeder.

3 Glue the columns to the base assembly, once again orienting the dished side of the wheels down.

Paint the roof assembly so it will stand up to the weather

1 Mask the top of the roof assembly, leaving about ½" around the perimeter exposed. See *photo B* for reference. You'll need the unfinished wood to adhere the shingles to later.

2 Mask a ¾"-diameter area around the ¼" hole on the bot-

tom side of the roof supports, allowing you an unfinished area to glue the top end of the column to later. Now, mask the mating area on each column top.

3 Prime and paint all the assemblies. We used an aerosol exterior primer and an aerosol white semi-gloss enamel.

Lay the shingles to keep the feed dry

1 To form the shingles (K,L,M,N), resaw or plane some of the cedar or redwood stock to ⅜" thick.

2 Rip 1⅝"-wide strips from the ⅜"-thick stock. Then, crosscut the shingles to the lengths listed in the Bill of Materials. You'll want to cut a few extra of each size.

3 Sand or cut matching chamfers on both bottom corners of each individual shingle.

4 Cut the ridge cap (O) to size.

5 Using a waterproof glue (we used a polyurethane adhesive), adhere the shingles to the roof assembly in the configuration shown on the Exploded View drawing and as shown in *photo B*. (As shown in the photo, we used a flat strip of wood with clamps to hold down a whole row of shingles at one time.)

6 When all the shingles are in position, glue and clamp the ridge cap (O) in place.

Complete the assembly, and fill it with feed

1 Cut the aluminum screen to 8×11". As shown in *photo C*, use a flat thin straightedge to bend over the edges of the screen for a final screen size of 7¼×10¼".

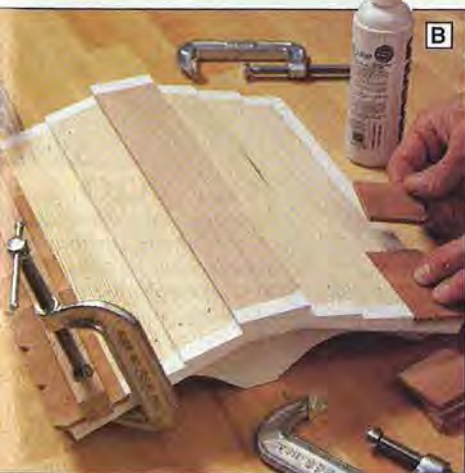
2 Turn the base assembly (A, B) upside down. Position the screen and screen support (C, D), and screw them in place. You might want to staple the screen in place to hold it stationary before adding the screen supports.

3 Next, position the base bottom (E), and screw it in place. Screw the pipe flange to the bottom of the base bottom.

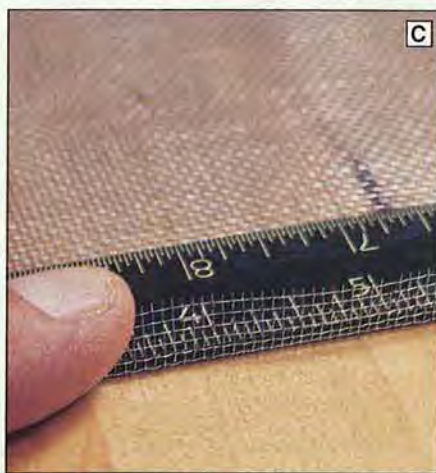
4 Clamp the roof top/finial assembly in place, and drill countersunk mounting holes through G, H, and O and into J. Secure with screws.

5 Remove the masking, and glue the roof assembly to the tops of the columns. (As shown in *photo D*, we used spacers to support the roof when clamping it in place.)

Written by Marlen Kemmet
Project Design: ©Karl Derums,
Pine Mountain, Georgia
Illustrations: Kim Downing
Photographs: William Hopkins, Sr.;
Hetherington Photography



Use a waterproof glue when adhering the cedar shingles to the roof.



Use a thin straightedge when bending the edges of the screen.



Use four spacers to support the roof when gluing it to the two columns.

Project Showcase

Art center exhibits turnings in Oklahoma



Bob Hawks *Smoke in a Bottle*
Purpleheart and madrone, 12" tall, 7" dia.

Ron Fleming *Andora*
Mahogany, 15½" tall, 13" dia.

Larry Anderson *Untitled*
Spalted maple, 7" tall, 3" dia.

LET US SEE YOUR BEST WORK, TOO

Show us your best original projects, except for decks or other home improvements. Items built from kits or directly from published plans are ineligible, as are carvings from commercial roughouts. To submit your original project for consideration:

- Send sharp color slides or glossy prints of the item. (We can't use Polaroid photos.) Photos, which are nonreturnable, should have plain, uncluttered backgrounds.
- Explain what the project is or what it does—we don't want to call your lamp table a plant stand. Describe its features, wood, finish, and overall dimensions.

- Tell us a little about yourself, too—how old you are, your occupation (or former one, if you're retired), how long you've been a woodworker, and so forth. Include a daytime phone number.
- Send everything to:

WOOD® Magazine
Project Showcase
1716 Locust St., GA310
Des Moines, IA
50309-3023

When we want to know what woodworkers are doing down in Oklahoma, we check in with our friend, photographer and ace woodworker Bob Hawks. Recently, Bob called to ask if we'd like to look at some photos of woodturnings on display in an Oklahoma museum (*far right*). Of course, we did.

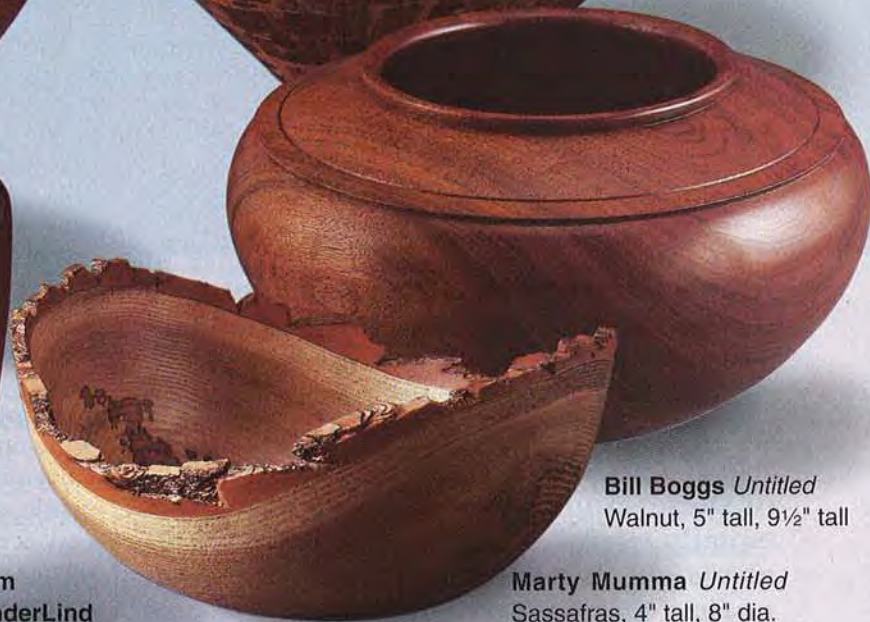
The exhibition earlier this year at the Philbrook Art Center in Tulsa—the art center's first display of woodturnings—featured 35 pieces by 15 members of the Northeastern Oklahoma Woodturners Association. The group's 85 members submitted more than 240 items for jurying. Here are eight of our favorite turnings from the show. ♣



Mike Horsman
War Shields Vase
Walnut and wenge, 15"
tall, 12" dia.



Bill Sellers *Untitled*
Norfolk Island pine,
walnut, and turquoise,
11½" tall, 10½" dia.



Bill Boggs *Untitled*
Walnut, 5" tall, 9½" tall

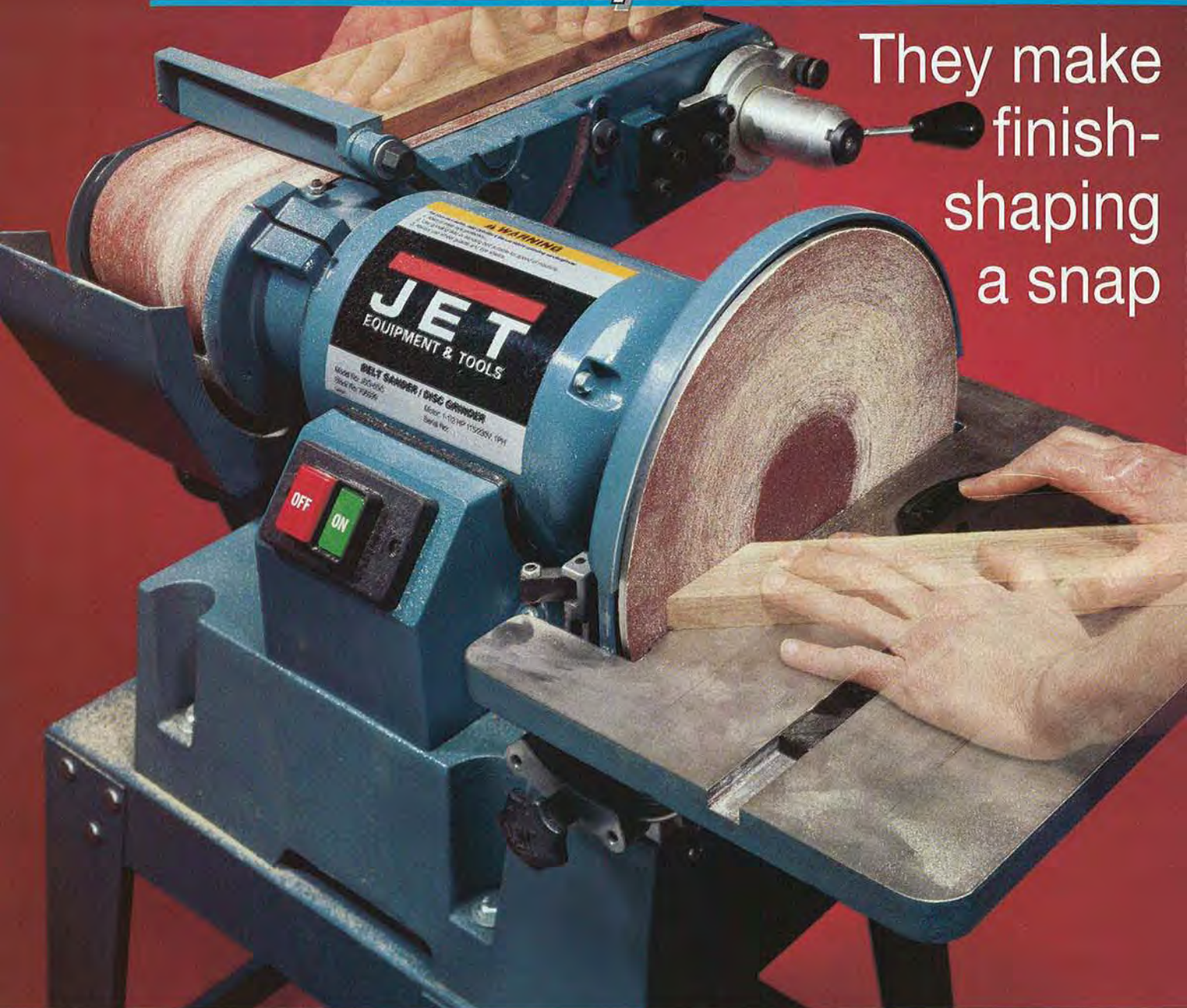
Marty Mumma *Untitled*
Sassafras, 4" tall, 8" dia.

Jim VanderLind *Untitled*
Cocobolo and maple,
6½" tall, 3½" dia.


Sorry, but we are unable to provide plans, drawings, patterns, measurements, bills of materials, additional photographs, descriptions, or other details for projects shown. To protect their privacy, we can't reveal addresses or telephone numbers of Project Showcase exhibitors.

BELT/DISC

They make
finish-
shaping
a snap



It's amazing how many times we turn to the belt/disc sander in the *WOOD*® magazine shop. We use it to hog away waste from rough-cut curves, remove saw marks, touch up miters, or shape perfect circles. And we think you'll find one of these sanding and shaping machines equally useful in your shop. So, read on as we put the wood to five 6×48" combination sanders to find out what you should look for before you buy.

 Print this article

Fast facts

- A large disc helps you sand the ends of wide workpieces. And, because the speed of the disc increases as you approach its edge, a large disc also gives you a wide range of speeds.
- If you plan to use the belt for sanding and shaping inside curves, consider one of the models that offer easy access to the upper roller.
- These sanders generate lots of fine dust, the kind that seems to float endlessly in your shop's air. So, make dust collection a high priority when choosing a sander.

SANDERS Under \$600

About our performance test

We began our evaluation as we always do: by assembling the machines and getting acquainted with the adjustments and features of each. While carefully inspecting each unit for fit and finish, we also looked closely at other key elements: type of bearings used, platen flatness, and dust-collection effectiveness.

To test each sander's ability to hold its power under a heavy load, we placed a weighted 6×12" pine board on the belt and observed any change in motor speed and belt tracking. We then sanded the end grain of the same board with the disc, and again observed any speed change. In both oak and pine, we sanded inside curves on the edge of the stock. We also shaped outside curves using both the disc and belt. To check each machine's dust-collecting capability, we tested them using both a shop vacuum and a 4" dust collector.

How these sanders compare to benchtop units

All but one of the sanders we tested come with a floor stand or offer it as an option (see our chart on page 65). A floor stand enables you to move around the tool to make full use of all its features. But, a freestanding sander requires precious floor space, where a benchtop unit doesn't.

For removing a lot of stock quickly, these heavyweights all have 6×48" belts. So, you can sand face or end grain of stock up to 6" wide in just one pass. Their smaller benchtop brethren can handle only 4" stock in one pass.

Disc diameters on the units we tested range from 9" to 12", but remember, you'll be working with a little less than *half* of that diameter, see photo *above right*. This



When sizing up a machine, remember that you use only the left side of the disc. So, the actual sanding capacity of a disc is just less than half its diameter.

means that with a 9" disc, you can square up the ends of stock up to 4" wide. But, to touch up a 45° miter on that same piece of stock, you'd need a 12" disc. By comparison, a smaller benchtop model with a 6" disc can work a 2" (or less) workpiece at 45°.

Buckling down and changing belts

Before you can change sanding belts, you need to clear a path for the belt; any combination of guards, covers, and brackets may block the way. The belt of the Grizzly G1014Z is the easiest to get to, by turning out two knurled knobs to remove the upper roller guard. The Powermatic ranks a close second. Its lower roller guard must be removed, but it comes off by simply removing one screw. Every time we changed belts on the Delta, we had to loosen four hex-head screws to take off the workstop and a support bracket, and snap off the upper roller guard. The Delta is the only sander in our test that requires removal of the table or workstop to replace the belt.

Once the way is cleared for belt takeoff, you must release the belt tension. Each sander has a quick-release lever that temporarily slackens the belt for removal. However, on the Grizzly G1014Z and the Jet, the mechanism doesn't lock in this position. We had to hold the lever in place, leaving only one hand to remove or install the belt—an awkward proposition.

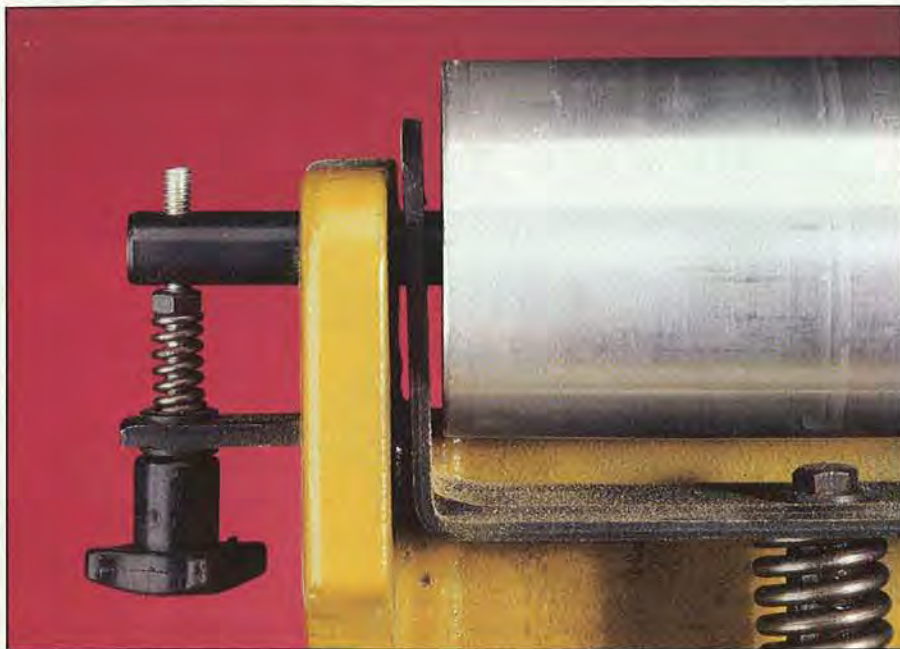
Tension and tracking: keeping the belt in line

Belt tension sets automatically on most of the machines we tested, by means of a large spring on the upper roller mount. The only one that didn't set tension automatically—the Grizzly G1014Z—comes with detailed instructions and once set, shouldn't need to be adjusted for some time.

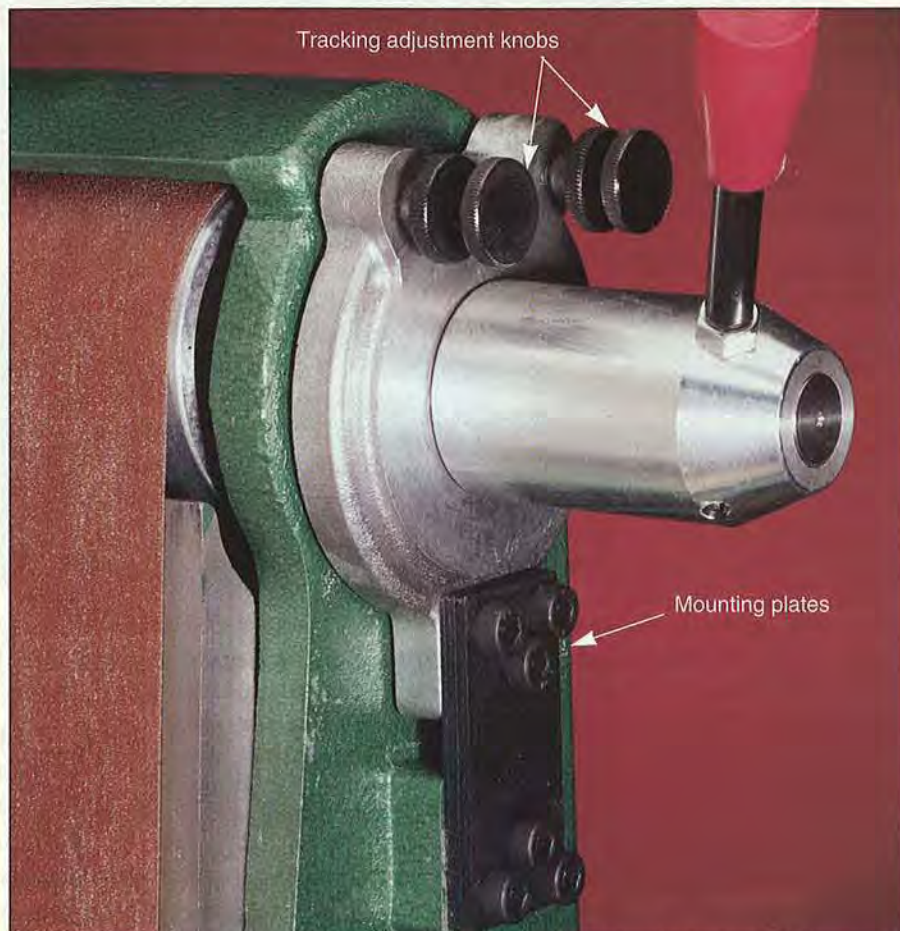
The tracking adjustment keeps the belt centered while it turns. When you adjust the tracking, you move the axis of the top roller into, or slightly out of, parallel with the bottom roller, to compensate for belts that may not be perfectly parallel. Once set, the

Continued

BELT/DISC SANDERS



A single-point tracking mechanism: Turn the knob in, and the roller raises, tracking the belt to the right. Turn it out, and the belt tracks left.



A dual-point tracking adjustment system. After upgrading the mounting plates, we needed only one knob to adjust tracking.

tracking should need only minor adjustments until the next time you change belts.

Three of the sanders we tested use a single-point tracking mechanism as shown at *left*, which we found stable and simple to adjust. The Grizzly G1276 and Jet use two knobs, *bottom left*, to set tracking (as you loosen one, you must tighten the other). We found this arrangement cumbersome. In addition, these were the only sanders we tested that, despite our best efforts, would not hold their tracking when we sanded. In our initial tests, the upper rollers were mounted by means of three layered steel plates that provided enough flex for tracking adjustment. But in our tests, we found the three plates weren't stiff enough to keep the upper roller on the same plane as the lower roller. This caused the belt to "walk" when we applied our workpiece to it.

We installed additional steel mounting plates to both machines to see if we could sufficiently stiffen the assembly and keep the belt from wandering. With this accomplished, the tracking stabilized greatly. And, we found we could adjust the tracking using only one of the adjustment knobs. When contacted, officials at Grizzly agreed with our fix and said they would immediately begin shipping their sanders with five plates.

We also learned that Jet representatives had discovered the problem after the first production run (from which our sander came). After installing Jet's new upper roller assembly—including three beefier mounting plates—we found the tracking had indeed improved to an acceptable level.

Sanding curves on a belt/disc sander

After rough-cutting a curve with your bandsaw, you need to clean



The graphite pads developed a groove (dark band on pad) at worktable height after radius-sanding on the belt.

it up, and a belt/disc sander handles the job well. Most of the models we tested tackle both inside and outside curves with few modifications.

We sanded inside curves free-hand by removing the guard on the upper roller and feeding our workpiece straight into the roller. We found the guards on the Delta and the Grizzly G1014Z the easiest to remove. The Delta's guard simply snaps off by hand, and the Grizzly has only a pair of thumb-screws securing the guard. Because the Grizzly G1276's roller guard is an integral part of the cast belt arm, we could not remove it to sand inside curves. Also; sanding a curve on the upper roller of the Jet proved dif-

ficult—the belt would not maintain its tracking.

You can shape outside (radius) curves on either the belt or disc. However, we don't recommend using the belt on the machines with a graphite pad on the platen (see our chart on *page 65*). Manufacturers use the graphite to reduce friction, noise, and heat buildup, and the pads work fine for sanding broad or long surfaces. But, when sanding edges on a radius, we were surprised at how quickly and easily grooves developed in the pads, as seen *above*. Such a groove diminishes your ability to sand flat.

For smoothing the face or long edges of a workpiece, turn the belt arm horizontal; for working



The Powermatic's stamped wrench (shown on bolt) fits poorly, making an already tricky task even more difficult.

end grain, vertical. Or, you may be more comfortable working at some other angle. All of the models we tested rotate the full 90° and lock at any angle in between. Most of the belt arms are easy to reposition and lock into place with included tools. However, rotating the belt arm on the Powermatic is a nuisance. Its belt guard and pulley, shown *above*, hinder access to the arm's retaining bolts.

More things to consider before you buy

•**Dust collection.** Most of the machines in our test have ports sized to fit a shop vacuum hose (only the Jet has a 4" port). Most also use a single dust port to collect from both the belt and disc. But, we were surprised that neither of the Grizzly machines came equipped to catch dust generated at the disc. In spite of that (and its odd-sized 2" port), the Grizzly G1014Z earned high marks for its simple, yet very effective, belt dust collection. Powermatic uses two separate dust ports, which requires moving your dust hose back and forth from belt to disc. Though Powermatic's collection at the disc rates among the best, we found collection from the belt

Continued

BELT/DISC SANDERS

largely restricted by the roller housing. Delta proved itself the best of the dust bunch, with one 2½" dust port and a built-in blast gate to divert the suction fully to the disc. With the gate closed, the collector catches nearly 100 percent of the dust from the disc.

•**Worktables.** The worktables on all of the machines felt good and rotated easily for sanding bevels and miters. Some machines include one worktable that can be used at both the belt and the disc. Others have separate tables for each. And, some include a work-stop to keep flat stock from flying off the end of the belt when sanding. If you'll be moving work back and forth between the disc and the belt, get a machine with separate tables to save yourself a lot of resetting. Check our chart at *right* to see what comes with each machine.

•**Power and speed.** The five sanders in our test display ample power for most sanding chores. Only the Grizzly G1276 slowed significantly under load, and only when sanding heavily at the rim of its big 12" disc.

Belt speed proved acceptable on all of the machines: slow enough to prevent burning the wood, yet fast enough to remove stock quickly. Disc speed is less critical—just remember that a 12" disc gives you a wider range of speeds. If you find your workpiece burning while you sand, move it closer to the center, where the disc moves slower.

•**Ease of maintenance.** Aside from changing belts, only the roller bearings will require maintenance. Most of the combination sanders in our test use shielded bearings that will eventually need to be replaced due to their exposure to fine sanding dust. The Jet and Delta sanders use sealed bearings, which we prefer, to keep the bearings dust-free.

When the dust settles, what would we buy?

With prices from \$170 to \$599, you can spend as much—or as little—as you want, but there are trade-offs for the lower prices. Among sanders with 12" discs, the Jet JS6 edges out the Grizzly G1276 by virtue of its extra power and superior dust-collecting ability. But, the Grizzly costs \$160 less. In the middle of the price range, the Delta 31-695 performed as well as or better than most sanders in the test. But, instead of a cast-iron platen, you get stamped steel that's more prone to warping or a ding from a dropped tool. Though the Grizzly G1014Z doesn't have dust collection at the disc, it's a solid machine with the longest belt platen—and the lowest price. 🐿

MANUFACTURER/ IMPORTER	MODEL	MOTOR			DISC	
		HORSEPOWER	VOLTAGE	DRIVE-TYPE (1)	DIAMETER (INCHES)	SPEED (RPM)
DELTA	31-695	1	110	B	9	2800
GRIZZLY	G1276	1	110/220	D	12	1725
	G1014Z	¾	110/220	B	9	2900
JET	JS6-6DC	1½	110/220	D	12	1725
POWERMATIC	84	¾	110/220	B*	10	2100

NOTES:
 1. (B) Belt drive
 (B*) Two drive belts
 (D) Direct drive
 2. (DT) Disc table can be moved to be used with belt.
 3. (CI) Cast-iron
 (G) Graphite pad on platen
 (SS) Stamped steel

Check out our top picks



HOW THEY CUT IT: 6 x 48" COMBINATION SANDERS UNDER \$600

TABLE SIZE (WxL, IN INCHES)	SPEED (FEET PER MINUTE)	BELT		CONSTRUCTION					PERFORMANCE RATINGS (6)								STANDARD ACCESSORIES (7)			OPTIONAL ACCESSORIES (7)		WARRANTY	COUNTRY OF ASSEMBLY (8)		WEIGHT (POUNDS)	SELLING PRICE (9)	COMMENTS
		PLATEN SIZE (INCHES)	TABLE SIZE (2) (WxL, IN INCHES)	PLATEN MATERIAL (3)	MAIN HOUSING (4)	TABLE MATERIAL (4)	ROLLER BEARINGS (5)	DUST PORT SIZE (INCHES)	BELT CHANGING	BELT TENSIONING	BELT TRACKING	EASE OF BELT ARM ROTATION	DISC RUNOUT	POWER UNDER LOAD	DUST COLLECTION	FIT AND FINISH	FS, WS	EF, FL, M	2 yrs.	T	79		\$299				
7x11¼	2200	15¼	DT	SS/G	CI	AL	SL	2½	G	E	E	E	E	E	E	E	FS, WS	EF, FL, M	2 yrs.	T	79	\$299	A well-built machine at a reasonable price.				
7x16½	2500	14¾	7x12½	CI	AL	CI	SH	3	F	G	E	G	E	G	F	G	M		1 yr.	T	155	439*	Benchtop use only; floor stand not available.				
6x12¼	2300	16¾	DT	CI/G	CI	CI	SH	2	E	G	E	F	E	E	F	F	FS, WS	MB	1 yr.	T	120	170*	Not pretty or sophisticated, but for the money, it does the job.				
9x16½	2500	14¾	7¼x14½	CI/G	AL	CI	SL	4	F	G	G	G	E	E	G	E	WS, M	FS	2 yrs.	T	150	599	The most powerful machine in our test.				
6½x13	1650	16¾	6x10½	CI	CI	CI	SH	2½	G	E	E	P	E	E	G	G		FS, MB	1 yr.	T	125	445	Belt arm rotation was difficult.				

4. (A) Aluminum
(CI) Cast-iron
5. (SH) Shielded
(SL) Sealed

6. **E** Excellent
G Good
F Fair
P Poor

7. (EF) Edge-sanding fence
(FL) Flexible shaft
(FS) Floor stand
(M) Miter gauge
(MB) Mobile base
(WS) Work stop

8. (T) Taiwan
9. Prices current at time of article's production and may change.
*Shipping charges additional

Where to call for more information:

Delta 800/438-2486 Jet 800/274-6848
Grizzly 800/523-4777 Powermatic 800/248-0144



Grizzly
G1014Z



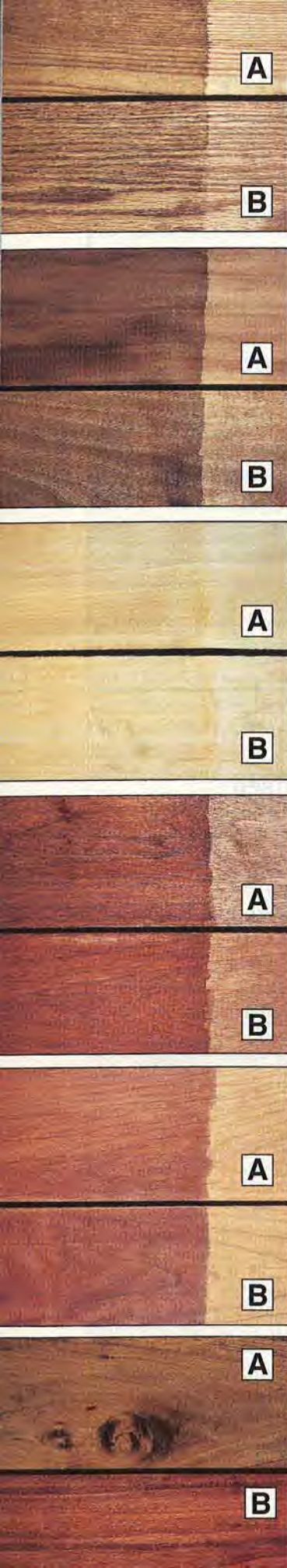
Delta
31-280

In a class all by itself

Although we limited the scope of our test to sanders selling for under \$600, we also tested Delta's 31-280 Sanding Center in case you're interested in spending \$800 (the next level of sanders starts at nearly twice that price). It's dubbed a "sanding center" because in addition to its 6x48" belt and 12" disc, it offers buffing, drum-, flap-, and flexible-shaft sanding with optional attachments. The disc table comes with a sliding pivot pin for sanding circles up to 24" in diameter; an optional extension stretches that capacity to 48".

Written by Dave Campbell
Technical consultant:
Dave Henderson
Photographs: Marty Baldwin
Illustrations: Kim Downing

Sometimes, only an expert WOOD LOOK-



White ash, A, for red oak, B
The two wood samples were stained with a diluted Dark Golden Oak water-soluble aniline dye, but first the red oak was sealed with thinned shellac so it wouldn't darken too much. The white ash received a second coat to further enhance the grain. The samples each got a sealer coat of thinned shellac and a finish coat of spray lacquer.

Red gum, A, for black walnut, B
The red gum board was selected for its nearly perfect walnut coloration. It and the walnut sample were dyed with a Medium Walnut water-soluble aniline dye, then sealed with shellac to warm up the color. The finish coat was spray lacquer. Note the color and grain similarity of the naturally finished samples in the right side of the photographs.

Yellow birch, A, for maple, B
Chosen for its lighter color, the yellow birch was almost a perfect look-alike for sugar maple even before staining with a highly diluted Dark Golden Oak aniline dye and finishing with lacquer.

Red lauan (Philippine mahogany), A, for Honduras mahogany, B
Nearly identical in grain and natural color, the lauan and the genuine mahogany each received a coat of Dark Wine Cherry aniline dye, a shellac coat, and a clear, spray-lacquer finish.

Red alder, A, for black cherry, B
With its fine grain, pinkish color, and figure features, the red alder sample came pretty close to matching black cherry when each received one coat of Dark Wine Cherry aniline dye. However, by first sealing the red alder with shellac, then dyeing it, the result was even closer. Each was sprayed with a finish coat of lacquer. Note how much the two woods look alike in the unstained, clear-finished part of the photographs.

Yellow poplar for black walnut, A, and black cherry, B
After careful selection of yellow poplar samples to match the figure and grain of black walnut and black cherry respectively, each was dyed with aniline dye. It took two coats of Medium Walnut and one coat of Dark Wine Cherry to change the yellow poplar. The finish coat for each look-alike sample was lacquer.

Caught short of stock for your project? Want to save some bucks on wood? Can't find the wood you need for a missing part? Professional woodworkers, furniture restorers, and furniture manufacturers have long known the value of look-alikes—often less expensive woods that they can stain and finish to resemble more costly ones. If you're looking for a few good stand-ins, you've come to the right place.

Knowledgeable furniture restorers sometimes face a piece needing repair that's made from chestnut, once a widely available furniture wood. No chestnut, no problem. They'll replicate a part from sassafras, abundant throughout the South, then finish the wood to match. Savvy finishers also know that they can make white ash pass for red oak if need be.

In Colonial times, furnituremakers frequently substituted native black cherry for the popular but expensive Honduras mahogany then

Heed these pointers for the pretenders

If you decide to do some woodworking with look-alike woods, you'll have more success if you keep the following in mind:

- You can often substitute a look-alike wood for more than one wood species, such as alder for walnut or cherry, red gum for walnut or mahogany, and yellow poplar for a variety of woods. This has been a common manufacturing practice in moderately priced furniture for over 50 years.
- Remember, all wood falls into three basic wood-grain categories: coarse-grained, such as oak and ash; medium-grained, like mahogany and walnut; and fine-grained, as found in cherry, maple, and yellow poplar. Because it's nearly impossible to make wood with one type of grain look like one with another type, select a look-alike wood

can tell the difference ALIKES

in vogue. Today, though, black cherry outpaces mahogany in the public's preference for furniture, so the look-alike role it once played no longer makes sense.

Furniture factories also commonly follow wood-substitution practices, turning to species such as alder, hackberry, soft maple, and selected imported woods for frames, legs, trim, and other secondary parts. Extensive staining, sealing, glazing, and toning techniques finish these species so that they look the same as the cherry, mahogany, or walnut used on the major parts.

To demonstrate what happens when you substitute one wood for another, we prepared samples of several common woods (read about our selected species at *right*). The wood samples were then stained (we used water-soluble aniline dyes) and clear-finished with lacquer to resemble other often more expensive woods, as shown in the photographs *far left*. The captions by each pair of photos label the woods and tell you what we used to get the color match. As you can see, some of the look-alike woods play their role better than others.

with the same general grain features as the one you want to imitate.

- In most cases involving the substitution of wood, you'll have to stain or dye the look-alike wood. That may require some tinting and experimentation before you get the color of the imitator exactly right.
- If you plan to mix a wood and its look-alike in the same project, such as walnut and red gum, you should stain or dye both woods. If the look-alike wood is lighter in color, use two coats of color to darken it, but only one coat on the wood being imitated. As we found out in one instance, the darker, more coarse-grained wood of the two species should get a sealer coat of thinned shellac before coloring so that it won't continually get darker. 🌲

Read more about our look-alikes

Red gum (*Liquidambar styraciflua*). About two-thirds the cost of black walnut, red gum comes from the heartwood of the large sweet gum tree. The lighter-colored sapwood of the same tree is marketed as sap gum. A little lighter in weight and a bit less dense than black walnut, red gum has grain, figure, and natural color similar to much of the more expensive wood. However, it's not as hard or as strong.

Red alder (*Alnus rubra*). Because it takes stains and finishes so well, red alder can substitute for several woods. Although red alder is lighter than cherry, for instance, but almost as strong, furniture manufacturers frequently use it at barely half the cost of pricey fine cherry.

White ash (*Fraxinus americana*). Similar in weight, hardness, strength, and grain appearance (when both are flat-sawn) to red oak, but available at a slightly lower price. Compensate for its lack of pinkish hue with a warmer stain.

Yellow birch (*Betula alleghaniensis*). In all physical properties except hardness, yellow birch matches sugar maple quite well. It also has fine grain. Although yellow birch's heartwood tends toward tan, board sorting can yield lighter wood that will pass for maple. However, there's little cost savings—both are priced about the same.

Yellow poplar (*Liriodendron tulipifera*). You'll find this wood no match for what you might want it to imitate in weight, strength, or hardness, but it is dense and fine-grained. And yellow poplar readily takes stain to substitute for maple, cherry, and other woods, but costs a lot less.

Red lauan (*Shorea negrosensis*). At about a third less than the cost of genuine mahogany, look-alike lauan (also called Philippine mahogany) substitutes with little effort. Lauan isn't as hard, strong, or stable as the real thing, though, and not as easy to machine as the classic cabinet wood.



THE ULTIMATE Rainy-Day Project



Finely detailed yet surprisingly simple to build, this rendition of Noah's Ark is sure to become an instant family favorite and a treasure for generations to come.

Noah knew to start with the hull; let's do that, too

1 Cut four hull layers (A) and the deck layer (B) to the sizes shown in the Bill of Materials. Laminate them with the mahogany deck layer on top of the stack.

2 Photocopy the Full-Size Side View and Top View Patterns in the *WOOD PATTERNS*® insert in the middle of the magazine. With rubber cement or spray adhesive, adhere the patterns to the lamination, taking care to align the ends on both views.

3 Referring to the Cutting the Hull and Cabin Base drawing, bandsaw along the deck line on the side view (Step 1). Reattach the waste piece with two 4d finish nails, driven inside the cabin-base outline. Don't drive them all the way in, so you can pull them out. (Later, the nails and holes will index the cabin location on the hull.)

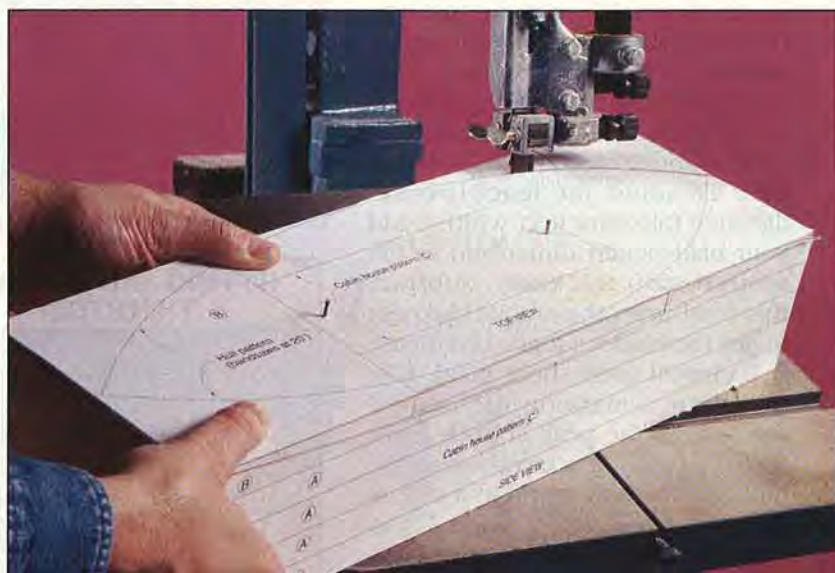
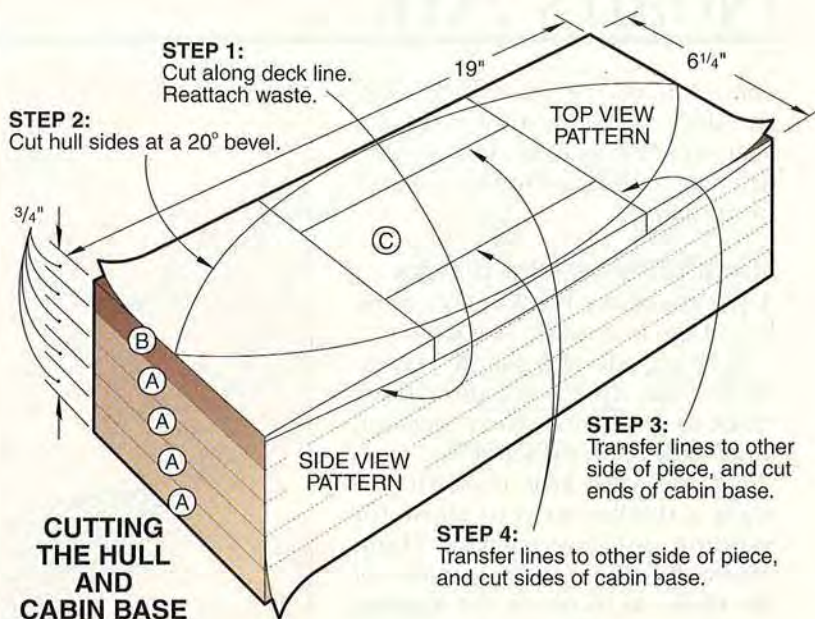
4 Tilt your bandsaw's table to 20°. Saw around the hull outline on the top view (Step 2), as shown *right*. Remove the deck waste piece from the hull, and return the saw table to level.

5 Saw the cabin base (C) from the deck waste. To do this, transfer the lines marking the ends of the cabin base to the bottom of the piece (drawing Step 3). Then, with the flat, patterned side down, cut the ends, as shown *right*. Similarly, cut the sides of the cabin base where shown (Step 4).

6 Temporarily reattach the cabin base to the deck with the two nails. Sand the deck smooth, then remove the cabin base. (Placing the cabin base on the deck while sanding prevents you from sanding that portion of the deck, which could change the fit between the two parts.) Leave the nails in their holes in the base, but cut them off flush with the top of part C.

7 To draw lines representing deck planking, make the jig shown in the Decking Guide drawing in the *WOOD PATTERNS* insert. Mark a

Continued



Bandsaw the hull outline with the bandsaw table tilted to 20°. The piece cut off in the first step has been nailed back onto the block.



Transfer cabin end lines from the pattern on the other side to the bottom of the deck waste so you can place the flat surface on the bandsaw table.

Noah's Ark

centerline on the deck, then draw the deck planks with a not-quite sharp no. 2 pencil, as shown *right*. After penciling in the lines, wood-burn them.

Rip and resaw the planks

1 Cut the sheer planks (D) for the top of the hull to the size shown.

Here's a safe and simple way to do it: First, rip a piece of $\frac{3}{4}$ "-thick stock to $1\frac{1}{16}$ " wide. Next, position your tablesaw's rip fence $\frac{9}{16}$ " from the blade (or a little closer if you want a thicker strip to allow for sanding out saw marks). Then, resaw the plank on the outside of the blade, as shown in the Ripping and Resawing Thin Stock drawing. Set the fence $\frac{3}{8}$ " from the blade to resaw another plank. Sand them smooth on both sides. Use a feather board and pushstick to keep your fingers far from the blade.

(The above assumes a $\frac{1}{8}$ " blade kerf. To adjust the fence-to-blade distance for other kerf widths, add your blade's kerf dimension to the desired strip thickness. Subtract this total from the stock thickness to get the blade-to-fence distance.)

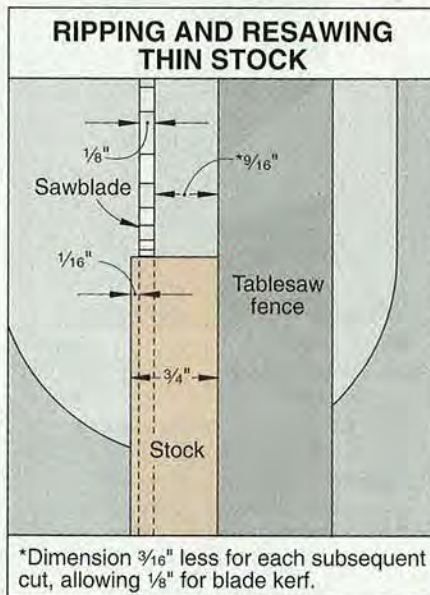
2 To install each sheer plank (D), first draw a mark on the hull $\frac{1}{4}$ " down from the peak at both ends. Screw a piece of scrapwood to the hull bottom, and grip it in a vise as shown *at the top of page 72* to make the hull planking easier.

Enlist the help of your first mate, and lay the sheer plank along the hull side, bending it to align the ends with the marks on the hull. (Seamen refer to the curve formed along the plank's top edge as the *sheer line*. A boat's beauty is often judged on the grace of this line.) Hold the plank in place, and check for gaps between it and the hull.

Then, draw a line on the hull along the bottom edge of the plank, as shown *at the bottom of page 72*. With this line as a guide, glue and nail the plank in place with #18 $\times\frac{1}{2}$ " brass escutcheon pins, as shown *at the top of page 72*. Place the pins $\frac{1}{4}$ " from the bottom of the plank on 2" centers



Draw lines for the deck planks all the way to the center line.



starting at the middle. Predrill holes for the pins through the plank to prevent splitting. Use one of the brass escutcheon pins with the head cut off as your drill bit.

3 Saw the hull planks (E) by ripping $\frac{1}{16}$ "-thick strips from the edge of $\frac{3}{8}$ "-thick material, following a procedure similar to the resawing

Continued

Bill of Materials

Part	Rough Size			Mater.	Qty.
	T	W	L		
A hull layer	$\frac{3}{4}$ "	$6\frac{1}{4}$ "	19"	P	4
B deck layer	$\frac{3}{4}$ "	$6\frac{1}{4}$ "	19"	MG	1
C cabin base*	$1\frac{1}{16}$ "	$2\frac{1}{2}$ "	$7\frac{1}{2}$ "	MG	1
D sheer plank	$\frac{1}{16}$ "	$1\frac{1}{16}$ "	24"	MG	2
E plank	$\frac{1}{16}$ "	$\frac{3}{8}$ "	24"	MG	18
F stem cap	$\frac{1}{8}$ "	$\frac{1}{4}$ "	$5\frac{1}{2}$ "	MG	2
G cabin layer	$\frac{3}{4}$ "	$2\frac{1}{2}$ "	$7\frac{1}{2}$ "	MG	2
H cabin trim	$\frac{3}{32}$ "	$\frac{1}{4}$ "	12"	MP	2
I cabin siding	$\frac{1}{16}$ "	$\frac{1}{4}$ "	16"	MP	8
J porthole	$\frac{3}{4}$ " dia.		$\frac{1}{8}$ "	MD	2
K roof board	$\frac{1}{8}$ "	$\frac{3}{8}$ "	9"	MG	8

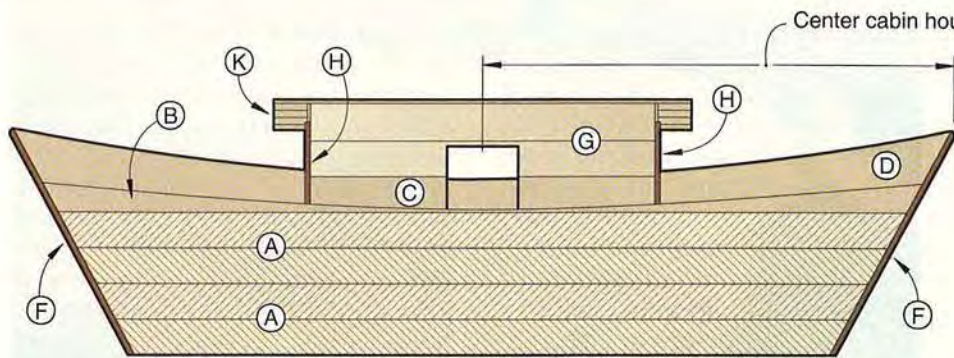
*Cut from deck waste; see text.

Materials Key: MD—maple dowel rod, MG—mahogany, MP—maple, P—pine

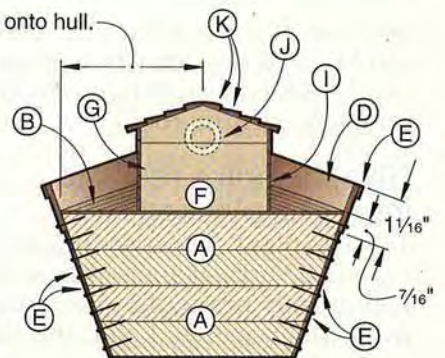
Supplies: woodworker's glue, #18 $\times\frac{1}{2}$ " brass escutcheon pins, clear finish.

Buying Guide

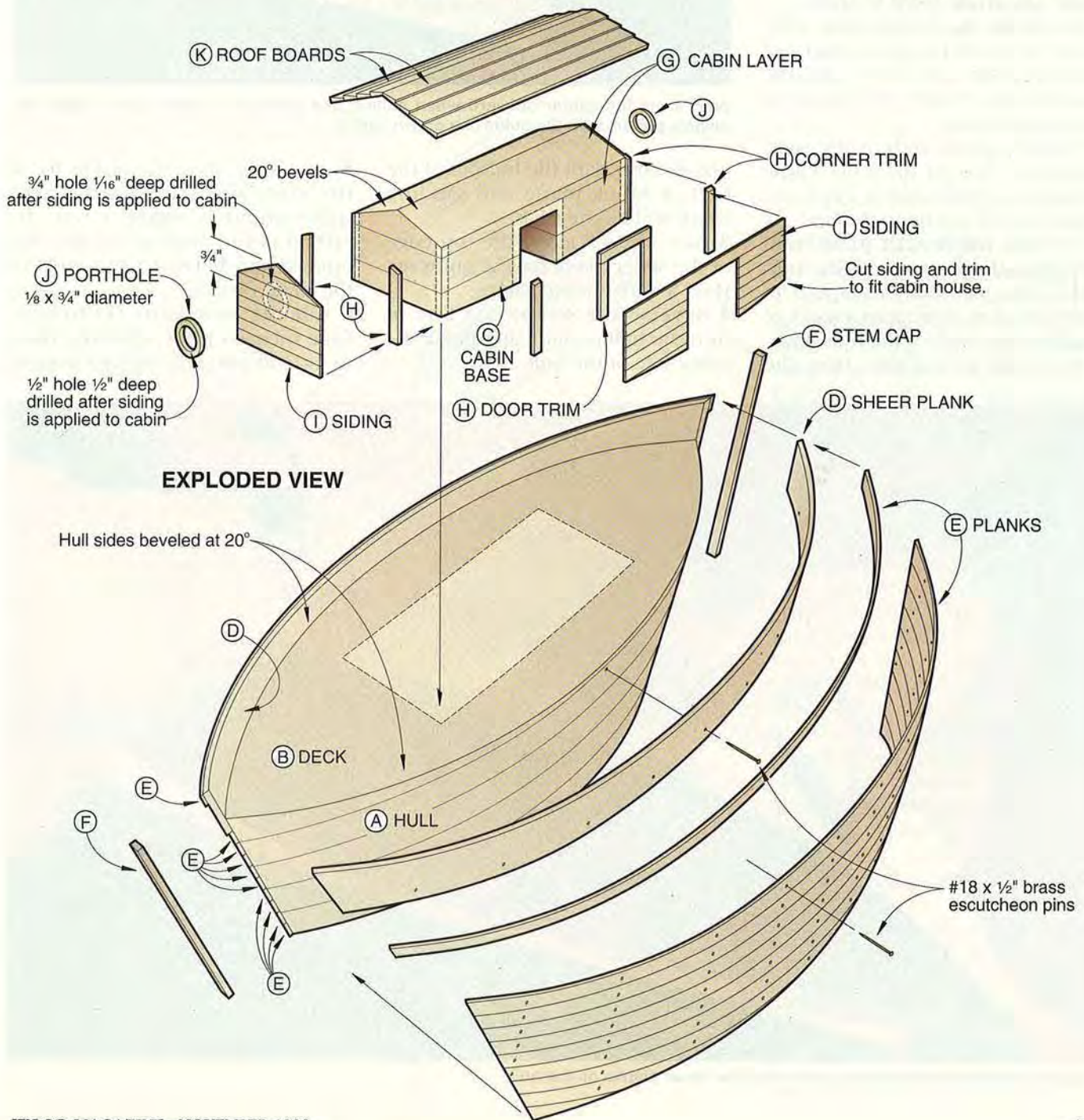
Ark animals. Set of animals for ark (6 pair), \$30.00 ppd. in U.S. Other animals also available from open stock. Roesner's Miniature Menagerie, 824 S. Oakwood Ave., Geneseo, IL 61254-1838. Call 888/818-6450, fax 309/944-6545, E-mail orders, gladys@mini-figurines.com. See online catalog at <http://www.mini-figurines.com>.



SIDE SECTION VIEW



END SECTION VIEW



EXPLODED VIEW

Noah's Ark

method you used for the sheer planks. Sand the outer face of each plank before installation, slightly rounding over the edges.

Give the hull a realistic look with planked sides

1 Now, plank the hull. Begin by drawing vertical lines down the hull directly below the sheer-plank nails. Then, nail and glue the hull planks (E) in place. Butt the first one against the bottom of the sheer plank, and work down the hull.

Nail from the center out with brass escutcheon pins, aligning them with the ones above and the lines below. Pre-drill the planks to prevent splitting.

Trim the plank ends at the stem and stern. (We cut them off with a Japanese Dozuki saw.) Tape the trimmed ends tightly to the hull.

The last full-length plank will bow past the bottom of the hull. That's OK; just nail and tape it in place for now. Cut short pieces of plank for the ends of the hull side.

2 After the glue dries, trim the



Work from the center outward when nailing and gluing the sheer plank. Align the plank's bottom with the guide line drawn earlier.

planks flush with the bottom of the hull. A block plane and sanding block will do the trick.

3 Glue a plank along the top edge of the sheer plank for the gunwale. Hold it with spring clamps.

4 Reverse the scrapwood arm to turn the hull around, and plank the other side of the hull.

5 Sand the ends of the planks flat at the stem and stern. A flat area that's about 1/4" wide is fine. Be careful not to sand so far that you open a gap between the ends of the sheer planks.

6 Cut the stem caps (F) to size. Glue them in place, allowing them to extend past the top and bottom



A helper comes in handy when positioning the sheer planks on the hull.

of the hull. Tape or tack them in place until the glue dries. Then, trim them flush at the top and bottom. At the top, trim them to follow the sheer line. (We used the Dozuki, again.)

7 Sand the stem caps to a sharp edge, flush with the hull. Sand the gunwales first, then tape or otherwise protect them while you sand the lower part of the hull.

Construct a cozy cabin

1 Cut the two cabin layers (G) to size. Referring to the Cabin drawing, glue them to the top of the

cabin base (C). Keep the edges and ends flush.

2 After the glue dries, lay out and cut the roof bevels on the cabin top. (We bandsawed the bevels.) Bandsaw the notch for the door where shown.

3 Cut the cabin trim (H) and siding (I) to the dimensions shown.

4 Begin siding the cabin by gluing trim pieces around the door opening on each side. Cut vertical pieces to fit along the door sides, flush with the top of the opening. Then, fit a piece across the top.

5 Draw a line $\frac{1}{4}$ " from each end on

both sides of the cabin. Then, starting from the top, glue on cabin siding between the door trim and the lines. After all the siding is in place, hand-plane and sand the boards flush with the cabin base. Be careful not to change the base contour.

6 Glue trim pieces onto the cabin corners. Place the trim on the sides first, then apply the end pieces. Plane or sand the tops of the trim pieces to match the roof bevel.

7 Trim and install the siding on the cabin ends. Align the boards across the ends with those on the sides for an orderly look.

8 Bore a $\frac{3}{4}$ " hole $\frac{1}{16}$ " deep into each end of the cabin where shown. Glue a $\frac{1}{8}$ " length of $\frac{3}{4}$ " dowel (J) into each hole. Bore a $\frac{1}{2}$ " hole $\frac{1}{2}$ " deep into the center of each dowel after the glue dries.

Put on a rain-tight roof for a comfortable voyage

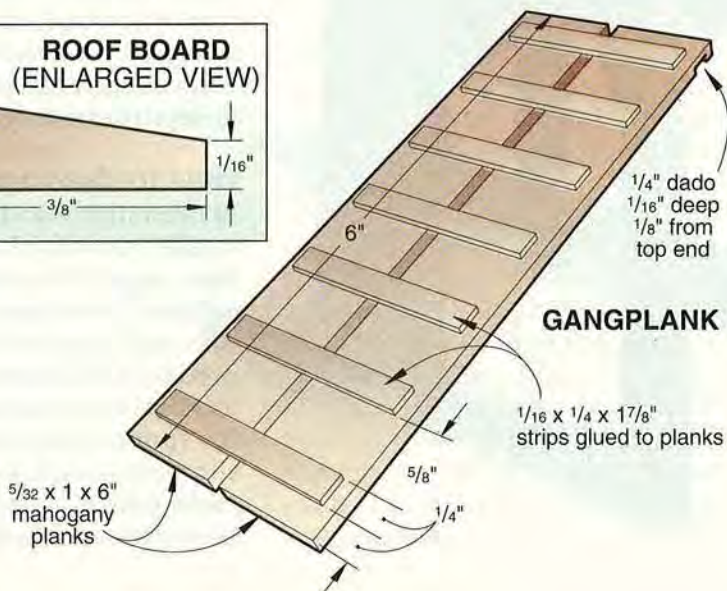
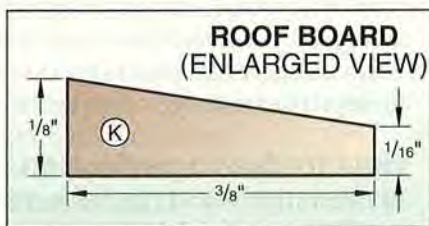
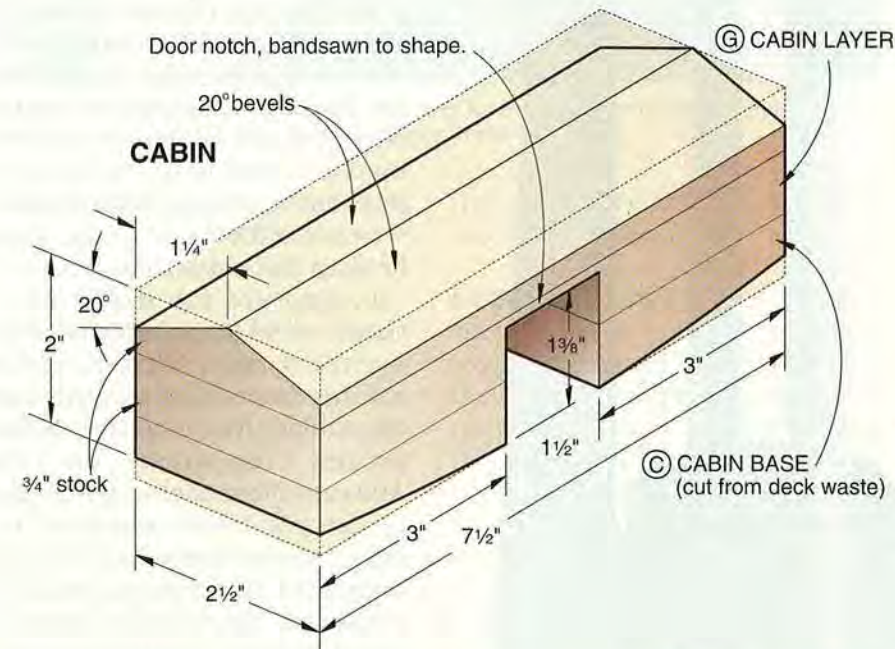
1 Saw the beveled roof boards (K) to the profile shown in the Roof Board drawing. To do so, plane or sand a bevel on one edge of $\frac{3}{8}$ "-thick stock. Rip the beveled edge off, using the sawing technique employed for the hull planks. True the sawn edge of the stock, bevel it, and saw the next board.

2 Glue the boards to the roof, starting at the ridge. Lay the unbeveled side against the roof, with the thick edge toward the outside. Plane or sand a bevel on the thin edge of each board for a better fit when you butt the boards together. Equalize the overhang at the edges of the cabin.

3 Glue the cabin to the deck. Clamp it with large rubber bands around the cabin and hull.

4 Finish the ark with semigloss lacquer. We sprayed on three coats from an aerosol can, buffing between coats with a white Scotch Brite pad.

5 To make it easier for the animals to get on and off your ark, build a gangplank, as shown in the Gangplank drawing. 🌲



Project Design: Wayne Edwards; James R. Downing
 Photographs: Hetherington Photography;
 Baldwin Photography
 Illustrations: Kim Downing; Lorna Johnson

An Arts & Crafts

At Mountain Springs Woodcraft, aniline dye and lacquer replace turn-of-the-century fuming and shellac for the mission look

Gustav Stickley's original Arts and Crafts, or mission, furniture of quartersawn white oak was fumed to a dark brown. That's a process which involves ammonia fumes reacting with the wood's high tannic acid content in a sealed chamber. "This process is the only one known that acts upon the glassy pith rays as well as the softer parts of the wood, coloring all together in an even tone so that the figure is marked only by its difference in texture," Stickley wrote.

The fuming process, however, proves extremely dangerous—ammonia is harmful if its fumes are inhaled or it comes in contact with the skin. And the shellac used as a final finish on Stickley's mission furniture, while it added warmth to the wood's tone, won't hold up like today's finishes.

To capture the dark look of Gustav Stickley's furniture without the danger, Michael Schmitt and his family turn to water-soluble aniline dyes. And the mission pieces they create on their Arkansas mountaintop would turn Stickley's head—each with a deep, warm clarity of color that highlights the rays and flecks of the wood. Careful applications of toned lacquer contribute protection and smoothness. But the Schmitts' success also comes from dedication in preparation and an in-depth knowledge of materials.

How to dye to perfection

Because the wood has been thoroughly smoothed before glue-up (see page 53), the aniline dye solution (five parts hot water to one part dye, with the dye first predissolved in a bit of denatured alcohol) raises the grain little after it's applied. And the staining with the first base coat, such as the "light fumed" aniline noted on the next page, goes quickly.



Water-soluble aniline dyes give the white oak in these mission-style pieces a deep, rich color and clarity to highlight the grain.

Judy Schmitt designed this taboret table that shows off the rays and flecks of its quartersawn oak.



See related article on page 49

Finish *without the fumes*



The Schmitt family teams up to apply the first toning coat of a water-soluble dye solution to an oak baby crib built in the Arts and Crafts style.

Armed with sponges and often hand sprayers, Michael's wife Judy, twins Alana and Jennifer, and son Chris carefully apply dye to every inch of wood, as shown *above*. Then, they allow the dyed assembly to soak several minutes before drying it off with cloths and using compressed air to blow excess from seams and corners.

After the dyed pieces have dried for 12 to 24 hours, the crew lightly hand-sands them with gray nylon abrasive pads or quarter sheets of 320-grit. "The dye is very forgiving at this stage," notes Michael, "and they can work over any mistakes or missed glue spots and reapply the stain. It blends right back into itself."

Next come two coats of the final aniline, a slightly different color to give the piece depth and enhance the grain (see notes *right*). "The only limit to how much aniline we can put on from here is the saturation point of the wood fibers," adds Judy. "Once they have absorbed all the dye they can take, it begins to build on the surface and looks muddy. When we add more dye coats, we always let

the wood dry thoroughly. Wet wood won't absorb dye."

Lacquer locks in the dye

"Before I start spraying lacquer," explains Michael, "we make sure the dye has completely dried. If it hasn't, moisture collects under the surface film and the finish deteriorates in just a few months. My helpers also lightly sand the dry, dyed wood with 400-grit to eliminate any final grain fuzzies."

To lock the dye in, Michael begins spraying with two quick sealer coats of lacquer cut 50 percent with thinner. When the sealer has dried, Judy and the children again sand with 320-grit silicon carbide paper. This sanding makes the sealer coat absolutely smooth.

"Before the final lacquer, I spray on a toned glaze [Behlen Natural Glaze tinted with black, umber, and raw sienna glazing stain]. After it has dried for a few hours, I follow with from three semigloss lacquer coats on the surfaces of least wear to eight coats on tabletops," says Michael. Between each, the wood is sanded with 400-grit paper.

"Finally, after the sprayed pieces have dried for a day or so, we rub them out with Wool Lube [a rubbing lubricant made by Behlen] and water," Michael adds. "The overall effect is a piece that looks mellow, old, and comfortable anywhere it's placed. Old Gustav would have been just as proud to put his name on it as we are." ♣

The Schmitts' favorite aniline dyes

Water-soluble anilines are easy to work with, and their light-fastness (resistance to fading) rates higher than other types. Although there are several brands, the Schmitts use only those of J.E. Moser, available from woodworking supply dealers at about \$4 per ounce, which makes more than a quart of stain with Michael's ratio. Listed below are the Moser aniline colors that give the perfect shades for their furniture, along with some of Michael's comments.

Light fumed. "For an even tone under the final color."

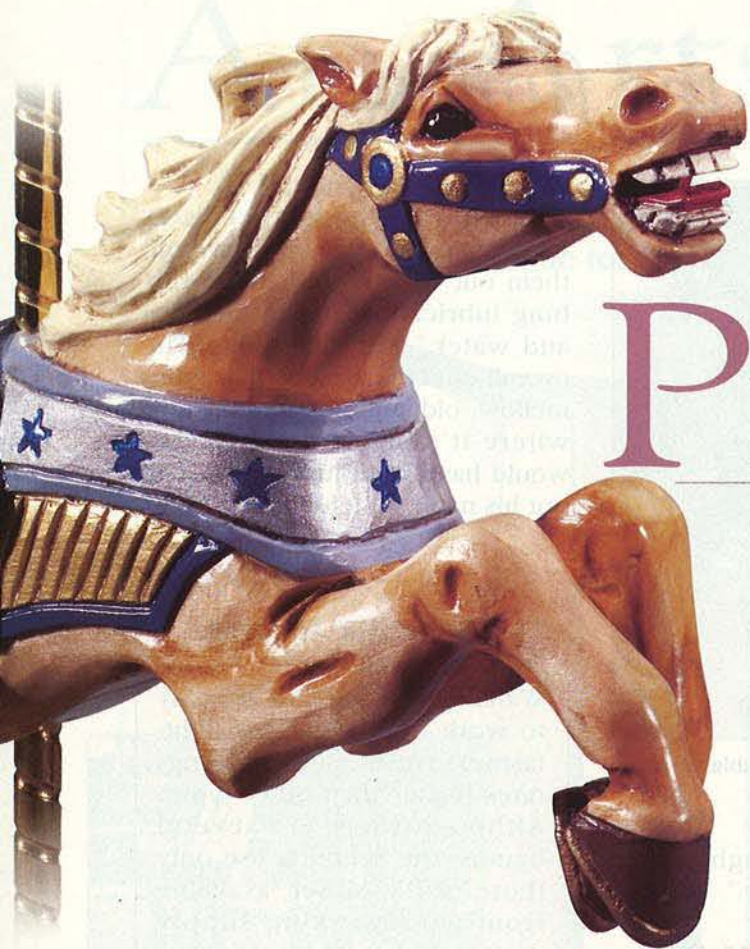
Medium fumed. "Used as above, but has a greenish cast to create richer browns."

Dark fumed. "As a final color over either of the above."

English brown. "Similar to, but richer in red and deeper in color, than Dark fumed."

Flemish brown. "A final color that duplicates Stickley's deepest tone, which he called dark fumed. It grabs onto the quartersawn oak's rays for breathtaking effects."

Flemish black. "A final-coat black with brown overtones. Not for the timid, so try it on scrap first."



Fairgrounds Prancer

Don't be surprised if you hear a calliope and feel the rush of summer wind past your face while you carve this great merry-go-round miniature. Noted carousel-horse carver Jerry Reinhardt modeled this colorful flag-bearing horse after those that graced rides built by the C.W. Parker Co. between 1914 and 1925.



See the
WOOD PATTERNS®
insert for
full-size patterns



While drilling the body for the pole, steady it with a simple notched block. Keep the body nearly level.

Cutting out the blank is just the ticket for starting

Note: Jerry carves his horses with traditional gouges and knives. If you're a power-carver, the horse lends itself to that, too.

1 Photocopy the Flag Horse full-size patterns in the **WOOD PATTERNS®** insert in the middle of the magazine.

The horse's right and left sides differ in decoration; that's usual for carousel horses. People watching a merry-go-round see only one side of the horses, so carousel makers put the most elaborate ornamentation on that side—called the romance side—and left the other side relatively plain. American carousels rotate counterclockwise, making the horse's right side the romance side.

2 Transfer the Right Side View pattern to a $1\frac{1}{2}\times 6\times 11$ " piece of basswood, jelutong, or other carving

wood. To do this, lay transfer paper (a waxless carbon paper) between the wood and the pattern, and trace the pattern with a sharp pencil.

Similarly, trace the flag that hangs from the horse's saddle onto a separate piece of stock about $\frac{1}{8}$ " thick. Maintain the same grain direction as on the horse.

3 Scrollsaw or bandsaw around the horse outline. Staying close to the line will simplify carving later. Scrollsaw the flag.

4 Cut the openings under the tail and in the mane. To do this, drill blade start holes where shown, and cut out the waste with a scrollsaw or coping saw.

5 Saw the head from the body at the line indicated. A fine-tooth handsaw such as a Japanese razor saw will make a smooth cut here.

6 Drill a $\frac{1}{4}$ " hole through the body for the pole. Center the hole on top of the body right in front of the saddle. Support the horse with a fixture like the one shown *above* as you drill the hole. Make the fixture by cutting a $1\frac{1}{2}\times 1\frac{1}{2}$ " notch in the end of a 6" length of scrap 2×4.

Keep the body almost level or slightly head-up for drilling. (Don't put the horse at such an angle that someone trying to sit on the saddle would slide off over the back.)

Give your horse legs

1 On the top and bottom edges of the front legs and around the edge of the tail and hind legs, draw lines $\frac{1}{2}$ " from each side, dividing the thickness of the blank into thirds. The portion between the legs is waste. The center portion of the back will be the tail.

Continued

Fairgrounds Prancer

2 Separate the hind legs. You can cut out some of the waste with a coping saw, then carve the rest away with gouges. Saw through between the tail and the left leg, but leave the tail connected to the inside of the right leg. Saw the tip of the tail to a point, as shown *right*.

3 Cut out the waste between the front legs. Be careful not to saw kerfs in the body.

After separating the front legs, the horse will have six hooves. That's too many, of course, so cut one off each front leg. For instance, you could leave the foremost hoof on the right leg, the other one on the left. (That's what Jerry did on the horse shown.) Clean up the sawn surfaces on the legs with a gouge.



To draw lines parallel to the sides of the carving, such as the leg lines, hold the pencil against your index finger, then guide the finger against the blank's sides.



Cut the end of the tail to a point, and separate it from the left leg. Leave it connected to the inside of the right hind leg.

It's time to turn to the tail

1 Carve away the waste areas alongside the tail behind the horse's rump and above the hind legs. Sketch guide-lines for this onto the unpatterned side of the horse, referring to the Left Side pattern.

You can remove some of the waste through careful use of a backsaw or coping saw. Then, with gouges or power-carving equipment, carve to the pattern profile on each side.

2 Carve the sides of the tail flat, more or less, and redraw on it the pattern lines that you cut away.

3 Glue the flag cutout to the romance side of the horse. Align the top of the flag with the pattern line that marks the lower edge of the saddle's seat.

Get a good head start

1 Rough out the head while it's still off the horse. Start by drawing a centerline along the top edge of the head blank, from the nose to a point between the ears.

Then, referring to the Top View pattern, draw the carving lines for the head on the edge of the blank, measuring from the centerline to keep them symmetrical. Align the features on this view with the corresponding ones on the side of the head.

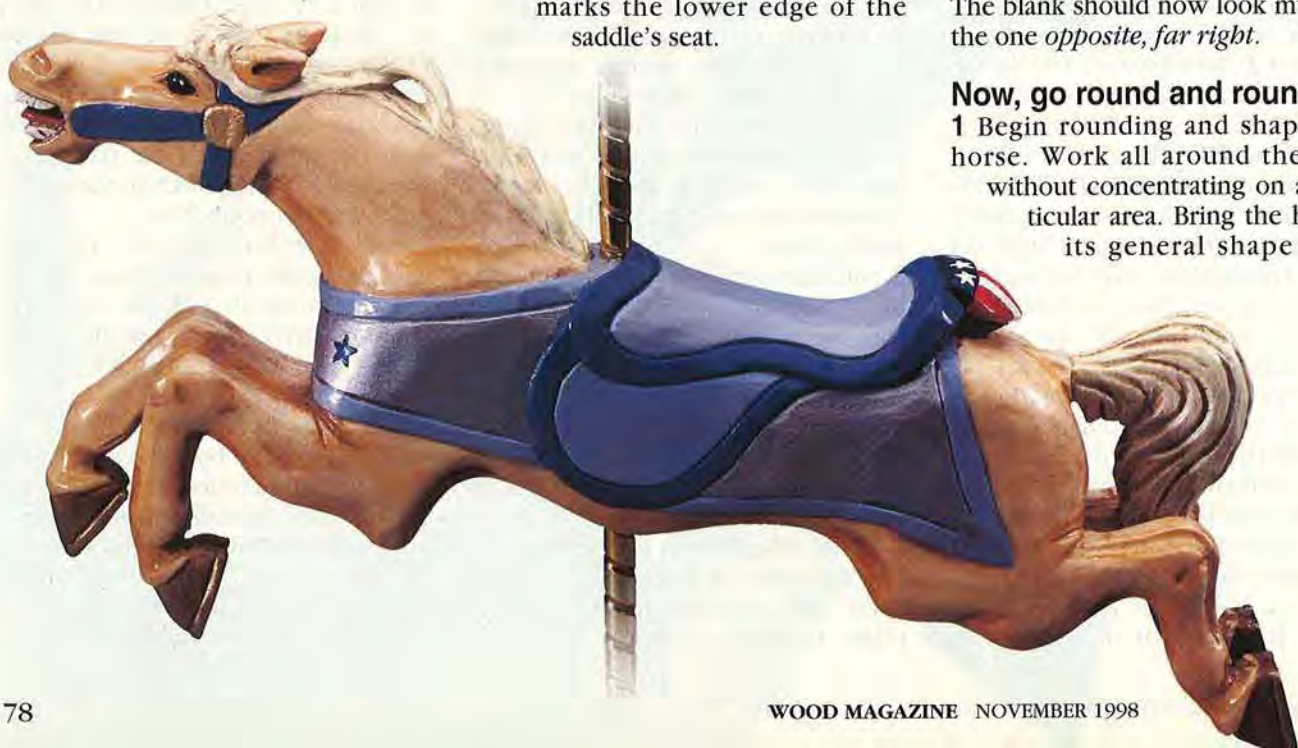
2 Grip the neck in a vise, then cut along the top-view outline of the head with a coping saw. Cut from the nose to the ears on each side. At the ears, curve your cut outward to leave the neck as a block. Redraw the carving lines on both sides of the head. Take care to locate the eyes correctly and in the same place on both sides.

3 Glue the neck to the body. Carousel horses usually look to the right, rarely straight ahead. So rotate the neck slightly to bring the right nostril out over the right leg, as shown on the Top View pattern and in the detail photos. Clamp the head and neck to the body with a heavy rubber band.

4 Draw a centerline along the horse's back, from the neck to the tail. Draw another line up the back of the neck, connecting the point where the line on the back meets the neck with the end of the centerline on the head. The blank should now look much like the one *opposite, far right*.

Now, go round and round

1 Begin rounding and shaping the horse. Work all around the figure without concentrating on any particular area. Bring the horse to its general shape at this



point, referring to the photos of the finished carving. Note that the horse is somewhat slab-sided; this isn't a miniature of a horse—it's a miniature of a stylized representation of a horse.

2 As you shape the back, sides, and belly, leave sufficient material to carve the raised trappings later. Study the photos of the finished carving to see how these details stand out from the surface.

3 As you blend the neck into the body, leave plenty of material to carve the mane later. The neck twists to the right slightly, so keep an eye on the centerline to follow the curve.

4 Make the neck slightly narrower than the shoulders at the glue joint, then thin it as it approaches the head. The widest spot on the head—across the eyes—should equal roughly two-thirds of the body width, or about 1".

5 Start carving the head with the mouth and teeth. Make the teeth big—about $\frac{1}{8}$ " wide. Carve the front teeth straight across, the corner ones at 45 degrees, and the back teeth parallel to the centerline.

6 Form the nostrils with a deep, narrow gouge, such as a $\frac{3}{16}$ " no. 9. Shape the chin as a half-ball. Narrow the ridge of the nose to about $\frac{1}{4}$ " between the nose and the eyes, flaring it out to full head width at the eyes and nearly as wide at the nostrils.

7 Sketch in a football-shaped eye on each side, placing the ends on a line that extends from the base of the ear to the nostril.

To carve the eye, first cut around the outline with a small ($\frac{1}{8}$ " or so) V-tool. Press a $\frac{3}{16}$ " eye punch straight into the center of the outlined eye to form the round eyeball. Then, with a sharp pointed knife, carve a small triangular chip out of each corner.

Tackle the trappings

1 Referring to the patterns, redraw lines for the trappings. Then begin carving them, principally with V-tools and shallow gouges. A good approach is to start with the trappings at the highest level, then work down to the lowest level.

2 Carve the saddle and shield on the horse's back, outlining them with a V-



tool and forming the shape with gouges. When outlining with the V-tool, keep the wing of the tool that's adjacent to the cutting line nearly perpendicular to the surface as you cut.

3 Shave down the top edge of the onlaid flag to look as if the saddle is lying over it. The horizontal lines on the flag represent folds in the cloth. Give them their initial shape with a V-tool and gouges, and carve in a few random wrinkles with a gouge.

4 Detail the mane and tail as hanks of hair curling over and under each other. Avoid a uniform look.

5 Finish up with details such as horse-shoes, gouge marks for the muscles, and jewels on the trappings. You can form round jewels easily with an eye punch or a $\frac{3}{32}$ " nail set. Carve the stars with a V-tool.

6 Inspect the carving for missing details or bad cuts, and correct them. Clean up any fuzzy areas, flakes, or splinters, and be sure all saw marks have been smoothed away. Give the carving a final burnishing against a 120-grit flap-wheel sander, taking care not to sand away any details.

Paint your horse, and put it on display

1 Spray on several coats of semigloss clear lacquer to seal the carving for painting. Sand lightly between coats.

2 Paint the carving with acrylic craft paints. To hold the horse, stick a length of dowel rod into the pole hole. After the paint dries, spray on another coat of lacquer before applying an antiquing glaze. Put on a final coat of lacquer when the glaze dries.

3 Cut an oval or rectangular base of walnut or other hardwood about $\frac{3}{4} \times 4 \times 12$ ". Drill a $\frac{1}{4}$ " hole $\frac{1}{2}$ " deep at the center. Sand and finish. Mount the horse on a piece of $\frac{1}{4}$ " dowel rod or brass rod about 8" long. (If you use a dowel, paint it brass color.)

Slide the rod through the hole in the horse, and secure it with a dab of cyanoacrylate adhesive. Glue the bottom of the rod into the base hole. ♣

Buying Guide

Book. *Carving Miniature Carousel Animals-Country Fair Style* by Jerry Reinhardt, (includes this horse and others) \$12.95 plus shipping and handling (call for amount), order item no. 130611, Woodcraft Supply, 800/225-1153. An autographed copy is available for \$15.95 ppd. in the U.S. from Jerry B. Reinhardt, 18770 Metcalf, Stilwell, KS 66085.

Tilt-Top Router Table



An open-and-close shop tool designed with you in mind

Count the features of this fully loaded router table, and you'll quickly conclude that you've got to have one. For starters, the table flips up for easy changing of bits and checking bit height. A sealed compartment underneath, fitted with a vacuum port, takes care of sawdust. Below that, you'll find a slide-out shelf for storing all kinds of bits and accessories. And, for hair-splitting accuracy, we added an Inkra Jig system so you can achieve amazing results.



Another
WOOD
MAGAZINE
EXCLUSIVE

Start with the basic cabinet

1 Cut the cabinet sides (A) and back (B) to the sizes listed in the Bill of Materials from $\frac{3}{4}$ " medium-density fiberboard (MDF). As noted on the Cutting Diagram, MDF measures 1" wider and longer than regular 4x8' sheet goods.

2 Using the Side Panel drawing below right for reference, mark the centerpoint, and cut the vacuum hole in the left-hand side panel (A) to fit your vacuum hose. (We drilled a blade start hole, and cut the hole to shape with a jigsaw.) To prevent chipping, rout a $\frac{1}{8}$ " chamfer along the inside and outside edges of the hose hole.

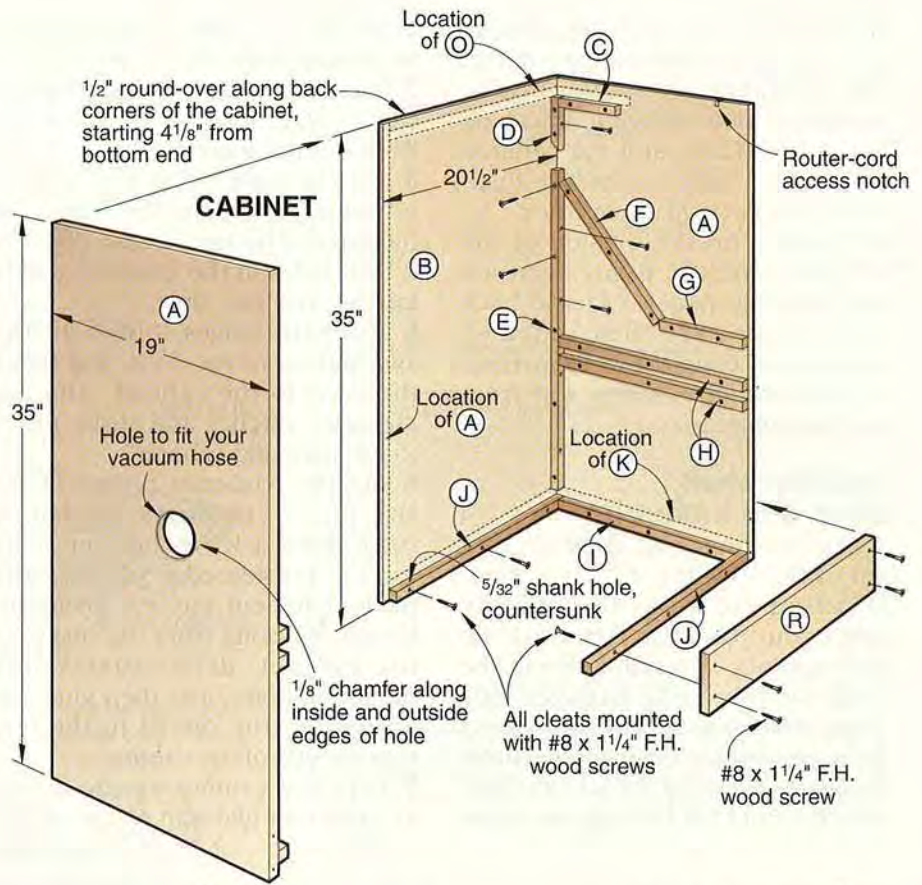
3 Mark and cut a notch in the right-hand side panel for the cord from the router to exit the cabinet.

4 From $\frac{3}{4}$ " solid stock (we recommend maple or birch), cut the $\frac{3}{4}$ x $\frac{3}{4}$ " cleats (C-J) to the lengths listed in the Bill of Materials. (We ripped $\frac{3}{4}$ "-wide strips from the edge of $\frac{3}{4}$ " stock and then crosscut the strips to length.)

5 Using the Side Panel and Cabinet drawings at right for reference, mark the locations of the cleats on the inside face of each side panel (A). Then, drill countersunk mounting holes in the cleats, and screw them in place as shown in photo A.

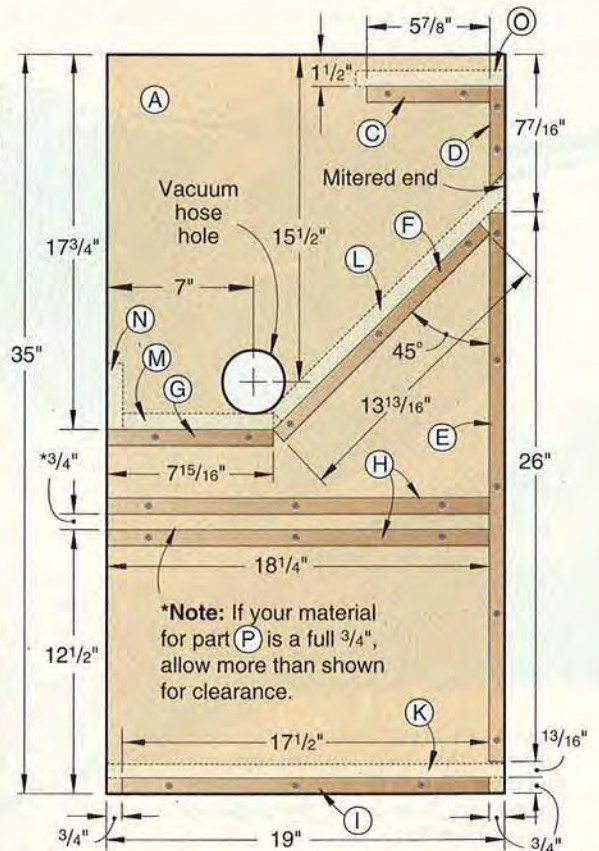
6 Cut the bottom (K), dust-chute pieces (L, M, N), and support (O) to size from MDF. For a tight fit, miter-cut one edge of part L and D.

Continued



SIDE PANEL
(Left-hand panel shown)

Mark the cleat locations, drill the mounting holes, and screw the cleats in place on the cabinet sides.



Router Table

7 Glue and clamp the basic cabinet assembly (A, B, K, O) together in the configuration shown on the Exploded View drawing, checking for square. Then, drill the countersunk holes, and screw the dust-chute pieces (L, M, N) in place.

8 Working on the outside of the cabinet, sand the joints between the two side panels (A) and back panel (B) smooth. Then, rout a 1/2" round-over along the back corners of the cabinet, starting 4 1/8" from the bottom ends.

Add the shelf, door, and base trim

1 Cut the router-bit shelf (P) and small-bit holder (Q) to size. Locating the holes to properly space your particular bits, mark the centerpoints, and drill holes in the shelf for your large-diameter bits. Then, drill holes in the bit holder Q for your smaller bits. The small-bit holder works great for straight bits, which would fall through the holes

in the shelf (P). Glue and clamp the bit holder to the shelf.

2 Cut the base-trim support piece (R) to size, and screw it to the front of the cabinet.

3 Cut the door (S) to size. Rout a 1/2" round-over along the sides (not the top and bottom) of the door.

4 Drill holes in the door for attaching the wire pull later.

5 Attach the hinges 4" from the top and bottom of the door, and hinge the door to the cabinet. Add the magnetic catches and strike plates to the door and cabinet.

6 Cut the base-trim pieces (T) to size plus 1" in length from solid stock. Rout a 1/2" round-over along the top outside edge of each trim piece. Miter-cut the trim pieces to length. Working from the inside of the cabinet, drill countersunk mounting holes, and then glue and screw the trim pieces to the bottom outside of the cabinet.

7 Turn the cabinet upside down, and nail four glides in place.

Continued



Using contact cement, adhere the two oversized pieces of plastic laminate to the laminated top. Then, rout the edges of the laminate flush.

Bill of Materials					
Part	Finished Size*			Mati.	Qty.
	T	W	L		
CABINET					
A sides	3/4"	19"	35"	MF	2
B back	3/4"	20 1/2"	35"	MF	1
C* cleats	3/4"	3/4"	5 7/8"	M	2
D* cleats	3/4"	3/4"	4 7/8"	M	2
E* cleats	3/4"	3/4"	26"	M	2
F* cleats	3/4"	3/4"	13 19/16"	M	2
G* cleats	3/4"	3/4"	7 15/16"	M	2
H* cleats	3/4"	3/4"	18 1/4"	M	4
I* cleats	3/4"	3/4"	17 1/2"	M	2
J* cleats	3/4"	3/4"	19"	M	2
K bottom	3/4"	19"	19"	MF	1
L sloped dust panel	3/4"	15 7/8"	19"	MF	1
M bottom dust panel	3/4"	7 3/16"	19"	MF	1
N dust bin front	3/4"	3"	19"	MF	1
O support	3/4"	7 1/8"	19"	MF	1
P shelf	3/4"	18 7/8"	18 7/8"	MF	1
Q bit holder	3/4"	1 1/2"	16 3/4"	M	1
R support	3/4"	4"	20 1/2"	MF	1
S door	3/4"	20 1/2"	30 7/8"	MF	1
T* base trim	3/4"	4"	22"	M	4
ROUTER TABLE					
U* top	1 1/2"	28"	28"	LMF	1
V pivot block	3/4"	1"	2 1/4"	M	1
W support bar	1/4"	1"	12"	A	1

*Initially cut parts marked with an *oversized. Trim to finished size according to the instructions.

Materials Key: MF—medium-density fiberboard, M—maple or birch, LMF—laminated medium-density fiberboard, A—aluminum.

Supplies: 3/8x12x12" phenolic router plate, #8x1 1/4" flathead wood screws, 1 1/2" continuous hinge 19" long with mounting screws, 4-1/4-20x1 1/2" flathead machine screws, 4-1/4" prongless T-nuts, power switch (we used a Sears, cat. no. 9-13632), one pair of cabinet hinges (we used Amerock #BP-5988-M26), 4-1 1/8" glides, 2-3 1/2" wire pulls, pair of magnetic catches and strike plates, plastic laminate, contact cement, 4-3/16-24x1" panhead machine screws with mating 4-3/16-24 threaded inserts, 1/4-20x1 1/2" bolt trimmed to 1 1/8" long, 1/4x1" aluminum bar stock for support bar (part W), primer, paint, and clear finish.

Buying Guide
Tilt-top router-table kit. The kit contains everything noted in the Supplies listing above except the plastic laminate, contact cement, primer, paint, and finish. Kit no. TTRT, \$64.95 ppd. Add \$39.95 ppd. for the 300 Inkra Jig or \$234.95 ppd. for the 316 Inkra Jig Ultra. Schlabaugh and Sons Woodworking, 720 14th Street, Kalona, IA 52247 or call 800/346-9663 to order. E-mail: schsons@kctc.net

Router Table

Next, add the tilting top

1 Cut two pieces of $\frac{3}{4}$ " fiberboard to 29" square for the tabletop (U).

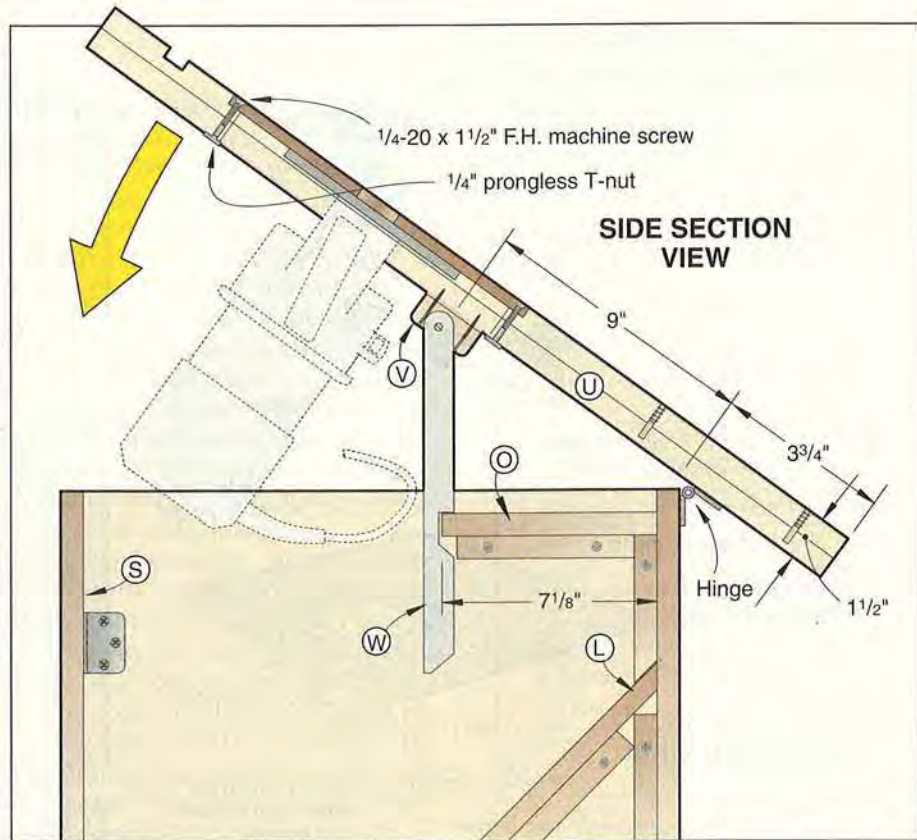
2 Glue and clamp the two pieces together face-to-face. (For uniform clamping pressure in the center of the lamination, we drilled several mounting holes in from what will be the bottom of the tabletop. Then, using clamps along the edges and #8x $1\frac{1}{4}$ " screws in the center, we secured the two pieces tightly together until the glue dried. Then, we removed all the screws so we wouldn't hit them when doing the machining in the following steps.)

3 Cut the laminated router top (U) to finished size (28" square), radiusing the corners at 1".

4 Cut two pieces of plastic laminate to 30" square. Apply contact cement to all mating surfaces, and adhere the laminate to both surfaces of the laminated tabletop (U). Use a rubber roller to ensure a good bond between the laminate and MDF.

5 Using a trimming bit, rout the edges of the laminate flush with the edges of the $1\frac{1}{2}$ "-thick top as shown in *photo B* on page 82.

6 Cut or rout a dado in the top (U) to form a slot that fits your miter-gauge bar.



Cut the table insert into the top

Note: When tipping the tabletop back, it's important to have the router plate (with the router attached) secured to the tabletop so it doesn't fall out. For that reason, we secured the router plate to the top with screws and T-nuts. See the Buying Guide for our source for the router plate and hardware.

1 The router plate we used and listed in the Buying Guide is advertised as a 12"-square plate. The plate actually measures a bit less. Using your tablesaw, cut adjoining edges to square up the plate and trim it to $11\frac{3}{4}$ " square.

2 Follow the seven-step drawing above right to form the router-plate recess in the top (U).

3 Mark the centerpoints, and use your drill press to drill $\frac{5}{16}$ " holes in the corners of the router plate, $\frac{3}{4}$ " in from the edges. Fit the router plate in the recess, and use the holes as guides to drill $\frac{5}{16}$ " holes through the corners of the top (U).

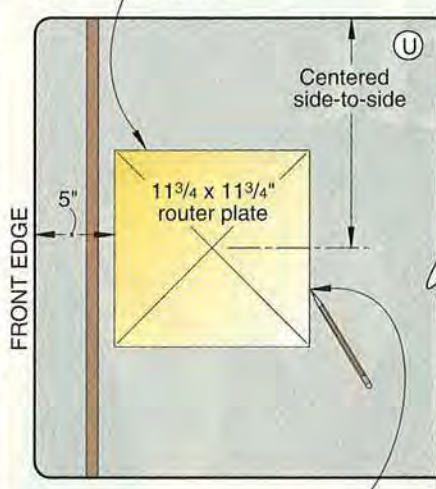
4 Using epoxy, adhere a $\frac{1}{4}$ " prongless T-nut into each $\frac{5}{16}$ " hole on the bottom side of the router tabletop.

5 Carefully mark the centerpoint on the router plate. Now, bore a $1\frac{1}{2}$ " hole (or one slightly larger than the diameter of your largest-diameter router bit) through the center of the router plate. (We used a Forstner bit running at 250-500 rpm for this operation.)



FORMING THE ROUTER-PLATE RECESS

STEP 1 Position the plate 5" from the front edge on top of (U) and centered side-to-side.

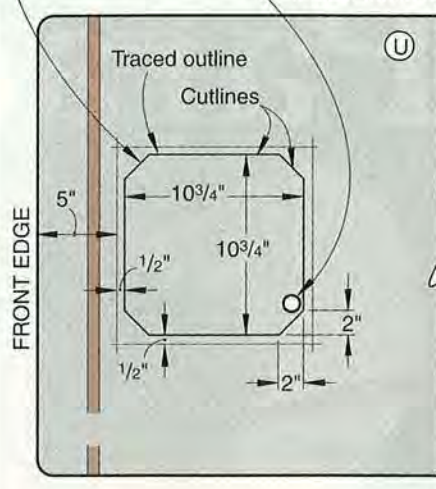


STEP 2 Trace outline of plate onto the top of (U).

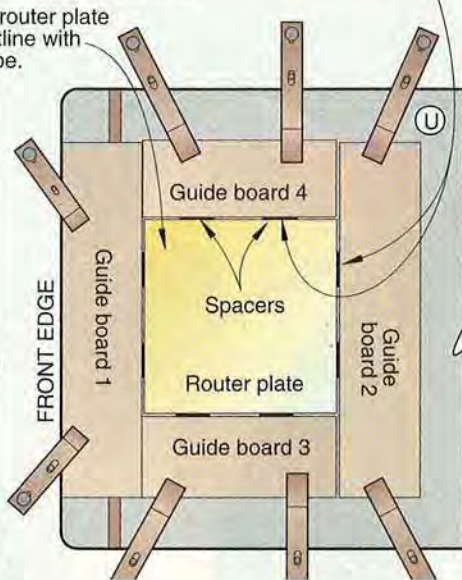
STEP 3 Lay out and mark the opening cutlines inside the traced outline.

STEP 4 Drill blade start hole, and cut opening.

STEP 5 Secure router plate inside traced outline with double-faced tape.



STEP 6 Clamp the guide boards around the plate, spacing each board away from the plate 1/32" with business-card shims.



STEP 7 Remove the router plate and shims. Use a portable router and straight bit with a top-mounted pilot bearing. With the router base resting on the surfaces of the guide boards, adjust the cutting depth to rout 1/8" deep into the tabletop. Then, guiding the bit's pilot bearing along the inside edges of the guide boards, rout the recess. Make additional passes, lowering the bit each time until you reach a depth equal to the thickness of the router plate.

6 Countersink the 5/16" holes in the router plate for the 1/4-20x1 1/2" flat-head machine screws.

7 Remove the baseplate from your router. Using the holes in your baseplate as guides, mark and drill corresponding holes in the 11 3/4"-square router plate. Countersink the holes. Mount your router to the router plate. Insert the router and plate into the router-table opening, and secure the plate with machine screws.

Adding a fence system

Note: We have published plans for several fence systems over the years in WOOD magazine, most recently in February 1998, issue #103, and earlier in January 1993, issue #58. For this project, we chose the commercially available Incra system. See the Buying Guide for our source for this versatile yet inexpensive system. For a more elaborate setup, try the Incra Jig Ultra shown bottom left on the opposite page and illustrated on the pattern insert. Information on the Ultra is available from the company listed in the Buying Guide.

1 Mark the centerpoints for the four threaded inserts on the router top (U) where dimensioned on the Router Tabletop Top View drawing on the pattern insert.

2 Drill a 1/2" hole at each marked centerpoint just through the laminate (1/16" deep). (We used a Forstner bit to make this recess.) Switch bits, and drill a 3/8" hole 1 1/4" deep centered in each 1/2" hole.

3 Double-nut a bolt, and use it to drive a 3/16-24 threaded insert squarely into each hole. Attach an Incra Jig to the tabletop.

Attach the tabletop support

1 From 3/4" maple, drill the holes and cut the pivot block (V) to shape, using the full-size pattern on the pattern insert for reference.

2 Transfer the support bar (W) pattern from the pattern insert to 1/4x1" aluminum stock. Cut the piece to shape, and drill a 1/4" hole through one end where marked.

3 Drill pilot holes, and glue and screw the pivot block (V) to the bottom of the router top where shown on the Router Tabletop drawing. Then, attach the support bar to the pivot block.

Finishing and final assembly

1 Remove the router plate and router from the router tabletop. Separate the top from the base cabinet. Remove the hardware, and sand the cabinet and tabletop edges smooth. Fill any imperfections and finish-sand.

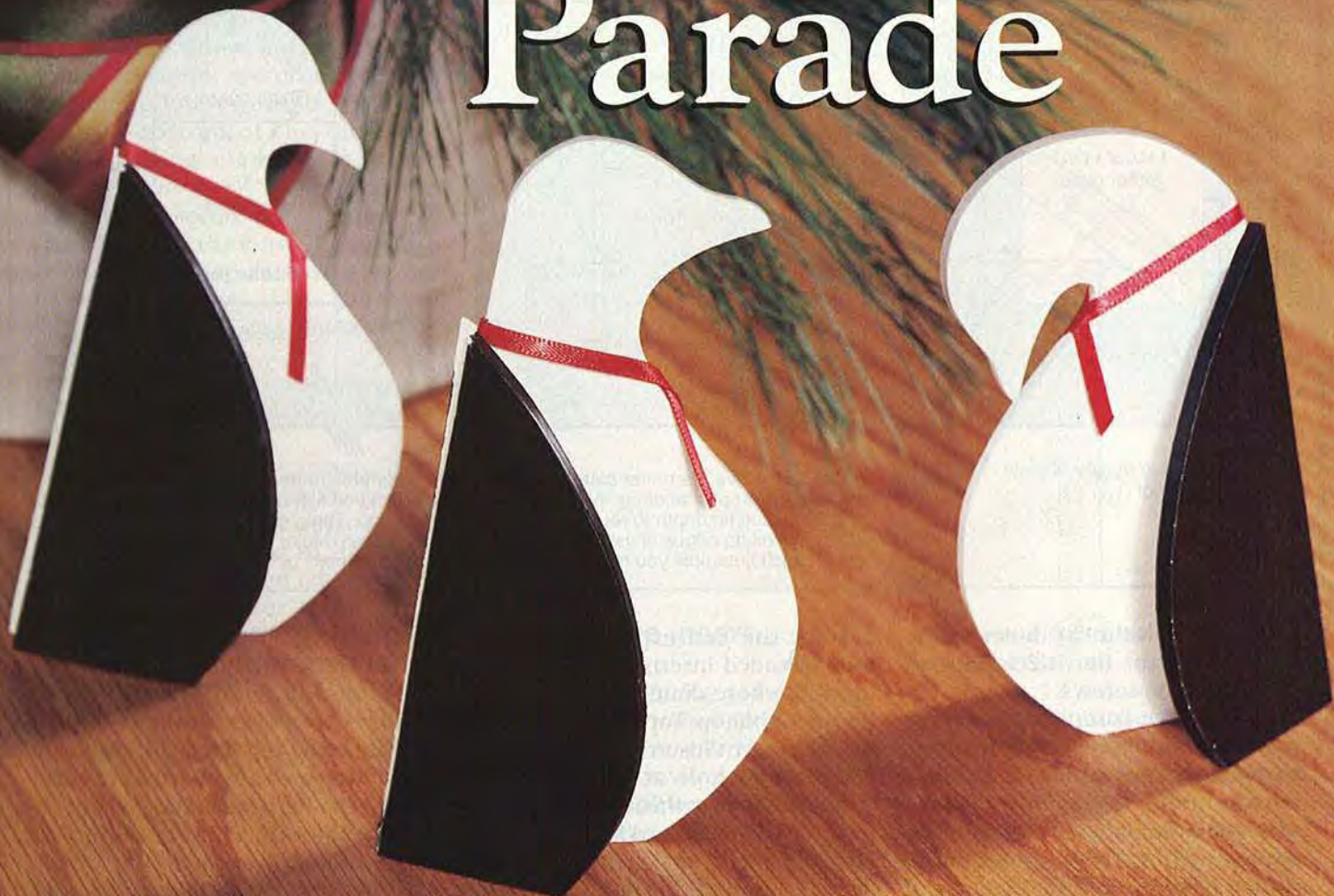
2 Prime the base cabinet. (We did this in several coats, using a sanding block with 220-grit sandpaper between coats to smooth the primer.) Paint the base cabinet as desired. Apply a clear finish to the edges of the router tabletop.

3 Hinge the router top and door to the cabinet. Reattach the magnetic catches and pulls. Then, reattach the router with attached plate to the router tabletop.

4 Attach the fence system of your choice. Attach a power switch to the cabinet, and plug the router cord into the switch. Fit your vacuum hose into the opening, and you're ready for business. ♣

Written by Marlen Kemmet
Project Design: James R. Downing
Illustrations: Roxanne LeMoine; Lorna Johnson
Photographs: Hetherington Photography

Penguins on Parade



Talk about a great little gift idea for the holidays. This fun-loving threesome will bring good cheer to all who receive them. And, of course, you'll get credit for delivering the good tidings.

1 Using carbon paper or photocopies of the patterns and spray adhesive, transfer the full-size patterns on the *WOOD PATTERNS*® insert in the center of the magazine to poster board or hardboard. Cut the patterns to shape to form templates. (Since we planned on making several sets, we made templates. If you're making just a set

or two, transfer the patterns directly to 1/8" stock.)

2 Use a sharp pencil to trace around the templates to transfer the patterns to 1/8" stock. (We used void-free birch plywood; see the Buying Guide for our source.)

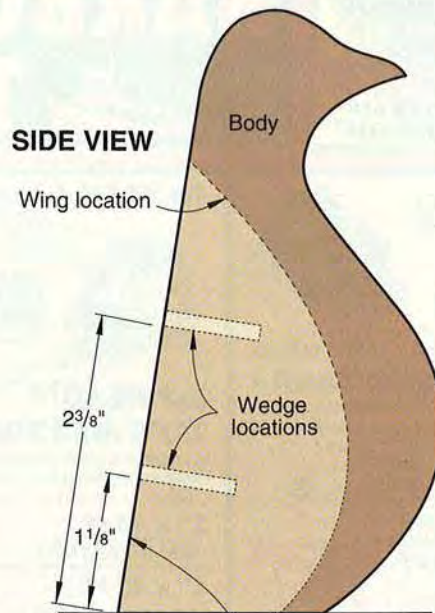
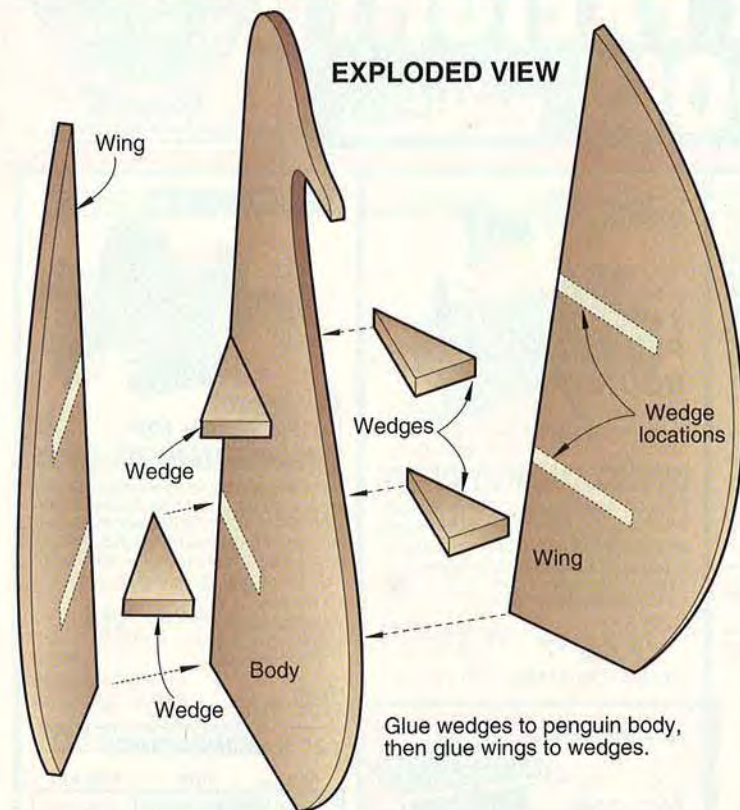
3 Scrollsaw or bandsaw the pieces to shape. (We used a #4 scrollsaw blade, .033x.014, with 15 teeth per inch; a bandsaw fitted with a 1/8" blade also works well.)

4 Lightly sand the edges and surfaces with 220-grit sandpaper. Scrollsawing or bandsawing the bodies and wings causes the edges to fuzz up slightly. Left unsanded, the fuzz becomes more noticeable after painting.

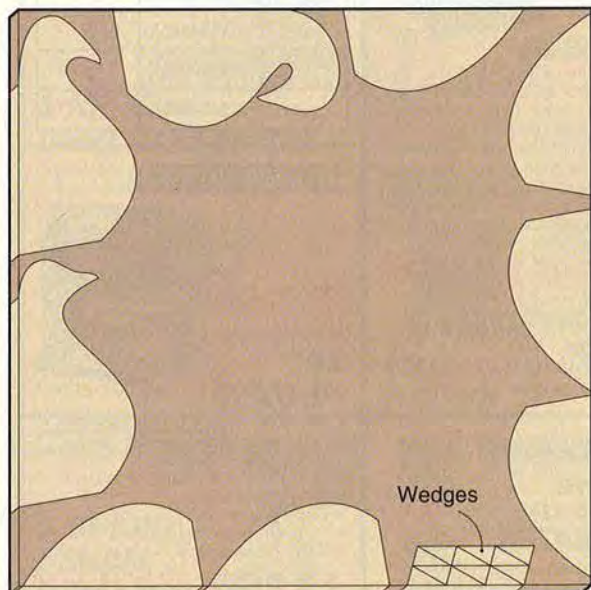
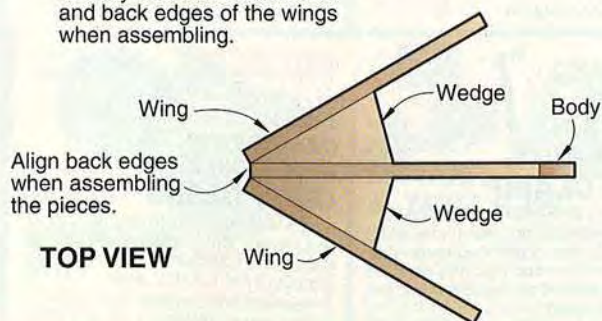
5 Glue the wedges to the body. Then, keeping the bottom and back edges of the wings flush with the body, glue them to the body/wedges as shown in the drawing *at right*. (We used instant glue to quickly assemble the penguin pieces.)

6 Spray on several coats of a quality gloss white enamel paint. If the painted surfaces get a bit rough, sand lightly with 320-grit sandpaper before applying the last coat. Using a small brush, paint the outside surface of the wings with flat or semigloss black paint. 🐧

Written by Marlen Kemmet
Project Design: ©George Hans
Illustrations: Roxanne LeMoine
Photograph: Hetherington Studio



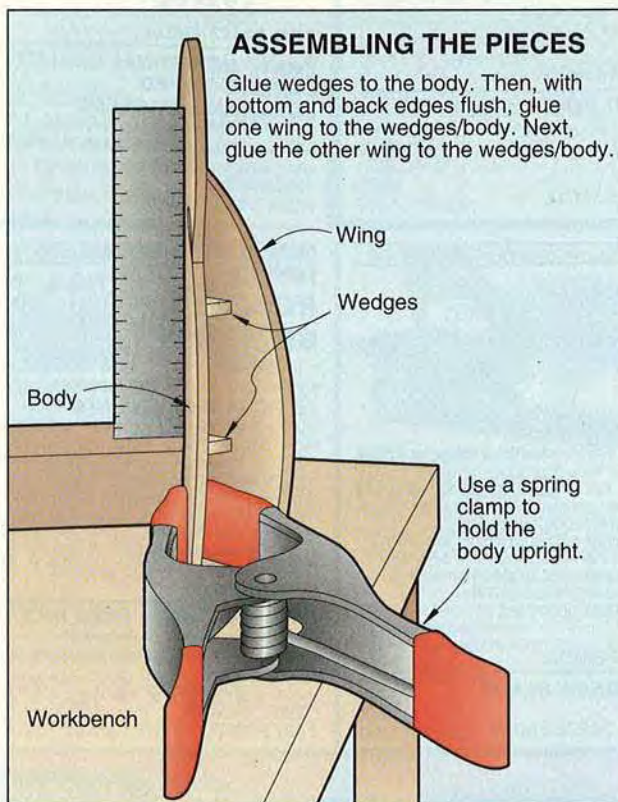
Keep bottom and back edges of body flush with the bottom and back edges of the wings when assembling.



1/8 x 12 x 12" Baltic birch plywood
(Enough for 3 penguins)

Buying Guide

Void-free birch plywood. Three pieces of 1/8x12x12" plywood (enough for nine penguins), \$9.95 ppd., or ten pieces (enough for 30 penguins), \$19.95 ppd. Kit no. W109. Heritage Building Specialties, 205 North Cascade, Fergus Falls, MN 56537. Or call 800/524-4184 to order. View our full line of table-top and yard-size plans within the WOOD STORE™ at <http://www.woodmagazine.com>



100% SATISFACTION GUARANTEED!
***FREE SHIPPING!**
FOR ALL ITEMS SHOWN BELOW!

HARBOR FREIGHT TOOLS



ORDER FROM OUR WEB SITE FOR EXTRA SAVINGS!

<http://www.harborfreight.com>

CHICAGO Electric Power Tools

3-1/4" PLANNER



- Front base has a V-groove to help guide in chamfering • 2 blade cutter
- Depth adjustment knob
- Includes rabbeting guide plate/fence, sharpening holder, blade setting jig, replacement brushes, replacement belt
- D-handle with lock-on button
- 110V, 5 amps, 17,000 RPM
- 34,000 cuts per minute
- 1/10" maximum depth of cut; 3-1/4" planing width
- Tool weight: 6-1/4 lbs.

ITEM ~~\$53⁹⁹~~ **\$39⁹⁹**
 32222-3MDA

2 PC. REPLACEMENT BLADES
 ITEM 33262-0MDA **\$9⁹⁹**

OLYMPIA-TOOLS



THE MOST USER FRIENDLY TAPE MEASURE YOU WILL EVER FIND!

E-Z READ™ TAPE MEASURES

Graduated in 32nds, tapes have 1/8" calibrations clearly marked, inch and foot increments in red and stud markings in red.

1" x 33 FT. \$8⁹⁹
 ITEM 38262-1MDA

1" x 25 FT. \$4⁹⁹
 ITEM 37570-3MDA

3/4" x 16 FT. \$3⁹⁹
 ITEM 38261-2MDA

CHICAGO Electric Power Tools

3 HP PLUNGE ROUTER



Super duty unit provides the ultimate in router performance. Use to cut precision moldings, rabbets, dados, dovetails, recesses for inlays, and much more. 19 amp all ball bearing motor develops 23,000 RPM for unbelievably clean finishes. 2-1/2" plunge depth capacity allows easy penetration into or through work surfaces.

- Includes 1/4", 1/2", and 3/4" collets
- 115V, 19 amps, 8 foot cord
- 3 adjustable plunge settings
- Electric brake

~~\$129⁹⁹~~ **\$89⁹⁹**
 ITEM 37793-3MDA

CENTRAL MACHINERY

12" DIRECT DRIVE BENCH TOP DISC SANDER



Get sharp, accurate finishes without burning or marring. Direct drive disc won't slip. Table tilts to 45°; 2" dust collection outlet; fan-cooled brushless motor; miter gauge, base pads prevent creeping; safety switch. Includes 60 grit, 12" sanding pad.

- 1 HP, 120V, 14.0 amps
- No load speed: 1793 RPM
- Wheel diameter: 12" • Base: 13" x 10"
- Shipping wt.: 92 lbs.

ITEM ~~\$99⁹⁹~~
 37297-1MDA **\$99⁹⁹**

12" SANDING DISCS

GRIT	ITEM	PACK OF 2
36	38001-0MDA	\$5⁹⁹
60	37958-0MDA	\$5⁹⁹
120	37959-0MDA	\$5⁹⁹
240	37960-0MDA	\$5⁹⁹

Pittsburgh



2 PC. 3/4" HEAVY DUTY PIPE CLAMP

Constructed from heat-treated cast iron, these durable clamps keep your work rock steady. Just screw the handle side onto a 3/4" threaded pipe and slide the spring loaded end on. You're ready to go! Pipe not included.

- Handle screw operating range: 2-1/8"
- 1-1/2" throat depth
- Weight: 2-7/16 lbs.

ITEM ~~\$3⁹⁹~~
 31255-1MDA **\$3⁹⁹**

1/2" PIPE CLAMP
 ITEM 37056-2MDA **\$2⁹⁹**

LIMITED QUANTITIES

7-1/4" CARBIDE TIP ADJUSTABLE DADO BLADE 1/2 OFF

Long lasting molycarbide tips last up to 50 times longer than steel tips, and can be resharpened. 24 tooth design for cutting/grooving 3/16" to 13/16" wide.

- 1" arbor with 5/8" adapter; 4500 maximum RPM

~~\$19⁹⁹~~ **\$9⁹⁹**
 ITEM 01493-4MDA

7-1/4" INDUSTRIAL QUALITY CARBIDE-TIPPED CIRCULAR SAW BLADE

24 tooth; 7000 RPM maximum rotation; 5/8" standard or diamond punch-out, arbor; Easy to sharpen or replace tips.

ITEM ~~\$1⁹⁹~~ **\$1⁹⁹**
 31081-0MDA

CENTRAL MACHINERY

10", 2 HP, BENCH TABLE SAW



Die cast aluminum table 25-3/4" x 16", has adjustable 17-7/8" x 2" rip fence and inch/metric scale for precise cutting. Blade adjustments control angle and depth of cut.

- Maximum depth of cut at 90°: 3-1/8"; at 45°: 2-1/2"
- Shipping weight: 36 lbs.
- Miter gauge adjusts 0° - 60° left and right
- Motor: 2 HP, 115V, 60 Hz, 10 amp, 4500 RPM • Blade capacity: 10" with 5/8" arbor
- Blade sold separately, below

ITEM ~~\$119⁹⁹~~
 35715-0MDA **\$119⁹⁹**

10" 40 TOOTH CARBIDE TIP SAW BLADE
 • 5/8" arbor
 ITEM 00529-4MDA **\$9⁹⁹**

CENTRAL MACHINERY



10" PLANER

- 2 HP, 110V, 1 phase, 11 amp, 8000 RPM
- 5-1/8" working distance
- 10-1/8" x 9-1/8" feed table
- 19" x 16-5/8" x 16" overall dimensions
- 10-1/8" blade size
- 2-blade cutter head
- 61 lbs. shipping weight
- Stand sold separately

~~\$239⁹⁹~~ **\$189⁹⁹**
 ITEM 06935-8MDA

PLANER STAND

- 20" x 10" x 27"
- Shipping weight: 20 lbs.

ITEM ~~\$29⁹⁹~~
 32969-3MDA **\$29⁹⁹**

REPLACEMENT BLADE SETS (2 PCS.)

STEEL	ITEM	PRICE
Spring	32970-2MDA	\$21⁹⁹
High Speed	36068-1MDA	\$29⁹⁹

CENTRAL MACHINERY

- VARIABLE SPEED
- BIG 12" THROAT
- 3/4 HP



12" BANDSAW

Precision three-wheeled design cuts material up to 12" wide and makes bevel cuts from 0° to 45°. Electronic variable speed from 0 to 2645 feet per minute. Includes miter gauge. Blade sold separately, below.

115V; Table: slotted cast aluminum: 13-1/2" x 13-1/2"; Work capacity: 12" x 4-5/8" H; Requires 62" blade; Overall dimensions: 25" L x 13-1/2" W x 23-3/4" H; Shipping weight: 32 lbs.

ITEM ~~\$89⁹⁹~~
 01629-3MDA **\$89⁹⁹**
BANDSAW BLADE
 • 6 TPI
 ITEM 31236-5MDA **\$4⁹⁹**

TUNGSTEN CARBIDE TIPPED ROUTER BIT SETS



- 1/4" shanks
- Individually organized storage cases

15 PC. ASSORTED BITS
 1-1/4" rabbeting • 1-3/8" cove • 1-1/16" roman ogee • 1-1/4" rounding over • 1/2" flush trimming • 1-3/16" 45° chamfer • 1/2" dovetail, 3/4" straight, 1/2" straight, 3/8" V-groove, 1/4" combination panel, 1/4" straight, 1/2" mortising, 1/4" cove, 1/8" straight. Includes pilot bearing

ITEM ~~\$39⁹⁹~~ **\$29⁹⁹**
 31164-5MDA

4 PC. ROUNDING OVER BITS
 • 1-5/32" long shanks • 2 flutes each
 Sizes: 1/8", 1/4", 3/8" and 1/2" with pilot bearing tips

ITEM ~~\$22⁹⁹~~ **\$15⁹⁹**
 33078-7MDA

SAVES GAS & MONEY

16,000 BTU INFRARED LP GAS HEATER

Infrared design heats where it's pointed instead of the atmosphere, saving you money by saving you gas. Can be oriented in any desired direction. Easily transportable or permanently mountable. O.D.S. (Oxygen Depletion Sensor) analyzer shuts the heater down when oxygen is lowered to an unsafe level. Equipped with a thermocouple that shuts the system off if it gets too hot. Perfect for garage heating; not designed for living areas. LP bottle shown not included.

Minimum setting 10,000 BTUs/hr. Maximum setting 16,000 BTUs/hr.
 ITEM ~~\$49⁹⁹~~ **\$39⁹⁹**
 33745-3MDA



* Within the 48 States / \$3.95 handling on all orders. No per item shipping and handling charge.

Call To Order or Ask for Free Catalog:
 Order 24 Hours a Day/7 Days a Week
 Most Phone Orders Shipped in 48 Hours



FAX TOLL FREE: 1-800-905-5220

1-800-423-2567

CHARGE IT!



Or Send Check or Money Order to: Harbor Freight Tools, 3491 Mission Oaks Blvd. Box 6010, Camarillo, CA 93011

FREE SHIPPING!

FOR ALL ITEMS SHOWN ON THESE TWO PAGES!

LOW PRICE GUARANTEE! • PRICES EFFECTIVE THRU 4-1-99

WE'LL BEAT ANY COMPETITOR'S PRICE ON ANY IDENTICAL ITEM - EVEN IF IT'S AN ADVERTISED SPECIAL

ORDER FROM OUR WEB SITE FOR EXTRA SAVINGS!

http://www.harborfreight.com

CENTRAL MACHINERY



8" GRINDER/BUFFER

- Includes 32 grit grinding wheel and buffing wheel
- Heavy duty 3/4 HP motor
- 115V, 6 amps • 3600 RPM
- Cast iron base • 3/4" arbor
- Shipping weight: 47 lbs.

~~\$109⁹⁹~~ \$179⁹⁹

ITEM 36127-3MDA

CENTRAL MACHINERY



DOVETAIL MACHINE

Just place stock and pull cam handles to positively lock material in place. Allows cutting tails, pins, half blind, and standard dovetails. Accepts stock up to 12" wide and 1-1/4" thick. Includes 1/2" template.

~~\$49⁹⁹~~ \$39⁹⁹

ITEM 34102-8MDA

NUGARD

THREE VIAL LASER TORPEDO LEVEL

No more fiddling around with line levels. Red laser projects level marks over 100 feet away - with pinpoint accuracy! Perfect for masonry, fencing, landscaping and cabinet work. Constructed from brass anodized aircraft aluminum. Three unbreakable vials for horizontal, vertical and 45° V-groove for pipes. Threaded mount for tripods.

- Compact...only 6-3/4" long
- Shock and water-resistant for years of professional use • FDA certified
- Accurate to 1/4" at 100 ft.
- 2 AAA batteries last up to 10-12 hours with continuous use

~~\$74⁹⁹~~ \$59⁹⁹

ITEM 37760-5MDA

CENTRAL PNEUMATIC



INDUSTRIAL HVLP SPRAY GUN

Get better adhesion than standard sprayers and save over 40% in paint/material costs. This sprayer maintains 75% transfer efficiency and reduces working pressure to 10 PSI. No need to buy costly HVLP system, this gun does it for you. Low cost, quality finishes, and meets strict state and local environmental codes! Easy to use - well balanced with a textured grip handle.

- 2 position nozzle adjusts spray pattern
- 1 quart cup • Air inlet: 1/4" NPT
- CFM: 9.5 @ 50 PSI
- PSI: 50-70

~~\$109⁹⁹~~ \$59⁹⁹

ITEM 07901-1MDA

CENTRAL MACHINERY



1 HP MINI DUST COLLECTOR

Perfect for the shop, work site or garage. This compact unit is as powerful as many stationary collectors.

- 1 HP; 120V; 750 watts; 6.8 amp;
- Single phase; 914 CFM; Overall dimensions: 13" x 13" wide, 14-1/2" high;
- Tool weight: 18-1/2 lbs.;
- Shipping weight: 21-1/2 lbs.

~~\$199⁹⁹~~ \$139⁹⁹

ITEM 36853-3MDA

WE CARRY OVER 4000 ITEMS!
CALL TODAY FOR A FREE CATALOG SUBSCRIPTION!

CENTRAL PNEUMATIC CONTRACTOR SERIES

DRIVES 1-1/4" BRADS & 1-1/8" STAPLES!



1/4" CROWN STAPLE/18 GAUGE BRAD NAILER KIT

- Includes: (2000) 18 gauge brads, (2000) 18 gauge staples, lubricating oil, & carrying case • 1/4" NPT
- 100 brad capacity, 110 staple capacity
- Brad length: 5/8" to 1-1/4"
- Non-slip rubber grip
- Staple length: 1/2" to 1-1/8"
- 100 PSI maximum pressure
- 3 lbs. tool weight

~~\$94⁹⁹~~ \$79⁹⁹

ITEM 35673-8MDA

FASTENERS

SIZE	QUANTITY	ITEM	PRICE
5/8" LONG STAPLES			
3/16" crown	2000	31983-OMDA	\$3 ⁹⁹
11/32" crown	1200	31982-OMDA	\$3 ⁹⁹
1/2" crown	800	31981-OMDA	\$2 ⁹⁹
BRADS			
5/8" w/heads	3000	31984-OMDA	\$3 ⁹⁹
5/8" w/o heads	3000	31985-OMDA	\$3 ⁹⁹

SKIL



7-1/4" CIRCULAR SAW

- Maximum cut @ 90°: 2-7/16" @ 45°: 1-15/16"
- 10 amps, 2-1/3 HP, 4600 RPM
- Handy scales and cutting guide
- Factory reconditioned, factory perfect

~~\$79⁹⁹~~ \$39⁹⁹

7-1/4" CARBIDE TIPPED CIRCULAR SAW BLADE

- 5/8" arbor, 24 tooth blade

~~\$4⁹⁹~~ \$2⁹⁹

ITEM 31081-2MDA

DELTA



DELTA 33-060 LIMITED QUANTITIES SIDEKICK FRAME & TRIM SAW

Aggressive 12 amp, 5500 RPM gear-driven motor for tough cutting jobs. Equipped with a carbide tipped 6-1/2" diameter blade. Cross-cuts, miters, bevels, cuts compounds - makes just about any cut (except rip). Horizontal D-handle design for positive, full grip control. Two rigid stainless steel rods minimize deflection and maximize accuracy.

- Motor: 12 amps, 120V; Blade diameter: 6-1/2"; Arbor: 5/8"; Speed 5500 RPM; Capacity: Cut-off at 90°: 12"; Cut-off at 45° miter: 9-1/2"; Depth of cut at 90°: 1-3/4"; Depth of cut at 45° bevel: 1-5/8"; Positive miter stops: 0°, 22-1/2°, 31.62°, & 45°; Weight: 42 lbs.

~~\$299⁹⁹~~ \$249⁹⁹

ITEM 52880-3MDA

CENTRAL MACHINERY

5 SPEED BENCH DRILL PRESS

- 2" stroke, 8-1/4" swing
- Speeds: 620, 1100, 1720, 2340 and 3100 RPM
- 1/3 HP motor moves at 1720 RPM
- Table: 8-1/4" square • 1/2" chuck
- 8-1/4" maximum distance spindle to table
- 22-1/2" high, 47 lbs.

~~\$109⁹⁹~~ \$48⁹⁹

DRILL PRESS WITH KEYLESS CHUCK

• No more lost chuck keys

~~\$109⁹⁹~~ \$49⁹⁹

ITEM 05901-0MDA

CENTRAL MACHINERY

4" x 36" BELT/6" DISC SANDER

Adjustable belt sands inside and outside curves. Cast aluminum sanding disc features a cast aluminum table that locks in any angle from 0° to 45°. Table can be repositioned for use with belt or disc. Includes: 7-1/2" x 5" cast aluminum table, miller gauge, and adjustable backstop; 4000 FPM belt speed; 1725 RPM disc speed; 1/3 HP, 1725 RPM, 115V, single phase

~~\$109⁹⁹~~ \$59⁹⁹

SANDING BELT CLEANER

- Increase the life of your sanding belts and discs up to 500%
- 8-1/2" x 1-1/2" x 1-1/2"

~~\$4⁹⁹~~ \$3⁹⁹

ITEM 30766-0MDA

CENTRAL MACHINERY



14" x 40" WOOD LATHE

Create beautifully turned pieces of furniture with this four speed lathe. Comes with chuck plate. Mount on your workbench.

- Motor: 1/2 HP, 110V, 60 Hz, 3.4 amps; Speeds (RPM): 1125, 1640, 2360, and 3450; Swing over bed: 14"; Tool rest: 12" x 3/4"; Distance between center: 40"; Bed: 2 lengths; 1-3/4" steel tubing; Drive: V-belt; Overall size: 57-1/2" x 8-1/2" x 14"; Shipping weight: 88 lbs.

~~\$109⁹⁹~~ \$99⁹⁹

ITEM 31082-6MDA

* Within the 48 States / \$3.95 handling on all orders. No per item shipping and handling charge.

Call To Order or Ask for Free Catalog: Order 24 Hours a Day/7 Days a Week Most Phone Orders Shipped in 48 Hours



FAX TOLL FREE: 1-800-905-5220

1-800-423-2567

CHARGE IT!



Or Send Check or Money Order to: Harbor Freight Tools, 3491 Mission Oaks Blvd. Box 6010, Camarillo, CA 93011

FROM

Better Homes and Gardens®

WOOD

MAGAZINE

INTRODUCING

**GREAT
NEW
PLANS!**

Only \$12.95 each!



MAGNIFICENT MOOSE
#OFS-1046 (48" high)



LARGE POLAR BEAR & CUB
#OFS-1036 (3' high / 2' high)
MEDIUM / SMALL POLAR BEARS
#OFS-1048 (18" high / 6" high)



PLAYROOM PALOMINO ROCKING HORSE
#TS-1012



**SIMPLY STELLAR
CHRISTMAS TREE**
#OFS-1050 (26" or 48" high)



**HEAVENLY
HOLIDAY
WREATHS**
#OFS-1051
(24" wide)



STAR LUMINARIES*
#OFS-1049 (16" high)

*Material used is inexpensive shower wall panel.



For more **WOOD PLANS**®, visit us at www.woodmagazine.com

ORDER TODAY!

No added charges! Postage, handling, state and local taxes are included in prices!

For fastest service, call toll free

1-800-572-9350

or fax your order **1-515-265-2995** 7 a.m.—9 p.m. CST, Monday—Friday
Visa and MasterCard accepted. Please have your order ready when calling.
You may also send your name, address and the name of plan(s) you want,
along with your check or money order to:

**WOOD PLANS, P.O. Box 9255, Dept. WD1198
Des Moines, IA 50306**

SPECIAL MULTI-PLAN DISCOUNT!

\$2.00 OFF total order on 2 plans

\$4.00 OFF total order on 3–4 plans

\$6.00 OFF total order on 5 or more plans

100% MONEY-BACK GUARANTEE.
All Better Homes and Gardens® **WOOD PLANS**®
are fully guaranteed. If you're not completely
satisfied, just let us know. We'll give you a
full refund or quick exchange.



PORTER+CABLE



- BN125 18 ga. bradnailer kit 5/8" - 1 1/4" 88
- BN200 18 ga. brad nailer kit 3/4" - 2" 134
- CDA250 bammer cdl's 15 ga 2 1/2" fin nailer 277
- CF1400 1 hp pancake compressor 194
- CF15401 1/2 hp side stack compressor 292
- CF24002 hp side stack compressor 318
- CFN250 bammer cdl's 16 ga 1-2 1/2" fin nailer/277
- DA250 15 ga. angle fin nailer kit 1 1/4" - 2 1/2"199
- DA250A 15 ga. ang fin nailer kit 1 1/4" - 2 1/2"234
- FN250A 16 ga. finish nailer kit 3/4" - 2 1/2" ... 182
- FR350 framing nailer w/case 3 1/2" capacity 287
- NS100 narrow crown stapler kit 1/2" - 1" 94
- NS150 narrow crown stapler kit 1/2" - 1 1/2" ... 154
- NSS150 18 ga 1/4" narrow crwn stapler kit 178
- 330 speed block finishing sander 67
- 332 Quiksand 5" rdm orb w/stlkit pad 58
- 333 Quiksand w/hook & loop, dustls 64
- 333VS 5" var. speed Quiksand ros, dstls 84
- 340 1/4 sheet finishing sander dstls 54
- 352VS 3" x 21" belt sander dstls w/var sp 174
- 360 3" x 24" belt sander w/dust bag 213
- 360VS 3" x 24" belt sander, w/with bag 228
- 362 4" x 24" belt sander w/dust bag 222
- 362VS 4" x 24" vs dustless belt sander 236
- 505 1/2 sht fin sander 138
- 5116 omni jig 274
- 556 bisc joiner w/case & tilt fence 134
- 557 deluxe plate joiner kit 197
- 690 1 1/2 hp router 138
- 691 1 1/2 hp "d" handle router 159
- 693PK 1 1/2 hp plunge router, fixed base, cs 194
- 697 router table with 1 1/2 h p motor 232
- 698 router table only 134
- 6931 plunge router base 82
- 7116 new 24" omnijig 308
- 7336 6" random orbit var. speed sander 142
- 7518 3 1/4 hp fixed base router-5 sp 288
- 7539 3 1/4 hp plunge router-5 speed 289
- 9444 profile sander kit w/accys & cs 99
- 9444VS Var. speed profile sander kit 111
- 9543 Quik-Change bayonet saw kit 166
- 9862 12v cordless kit w/2 batteries, case 152
- 9862F 12v kit w/2 batt, charger & flashlight 159
- 9872 14.4v crdls drill kit w/2 batt. & case 186
- 9874 14.4v 1/2" 1 handle cdl's drill kit 199

Panasonic



- EYC003 combo 15.6v drill & 12v wood saw w/4 batteries 398
- EY6100EQKW 12V cdl's drill w/kit 2 batteries, chrgr & case 174
- EY6230FQKW 15.6v cordless kit complete w/tree job radio, 1/2" chuck 206

PERFORMAX PRODUCTS, INC. X

- 16-32 Plus 16"-32" bench drum sander 899
- 22-44 Pro 22" pro drum sander 1799

SKIL

- HD77 7 1/4" worm drive circular saw 159
- HD77M 7 1/4" magnesium worm drive saw 169
- HD1605-02 biscuit joiner 134
- 3400 10" table saw w/carb blade & stand 198

JET EQUIPMENT & TOOLS



- DC-1200W 2 hp white dust collector 399
- JJ-6CSXW 6" enclosed stand white jointer 499
- JWP-15CSW 15" white enc. stand planer 1199
- JWB5-14CSW 14" white enc. bandsaw 569
- JTAS-10X650-WI 3 hp white cabinet saw/accys1399
- JWTS-10CWPF 1 1/2 hp contractors saw w/accys795
- JPM-13 13" planer moulder 795
- JWS19H0 1 1/2" hpshaper 1/2" & 3/4" spindls 524
- JML-1014 mini lathe 324

INTERNATIONAL CORPORATION



WE ACCEPT VISA, MASTERCARD, DISCOVER, & AMERICAN EXPRESS

2590 Davie Rd., Davie Florida 33317

BUSINESS HOURS: MON-FRI 8-5 PM SATURDAY: 9-12 EST

ALL CHECKS WILL BE HELD 10 BUSINESS DAYS

BOSCH



- 1275DVS 3" x 24" vs dustless belt sander 213
- 1276DVS 4" x 24" vs dustless belt sander 224
- 1278VSK compact belt sander kit 128
- 1295DH 5" random orbit sander 82
- 1584AVSK clic barrel handle jig saw, vs w/case ... 149
- 1587AVSK-50 50th anniv. jig saw kit 156
- 1587AVSK top handle jig saw, var sp w/case 149
- 1613EVS 2 hp var sp plunge router 199
- 1615EVS 3 1/4 hp plunge router 258
- 1617 1 3/4 hp router 198
- 1617EVS 2 hp electronic var. speed router 179
- 1618 1 3/4 hp D-handle router 169
- 3107DVSK 5" random orbit sander with case 114
- 3315K 12v crdls 1 handle w/2 bat, cs & chrgr ... 158
- 3615K 14.4v cdl's drill kit w/2 batteries 174
- 3725DVS 5" dustless vs random orbit sander 144
- 3727DVS 6" dustless vs random orbit sander 148
- 3915 10" slide compound miter saw 498

BESSEY

BOX OF 5 PRICE (EACH)

- K3.512 12" k body clamp 28.95 ... 30.95
- K3.524 24" k body clamp 31.95 ... 34.95
- K3.531 31" k body clamp 34.95 ... 36.95
- K3.540 40" k body clamp 38.95 ... 41.95

Purchase any tool & you may add this Porter Cable 1/4" circular saw with carbide blade Model 368-1 for only \$79.00. Let's see our so-called competitors top this one! HURRY...WHILE QUANTITIES LAST!



- MSXE-636-2 Multimaster triangular sander/ includes case, paper asst. & 2 blades 172
- 99-55-13 Fein turbo vac II 248
- MSFE636-1 Random orbit sander 489

RYOBI



- AP12 12" port. planer 345
- DBJ50 detail biscuit jointer 68
- DC500K detail carver kit 62
- HT20VSK multi rotary tool w/cs & accys 48
- ML618 18" wood mini lathe 199
- OSS450 oscillating spindle sander 149
- RE185 2 1/4 hp fixed base vs router 109
- SC165VS 16" vs scroll saw 164

HITACHI



- C75BK 7 1/4" circ. saw w/case 109
- C8FB2 8 1/2" slide compound miter saw 458
- C10FC 10" compound miter saw 198
- C10FS 10" slide compound miter saw 698
- DN10DYK 9.6v cdl's right angle kit 168
- DS14DV-G 14.4v kit w/2 bat & free Gerber tool ... 209
- M12V 3 hp var speed plunge router 189
- NR83A full head strip nailer, 2 - 3 1/2 cap. ... 379
- NV83A coil nailer, 2" to 3 1/4" capacity 379
- P20SB 3 1/4" planer 89

POWERMATIC



- 13 6" x 89" edge sander 649
- 14 oscillating spindle sander 295
- 15 15" planer w/enclosed stand 1189
- 24 2 hp shaper w/1/2" & 3/4" spindle 1049
- 44 14" band saw, 1 hp, enclosed stand ... 645
- 54 6" jointer w/enclsd stand 495
- 60 8" long bed jointer 1775
- 64A 1 1/2 hp tbl saw w/accu fence 745
- 66 3 hp, 1 ph 10" t.a. saw w/50" fence ... 1995
- 66 5 h p, 1 ph 10" t.a. saw w/50" fence ... 2095
- 73 1 1/2 hp dust collector 389
- 75 3 hp dust collector 675
- 84 combo belt & disc sander 445
- 412 12 1/2" portable planer 395
- 471 1 hp dust collector 219

AIRAC



- E22 18 gauge nail/staple kit 109
- 0249NK 18 gauge brad nailer 3/4"-2" w/case & 5000 nails 108
- 0232NK 18 ga brad kit 3/8"-1 1/4" with case .. 68
- 0566T angle finish nailer 1"-2 1/2" 202
- 0626NK 18 gauge narrow crown stapler 3/8"-1" with case 103
- 0638S narrow cr stapler 3/4"-1 1/2" w/cs ... 179
- ITM/ART 0241 & 0626 in one case 119

freud



- EB100 edge bander 214
- FC107 7 pc carbide forstner bit set 89
- JS100 biscuit jointer 94
- JS102 biscuit jointer w/var. angle fence 118
- FT2000E 3 hp plunge router 184
- F410 10" x 40t quiet blade 48
- F810 10" x 80t quiet blade 73
- LM72M010 10" x 24t flat top rip blade 36
- LU82M010 10" x 60t crosscut/rip blade 44
- LU84R010 10" x 50T red combo blade 42
- LU85R010 10" x 80T red crosscut blade 58
- LU92M010 10" x 60 teeth TCH laminate 59
- LU98M010 10" x 80 teeth TCH lam & wood 67
- SD208 8" safety dado 94
- SD308 8" safety dado with case 116
- SD508 new 8" super dado set 167
- SD608 8" dial-a-width dado 198
- TK406 10" x 60 teeth thin kerf blade 36
- TK806 10" x 80 teeth thin kerf blade 47
- TK906 10" x 50 teeth thin kerf blade 34
- TR215 8 1/2" compound saw 238

Jorgensen

OUR PRICE EACH BOX OF 6

- STYLE 37 2 1/2" THROAT 1/4" x 3/4"
- 3706 6" 6.00 34.50
 - 3712 12" 6.70 38.95
 - 3718 18" 7.50 42.75
 - 3724 24" 8.25 46.50
 - 3730 30" 8.90 50.75
 - 3736 36" 9.95 56.95
 - PONY CLAMPS #50, 3/4" 8.20 BOX OF 12 \$94.95
 - #52, 1/2" 6.95 BOX OF 12 \$79.95
 - PONY SPRING CLAMPS 3201HT 1" 1.35

Trakita



- 5007NBK 7 1/4" circ saw w/cs & blade 128
- 6095DWE 9.6v cdl's drill kit w/2 batt 128
- 6095DWLE2 same as above w/flashlight 139
- 6213DWAE 12v cordless kit w/2 batteries ... 169
- 6233DWAE 14.4v cordless kit w/2 batteries 199
- 6333DWAE 14.4v 1/2" cordless kit 209
- BO5001 5" random orbit sander 67
- LS1013 10" slide dual comp miter saw ... 558
- LS1211 12" slide dual comp miter saw ... 789
- N1900B 3 1/4" planer 146

Milwaukee



- 6490-6 10" miter saw 274
- 6496-6 new 10" slide compound miter saw 545
- 6497-6 10" slide compound saw w/accs ... 619
- 6537-22 10 amp recip saw w/case 178

SENCO



- SKS narrow crown stapler 247
- SLP20 brad nailer w/cse 5/8"-1 5/8" cap ... 198
- SFN40 finish nailer 1 1/4"-2 1/2" cap 338

DELTA

- 11-990 12" drill press 188
- 14-650 hollow chisel mortiser 238
- 22-560 new 12" portable planer 378
- 23-710 new sharpening center 167
- 28-185 bench top band saw 157
- 28-270 14" bandsaw, 1 hp white, enc stand849
- 31-780 b.o.s.s. oscillating spindle sandr ... 193
- 36-865 versa feeder stock feeder 248
- 36-920 Grand Edition 3 hp unisaw1599 alter rebate
- 37-190 6" jointer w/stand 429 after rebate
- 40-540 16" vs scroll saw 179
- 40-650 Q-3 scroll saw 429
- 43-505 router/shaper 299
- 50-840 1 hp dust collector, 650 cfm 219
- 50-850 1 1/2 hp dust collector, 1200cfm 294
- 50-860 room air cleaner, 850 cfm 239

DEWALT



- DW100 3/8" drill, 0-2500 rpm, w/chuck key .. 62
- DW4PAK 18v kit circ saw, recip saw, hammr drill and light 559
- DW309K recip saw, var sp, w/blades & cs ... 168
- DW321K top handle jig saw kit 258
- DW359K 7 1/4" circular saw w/case 128
- DW378G 7 1/4" framers saw 168
- DW420 5" random orbit sander, psa 62
- DW421 5" dstls rdm orb sander, velcro 67
- DW423 5" vs dustls random orbit sander 79
- DW431 3" x 21" dstls belt sander var sp ... 185
- DW443 6" rt rgl'd var sp ROS sanderw/h&132
- DW610 1 1/2 hp router, 9 amp 144
- DW621 2 hp vs dstls plunge router 198
- DW677K 3 1/4 hp planer kit 149
- DW682K biscuit jointer kit 188
- DW705 12" miter saw w/carb blade 358
- DW708 new sliding comp. miter saw 644
- DW733 new 12 1/2" portable planer 435
- DW744 10" portable table saw 499
- DW788 new 20" var. speed scrollsaw 448
- DW965K 12v right angle drill kit 189
- DW972K2 12v crdls kit/w battery & cs 179
- DW972KS2 12v combo drill & saw kit 274
- DW991K2 DW991K with two batteries 206
- DW991KC2 14.4v drill & recip saw combo kit . 372
- DW991KL2 14.4v drill, circ saw, flashlight kit 349
- DW991KS2 14.4v cdl's drill & circ saw kit 338
- DW995K 18V 1/2" drill w/batt, chrgr & cs ... 228
- DW995KC2 18v drill & recip saw combo kit ... 395
- DW995KS2 18V drill & saw combo kit 377
- DW997K 18V hammer drill kit, 1/2" chuck ... 239
- DW997KC2 18V hammer drill & recip saw kit . 419

Have a question?

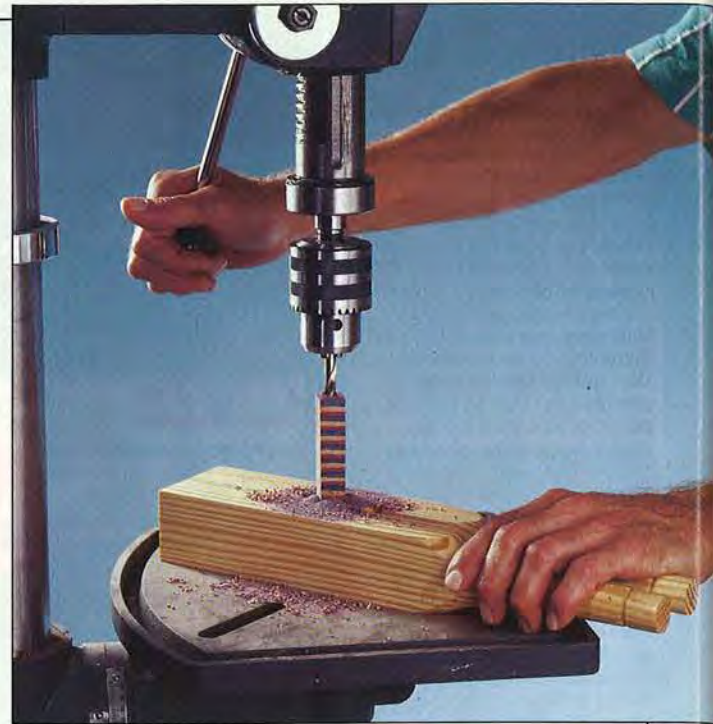
If you're looking for an answer to a question that you think would interest lots of other readers, we would like to hear from you. Write to: Ask WOOD, 1716 Locust St., GA310, Des Moines, IA 50309-3023. For an immediate answer to your question, try posting it on one of our internet discussion groups at: woodmagazine.com

Keeping your bits on course

Often, I need to drill holes in the end grain of wooden blanks in order to make pens, light pulls, handles, and other items. Inevitably, the bit wanders, sometimes as much as 1/8" off course. Can you give me any tips on drilling a straight hole?

—Dave Ulrich, Raleigh, N.C.

The problem with drilling out pen blanks, Dave, occurs because the grain of the wood tries to redirect the bit. Bob McFarlin, one of our tool testing experts, solved this problem by switching to Black & Decker Bullet bits. The design of these bits help



them drill true and not wander off the start mark. Bob also recommends the simple jig shown *right* specifically designed for drilling pen blanks. To get the pen-drilling jig for \$14.95 (plus shipping), call Hut Products for Wood at 573/442-1918.

Continued on page 94

Rout perfect hinge mortises in seconds!



EXCLUSIVE

Inserts are available for specialty hinges

Now free-hand routing and hand chiseling are things of the past!

The JIG IT Hinge Mortising System creates a variety of precise hinge mortises and cuts installation time in half. Made of durable aluminum.



System includes custom pattern router bit with twin carbide cutters

Call today for a FREE catalog!
1-800-403-9736

www.rockler.com

ROCKLER
WOODWORKING  AND HARDWARE

The **NEW** name for...



"Our commitment to hardware is **NOW** in our name."

Department 98092



FREE SHIPPING!

(On orders over \$75 in the Cont. U.S.)

Celebrating 20 Years of Service



Route 29 • N. Pekin, IL 61554
email: aisupply@mtco.com
WE SINCERELY APPRECIATE YOUR BUSINESS!

To Order Call Toll Free:

1-800-260-2647

24 Hr. Fax Orders: (309) 382-1420

Limited Quantities & Prices Subject to Availability

BINKS

HVLP Spray Gun

Use with only 1-1/2 H.P. compressor! Now you don't have to rely on a limited turbine. Great for a wide range of materials. Includes gun and one quart cup, 25 ft. 3/8" air hose with connection and air regulator with gauge. #BK5 98-1121
CALL FOR SPECIAL PRICE!



PORTER-CABLE

18-Gauge Brad Nailer Kit

18 ga., 2" brad nailer kit accepts 3/4"-2" brad nails. Quick-release nosepiece so you can quickly clear jams without disassembly. #PCT BN200 List Price \$248.00
SUPER SALE \$131.50



PORTER-CABLE

NEW! 557 Plate Joiner Kit
•Does mini size biscuits and standard size #7.5 amp motor.
•Tilt-fence does not have to be removed for flush cuts. #7-position depth stop. #Face lets you position your cut from outside face. #Includes case, dust bag, 2" & 4" blades & extra biscuits.
SUPER SALE \$197.90



Brad, Finish & Framing Nailer Kits
All kits include case
NEW! CDA250 15G Cordless Angle Finish Nailer \$277.00
BN125 18G "1-1/2" Brad \$89.00
NEW! CF1400 1HP Compressor w/ FREE air hose & couplers (\$21.30 value) \$199.50
DA250A 15G 1-1/2" Finish \$234.90
FL250A 16G 1-1/2" Finish \$183.00
NS150 18G "1-1/2" Crown Stapler \$168.00
FC350 Clipped Head 2-3/4" Framing Nailer Kit \$287.00
FR350 Full Round Head 2-3/4" Framing Nailer Kit \$287.00

693PK 1-1/2 HP Plunge Router Kit
Includes 690 w/ fixed base & plunge base w/ case \$188.00

690 1-1/2 HP Router \$142.00
691 1-1/2 HP HDL Router \$159.00
693 Plunge Base Router \$178.00
6937 Plunge Base Only \$82.00
6911 D-Handle Base Only \$72.00

7539 3-1/4 HP Plunge Router - Plus Free Fine Depth Adjuster (\$26.50 Value) \$294.90
7518 3-1/4 HP SSP FB Router \$279.90
42000 8 pc. Templet Guide Kit \$29.95
97310 Laminate Trim Kit \$192.50
697 Router Table w/ 1/2" H.P. Router \$233.00
698 Router Table w/out motor \$133.50
982F 12V Cordless Drill Kit w/ Free Flashlight..... \$158.90
9872 14.4V Cordless Drill Kit w/ two batteries, case & charger \$182.00
9872R 14.4V Recon Kit \$158.90
9444 Sander Kit \$103.50

330 Speed Block Sander \$68.00
332 5" QS Palm Sander \$59.90
333 5" QS R/O Dst Sdr H&L \$64.90
333VS VS R/O Palm Sander \$78.00
334 5" QS R/O Dustless Sdr \$64.00
352VS VS Belt Sander \$177.00
7335 5" VS R/O Sander \$132.00
97355 5" VS R/O Sander with Dust Collection & Case \$149.00
552 Prod. Pocket Cutter \$589.90
7800 Drywall Sander \$348.80
5554 1000 Pc. Asst. Biscuits \$22.50
362 4x24 Belt Sander w/ Bag \$228.00
362VS 4 x 24 VS Belt Sander & Bag \$237.90
360 3x24 Belt Sander w/ Bag \$224.00
360VS 3x24 VS Belt Sander & Bag \$212.00
347K7-1/4 Circular Saw w/Case \$127.90
743K L/H 7-1/4 Circular Saw w/ Case \$127.90

DELTA

12-1/2" Planer

Features: •Quick change knife system.
•Exclusive cutterhead-snipe control lock •Easy-to-read English and Metric scale.
#DEL 22-560 List Price \$568.00 **SALE.....\$328.50**



BONUS: Free Extra Set of Planer Knives (\$27.90 value)

DELTA

30" Table Board CTE 2731 \$23.90
52" Table Board CTE 2747 \$28.90

Uni-Saws With Biesemeyer or Uni-Fence
NEW! 36-800 White Classic Edition Unisaw w/50" Biesemeyer Fence \$1599.00*
36-830 3H.P. w/30" Uni-fence \$1399.00*
36-831 3H.P. w/30" Biesemeyer T-Square Fence \$1399.00*
36-820 3H.P. w/52" Uni-fence (Special Edition)..... \$1499.00*
36-821 3H.P. w/50" Biesemeyer 52" T-Square Fence \$1499.00*
34-445Z Contractors Saw w/30" Uni-fence and \$200 in accessories FREE \$785.00*
34-182 Tenoning Jig \$85.90
11-990 5SP Drill Press \$192.00



14-650P 1/2 H.P. Hollow Chisel Mortiser SUPER BONUS: w/ 4 Free Delta Mortise Chisels & Bits (1/4, 5/16, 3/8", 1/2") \$248.00



50-840P 1 HP 650 CFM Dust Collector
Includes Over \$27.00 Value Free
•FREE 1-Delta 4" x 10" Dust Hose
•FREE 1-Delta Alum. Blast Gates
•FREE 2-Delta 4" Hose Clamps
TOTAL PACKAGE ONLY \$229.90



50-850P 1-1/2 HP 1200 CFM Dust Collector
Includes Over \$42.00 Value Free
•FREE 1-Delta 4" x 10" Dust Hose
•FREE 1-Delta Alum. Blast Gates
•FREE 4-Delta 4" Hose Clamps
TOTAL PACKAGE ONLY \$309.90



* Price After Delta Rebate

50-851 2HP 1200 CFM Dust Collector \$492.00
36-865 Versa-Feeder \$239.00
22-675Y 15" Planer with FREE 50-655 stand (a \$260.55 value) \$1065.00*
28-275 14" Open Band-Saw \$497.90*
28-280 14" Enclosed Band Saw 1 HP \$679.00*
28-280Z 14" Closed B/S w/\$225 accys FREE \$779.00*

31-780XP QS Sander Super Bonus Buy: Includes Sanding Spindle Set, PLUS Free Abrasive Rubber Cleaning Stick & Delta T-Shirt (\$89 value) \$214.95

36-235 12" Compound Miter Saw \$308.00
40-650 Q-3 18" Scroll Saw \$398.90
37-190 6" Deluxe Jointer \$379.00*
37-350A 8" Jointer w/stand \$1337.90*
43-379 Special Edition Shaper \$1335.00
43-505 Router/Shaper \$299.95
50-345 Universal Mobile Base \$48.40
31-280 Sanding Center \$749.00*

BIESEMEYER

78-900 50" Right 12" Left Fence System..... \$339.00

17-900P 16-1/2" Floor Drill Press **BONUS BUY:** Includes Delta 17-920 Mortising attachment & 4 chisels in case (a \$68.00 value) \$364.00
17-900 16-1/2" Floor Drill Press \$344.00

New! DELTA New!

NEW! 36-920 Grand Edition White Uni-Saw
52" Uni-Fence w/ White legs and Extra Cast Iron Wing on Right Side. Includes White Table and Shelf Board - 50T Ind. Carbide Blade. Personalized Insignia Plaque \$1599.00*

NEW! 36-455 Grand Edition White Contractor's Saw
Left Cast Iron Wing, White 30" Uni-Fence, White Laminated Table Board and Legs, Pro 50T Carbide Blade \$785.00*

NEW! 28-270 Grand Edition White Band Saw
Includes Enclosed Stand, 18" White Rip Fence, Mobile Base and Cool Blocks \$788.00*
36-820L Left Tilt UniSaw 3HP \$1499.00*
36-821L Left Tilt UniSaw Biesemeyer Fence \$1499.00*
23-710 Sharpening Center \$148.90
31-460 4x6 Belt/Disc Sander \$117.90
31-695 6x9 Belt/Disc Sander \$293.90

* Price After Delta Rebate

JDS COMPANY NEW! JDS 750 750 CFM Filtration System \$255.00
JDS 8-12 1570 CFM Filtration System, \$488.00

DELTA

NEW! 50-860 1/5 H.P. Air Cleaner comes with rubber feet. Set on floor or hang from ceiling (hardware included), 850 CFM, \$244.90

DEWALT

DW733 12-1/2" Planer \$419.95
DW788 Scroll Saw with FREE stand (a \$79 value) \$449.00
DW 708 12" Compound Sliding Miter Saw \$644.00
DW 744 10" Table Saw \$499.00
DW 682C Biscuit Joiner with FREE 100 Biscuits (8 value) \$188.00
DW421 Sander \$69.95
DW 423 5" EVS R/O Sander w/H&L & Dust Collector \$82.50
DW 991KS-2 14.4V Combo Drill & Saw Kit w/case \$329.00
DW 364 7-1/4 Circular Saw with Brake \$149.90
DW 378G 15A Frammer Saw with Carbide Blade \$166.90



DW-4K 4 Piece Fat Boy Combo Kit **BONUS: Free Dewalt Leather Holster (\$29.00 value). Includes: Repp. Saw, circ. saw, hammer drill/driver, flex flashlight, charger & case..... \$565.00**

DW625 VS Electronic 3HP Plunge Router **BONUS: Free Fine Depth Adj. (a \$25.00 value) \$275.00**

DW627 2HP VS Plunge Router **BONUS: Free Fine Depth Adj. (A \$20.00 value) \$197.50**

DW995KS-2 18V Combo Drill & Saw Kit w/case \$377.00
DW321K 5.8A Jig Saw Kit \$162.00
DW972K-2P 12V Cordless Drill w/ 2 Batt. **BONUS: Free flashlight \$188.95**
DW991K-2P 14V Cordless Drill with 2 Batteries **BONUS: Free flashlight \$208.95**

QUICK GRIP

AMT 53006 4-1/2" Micro \$7.50
AMT 00506 6" Bar Clamp \$12.95
AMT 00512 12" Bar Clamp \$15.45
AMT 00518 18" Bar Clamp \$16.70
AMT 00524 24" Bar Clamp \$17.95
AMT 00536 36" Bar Clamp \$20.55
AMT 550 50" Bar Clamp \$24.65



ALUC

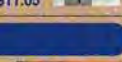
ALUC NAIL AND STAPLE TOOLS

ARY 241-626 CONTRACTORS COMBO KIT
#0241S 18 Ga Brad Nailer 3/8"-1/9/16" capacity and #0626S 18 Ga Stapler 1/2"-1" capacity
INCLUDES: 200 brads, 200 staples, oil, wrenches & case
SALE PRICE \$119.90



WOODSTOCK INTERNATIONAL

W1099 12" Dovetail Jig includes 1/2" tem-plate \$57.90
W1096 7/16" Template \$11.15
W1098 9/16" Template \$11.05



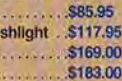
DAREX

DRILL DOCTOR
Sharpen drills almost as easily you sharpen pencils.
3/32"-1/2" & 1/2"-3/4" Chucks
3/32"-1/2" Chuck #DRX 500SP \$119.95
#DRX 750SP \$155.90 U.S. Made



Makita

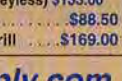
LS1211 12" Compound Miter Saw \$658.90
3901 Plate Joiner w/ Free 100Biscuits (\$8 Value) \$205.00
3612C 3HP Plunge Router with Brake \$258.90
9820-2 Blade Sharpener \$224.00
GEO800 Die Grinder \$85.95
6222DWLE 9.6V Crdls Drill, 2 Batt. & Flashlight \$117.95
6213DWAE 12V Cordless Drill Kit \$169.00
6233DWAE 14.4 Cordless Drill Kit \$183.00



6222DWLE 9.6V Crdls Drill, 2 Batt. & Flashlight \$117.95
6213DWAE 12V Cordless Drill Kit \$169.00
6233DWAE 14.4 Cordless Drill Kit \$183.00

Milwaukee

MLW 6496-6 10" Slide Compound Saw \$564.50
MLW 6266-6 Orbit Action Jig Saw \$158.00
MLW 0234-6 1/2" Electric Magnum Drill \$133.00
MLW 0235-6 1/2" Electric Magnum Drill (Keyless) \$133.00
MLW 6546-6 Cdns. Screwdriver Kit \$88.50
MLW 0380-1 3/8" Close Qtr. Screw Drill \$169.00



BOSCH

1613EVS 2HP Plunge Router \$188.00
1615EVS 3-1/4 HP Plunge Router \$299.00
NEW! 1617EVS 2HP EVS Router \$186.00



NEW! 1618 1-3/4 HP D-Handle Router \$178.00
1276DVS 4x24 Variable Speed Belt Sander \$218.00
3315K 12V Cordless Drill Kit w/ Case & 2 Batteries \$159.00
3615K 14.4V Cordless Drill Kit w/ 2 batt., case & charger \$173.90
3107DVS 5" H.D. R/O Sander-Polisher \$94.60
3725DVS 5" H.D. R/O Sander-Polisher \$131.00
3915 10" Slide Compound Miter Saw \$535.00

NEW! 1295DH 5" Swift Sand R/O Palm Sander \$86.50
NEW! 1587AVSP Jigsaw Kit w/ 8 assorted blades & case \$158.90

NEW! 1617EVS 2HP EVS Router \$186.00

NEW! 1618 1-3/4 HP D-Handle Router \$178.00

NEW! 1295DH 5" Swift Sand R/O Palm Sander \$86.50

NEW! 1587AVSP Jigsaw Kit w/ 8 assorted blades & case \$158.90

RYOBI

RYB WDS1600P 16/32" Drum Sander with FREE stand (\$85.00 value) only \$568.90
RYB DBJ50 Detail Biscuit Joiner \$68.90



SENCO

NEW! 910000N 5/8- 1-1/4" Brad Nailer w/case \$99.75
NEW! 920001N 5/8- 2" Brad Nailer w/case \$134.50
NEW! 900001N 1/2- 1" (1/4" crown) Stapler \$119.90
NEW! 950001N 1/2- 1-1/2" (1/4" crown) Stapler \$144.50
SLP20 Brad Nailer \$208.95
SFN1+ 1-2" Finish Gun \$292.95
SFN401-2" Finish Gun w/case \$348.90
SKS Med. Duty Stapler \$248.00
NEW! PRO600 Framing Nailer \$362.90
SCN40R Roofing Nailer \$387.90
SN60 Full Round Head Nailer \$386.90
PC0701 A9 Palm Nailer..... \$159.00



STANLEY BOSTITCH

RN45B-1 7/8-1 1/4" Coil Roofing Nailer \$367.90
NB05B-1 2"-3 1/2" Framing Stick Nailer \$348.00

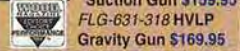
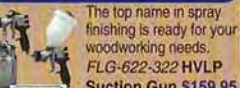
FEIN

FEIN Turbo II - Dust Free Vacuum
Powered by 2-stage motor w/ bypass cooling to assure motor runs cool even if the hose or filter is blocked. Excellent quality!
FIN 9-55-13 \$247.95
FIN MSXE-636-2 VS Triangle Sander w/ Case \$169.00



TW DeVilbiss

The top name in spray finishing is ready for your woodworking needs.
FLG-622-322 HVLP Suction Gun \$159.95
FLG-631-318 HVLP Gravity Gun \$169.95



STOCK YOUR SHOP! Request Our Catalog & Shop Online at: ai-supply.com

FREE SANDING BELTS

BUY A DOZEN GET A DOZEN FREE

FULL MONEY BACK GUARANTEE!!

1x30	17.95/doz + 12 free
1x42	18.50/doz + 12 free
3x18	18.95/doz + 12 free
3x21	19.95/doz + 12 free
3x24	21.25/doz + 12 free
4x21	24.95/doz + 12 free
4x24	25.95/doz + 12 free
4x36	35.95/doz + 12 free
6x48	40.95/1/2doz + 6 free
6x89	66.95/1/2doz + 6 free

Grits available: 36X to 320X
All belts A/O Resin Bond Cloth
w/bi-directional butt splice

Full Line of 9x11 Sheets

ALSO AVAILABLE: Stroke Sanding Belts; Belt Cleaning Sticks; Inflatable Drums and Sleeves; Cloth/Paper Discs (PSA/Hook & Loop) Drum Sanding Rolls; Wide Cloth and Paper Belts or any size belt you may require and MUCH MUCH MORE!!

Call For Price Quotes • Orders • Free Catalog

Please add \$5.50 S & H / PA Residents add 6% Sales Tax

• Money Orders • Checks

1-800-428-2222

Mon. - Fri. 8am - 4:30pm EST

Fax: 1-610-378-4868

Anytime

INDUSTRIAL
ABRASIVES CO.

642 N. 8th St. Dept. W
P.O. Box 14955
Reading, PA 19612

Circle No. 1238

ASK WOOD

Continued from page 92

It's the same wood, but stains differently

I recently built a lectern for a church using red oak and red oak plywood. When I applied natural Danish oil finish, the plywood remained much lighter than the solid wood. Why does this happen and what can be done to solve the problem?

—Jack Horrocks, Cincinnati, Ohio

It happens, Jack, because solid wood and plywood veneer are cut differently, and hence have different porosities. Solid wood is more porous than veneer, so it soaks up more finish and, consequently, more color. Since you've already sealed both the wood and the plywood, your best bet is to even out the color difference with a pigmented surface coating such as varnish or lacquer. Experiment with sealed scraps of plywood until you get a hue that matches the solid wood. If a future project calls for "marrying" plywood and solid stock, try staining with an aniline dye or gel stain; these let you control color by the amount you wipe off. 🌲



Woodshop Solutions.

FACTORY SAVINGS UP TO 60%

100% USEABLE SPACE!

Now is the time to build the workshop of your dreams. Get the protection and work space you need with an affordable SteelMaster Building - the strongest, most flexible clearspan protective shelter money can buy. Expertly crafted and easily assembled for years of maintenance-free enjoyment.

HUGE FACTORY DISCOUNTS GOING ON NOW!



FREE SUBSCRIPTION

9 FREE ISSUES

of BETTER HOMES & GARDENS

WOOD

with your purchase.



RESIDENTIAL & COMMERCIAL USE

SAVE ON SELECT SIZES

25x24 • 30x46

40x56 • 50x116

- **FREE Storage**
- **Immediate Delivery**
- **100% financing available**
- **Heavy Wind & Snow Loads**
- **FREE State Certified Blueprints**
- **Superb Quality - 20 Year Guarantee**
- **Easy do-it-yourself construction**



Call Toll Free: 1-800-888-4606

STEELMASTER. for a FREE COLOR CATALOGUE

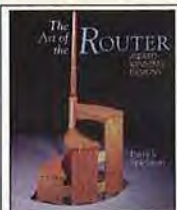
Circle No. 2030



JESADA TOOLS™

Premium router bits made in the United States of America

Mirror-finish grinding makes other router bits obsolete!



144 pages of color photos, detailed plans and drawings.
AOR-001 \$19.95

By Patrick Spielman, author of *The Art of the Router* and more than 50 other woodworking books. How smooth is the carbide on a Jesada tool? So smooth, so precise and so highly-polished that you'll have to see it to believe it! Jesada bits and cutters were recently tested for the

quality of the carbide surface's finish. The results were comparable to the finest polished glass mirrors, and that's a finish you will not find anywhere in the industry.



655-502
Jesada's 1/2" shank, 2" diameter **Lock Miter Junior Bit** joins wood 3/8" to 1 1/16" thick.
List: \$84.90
Sale: \$69.40

How does Jesada achieve such a superb finish? It takes a combination of the right tools, the right techniques and above all, patience. Jesada has made a huge investment in the finest grinding equipment available anywhere: the 5-axis computerized grinder. They've equipped these machines with the highest quality diamond grinding wheels. They use only a 100% oil-based coolant as opposed to the more common water-based coolants. And they take their time, lots of time!

The Rabbeting bit shown below is a great



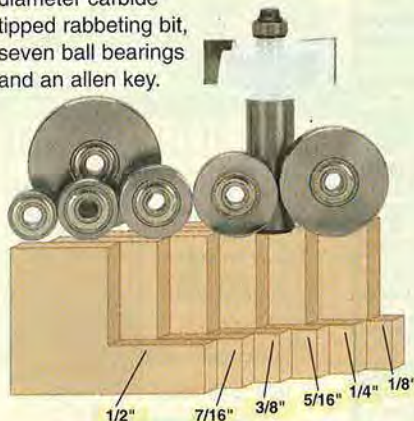
Jesada bits take up to 6 times as long to grind as our competitors' bits, but the difference shows in the performance. Of course, Jesada bits have lots of other features too!

The color white on router bits is a trademark of Jesada Tools.

example. This bit takes about 4-1/2 minutes to grind to a mirror finish. Jesada's competitors may take as little as 45 seconds on a rabbeting bit. That may make their bit cheaper than Jesada's, but the difference shows up in the performance of the tool. First, a polished surface allows for a finer cutting edge, so Jesada bits cut cleaner and longer than tools with a more-coarse finish. Second, the highly polished surface sheds most of the pitch and gum that would cling to the imperfections of a coarse surface. Could Jesada grind the bit in 45 seconds? Sure, but they would never be satisfied with the results, and I don't think you would be either.

Is a mirror finish worth all this extra effort? I'm sure that it is, but I think you should convince yourself. Why not try one of the specially-priced sets on this page.

Jesada's **Rabbet-Master Plus™ Set** would be an ideal choice. This set cuts rabbets from 1/8" to 1/2" deep & flush trims as well! The set includes an 1-3/8"-diameter carbide tipped rabbeting bit, seven ball bearings and an allen key.



Item	Description	List.	Sale
600-639	1/4" Shank Rabbet-Master Set	\$51.30	\$38.90
600-640	1/2" Shank Rabbet-Master Set	\$53.90	\$39.90

Perhaps you're one of thousands of woodworkers who already have a Rabbet-Master Plus™ Kit, or maybe you just need a different selection of bits. You can evaluate Jesada quality with a money-saving **Three-bit Set**. These sets include three of Jesada's most popular bits at about half the regular catalog price. You'll get a 1/4" radius Roundover, 1/2" diameter Straight and a Flush Trim bit with micrograin carbide edges, mirror-finish grinding and Jesada's white PTFE coating.



Item	Description	Reg.	Sale
600-701	1/4" Shank 3-bit Set	\$69.60	\$34.90
600-702	1/2" Shank 3-bit Set	\$72.70	\$36.90

Or choose one of Jesada's **Ply-Groove™ Sets** These sets are the solution to the problem of sloppy plywood joints. Use 23/32" bits for 3/4" plywood, 31/64" for 1/2" and 15/64" for 1/4". Each set includes bits that match up to the real size of 1/4", 1/2" and 3/4" plywood.



Item	Description	List.	Sale
600-624	1/4" Shank Ply-Groove Set	\$61.20	\$45.90
600-625	1/2" Shank Ply-Groove Set	\$65.90	\$49.90

Whatever bits you choose, I think you'll agree that Jesada quality makes old fashioned bits obsolete!

Complete online catalog!

<http://jesada.com>

E-Mail: jesada@packet.net

Call for our Free Catalog



\$5.90 shipping & handling on all orders

To order, call toll-free 24-hours:

1-800-531-5559

Toll Free FAX: 1-800-870-7702

Export orders: (813) 891-6160 FAX: (813) 891-6259

JESADA TOOLS,

310 Mears Boulevard, Oldsmar, FL 34677



In Canada: 1-800-387-7005




In the U.K.: 0800 371822



In Australia: 1300 301335

Woodworker's Marketplace

This section features advertisers offering products by mail. Additional information can be found in the Woodworker's Resource section. Please contact the advertiser directly or use the Circle No. to the right of each ad to request information through the Woodworker's Resource envelope.

 Print this article

WOODCRAFTERS OF OKLAHOMA

LARGEST & BEST SELECTION ANYWHERE:

- Turning Tools
- Pens & Pencils
- Turning Blocks & Squares
- Pen Blanks



FREE CATALOG

116 S.E. 74th • Oklahoma City, OK 73149

TOLL FREE 888-333-7513

Circle No. 2195

OVER 1500 PATTERNS

Huge variety of FULL SIZE woodcraft patterns!

Fun • Profitable • Fast Service • Guaranteed

Pick from our most popular pattern sets & order today!

EACH SET INCLUDES:

- 125 Pattern BEGINNER'S BONANZA plus "Shop Secrets".
- SHOW STOPPERS II-22 Craft Show best-sellers!
- 25 fun & profitable "wind-action" WHIRLIGIGS.
- YARD CHARACTERS- Amish, Dutch, bending lady, more!
- Eye-catching DUTCH WINDMILL- 5 feet tall.
- COUNTRY CRITTERS- 100 Patterns, decorative projects.
- Over 30 CHRISTMAS decorations & centerpieces!
- 200 CREATIVE CUT patterns for scroll, band or jigsaw.
- Decorative country SHELF ASSORTMENT, many options!
- COUNTRY CLASSICS- 25 top-selling country designs.
- Create over 20 "Quick & Easy" BIRD HOUSES.
- 100 YARD ORNAMENTS- Animals, bird, signs & more!

FREE S&H!

ACCENTS
Dept. MA118
P.O. Box 7387
Gonic, NH 03839

Send \$8.00 per set or...SAVE 1
Pick 3 for \$19.50 • 6 for \$36.00
or All 12 for only \$60.00!!!

CALL TODAY!
24 Hr. Fax-Voice Mail
(603) 332-4579
Mention offer # MA118

ILLUST. CATALOG \$2.00 (Free W/Order)

HEIRLOOM TOYS



- New catalog.
- Original designs by professional toy maker-plans & kits.
- Collectors' and children's toys
- Catalog \$3 or free with order
- Special Offer: Send \$19.95ppd for Train Engine, Coal Car and Track Plans (height 14", length 60")

Baldwin Toy Co., Inc.
P.O. Box 390484 Omaha, NE 68139-0484
Dept. WD10

Circle No. 310

Circle No. 320

It's Your TURN To Make Pens In 2 Minutes



The WoodWrite Mini-Lathe Model 160 (shown) comes assembled, mounted, aligned and ready to run. Complete with: 1/3hp AC Induction motor; 400-5700 rpm; 16-1/2 inches between centers; 5-1/2 inch swing over bed; E-Z Glide crank; tool mount & carbide tipped cutting tool; exclusive high efficiency dust collection manifold. Model 260 - all of the above PLUS a motorized saddle drive. Model 360 - same as the 260 PLUS automatic stop switches on head & tail stocks. Call, write, or Fax for details.

2121 Abell Lane, Sparks, MD 21152 USA
Tel: 1-888-966-3974 or 410-771-4444
Fax: 410-771-4879
e-mail: woodwrite@worldnet.att.net
www.WoodWriteLtd.com

WoodWrite Ltd.

Circle No. 2098

GUARANTEED LOWEST PRICES



Other Shapes Available

BUILD A BETTER BUILDING

- Easy to Assemble
- Quick Delivery
- Built to Last
- Straight Sides
- Trussless
- All Steel
- 20 Year Guarantee

HUGE SAVINGS

FACTORY DIRECT
1-800-668-5422

Sizes 500-20,000 sq. ft.


Strongest for Wind & Snow
Heavy 22, 20 & 18 ga. steel
Maintenance Free

SALE PRICE
FOR EXAMPLE-25' X 40'
\$3,844
FRONT ENDWALL NOT INCLUDED

STEEL BUILDINGS <http://www.pioneersteel.com>

Circle No. 1986

this fine project



JAMESTOWN DISTRIBUTORS
BOATBUILDING WOODWORKING

this free catalog

fasteners - finishes - hardware - hand tools - sandpaper - and much more

Jamestown Distributors
800-423-0030

Boatbuilding and Woodworking Supplies to the Trade and Craftsmen
28 Narragansett Ave., P.O. Box 348, Jamestown, RI 02835 - Fax 800-423-0542

Circle No. 2438

FREE TOOL CATALOG

Helping You Become a Better Woodworker



highland hardware

Our giant tool catalog gives more than just manufacturer's specs. We provide detailed tool descriptions, useful techniques, as well as a schedule of educational seminars.

Call toll free for FREE catalog
1-888-500-4466

Visit us on the internet at <http://www.highland-hardware.com>

Circle No. 870

Save Money— saw your own lumber



With a Wood-Mizer!
LT15 Personal Sawmill

- Cut logs up to 28" D. x 9' L.
- Extra bed sections permit longer lengths.
- Easily transportable.

\$495

(Shown with optional loading ramp.)

Free \$2 Catalog

Wood-Mizer®

8180 West 10th Street Dept. QQ122
Indianapolis, IN 46214-2400
www.woodmizer.com

*With purchase of All Products Value \$10

1-800-553-0219

Circle No. 84

FREE TOOL CATALOG!



Your Best Work Starts With Us!

With over 6,000 of the finest woodworking tools in the world, Woodcraft can help you work more efficiently and skillfully than ever. Call for your Free copy today.

1-800-542-9115

WOODCRAFT®

Helping You Make Wood Work™

www.woodcraft.com

210 Wood County Industrial Park Dept. 98W111S
PO Box 1686, Parkersburg, WV 26102-1686

Circle No. 955

400,000RPM Air/CO2
**Hand Inlay, Engraving
& Fine Relief Carving.**
simple as tracing lines



ULTRA SPEED PRODUCTS, INC.
18500 E. ASCHOFF, ZIGZAG OR 97049
503-622-4387 FAX 503-622-3252

www.mornet.com/ultraspeed

\$170(delivered) includes handpiece, foot control, air filter, video, 2 burs, lubrication system, stencil sample, operators manual and bur catalog.

Video is available for a refundable \$14 + \$3 S&H

Circle No. 2185

Smithy 3-in-1 Lathe•Mill•Drill Benchtop Machine Shop

Do your own repairs and machining!

Affordable—4 models starting at **\$995**

Easy to use—FREE training

Versatile—make or fix anything out of metal—and wood, or plastic



FREE CALL TODAY!

"I can fix most anything. Now I don't know how I lived without it. It paid for itself in no time."

1-800-345-6342

Dept. WOODM PO Box 1517
Ann Arbor, MI 48106-1517

for "Metalworking Basics" Catalog

Quality Kiln Drying

It's Easy and Affordable with a Nyle DH Kiln! Made in USA

Call for free facts on our compact, easy to use dehumidification kilns.

800-777-NYLE

<http://www.nyle.com>

EASY PAYMENTS AVAILABLE



FREE Booklet!

To learn more about drying lumber, call for a FREE copy.

nyle
DRY KILN SYSTEMS

PO Box 1107 Bangor ME 04402-1107



Kilns from 300 BF and up!



Circle No. 1260

Schlabaugh & Sons Woodworking

720 14th Street Kalona, IA 52247
1-800-346-9663 e-mail schsns@kctc.net



Free Catalog

Item #200920
2 3/4" clock mvmt.
\$9.95 plus \$3.95 S/H

*** FOR IMMEDIATE SHIPMENT ***

Plan for this clock shown in "WOOD" Sept. 1996
Clock designed by Denis Sutter

Circle No. 2385

Full Size Holiday Plans Free Catalog With Order



Deer Plan # 538 Angel Plan # 544

Easy to make with 3/8" plywood and sabre saw. Full size plans. Both approx. 47" tall.

Price \$11.75 each or buy both for \$19.00

Charge orders call 1-800-292-8296

Armor Box 445 E.Northport NY 11731

Circle No. 315

Full-Size Professional Plan ADIRONDACK CHAIR



Make this classic American design. Our special version may be folded for storage by using ordinary hardware available at your local store. Be ready for summer and get your plan now!

Plan #700 \$18.50
(catalog free with order)



CATALOG 200 full-size professional furniture plans — \$3.00

Since 1968, the best plans available

FURNITURE DESIGNS, INC., Dept. BA-118
1827 Elmdale Ave., Glenview, IL 60025 — 800-657-7692
www.furnituredesigns.com

Circle No. 345

RIP SAW

The Portable Sawmill.

The "affordable portable" one man band sawmill. Weighs only 45 lbs. Cuts 20" diameter logs into lumber. Minimum 1/8" to maximum 9" thickness. 14"W x 9"H throat capacity. Write or call for free brochure. Videos also available.

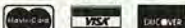


Better Built CORPORATION

978-657-5636

789 Woburn St., Dept. WD11, Wilmington, MA 01887

Fax: 978-658-0444



STAIRWAYS inc.

— ANY SIZE —

STEEL • ALUMINUM • WOOD
BRASS • STAINLESS

Shipped in a Complete Unit or Kit
\$425 & Up

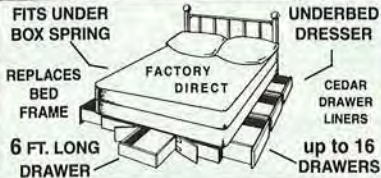
Free Brochures

TOLL FREE

(1-800-231-0793)



**Anderson™
BEDROOM ORGANIZER**



PUT A DRESSER UNDER ANY BED

Increase drawer storage with this beautiful, top quality, solid wood, dust proof, underbed dresser. Fits under any mattress. Shipped UPS
ORDER 48 PAGE CATALOG 621

1-800-782-4825

Circle No. 1795

**WOOD
TOY**

- ★ Patterns
- ★ Parts
- ★ Wheels
- ★ Many New Patterns to Choose from.
- ★ Executive toys

SEND \$1.00 FOR NEW CATALOG

toys and joys

Box 628 w Lynden, Wash. 98264



Circle No. 465

The Cutting Edge Presents



Complete with Body, 3 Balls & Adaptor
\$299.99

The NEW Ball-&-Socket Chuck by Jean-Francois Escoulen allows full rotation of the turned work for unique results!

7123 SouthWest Fwy
Houston TX 77074

Info: 713/981-9228

Order: 800/790-7980



www.cuttingedgetools.com

Circle No. 2180

**FUTURE STEEL
FACTORY-DIRECT WHOLESALE PRICES!!**



Many Models & Sizes Available
Ideal Multi-Purpose Structures
All-Steel 100% Clear-Span Interior

Easy Self-Assembly for the "Do-it-Yourselfer"

1-800-668-5111 ext.1333

Circle No. 1945

SAWMILLING WITH A BAKER PORTABLE BAND SAWMILL IS NOW FASTER THAN EVER!

16 ft. and 24 ft. Models Available



16 ft. model shown here with 38HP diesel engine

Sunbelt Ag Expo
Oct. 20-22
Moultrie, GA
Booths 46 thru 49

Gasoline, Diesel, or Electric Power

- Variable-speed drive
- Faster log handling
- Easy-to-read round measurement dial
- Dual chain-driven carriage
- Improved fence arms
- Saws into clean wood--not the bark
- Improved leveling system
- Improved bunk spacing and much more

BAKER

Products
SAWMILL DIVISION

P.O. Box 128
Ellington, MO 63638
Fax: (573) 663-2787
www.baker-online.com
(573) 663-3133

Free Sale Flyer

Cabinet and Furniture Hardware

Woodworker's Hardware has the largest selection of cabinet hardware in the industry.

Our Sale Flyer features many highly sought after woodworking products to fit your needs. Call today for a FREE copy.



PO Box 180 Sauk Rapids, MN 56379
24 HOUR FAX: 800-207-0180

800-383-0130

Mention offer #648

Circle No. 960

**YOU CAN BUILD
A WOODEN SHIP
MODEL!**



Even if you've never built a model before- or never thought it possible- you can build a museum quality replica... a valuable keepsake to be treasured for generations. Unleash your creativity and engage your imagination with an accurately scaled and detailed ship model you've built yourself. Kits are complete with laser cut bass-wood parts, Britannia metal and brass fittings, easy instructions.

Send \$1.00 for our 96 page color catalog showing the finest selection of historic ship model kits, fittings, tools and books. There's something for everyone- from beginners to expert modelers. Choose from elegant clipper ships to magnificent warships, some over four feet long. Prices from \$50.00 to \$700.00.

Send \$1.00 to:

Model Expo, Inc. Dept. WDB8
P.O. Box 229140, Hollywood, FL 33022

Name: _____
Address: _____
City: _____
State: _____ Zip: _____

Visit our new Web site at:
<http://www.modelexpoinc.com>
© Model Expo, Inc. 1997

Circle No. 1075

WOOD MOISTURE METERS



- For the Woodworker -
Moisture problems such as shrinking or warping can ruin the best piece ever built. Measure the moisture with a moisture meter to be sure the wood is dry. Call for new color brochure.

- Lignomat USA -
Po Box 30145
Portland, OR
97294 -- USA

Lignomat :: 800-227-2105

Circle No. 1250



We've got quartz and mechanical clock movements, fit-ups, hardware, plans, tools and more! Call or write for your FREE catalog, #BHW2

S. LaRose, Inc.
3223 Yanceyville St.
Greensboro, NC 27405
Phone: (336) 621-1936 • www.slarose.com
E-Mail: SLAROSE@worldnet.att.net

Circle No. 2375

**MAKE YOUR OWN
WIND-POWERED TOYS!**

**EASY-TO-MAKE
WHIRLIGIGS**

Anders S. Lunde

Easy-to-follow, illustrated manual features models for whimsical, wind-powered toys: Flying Puffin, Halley's Comet, Colonial Dame, more. Inexpensive to make; only simple tools needed. 112pp. 8 1/2 x 11.

28965-6 Pa. \$7.95



Over two dozen models!

To Order: List title, author, and code number. Add \$5.00 s & h. NY residents, add sales tax. Send to: Dover Publications, Dept. WM, 31 E. 2nd St., Mineola, NY 11501.
FREE Dover Crafts and Woodworking Catalog (59111-5) available upon request.

Circle No. 1118

**WIRELESS
DRIVEWAY ALARM**



A bell rings in your house anytime someone walks or drives into your place.

- Free Literature -

A complete line of wireless security equipment.

DAKOTA ALERT, INC.

BOX 130, ELK POINT, SD 57025

Ph: 605-356-2772

Circle No. 1914

Steel Buildings

**FACTORY DISCOUNTS
UP TO
\$5,000.00!**

Ideal for:

- Storage of sporting equipment, home improvement supplies, boats and autos
- As a workshop for the do-it-yourselfer
- As a small business location

Limited Time Offer

800/891-6733 ask for ext. 1118

visit our website - www.steelspan.com



Models Included
20 x 30
25 x 40
30 x 60
45 x 75
51 x 100
55 x 125
other sizes available

CONSTANTINE WOODWORKER'S CATALOG

Over 5000 products to BUILD, REPAIR, RESTORE, REFINISH anything made of wood!

104 pages jam-packed with fine woods, veneers, tools, finishing supplies and more - shipped fast and fully guaranteed, at discounts of 5% to 15% on orders of \$50 or more!



CONSTANTINE

Serving Woodworkers for 186 years

Dept. 35811, 2050 Eastchester Rd., Bronx NY 10461

CALL TOLL FREE **1-800-223-8087**

Circle No. 820

Heavy Glass Table Tops

FACTORY DIRECT DISCOUNT PRICING



- Table Tops
- Shelves
- Doors
- Display Cases
- Entertainment Centers
- Tempered Glass

TABLE TOPS BY PHONE

SATISFACTION GUARANTEED!

WGB GLASS ■ SHAPES ■ THICKNESSES ■ EDGE DESIGNS

FOR FREE IDEA CATALOG AND PRICE LIST SEND POST CARD TO:

WGB GLASS 19785 W. 12 MILE RD., STE. 357 SOUTHFIELD, MI 48076

TO PLACE ORDERS: CALL 1-800-288-6854

Circle No. 2079

Be a Furniture Restoration Specialist Discover Minuteman

Complete Shop Concept

Strip • Repair

Touch-Up • Fake Grain

Marbelize • Resilver • Refinish

Duplicate Parts • Repair Frames • Veneer

Why Minuteman?

- Proven, Low-Risk, Cash Return
- Low Start-Up Costs; Expert Training
- Environmentally Friendly System
- Wholesale Supplies
- Handy Sample Kits Available
- Systems From \$1,500-\$11,000
- 28 Years Experience; 3,000+ Shops

No Experience Necessary
♦ Part-Time, Full-Time ♦
Ideal for Men & Women

FREE 2-Day Business Exploration Seminar

No Obligation to buy!

Register Now - Limited Seating!

Call For FREE Catalog

MINUTEMAN, INC.

Ste. 17, P.O. Box 8, Waterloo, WI 53594

1-800-733-1776

Circle No. 1661

Quality MECHANISMS For Making WOODEN BARREL

- Pens
- Pencils
- Roller Balls
- Fountain Pens

plus other related items.

Wholesale/Retail

Call or Write:

BereaHardWoods.co

6367 Eastland Rd. Brookpark, Ohio 44142

440-234-7949 Master Card/Visa

Circle No. 510

SQUARE DRIVE SCREWS



Simply the Best

Square Drive Beats Driver Slippage
Deep Thread for Super Grip
Hardened Steel for Superior Strength
Made in the US or Canada!

Send \$5 for Samples, Catalog, & \$5 Off Coupon

McFEELY'S PO Box 11169 • Dept WD
SQUARE DRIVE SCREWS Lynchburg • VA • 24506-1169
Call Toll Free: **1-800-443-7937**

Circle No. 2450

Supergrit® SANDPAPER HOOK & LOOP



4 1/2"	8 Hole	\$12.00/50
5"	5 or 8 Hole	\$12.50/50
6"	6 Hole	\$17.50/50
5"	Solid "E"	\$15.00/50
6"	Solid "E"	\$18.00/50
12"	Solid "E"	\$12.00/6

BELTS—A.O. RESIN SHEETS—9" x 11", A.O.

1 x 30 \$.75	4 x 24 \$ 1.10	60D, 80D \$14/50
1 x 42 \$.75	4 x 36 \$ 1.40	120C, 150C \$23/100
3 x 21 \$.85	6 x 48 \$ 3.50	180A, 220A \$19/100
3 x 24 \$.90	6 x 89 \$ 6.20	ABRASIVE ROLLS

RED HILL CORP.
P.O. BOX 4234

FREE 28 PAGE CATALOG
& Incredible close-out sheets.

GETTYSBURG, PA 17325 800-822-4003

Circle No. 1267

VAN DYKE'S RESTORERS®

Supplies for woodworkers and antique restorers

These handsome hanging wall pockets are a Van Dyke's exclusive. Showcase your favorite photograph or print in this handy accent piece. 21.5" X 25.5". Kit comes in unfinished solid oak. Call or write for our FREE 288 page catalog.



WB-S6253 - Wall pocket \$35.95 each

3 or more \$32.35 each

Order Toll Free **1-800-558-1234**

VAN DYKE'S RESTORERS

Dept. 60048, P O Box 278

Woonsocket, SD 57385

Circle No. 2077



Add that Distinctive Look to your woodworking projects. Quality handcrafted yet reasonably priced panels. Many finishes & designs. Do it-yourself materials & kits, too! Large colorful catalog \$5.00/catalog with 12 pc. sample pack \$19.95 ppd.

MasterCard/Visa accepted.

pierced tin

Country Accents® P O Box 437, Dept. WD-98, Montoursville, PA 17754 • Ph. 717-478-4127 • M-F 9-5

Circle No. 1910

The Japan Woodworker's Catalog is . . .

loaded with the best tools you can get your hands on. In our catalog you will find a huge selection of Japanese saws, waterstones, chisels, planes, carving tools, cutlery and books. Send \$2.00 for our catalog and supplements during the next two years.

THE JAPAN WOODWORKER

1731 Clement E-32, Alameda, CA 94501
Phone 1-800-537-7820

Circle No. 190



AMAZING SCROLLSAW FRETWORK PATTERNS

Easy to advanced designs

Clocks
Photo frames
Jewelry boxes
Candle holders
Furniture



Silhouettes on Christmas Religion Farming Western Transportation Nature & more.
Saw blades Books

Clock movements Plywood

1-800-470-9090 Wildwood Designs
P.O. Box 676-Wood
Richland Center
WI 53581

FREE catalog



GREETINGS

Circle No. 475

Free Workshops • Prizes • Hundreds of Products • Seminars by Mastercraftsmen

See the Widest Variety of Woodworking Products All Under One Roof!



★THE WOODWORKING SHOWS★
tools • supplies • education

THE NATION'S PREMIER WOODWORKING TOUR

VISIT THE SHOW NEAR YOU!

- Atlanta
- Baltimore
- Charlotte
- Chicago
- Cleveland
- Colorado
- Columbus
- Dallas
- Detroit
- Houston
- Indianapolis
- Kansas City
- Massachusetts
- Milwaukee
- New Orleans
- No. California
- North Jersey
- No. Virginia
- Phoenix
- Portland
- San Diego
- Seattle
- So. California
- St. Louis
- Tampa
- Twin Cities
- Winston-Salem
- plus others

Call for free brochure Monday - Friday 8:30 am - 5 pm Pacific Time
1-800-826-8257 or 310-477-8521 e-mail: woodshow@earthlink.net

BUCKBOARD BENCH KIT & BUCKBOARD WAGON KIT



40" X 22"



42" X 22"

BENCH KIT includes authentically designed steel springs, steel arms & backrails. \$49.00 (Oak cut to size & drilled \$70.00 additional)

WAGON KIT includes 5th wheel hitch, steel axles, bolster brace & angle braces. Also includes springs for miniature buckboard bench. \$49.00 (High impact rubber tread wheels \$30.00 additional).

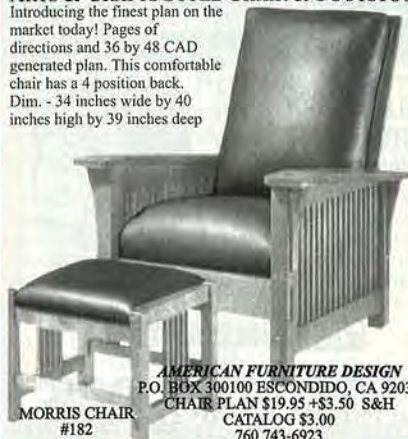
Both kits include complete hardware, full size plans with detailed instruction. Quantity discounts available.

The Roudebush Company
PO Box 348A, Star City, IN 46985
800-847-4947

Visa, MC accepted. Price includes shipping UPS

ARTS & CRAFTS STYLE CHAIR & FOOTSTOOL

Introducing the finest plan on the market today! Pages of directions and 36 by 48 CAD generated plan. This comfortable chair has a 4 position back. Dim. - 34 inches wide by 40 inches high by 39 inches deep



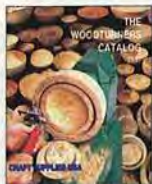
AMERICAN FURNITURE DESIGN
P.O. BOX 300100 ESCONDIDO, CA 92030
CHAIR PLAN \$19.95 +\$3.50 S&H
CATALOG \$3.00
760 743-6923

MORRIS CHAIR #182

Circle No. 1085

Circle No. 314

THE WOODTURNERS CATALOG



Features:
Woodfast Lathes
Vicmarc Mini Lathes
Artisan™ Pen and Project Kits
Henry Taylor Tools
McNaughton System
Dale Nish Workshops and much more....

Craft Supplies USA is the **Number One** source for the finest woodturning supplies, tools, and workshops with unsurpassed prices and service.

CALL TOLL FREE **1-800-551-8876** TO ORDER
a FREE 88-page color copy of The Woodturners Catalog

CRAFT SUPPLIES USA 1287 EAST 1120 SOUTH PROVO, UT 84606

Circle No. 830

SAVE 25%-60% HARDWOOD SALE!

Mix or Match for Your Best Price
100 Board Feet Your Best Buy!

OVER 100 WOODS AVAILABLE

Description	Sale	20+	100+
PURPLE HEART	\$3.99	\$3.59	\$3.41
JATOBA (Brazilian Cherry)	\$3.99	\$3.59	\$3.41
AFRICAN PADUAK	\$6.74	\$6.07	\$5.76
MAHOAGANY (6'-7' lengths)	\$3.99	\$3.59	\$3.41



WOODWORKERS SOURCE
IT IS FAST AND EASY!!

800-423-2450

www.woodworkerssource.com

YOUR SATISFACTION GUARANTEED!!

Circle No. 598, 2090

Woodworking on the World Wide Web

Better Homes and Gardens®

WOOD ONLINE™

A WOODWORKING INFORMATION SERVICE FROM THE EDITORS OF WOOD® MAGAZINE

<http://www.woodmagazine.com>

FROM LOG TO LUMBER

with the *Alaskan Saw Mill* attachment
(available in 24", 30", 48" and 56" sizes)

As seen in June 97 issue of Wood Magazine

CUT LUMBER ON SITE WITH THE ALASKAN MKIII: BEAMS, BOARDS, SIDING AND CUSTOM CUTS.

RIPPING CHAIN AND OILER KITS ALSO AVAILABLE



GRANBERG INTERNATIONAL
PO BOX 425 RICHMOND, CA. 94807-70425
PHONE 510.237.2099 OUTSIDE CA. 800.233.6499
FAX 510.237.1667
E-MAIL granberg@aol.com
<http://www.granberg.com>

Circle No. 52

Wiper Blade Sharpener!

Improve Blade Performance for Clearer/Safer View.

\$12.95 each
Add \$3 S&H (per order)



Order Toll Free

800-380-3630

- Makes Wiper Blades Last Up To 24 Times Longer
- No Streaking and Squeaking
- Save Money, Time, and Maybe Your Life

or Send Check or Money Order to Easy Sharp: 127 W. Fairbanks Ave. Suite 505 /Dept. WN98 Winter Park, FL 32789

Code WN98

Circle No. 1923

Make Your Workshop PAY OFF BIG!



NOW! Plane, Mold, Sand and Saw with Infinitely Variable Power-Feed!

30-Day Free Trial!

FREE FACT KIT

1-800-821-6651 ext. PW31
WOODMASTER TOOLS, INC., DEPT. PW31
1431 N. TOPPING, KANSAS CITY, MO 64120

FORREST'S BUY ONE & SAVE - BUY MORE & SAVE MORE SALE THRU 12/31/98

Buy any sawblade or dado in this ad and save 10% off the sale price! Buy additional sawblade(s) or dado(s) and save even more! 15%-20%!
 EVES. & WEEKENDS LEAVE MESSAGE **Call Forrest now for details — (800) 733-7111 or (973) 473-5236** NEW WEEKDAY HOURS 9 AM - 6PM EST

EXCLUSIVE! FREE OFFER

\$23 Value!

144 pages full of photos! Checklists to help you keep every power tool in your shop working perfectly. A find-it-fast trouble-shooting chart tells you how to identify and fix problems. Easy-to-follow photo sequences show you how to get exact alignment every time.



Published by Popular Woodworking
 Author - Sal Maccarone

OR 300 Great Shop Tips or Forrest Logo cap FREE with any saw blade or Dado listed & purchased from this ad. You must mention you saw this offer in WOOD® Magazine, when ordering.

Offer Expires Dec. 31, 1998. One book per order.
ORDER NOW SUPPLIES ARE LIMITED.

FREE shipping thru 12/31/98 **FREE \$45 in sharpening coupons** with each order placed by 12/31/98

Mention Wood® Magazine to receive discount and free coupons and free shipping
Coupons valid thru 12/31/2000 and good on all makes of carbide blade and dado set sharpening.

WOODWORKER II — 6" - 7 1/4" - 14"

With this one ALL PURPOSE blade you can RIP & CROSSCUT 1"-2" ROCKHARDS and SOFTWOODS resulting in a SMOOTH AS SANDED surface. PLY-VENEERS of OAK and BIRCH will crosscut with NO BOTTOM SPLINTER at moderate feed rates.

- DOUBLE HARD and 40% STRONGER C-4 CARBIDE
- Ends blade changing
- Ends scratchy saw cuts
- Ends second-step finishing
- Ends cutting 1/4" oversize to allow for RESURFACING
- BUY AND SHARPEN 1 BLADE INSTEAD OF 3

5/8" holes, boring thru 1-1/4" add \$7.50. Larger at Time Basis — Shipping \$4.50

WOODWORKER II	LIST	SALE	10%	20%
14"X40TX1"	\$215	\$149	\$134	\$119
14"X30TX1"	\$195	\$139	\$125	\$111
12"X40TX1"	\$183	\$129	\$116	\$103
12"X30TX1"	\$162	\$119	\$107	\$95
10"X40TX1/8" or 3/32"	\$156	\$119	\$107	\$95
30T 1/8" or 3/32"	\$135	\$99	\$99	\$79
9"X40T	\$146	\$109	\$98	\$87
30T	\$125	\$99	\$89	\$79
*8-1/4"X40TX 3/32"	\$136	\$99	\$89	\$79
8"X40T 3/32"	\$136	\$99	\$89	\$79
30T	\$115	\$89	\$80	\$71
7-1/4"X30T 3/32"	\$112	\$69	\$62	\$55
**6"X40T 3/32"	\$136	\$89	\$80	\$71

*NEW for Sears & Makita Table Saws **New For Saw Boss

\$21 VALUE **FREE 10" ORANGE PLASTIC BLADE RUNNER-CARRIER!**
SHIPPED WITH 6", 8" & 10" DADO SETS. HOLDS UP TO 10 BLADES, 5 PER SIDE ON CENTER BOLT OR DADOS.

DELUXE DADO-KING!

AS LOW AS \$184 NET

AFTER USING SHARPENING COUPONS

WORLD'S NO. 1 DADO - NO CHIP ON PLYS & MELAMINE



C-4 Carbide Tips — 4 on each chipper with special negative face hooks. Shims & 3/32" Chipper. Cuts 1/8" to 29/32" wide!!

	LIST	SALE	10%	15%
6" D. 5/8" Bore NEW	\$299	\$269	\$242	\$229
8" D. 5/8" Bore	\$321	\$289	\$260	\$245
10" D. 5/8" & 1" Bore	\$389	\$349	\$314	\$297
12" D. 1" Bore	\$499	\$449	\$404	\$382

(Bore up to 1-1/4" Add \$25 — Plus \$5.50 S&H)

CUTTING PROBLEMS?

Call the factory for **FREE technical help!!**
1-800-733-7111

973-473-5236

FLASH NEWS!!

OUR \$79 - \$89 30T & 40T OUTPERFORMED (E-EXCELLENT) 23 other 40T & 50T premium blades both foreign & domestic on Ply, Melamine, MDF and Oak/Rip!

Editors' Choice and Top Rating over 18 competing combo saw blades!
 "The 10"x40T earns our Editors' Choice award for the best performance, regardless of price. The 10"x40T produced super-smooth ripped edges in 3/4 in. pine and oak, with absolutely no saw marks visible to the eye...we also got excellent crosscuts, surpassed only by an 80-tooth dedicated crosscut blade."
See American Woodworker April 1998, pp. 64-69.

BLADE DAMPENERS-STIFFENERS

FOR BETTER CUTS on all brands of blades, use our large 1/8" DAMPENERS-STIFFENERS against one side.

4"	\$21
5"	\$24
6"	\$25

7" AND LARGER AVAILABLE
REDUCES NOISE 50%-75%

CHOPMASTER FOR SLIDING COMPOUNDS & MITER SAWS

New specs, 5° Neg. Pts. & flat, runs out less than .002 for perfect, tight, smooth, splinter-free miter joints.

TAKE EXTRA 10% - 20% OFF COMBO SALE!

NEW SIZES AVAILABLE	LIST	SALE
Delta Sidekick 6-1/2"x40T x 5/8"	\$149	\$ 89
Sears 8-1/4" & Delta 8-1/4"x60T x 5/8"	\$170	\$ 99
Hitachi 8-1/2"x60T x 5/8"	\$179	\$109
DeWalt 8-1/2" & Ryobi 8-1/2"x60T x 5/8"	\$179	\$109
Delta 9"x80T x 5/8"	\$204	\$119
Ryobi-Makita & all 10"x80T x 5/8"	\$207	\$129
DeWalt, Makita, B&D, Hitachi 12"x80T x 1"	\$229	\$139
Ryobi-Makita 14"x100T x 1"	\$266	\$179
Hitachi 15"x100T x 1"	\$277	\$189

For good general purpose cuts use Woodworker II 30T & 40T or Woodworker I. Use small stiffener where possible.

In Stock Blades made for Special Uses:
 • Gang Saws • Panel & Scorer • Picture Frames (Miter-Master)
 • Solid Surface • Thin Rim • Plastic/Acrylic (No-Melt)
 Also made to order Blades available within 3 weeks, at competitive prices!

THE ONE BLADE THAT LEAVES A SMOOTH-AS-SANDED SURFACE!

SAVE ANOTHER \$45.00
 AFTER USING 9 - \$500 SHARPENING COUPONS USE 1 PER BLADE OR DADO

WOODWORKER I — CROSSCUT — 7 1/4" - 14"

For TABLE and RADIAL SAW — 10% to 20% NON-SPLINTERING PLYS

	LIST	SALE
14"x60TX1"	\$224	\$159
12"x60TX1" or 5/8" 1/8"K	\$198	\$139
10"x60TX5/8" 3/32"K	\$162	\$129
8-1/4"X60T	\$150	\$109
8"X60T	\$150	\$109
7-1/4"X60T	\$150	\$109

OTHER SIZES AVAILABLE — 7 1/4" - 14"

DURALINE HI-A/T FOR TABLE & RADIAL SAWS

5/8" HOLES. Boring up to 1-1/4" \$7.50 extra. Larger holes—time basis. Shipping \$4.50.

TAKE 10% TO 20% MORE OFF THESE PRICES

PORTABLE & PANEL SAWS

Faster feed rates & absolute splinter control. Stops splintering on OAK/BIRCH PLY VENEERS & MELAMINE

SIZES AVAILABLE	LIST	SALE	SIZES AVAILABLE	LIST	SALE
7-1/4" x 60T x 3/32" K	\$149	\$129	300mm x 100T x 1/8" x 30mm	---	\$197
8" x 80T x 1/8" & 3/32" K	\$202	\$169	12" x 100T x 1-1/8"K	\$253	\$215
220mm x 80T x 1/8" x 30mm	---	\$167	14" x 80T x 1"	\$232	\$197
9" x 80T x 1/8" & 3/32" K	\$207	\$179	14" x 100T x 1"	\$266	\$226
10" x 80T x 1/8" & 3/32" K	\$207	\$159	16" x 80T x 1"	\$262	\$223
12" x 80T x 1-1/8"K	\$212	\$181	16" x 100T x 1"	\$294	\$243

Above 1" bore standard.
CARBIDE IS THE HARDEST OF THE C-4 GRADES AND 40% STRONGER, NOT WEAKER!
 FOR 50% TO 300% LONGER LIFE.

Standard C-2 Carbide (below, left) and FORREST still sharp Oxidation and Corrosion Resistant Sub-Micron C-4 Carbide (below, right). Each shown after cutting 3,500 feet of MDF. Similar results obtained cutting particle board, melamine, and plywood.



STILL SHARP
 AFTER 3,500 FEET OF CUTTING!

SPECIAL COMBO SALE
EXTRA 10%-20% OFF

WE RECOMMEND OUR FACTORY SHARPENING as some local sharpening creates problems with MICRO-CHIPPED EDGES reducing blade life & cutting quality.
 2-4 DAYS ON THESE AND ALL MAKES OF FLAT FACE & CONCAVE CARBIDE TIP SAWS. Ship via UPS. Typical 10x40T \$17.00, 60T \$19.00. Add return UPS \$5.00, \$1.00 each additional blade.

FOR SPECIAL PRICE COUPONS MENTION WOOD® MAGAZINE.

PHONE TOLL FREE! 1 (800) 733-7111
 (In NJ: 973-473-5236) FAX: 973-471-3333

Fine American saw making & sharpening since 1946.

DEALER INQUIRIES WELCOME

CANADA SALES:
 CARL FOW COLLIER
 3644 SCHUMANN RD.
 BAY CITY, MI 48706
 800-229-4814
 517-684-0402 FAX



WESTERN CANADA:
 CALL EUROPEAN SHARPENING
 403-287-0850
 403-287-1822 FAX

BUSINESS OPEN ACCOUNTS AVAILABLE



FL, NJ, NY Residents Please Add Sales Tax
 Shipping Charges with book:
 Sawblades \$9; Dado \$10; Stiffener \$2
 SATISFACTION GUARANTEED OR FULL CASH REFUND.

(800) 733-7111 or (973) 473-5236

FORREST MANUFACTURING COMPANY, INC. • 457 RIVER ROAD, CLIFTON, NJ 07014 • FAX (973) 471-3333

Econ-Abrasives

WE MAKE ABRASIVE BELTS ANY SIZE, ANY GRIT!

Standard Abrasive Sheets

CABINET PAPER

	50/pk	100/pk
60D	\$16.70	\$30.00C
80D	15.60	27.80C
100 thru 150C	14.50	25.60C

FINISHING PAPER

80A	\$ 11.15	\$18.90C
100 thru 280A	10.00	16.70C

NO LOAD PAPER(white)

100 thru 400A	\$12.25	\$21.25C
---------------	---------	----------

"C" = 100 SHEETS

Velcro® Vacuum Discs

8 Hole pattern for Bosch sanders

Dia.	Grit	Price
5"	60	\$.48 ea
5"	80	.46
5"	100 thru 320	.45

* Available in 5 hole pattern *

*Wide Belts*Rolls*Flap Wheels
*Pump Sleeves*PSA Discs
*Router & Wood Bits*Wood Glue

*MasterCard, VISA, C.O.D. or Check
*SATISFACTION GUARANTEED!!!
*CALL FOR FREE CATALOG
- TX & NV add appropriate sales tax
- Continental U. S. shipping add \$5.50

ABRASIVE BELTS

Belts are resin bond cloth with a bi-directional splice, specify grits.

1X30	\$.81 ea	3X24	\$.93 ea
1X42	.81 ea	3X27	.96 ea
1X44	.81 ea	4X21 3/4	1.06 ea
2 1/2X16	.85 ea	4X24	1.10 ea
3X18	.86 ea	4X36	1.35 ea
3X21	.90 ea	6X48	3.50 ea
3X23 3/4	.93 ea	6x89	6.24 ea

OTHER SIZES ON REQUEST

HEAVY DUTY SPRING CLAMPS

Clamps come w/PVC tips and grips.



Size	Price
4"	\$1.75 ea
6"	2.25
8"	3.50

JUMBO ROUTER PAD(24" x 36")

It will not allow small blocks of wood to slip out under router or sanding applications.

ROUTER PAD

ONLY \$8.95ea.

JUMBO BELT CLEANING STICK

ONLY \$8.80

Econ-Abrasives

P. O. Box W1628
Frisco, TX 75034
(972)377-9779

TOLL-FREE ORDERING LINE (800)367-4101

Circle No. 1229

Semi-Annual Exotic HARDWOOD SALE!

SAVE 25%-60%

Mix or Match for Your Best Price

100 Board Feet Your Best Buy!

Description	Sale	20+	100+	Description	Sale	20+	100+
Purple Heart	\$3.99	\$3.59	\$3.41	Mahogany (6'-7' lengths)	\$3.99	\$3.59	\$3.41
Jatoba (Brazilian Cherry)	\$3.99	\$3.59	\$3.41	Morado* (Bolivian Rosewood)	\$9.99	\$8.99	\$8.54
African Paduak	\$6.74	\$6.07	\$5.76	Peroba Rosa*	\$7.99	\$7.19	\$6.83
Spanish Cedar	\$5.24	\$4.72	\$4.48	Goncalo Alves*	\$7.99	\$7.19	\$6.83

*Certified, sustain yield lumber.
All lumber priced by the board foot, random width 4" and wider, random length 3'-8", 4/4 stock, surfaced 2 sides. Limited to stock on hand.
Sale good thru 10-31-98.



IT IS FAST AND EASY!!



OVER 100 WOODS AVAILABLE
CALL ON YOUR FAVORITE

800-423-2450

www.woodworkerssource.com

YOUR SATISFACTION GUARANTEED!!

Circle No. 598, 2090

Check out these HOT NEW PORTER-CABLE tools from your PORTER-CABLE headquarters

GIFT CERTIFICATES AVAILABLE - QUANTITIES LIMITED - NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS - PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Model BN200

18 Gauge Brad Nailer Kit

- 3/4"-2" capacity
- Includes case & 1000 2" brads



Our Price \$134.00

Model NSS150

18 Gauge 1/4" Narrow Crown Stapler Kit

- Extra powerful for driving into the hardest materials
- 1/2"-1 1/2" capacity
- Includes case & 1000 staples



Our Price \$178.00

Model CF1400

1 hp, 4 gallon Pancake Compressor

- 1 hp motor, 15 amps, 3.7 cfm @ 40 psi
- oil free design



Our Price \$194.00

Model DA250A

15 Ga. Angle Finish Nailer Kit

- 1 1/4"-2 1/2" capacity
- Depth adjustable, rubber safety tip
- Includes case & 1000 nails



Our Price \$234.00

INTERNATIONAL



WE ACCEPT
VISA,
MASTERCARD,
DISCOVER, &
AMERICAN
EXPRESS

CORPORATION

2590 Davie Rd., Davie Florida 33317

VISIT OUR WEB SITE AT [HTTP://WWW.INTERNATIONALTOL.COM](http://WWW.INTERNATIONALTOL.COM)

BUSINESS
HOURS:
MON-FRI 8-5 PM
SATURDAY:
8-12 EST

ALL CHECKS
WILL BE HELD
10 BUSINESS
DAYS

Model 693PK

1 1/2 hp Router Kit

1 1/2 hp motor with both fixed & plunge bases, 1/4" & 1/2" collets, all in one case!



Our Price \$194.00

693PKX with edge guide & template guide kit \$229.00

Model 9862F

12V Cordless Drill Kit

288 in. lbs of torque
20 position clutch, brake
Incl. 2 bat., charger, flashlight & case



Our Price \$159.00

Purchase any Porter Cable tool & you may add this Porter Cable 8 1/4" circular saw with carbide blade Model 368-1 for only \$79.00. Let's see our so-called competitors top this one!

Model CFN250

Cordless 16 Ga. Finish Nailer

- 3/4"-2 1/2" capacity
- shoots 3000 nails on one fuel cell!
- No battery, motor, or fan



Our Price \$277.00

Model CDA250

Cordless 15 Ga. Finish Nailer

- 1 1/4"-2 1/2" capacity
- Shoots 300 nails on 1 fuel cell
- No battery, motor, or fan

The BAMMERS are here!

Our Price \$277.00

Model 557

Plate Joiner Kit

- 7.5 amp motor
- Fence tilts to 135°
- Precise micro adjust height knob
- Includes 2" blade for face frame bisc.
- 7 position depth stop



Our Price \$197.00

Model 9543

Quik-Change™ Bayonet Saw Kit

- 6 amp w/Quik-Change blade clamp
- Accepts tang shank blades
- VS, orbital w/tilting base & blower
- Includes case, non-marring base & anti-splintering insert



Our Price \$159.00

Model 9444VS

Profile Sander Kit

- VS from 2,100-6,000
- More aggressive w/ longer stroke
- Includes case, 17 profiles, corner sanding pad & paper



Our Price \$111.00

Most tools under 70 lbs. shipped Fed Ex Express Service for \$9.00... call for details!



FAX US YOUR ORDER AT 1-954-792-3560

1-800-338-3384

FREE FREIGHT & SAME DAY SHIPPING
ON MOST UPS ORDERS OVER \$50 MINIMUM PURCHASE
WITHIN THE CONTIGUOUS U.S.A.

Circle No. 49

TORMEK SuperGrind



The only complete water cooled sharpening system.

*Denotes included as standard with 2004 SuperGrind.



Tormek has created a sharpening system that can grind, sharpen, hone and polish most wood working edge tools to a finish that an old fashioned barber would be proud of.

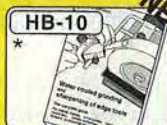
WOODTURNERS
CABINET MAKERS
WOODCARVERS
JOINERY WORKSHOPS
PROFESSIONAL SHARPENERS



SVH-60
Straight Edge Jig
 For plane irons, wood chisels and spoke shave blades.



WM-200
Pro AngleMaster For setting and measuring any edge angle from 15° to 75°. For any stone dia. from Ø10" to Ø6".



HB-10
Handbook
 Water cooled grinding and sharpening of edge tools.



PA-70
Honing Compound
 For the Leather Honing Wheels.



ADV-50D
Stone Truing Tool
 Trues the stone exactly round and flat.



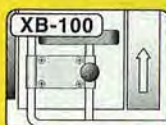
SVS-50
Multi Jig For turning skew chisels, parting/beading tools, roughing gouges. Straight carving gouges 1" - 2".



SVH-320
Planer/Jointer Blade Jig
 For HSS blades of any length. Min width 1/2".



SVX-150
Scissors Jig
 For all sizes of scissors. Also for shears.



XB-100
Horizontal Base
 For grinding away from the edge. Ideal for turners and woodcarvers.



SP-650
Stone Grader
 For grading the SuperGrind stone to a finer grit. Also for renewing a glazed stone.



SVD-180
Universal Gouge Jig
 For fingernail shaped turning gouges. Carving gouges and V tools. Max. width 1".



SVM-45
Knife Jig For most knives. Min. blade length 2 3/4". Portable electric hand planer blades. Carvers draw knives.



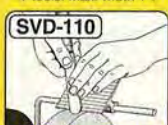
SVA-170
Axe Jig
 For carving and carpenter's axes. Max. axe head size 6 1/2".



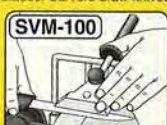
MH-380
Machine Cover
 For protecting the machine from wood dust.



LA-100
Profilled Leather Honing Wheel
 For inside honing and polishing of gouges and V tools.



SVD-110
Tool Rest with TORLOCK
 For turning scrapers. Carving scoops and inshaves. Screw drivers.



SVM-100
Long Knife Jig
 For long and thin knives. Stabilizes a thin blade. Min. blade length 4 1/4".

Call now for brochure and nearest stockist

United States	TORMEK	1-800-5-TORMEK
Australia	PROMAC	07-3279-4811
New Zealand	W & R JACK	03-546-7479
South Africa	RECORD	011-422-2340
Canada	TORMEK	1-800-5-TORMEK
United Kingdom	BRIMARC	01926 493389

FREE Clockmaking Catalog

Handcrafted Clocks Make Treasured Christmas Gifts!

Klockit, your complete source for clockmaking and craft supplies, has a Christmas gift idea for everyone on your list. Our fall catalog is filled with a large selection of clock components, accessories, kits, and plans for woodworkers of every skill level.

A handcrafted gift comes from the heart!



FREE CATALOG
1-800-556-2548

KLOCKIT Dept. WD118

P.O. Box 636, Lake Geneva, WI 53147
<http://www.klockit.com>

ODDS-N-ENDS TOOLS

Makita POWER TOOLS FOR THE LONG RUN POWER TOOL BLOW-OUT

WE ACCEPT
 •VISA/M/C
 •AM. EXPRESS
 •DISCOVER

FREE SHIPPING
 IN CONTINENTAL US

CALL FOR PRICES ON OTHER TOOLS WE STOCK & FREE CATALOG

TOLL FREE
 1 888 779 6444
 MON-FRI 8 to 5 MST

6213DWAE 12V KIT 2 BATT 2.0A/H	\$179
6313DWAE 1/2" 12V KIT 2BATS/CS	\$179
6213DWBE NI-MH 12V KIT 2BTS/CS	\$199
6233DWAE 14.4 KIT 2BATT 2.0A/H	\$199
6333DWAE 14.4-1/2" 2BATT KIT	\$229
6233DWBE NI-MH 14.4V KIT 2B/CS	\$219
6172DWLE 7.2 KIT W/LT & 2 BATT	\$99
4390D 9.6V RECIP SAW ONLY	\$89
4300D 9.6V JIG SAW ONLY	\$59
5090D 9.6V CIRC SAW 3-3/8 ONLY	\$99
6405 3/8 VSR DRILL 0-2100RPM	\$55
6407 3/8 VSR DRILL 0-2500RPM	\$65
6408 3/8 VSR 0-2500RPM KEYLESS	\$79
6302 1/2 VSR DRILL 0-550RPM	\$129
6013BR 1/2 DRILL 550RPM	\$159
DA3000R 3/8 ANGLE DRILL	\$179
6821 DRYWALL SCREW GUN	\$99
6830 SELF-FEED SCREW GUN	\$165
HP1500 1/2" HAMMER DRILL	\$89
HP2030 3/4" HAMMER DRILL	\$169
HR2400 3/4 SDS ROTARY HAMMER	\$229
HR3851 1-1/2 ROTARY HAMMER	\$439
GE0600 DIE GRINDER 25000RPM	\$89
N9514B 4" DISC GRINDER 11000RPM	\$57
9526PB 4" ANGLE GRINDER	\$89
9527PB 4-1/2 ANGLE GRINDER	\$97
9005B 5" ANGLE GRINDER	\$109
GA7001L 7" ANGLE GRINDER	\$199
9227C 7" SANDER/POLISHER	\$199
GV5000 5" DISC SANDER	\$85
BO4552 FINISHING SANDER	\$49

BO5001 5" R/O SANDER	\$59
BO5010 5" R/O SANDER W/BAG	\$75
9911 3X18 VS BELT SANDER	\$109
9900B 3X21 BELT SANDER	\$179
9924DB 3X24 BELT SANDER	\$199
9401 4X24 BELT SANDER	\$225
5007NBK 7-1/4 CIRC SAW KIT	\$129
5277B 7-1/4 HYPOID SAW	\$159
LS1030 10" MITER SAW	\$169
LS1040 10" CMPD MITER SAW	\$269
LS1220 12" CMPD MITER SAW	\$369
LS1011 10" SLIDING COMPOUND	\$449
LS1013 10" SLIDING COMPOUND	\$599
2414B 14" METAL CUT-OFF SAW	\$199



PRICING AND AVAILABILITY SUBJECT TO CHANGE

Odds-N-Ends Tools 1763 E. Butler Ave, Flagstaff, Arizona 86001 — Fax 1 520 779 0499

WOODWORKER'S RESOURCE

You can get useful ideas and product information by mail. Use the envelope in this section to order your choice of literature listed below. Each company mails the catalogs or information directly to you.



POWER TOOLS

A & I SUPPLY—Large selection, very modest pricing, superb service. All UPS orders over \$75 freight-free in Continental USA. Free catalog in USA. **A & I SUPPLY**. Free. *Circle No. 1.*

SCROLL SAW, CRAFTS & WOODWORKING CATALOG—Our 1998 catalog features Hegner scroll saws, Apollo HVLP sprayers, Zyliss vises and Plano glue presses. **AMI, LTD.** \$1.00. *Circle No. 3.*

FREE WOODWORKING TOOL CATALOG—Tool Crib of the North's catalog features the finest and most requested woodworking and construction tools available. **TOOL CRIB (ACME ELECTRIC)**. Free. *Circle No. 6.*

HARBOR FREIGHT TOOLS CATALOG—Carries over 4,000 tool and machinery items, all orders over \$50 are shipped free, lowest prices guaranteed. Free catalog subscription. **HARBOR FREIGHT TOOLS**. Free. *Circle No. 46.*

INTERNATIONAL TOOL CORPORATION CATALOG—Features the finest tools and accessories at the guaranteed lowest prices. Free freight and same day shipping on most orders. **INTERNATIONAL TOOL CORP.** \$2.00. *Circle No. 49.*

GRANBERG INTERNATIONAL—Manufacturers of portable chain saw tools—the Alaskan Saw Mill, Mini-Mill, Small Log Mill and sharpening accessories. Mill your own quality lumber! **GRANBERG INTERNATIONAL**. Free. *Circle No. 52.*

EUROSHOP COMBINATION MACHINES—Complete line of combination machines from Europe, designed for the American woodworker. Highest quality table saw, jointer, planer, shaper, router and mortiser/horizontal borer in one space saving machine. If you are a beginning woodworker or a seasoned pro, we have a machine to fit you and your budget. The Right Combination. **OLD WORLD MACHINERY**. \$1.00. *Circle No. 73.*

ODDS-N-ENDS TOOLS—Large selection, competitive pricing, great service. Free freight in continental USA. Most tool lines stocked. Free catalog. **ODDS-N-TOOLS**. Free. *Circle No. 74.*

AWARD-WINNING DUST COLLECTION—Air cleaners, dust collectors, cyclone systems, hose, connectors, adaptors, hoods, remote switches, etc. 40-page free catalog. **PENN STATE INDUSTRIES**. Free. *Circle No. 75.*

HUGE VARIETY OF PENCRAFTING PRODUCTS—Including: 24 kt kits, lathes, duplicator and templates, wood and finishing supplies. 40-page free catalog. **PENN STATE INDUSTRIES**. Free. *Circle No. 75.*

PERFORMAX PRODUCTS, INC.—Eleven models with patented features. Abrasive plane dimension, fine finish sand. 200 dealers nationwide offer demonstrations. Reduce hand sanding today. **PERFORMAX PRODUCTS**. \$0.50. *Circle No. 78.*

THE POWERMATIC CATALOG—Includes pictures, descriptions and specifications of the complete Powermatic line of woodworking machinery featuring heavy-duty production equipment as well as the Artisan line. **POWERMATIC**. Free. *Circle No. 81.*

RB INDUSTRIES—Hawk scroll saws, Universal wood planers, drum sanders, Panelmaster II, all American made, 5 year warranty. Buy factory direct. Free catalog. **RB INDUSTRIES, INC.** Free. *Circle No. 84.*

TOOLS ON SALE™—Offers a catalog of over 500 pages of the most popular brands of power tools avail-

able anywhere at discounted prices. **SEVEN CORNERS**. \$1.00. *Circle No. 92.*

PORTABLE SAWMILLS—Convert logs into valuable lumber, whether you're a novice or experience sawyer, using a Wood-Mizer portable bandsaw mill. Personal sawmills start at \$4,495. Send for our catalog. **WOOD-MIZER PRODUCTS**. \$2.00. *Circle No. 94.*

10 TOOLS IN 1—Ultimate Home Shop for woodworking or metalworking. Compact, easy to use, built to last. Free catalog. **SUPERSHOP**. Free. *Circle No. 100.*

TORMEK—Made in Sweden, is an advanced water cooled grinding system for all types of edge tools. The system includes jigs to sharpen accurately and safely, electric planer knives, plane irons, chisels, turning tools, knives, scissors and axes. The SuperGrind stone works quickly without overheating the steel and the leather honing wheel is ideal for a razor sharp edge. **TORMEK**. Free. *Circle No. 101.*



HAND TOOLS

BAKLUND-HELLAR, INC.—Find Center Fast! CenterPoint™—the only tools with the new center-finding scale. Construction Grade™. Made in U.S.A. **BAKLUND-HELLAR, INC.** Free. *Circle No. 103.*

JAPAN WOODWORKER CATALOG—Woodworkers have discovered the secret of better quality work. 2 year subscription to 88 page catalog. **WOODLINE TOOL & SUPPLY**. \$2.00. *Circle No. 190.*



PLANS

PLANS! PATTERNS!—Huge assortment of popular, shop-tested designs... over 1,500 full-size patterns! Illustrated catalog plus sample pattern. **ACCENTS IN PINE**. \$2.00. *Circle No. 310.*

AMERICAN FURNITURE DESIGN CO.—Furniture plans by America's leading craftsmen. 36x48 CAD format and comprehensive instructions. Morris chairs, roltop desk, 80+ designs. Catalog. **AMERICAN FURNITURE DESIGN CO.** \$3.00. *Circle No. 314.*

ARMOR CRAFTS—Woodworker's plans and supplies. Over 100 high-quality plans, specialty hardware and other supplies offered by Armor. Catalog. **ARMOR PRODUCTS**. \$1.00. *Circle No. 315.*

HEIRLOOM WOOD TOY PLANS—New full-color catalog of original designs by professional toymaker—train, cars, tractors, trucks, Noah's Ark. **BALDWIN TOY COMPANY**. \$3.00. *Circle No. 320.*

FURNITURE DESIGNS, INC.—Since 1968, foremost designers of plans for fine furniture. Furnish your house, build for customers. Catalog. **FURNITURE DESIGNS, INC.** \$3.00. *Circle No. 345.*

TOYS AND JOYS, INC.—Executive wood toys, patterns, parts, wheels for making cars, trucks, trains, construction equipment. New 32-page catalog for the advanced toymaker. **TOYS AND JOYS, INC.** \$1.00. *Circle No. 465.*

SCROLLSAW PATTERNS—Up to 74" clocks, 300+ patterns, books, clock parts; saw blades, tools, wood, and more. **WILDWOOD DESIGNS**. Free. *Circle No. 475.*



LUMBER

QUALITY EXOTIC LUMBER—Turning wood, burls, figured wood. Hand selected for your needs. Also manufacturer of pen kits. **BEREA HARDWOODS**. \$1.00. *Circle No. 510.*

STEVE H. WALL LUMBER CO.—Quality hardwoods, plywood, and exotic lumber. Will ship UPS or motor freight, wholesale prices. Catalog. **STEVE H. WALL LUMBER CO.** \$1.00. *Circle No. 592.*

HARDWOODS—Over 100 quality woods from around the world. Lumber veneer, turning stock. Quantity discounts. UPS or truck shipment. Satisfaction guaranteed. **WOODWORKERS SOURCE**. \$1.00. *Circle No. 598.*



GENERAL WOODWORKING CATALOGS

WOOD, VENEERS, INLAYS, CARVINGS—Plus hardware, glues, finishes, tools, books and more—all 100% guaranteed. Fast, friendly service, too. Where? Constantine's, of course! **CONSTANTINE'S**. Free. *Circle No. 820.*

THE WOODTURNERS CATALOG—Offers a complete line of pen and pencil kits along with the widest selection of turning tools and supplies anywhere—all at the best prices. **CRAFT SUPPLIES U.S.A.** \$2.00. *Circle No. 830.*

GRIZZLY INDUSTRIAL, INC.—208 pages packed with thousands of woodworking machines, tools, and accessories—all at unbeatable prices. Catalog. **GRIZZLY INDUSTRIAL, INC.** Free. *Circle No. 860.*

HIGHLAND HARDWARE WOODWORKING CATALOG—Giant catalog of hard-to-find woodworking tools loaded with detailed product descriptions and informative techniques. **HIGHLAND HARDWARE**. Free. *Circle No. 870.*

WOODCRAFT—Our free catalog features over 6,000 woodworking tools, books, lumber and hardware. Same day shipping and an unconditional guarantee! **WOODCRAFT SUPPLY CORP.** Free. *Circle No. 955.*

CABINET AND FURNITURE HARDWARE—16-page FREE SALE FLYER featuring selected products from our stock of 5,000 items. In stock are slides, hinges, knobs and pulls to fit thousands of applications. Also stocked are hundreds of cabinet accessories, lighting products and convenience items. **WOODWORKER'S HARDWARE**. Free. *Circle No. 960.*

THE WOODWORKERS' STORE—Our catalog helps woodworkers do it right! New products, innovative tools, and hard-to-find specialties. Satisfaction guaranteed! Catalog. **WOODWORKERS' STORE**. Free. *Circle No. 965.*



KITS

QUEEN ANNE KITS—Dining chairs & occasional tables, ready to assemble & finish, plus furniture components—solid cherry, oak, mahogany, walnut. Free catalogue. **ADAMS WOOD PRODUCTS**. Free. *Circle No. 1002.*

SHIP MODELING CATALOG—Museum quality replicas you build yourself. Laser cut wooden parts, metal fittings, easy instructions. 120-page color catalog. **MODEL EXPO**. \$1.00. *Circle No. 1075.*

BUCKBOARD BENCH KIT—Kit includes steel springs that give a little, metal arms and back rails, hardware, and full-size instructions. New matching trestle table kit. **THE ROUBUSH CO.** \$0.50. *Circle No. 1085.*



PUBLICATIONS

FREE CRAFTS AND WOODWORKING CATALOG—Over 800 books on woodcarving, furniture making, wooden toys, construction, more. Most \$2.95—\$6.00! **DOVER PUBLICATIONS**. Free. *Circle No. 1118.*





SHOP ACCESSORIES

ECON-ABRASIVES—Complete line of sandpapers and woodworking-related accessories, custom-made abrasive belts, any size or grit. Catalog. **ECON ABRASIVES**. Free. Circle No. 1229.

INDUSTRIAL ABRASIVES CO.—Quality, low-priced sanding belts, discs and sleeves made to your specifications. Associated specialty woodworking items. Catalog. **INDUSTRIAL ABRASIVES**. Free. Circle No. 1238.

KLINGSPOR'S SANDING CATALOGUE—64 pages of industrial quality sanding products now offered to the home hobbyist at unbelievable low prices. Included are sanding & finishing machines, industrial sandpaper and shop helpers. **KLINGSPOR ABRASIVES, INC.** Free. Circle No. 1240.

EASY DOES IT—with HTC'S power tool accessories. Discover many unique items, designed only with you, the dedicated woodworker, in mind. Make your machinery safer, increase the working area of your shop and accomplish nearly impossible tasks easily, quickly, accurately. Full-line catalog and price list. **HTC PRODUCTS, INC.** Free. Circle No. 1245.

THE ACCU-MITER—If you consider yourself a serious woodworker, this professional quality miter gauge is for you! The Accu-Miter is the perfect tool to create precise angles in a snap. The Accu-Miter's tapered shot pin assures dead-on accuracy year after year. The maximum margin of error is one minute, 43 seconds. That's less than 1/30th of a degree. That's guaranteed! Brochure. **JDS COMPANY**. Free. Circle No. 1246.

MOISTURE METERS FOR WOOD—Pin-type meters that measure moisture in veneer to logs. Send for free catalog. **LIGNOMAT USA, LTD.** Free. Circle No. 1250.

LUMBER DRYING—Dry your own lumber using our equipment and your insulated chamber. Dehumidification systems from 300 BF to 45,000 BF. Easy to operate equipment offers high quality kiln-dried lumber for pennies per foot. These long-lasting made-in-the-USA units can pay for themselves in one month! Send for free catalog. **NYLE STANDARD DRYERS**. Free. Circle No. 1260.

SUPERGRIT® SANDING/REFINISHING CATALOG & CLOSE-OUT SHEET—Belts, discs (PSA or Hook & Loop), sheets (aluminum oxide, garnet, silicon carbide), rolls, pads, etc. **RED HILL CORP.** Free. Circle No. 1267.

WOODMARK—A commercial-style downdraft workbench for the home workshop. A very powerful ambient air-filtration system. In a spacious traditional-style maple workbench. **WOODMARK**. \$1.00. Circle No. 1295.



BITS, BLADES, CUTTING TOOLS

ROUTER BITS & SAW BLADES—The only orange one. New products in free catalog—order yours. **CMT USA**. Free. Circle No. 1312.

FREUD—Premier carbide-tipped sawblades, router bits and shaper cutters. A full-line of anti-kickback carbide-tipped router bits. Catalog. **FREUD**. Free. Circle No. 1321.

JESADA TOOLS' FREE CATALOG—Packed with bits, blades, cutters, knives and more; plus accessories, project ideas and safety tips. **JESADA TOOLS**. Free. Circle No. 1335.

PRODUCTION QUALITY CARBIDE TIPPED ROUTER BITS—Large discounts. Also, raised panel door sets, shaper cutters, solid carbide bits, Forstner bits, the Merle Clamp and a variety of woodworking tools and supplies. **FREE shipping. MLCS LTD.** Free. Circle No. 1350.

SUPER CARBIDE TIPPED ROUTER BITS AND SHAPER CUTTERS—Offered at the lowest prices for items of such high quality. Catalog. **WOODLINE ARIZONA INC.** Free. Circle No. 1395.



INCOME OPPORTUNITIES

RESTORE FURNITURE—Complete system features stripping, repair, finishing, parts duplicating, veneering, resilvering. Wholesale products, free classes. Catalog. **MINUTEMAN**. Free. Circle No. 1661.



MISCELLANEOUS

ANDERSON MANUFACTURING UNDERBED STORAGE DRESSER—Top quality, solid wood, ready-to-assemble kits provide convenient space-saving storage. 3-16 drawers. Starts at \$159. Free 48-page catalog. **ANDERSON MFG.** Free. Circle No. 1795.

HANDMADE PIERCED TIN—80+ page colorful catalog. 100's of designs & sizes, 18 types of metal, do-it-yourself materials, tools, & kits, too! **COUNTRY ACCENTS**. \$5.00. Circle No. 1910.

WIRELESS DRIVEWAY ALARM—An alert sounds in the house when someone enters the drive. Be sure to order our free literature. **DAKOTA ALERT, INC.** Free. Circle No. 1914.

WIPER BLADE SHARPENER—Improve wiper blade performance for clearer/safer view. Blades last up to 24x longer. No streaks/squeaks. Save \$, time and maybe your life. Special info for WOOD subscribers. **EASY SHARP**. \$1.00. Circle No. 1923.

LEARN HOME INSPECTION—Big profits in a part- or full-time business. Avoid a costly mistake on a home purchase. Free kit. **FOLEY-BELSAW INSTITUTE**. Free. Circle No. 1930.

FUTURE STEEL BUILDINGS—Multi-purpose, arch-type structures. Ideal backyard shops & garages. Many models & sizes. Complete kits for the do-it-yourselfer. Free information. **FUTURE STEEL BUILDINGS**. Free. Circle No. 1945.

PLANNING TO BUILD?—We manufacture a complete range of steel buildings, tested and built to withstand wind, snow, rain and seismic conditions. **PIONEER STEEL MFG., LTD.** Free. Circle No. 1986.

STEELMASTER BUILDINGS—The leader in arch-type steel buildings. Ideal for backyard shops, garages and much more. **STEELMASTER**. \$1.00. Circle No. 2030.

RESTORING ANTIQUES?—292-page catalog packed with everything needed for woodfinishing related tools, books. Essential items for antique restoration including brass hardware and lamps. Wholesale prices. **VAN DYKE'S RESTORERS**. \$1.00. Circle No. 2077.

WHOLESALE GLASS BROKERS—High-quality glass shipped to you from the finest manufacturers. Table tops, tempered glass, shelves, beveled glass, tinted, custom shapes; 1/4" to 3/4" thick, etc. Catalog. **WHOLESALE GLASS BROKERS**. Free. Circle No. 2079.

LEGAL IVORY—Virtually identical to animal ivory. Tagua is the nut from a tropical palm tree. Ideal for jewelry, knobs, small turnings, inlay, or scrimshaw. Available in 3 sizes. Send for information. **WOODWORKERS SOURCE**. Free. Circle No. 2090.

PEN AND PENCIL PRODUCTION SYSTEMS—State of the art mini-lathes, all components, including wood, at best prices. **WOODWRITE, LTD.** Free. Circle No. 2098.



CARVING SUPPLIES

ADD VALUE TO ANY WOODWORKING PROJECT—Ultra high speed engraving with stencil patterns insures professional results. Engraves on any surface. **PARAGRAPHS**. \$1.00. Circle No. 2160.

HI-SPEED ENGRAVING—400,000 RPM's. Engrave on wood, glass, metal, eggs. It's as easy as drawing with a pen. No artistic talent needed. Send for information, catalog. **SCM ENTERPRISES**. \$1.00. Circle No. 2165.

WOOD CARVING & WOOD SIGN MAKING MACHINES—Make wood signs and wood carvings easy, quickly and accurately. Signs, gun stocks, decoys or furniture parts. **TERRCO, INC.** \$1.00. Circle No. 2175.

TURNERS AND CARVERS—Largest selection of Henry Taylor turning and carving tools in USA. Also Sorby, OneWay, Freedom, Stewart, Glaser & Sherline. **THE CUTTING EDGE**. \$1.00. Circle No. 2180.

ULTRA SPEED PRODUCTS—The ultimate in precision carving, engraving & inlaying. As simple as tracing lines. Affordable, \$170.00 package, includes everything you need to get going. Video & catalog available. **ULTRA SPEED PRODUCTS, INC.** Free. Circle No. 2185.



WOODTURNING SUPPLIES

WOODTURNING TOOLS, PROJECTS, & SUPPLIES!—Best selection anywhere. Sorby, Oneway, Delta, Glaser. Complete line Sorby turning, carving, and woodworking tools. **WOODCRAFTERS OF OKLAHOMA**. Free. Circle No. 2195.



CLAMPS

MERLE ADJUSTABLE CORNER CLAMP—Adjustable, uniform clamping pressure on all corners. Forces a frame into perfect square. Almost no capacity limitation. Ships with 23 foot reel of steel banding. Aluminum and steel construction. **MLCS LTD.** Free. Circle No. 2250.



CLOCKS

KLOCKIT—The leading supplier of clock-making supplies for over 25 years: Quartz and mechanical movements, clock inserts, dials, easy-to-follow plans and kits for all skill levels. **KLOCKIT**. Free. Circle No. 2335.

CLOCK PARTS CATALOG—Clock parts, kits, dials, hands, tools, hardware, quartz and mechanical movements, inserts, watches, gifts and novelty items. Your satisfaction guaranteed. **S. LA ROSE INC.** Free. Circle No. 2375.

SCHLABAUGH & SONS WOODWORKING—Easy-to-build—all original designs—clocks, bookends and hand mirror kits. Clock movements, jigs and jig-making accessories, prelaminated hardwood project blanks & turnings, exotic woods, clamps and many exclusive design ideas. Family-owned business—we offer 100% guarantee. Order our catalog & get to know us! Toll-free ordering. Full-color catalog. **SCHLABAUGH & SONS**. \$1.00. Circle No. 2385.



FASTENING PRODUCTS

JAMESTOWN DISTRIBUTORS—A comprehensive and informative supplier of fasteners, finishes, hardware, hand tools, fiberglass, and more. Free catalog. **JAMESTOWN DISTRIBUTORS**. Free. Circle No. 2438.

SQUARE DRIVE SCREWS—Can make your woodworking easier. Over 80 color pages of the best fasteners and other woodworking supplies. **MCFEELY'S**. \$1.00. Circle No. 2450.



SHOWS & SEMINARS

'THE WOODWORKING SHOWS' MACHINERY, TOOLS AND SUPPLIES—Hundreds of products for the woodworker demonstrated and sold at discount prices at every "Woodworking Show". In-depth seminars and free workshops on a variety of woodworking topics. Shows are scheduled in 27 cities. Send for free brochure. **WOODWORKING SHOWS**. Free. Circle No. 2900.



Pony 8510 Cabinet Claw

Performance	★ ★ ★ ★ ★
Price	\$60 for two
Value	★ ★ ★ ★ ★

Adjustable Clamp Co., 417 North Ashland Ave., Chicago, IL 60622. Call 312/666-0640.

Cabinet Claw clamps while you drill and drive

Installing face frame cabinets is a bit of a juggling act—leveling them, keeping the faces flush, clamping, and drilling screw holes. You need a helper and a lot of patience. You're on your own for the patience, but the Pony Cabinet Claw will serve as your helper.

Two separate jaw assemblies on the Cabinet Claw align and clamp the face frames of adjacent cabinets. One jaw pulls the frames flush, while the other clamps them together. The rubber-padded jaws prevent marring, and accommodate face frames up to 1" thick and 2" wide each (for a maximum total width of 4").

Those features alone would be enough to sell me, but Pony goes two steps further. I chucked the included bit in my drill, and used the guide bushing on the Cabinet Claw to predrill a screw hole exactly 3/8" from the cabinet face

(dead-center for 3/4"-thick facing). Then, I rotated the drill guide out of the way and drove my screw through the oversize hole in the Cabinet Claw to join the face frames. It worked like a champ.

Whether you install cabinets just occasionally or do it for a living, you'll want at least a couple of

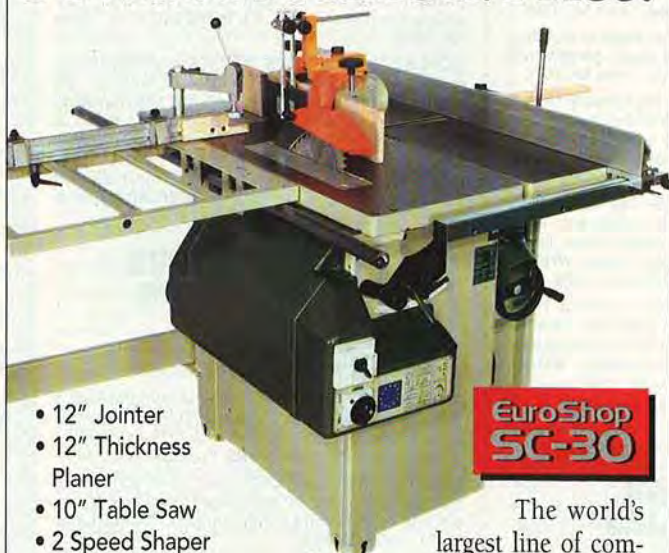
these in your toolbox. Sorry, Pony, you can't have these back.

—Tested by Dave Henderson



Continued on page 108

Power. Precision. Price.



- 12" Jointer
- 12" Thickness Planer
- 10" Table Saw
- 2 Speed Shaper
- Sliding Table
- Slot Mortiser/Horizontal Borer
- 3 3HP 230V Motors

EuroShop SC-30

The world's largest line of combination woodworking centers just got bigger. Find out why the pros select EuroShop. Call:

800-203-0023

OLD WORLD MACHINERY CO.
San Clemente, CA

Find out why EuroShop bandsaws are the best.

Having Fun Making Money...

A Dream Come True for anyone who loves to work with their hands

Engraving • Airbrushing • Sandblasting



Keith Hone... a career woodworker now enjoys making money with his Paragraphic Engraving System. Using simple patterns that he just traces and our new ultra-high speed drill (amazing 300,000 r.p.m.) It allows even a non-artist to produce professional results fast and easy.

For your free demonstration video call today! (refundable deposit required)

Paragraphics CORPORATION

1-800-624-7415

1455 W. Center Orem, Ut 84057
Financing Available

Top Rated PSI Dust Collection Systems ON SALE NOW!

THIS ONE-TIME ONLY SUPER DUST COLLECTOR SALE ENDS ON JANUARY 30, 1999



THESE MODELS INCLUDE:

5 MICRON COLLECTION BAGS Captures the finest sawdust. 6 times better filtration than the bags sold with our competitor's collectors.

FLEXIBLE COLLECTION HOSE Strong, flexible and durable. Reinforced with .050 wire- no grounding required!



SUPER DC250 DUST COLLECTOR

- Powerful 2-1/2 hp motor
- 1350 CFM capacity

Award Winner!*
Our most powerful system is perfect for multiple machine and long runs. It's great for any home or commercial shop!

FREE!
50' HOSE \$40 Value

With 5 Micron Super High Filtration Bags!

Was \$354.95 • Save \$20
NOW ONLY \$334⁹⁵ FOB PHILA.



DC3-5 PORTABLE DUST COLLECTOR-AIR HANDLER

- 1-1/2 hp motor • 750 CFM

Award Winner!* Compact, powerful, and portable, this lightweight 50 lb. unit can be moved to the job or mounted as an air handler!

FREE!
8' HOSE \$12 Value

With 5 Micron Super High Filtration Bags!

Was \$214.95 • Save \$10
NOW ONLY \$204⁹⁵ UPS \$21



DC1B-5 DUST COLLECTOR

- Efficient 1 hp motor
- 700 CFM capacity

Award Winner!*
Our most popular system connects to almost any machine! The "Y" outlet allows two 4" connections.

FREE!
8' HOSE \$12 Value

With 5 Micron Super High Filtration Bags!

Was \$219.95 • Save \$10
NOW ONLY \$209⁹⁵ UPS \$29



DC2-5 DUST COLLECTOR

- Powerful 110V 1-1/2 hp motor
- 900 CFM capacity

Provides nearly the same performance as units with 2 hp and up. Suitable for long runs of hose.

FREE!
50' HOSE \$40 Value

With 5 Micron Super High Filtration Bags!

Was \$309.95 • Save \$10
NOW ONLY \$299⁹⁵ UPS \$40



COMPLETE CYCLONIC DUST COLLECTION SYSTEMS

We've combined the motor blowers from our award winning collectors with our super efficient cyclone to create two outstanding collection systems!

HOME SHOP SUPER SYSTEM

- 1-1/2 HP Motor
- 750 CFM
- 90 lbs • 88" high

ITEM #CYDC3
FOR ONLY \$499⁹⁵ UPS \$40

PROFESSIONAL SUPER SYSTEM

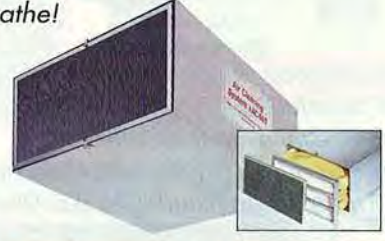
- 2-1/2 HP Motor
- 1350 CFM
- 140 lbs • 92" high

ITEM #CYDC250
FOR ONLY \$599⁹⁵ FOB PHILA.

AIR CLEANING SYSTEMS

Clean the air you breathe!

Removes sawdust, dry-wall dust and more! The features of these lightweight, galvanized steel units were highest rated by Wood Magazine. The two filter system removes dust and impurities with a 12" x 24" washable pre-filter, and a High Efficiency internal bag filter. Requires no outside venting. 110V motor.



For shop size:
20' x 20' x 8'
#AC465/465 CFM
SALE PRICE \$239⁰⁰ UPS \$14

For shop size:
20' x 42' x 8'
#AC930/930 CFM
SALE PRICE \$339⁰⁰ UPS \$20



Penn State Industries
Order Toll Free
1-800-377-7297



VISIT US ON THE WEB!

CALL, WRITE, OR VISIT OUR WEB SITE FOR A FREE CATALOG!

2850 Comly Road, Philadelphia, PA 19154 • www.pennstateind.com

STEVE WALL LUMBER CO.

Quality Hardwoods and Woodworking machinery For The Craftsman and Educational Institutions

Ash	4/4	Select	2.25		\$75.00
Basswood	4/4	Select	1.95		\$61.00
Birch	4/4	Select	2.40		\$79.00
Butternut	4/4	1C	2.00		\$67.00
Cherry	4/4	Select	3.75		\$96.00
Hickory - Pecan	4/4	Select	2.00		\$69.00
Mahogany (Genuine)	4/4	Select	3.70		\$96.00
Maple (Hard)	4/4	Select	2.80		\$83.00
Maple (Soft)	4/4	Select	2.20		\$70.00
Poplar	4/4	Select	1.55		\$62.00
Red Oak	4/4	Select	2.40		\$78.00
Walnut	4/4	Select	3.35		\$93.00
White Oak	4/4	Select	2.40		\$77.00
Cedar (Aromatic Red)	4/4	1C+Btr.	1.65		\$64.00
Cypress	4/4	Select	2.25		\$72.00
White Pine	4/4	F.G.	1.15		\$53.00
Yellow Pine	4/4	Clear	1.80		\$63.00

Above prices are for 100' quantities of kilndried rough lumber sold by the Bd. Ft. FOB Mayodan, NC. Call for quantity discounts. Other sizes and grades available.

Above prices are 20 bd. ft. bundles of clear kilndried lumber 3"-10" wide • 3'-7' long (Random widths & lengths) Surfaced 2 sides or rough. Delivered UPS prepaid in the Continental U.S.

NOW AVAILABLE

Thin Craft Wood

1/4" • 3/8" • 1/2"

Sizes Available

UPS	\$79.00
Specials	\$67.00
	\$96.00
	\$69.00
	\$96.00
	\$83.00
	\$70.00
	\$62.00
	\$78.00
	\$93.00
	\$77.00
	\$64.00
	\$72.00
	\$53.00
	\$63.00

4/4 Log Run Walnut
100 bd. ft. \$145

Also Available
Exotic Lumber

STEVE H. WALL LUMBER CO.

BOX 287
MAYODAN, N.C. 27027
336-427-0637
1-800-633-4062
FAX 336-427-7588

Email: wallwood@netmcr.com
Website: www.walllumber.com

Send \$1.00 For Lumber Catalog
Prices Subject to Change Without Notice

Circle No. 592

PRODUCTS THAT PERFORM



Continued from page 106

No-hammer punches, nail sets spring to aid

Centerpunching a drill mark is a simple task made simpler—and hammerless—when you use one of Noxon's Spring Line Tools. Simply hold the point of the Spring Line centerpunch against the surface you want to mark, pull up the top, stretching the spring that's the middle of the tool, then let go of the top. The spring snaps it down against the punch. It's that easy.

And with the centerpunch shown in use *below*, that's only half the story. The top part doubles as a 2/32" nail set. Noxon calls these two-ended tools Two-Bit Snappers.

I tried four hammerless tools—a pair of Two-Bit Snappers (the centerpunch/nail set combo and one with two nail sets—1/32" and 2/32"), a self-centering brad setter, and a self-centering centerpunch (handy when you need to mark screw holes centered inside hardware holes). In my tests, the tools proved easy to use and effective. The spring can give a surprisingly stout blow, but it was a cinch to modulate the striking strength.

The tools I tested came packaged as a set—tagged the Woodworking Assortment. The tools are also available individually. ♣

—Tested by Larry Johnston

PRODUCT SCORECARD

Spring Line Tools

Performance ★ ★ ★ ★ ★

Price WWA996 Assortment, \$37.06; tools from \$8 each, plus shipping.

Value ★ ★ ★ ★ ★

Noxon, N. 2921 University, Spokane, WA 99206. Call 800/356-6966.

Design Breakthrough!

It's the ultimate workbench!

It's a downdraft table!

It's a complete air filtration system!

- 360° Air Collection
- Unique Filter Lock System
- Flourescent Light
- 1100 CFM
- 12' Power Cord
- Filters to 0.5 Micron



Deluxe 30"x69"

- Generous Maple Worktops
- Powerful 930, 1600, or NEW 2850 CFM Motor
- GFI Convenience Outlet
- All Benches Shown with Optional Accessories
- Three Stage Filtering to 0.5 Micron



Overhead Mount

Special Introductory Offer!

Only \$599 + S&H



Original 30"x54"

Only \$1099 + S&H



Ultra Grand 33"x95"

Call now to find out about our Specials on purchases made by May 1st

WOODMARK

Visa
Mastercard
Amex

P.O. Box 211434 • Bedford, TX 76095

1-800-845-4400 Free Catalog!

Circle No. 1295



Save \$5.00 on All Prices Listed Below! Offer Expires 11-20-98

TORMEK

2004T
Sharpening
System
\$389



freud

FT-2000E
3.25 HP
VS Router
\$184
JS102 plate jner cs & adj fnc 124
TR215 8-1/2" slide saw 249



DELTA

36-800
3 HP White
Unisaw w/50"
Biesemeyer
\$1599*



36-920 3hp w/ht uni w/fnc1599*
36-820 3hp unisaw w/52" uni1499*
36-820L unisaw left tilt 3hp 1499*
36-821L unisaw left tilt 3hp1499*
36-830 3hp unisaw 30" unif 1399*
36-8213hp unisaww/50" Bies1499*
36-8313hp unisaw w/30" Bies1399*

34-455
10" Cont.
Saw w/30"
Unifence
\$819*



36-460 10" cont saw 28"Bies779*
36-470 10" cont saw 40"Bies799*
36-480 10" cont saw 52"Bies829*
34-444 10" cont. saw 599

28-270
White 14"
1 HP Bandsaw
\$799*



28-275 14"3/4hp op st bnds 549*
17-90016-1/2" floor drill prss 329
23-710 sharpening center 159
43-379 3 hp hd 2 spd sharpr 1349
36-220 10" cmpnd mitre saw 209

22-675Y
15"
Planer
\$1149*



37-350A 8" jointer w/stand 1399*
37-190 6" jointer w/stand 399*
31-280 sanding cent w/std 749*
40-650 18"vs scroll saw 399
50-840 1hp 650cfm collector 224
50-850 1-1/2hp 1200 cfm col.299
50-851 2hp 1500 cfm col. 499
50-853 3hp 2100 cfm col. 699
50-860 New air cleaner 249

22-560K
12-1/2" Portable
Planer &
Dust Hood
\$329



22-540 12" port planr&knives 269
31-780 osc spindle sandr 194
36-250 10" sliding comp. 469
36-235 12" cmpnd mitre saw 309
36-210 10" cmpd mtr saw 199
11-990 12" bench drill press 189
46-700 12" vs wood lathe 469
43-505 router/shaper 269
11-090 radial drill prss w/std 309
14-650 mortising machine 249
37-070 6" vs bench jointer 259

*Price after mail in rebate

FREE SHIPPING!

BIESEMEYER

78-900
50" Commercial
w/12" Left
\$329
78-907 30" commercial fence 299
78-934 52" homeshop fence 279
78-931 40" homeshop fence 259
78-930 28" homeshop fence 249



POWERMATIC III

1660760
66 Saw 3 HP
w/50" Accu-fence
\$1999
1660802 3hp 66 w/30" fence1799
1791227 64 Artisan w/Accu-fnc799
1791208 osc. spindle sander 299
1791209 New 15" planer1329
17910516" jointer with stand 549
1791215 14" 1hp bandsaw 649
1791070 1200 cfm dust col. 399
1791071 1900 cfm dust col. 679



OCCIDENTAL LEATHER

5080
Pro Framer
Tool Belt
\$139
8080 oxy light pro framer 129



FUJI

HVLP
High Volume
Low Pressure
3-Stage Sprayer
\$599



CALCULATED INDUSTRIES INC.

4045
Construction
Master IV
Calculator
\$69

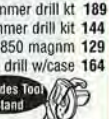


MILWAUKEE

6527-21
Variable Speed
Super Sawzall
\$169
5377-61/2" kyllss hmr drill kt 199
5371-6 1/2" hammer drill kt 189
5397-6 3/8" hammer drill kt 144
0234-61/2" vsr 0-850 magnum 129
0236-6 1/2" drill w/case 164



6496-6
10" Slide
Compound Saw
\$579
6497-6 10" comp saw w/acc 639
6368 7-1/4" saw w/ct bl, cs,fn149
6018-13/8" keyless angle drill 179
0375-13/8" close quarter drill 149
6767-15amp hd scrwshtr set 139
5460 7" vs 0-1750 polisher 179



Hours: M-F 7:00-7:00 CST
Saturday 8:00-4:00 CST

Makita

LS1013
10" Dual
Slide
Saw
\$499
6233DWAE14.4v dri kt, fishlight 194
LS1011 10" cmpd mtr sw, bl399
LS1220 12" cmpd mitre saw 369
5007N8K 7-1/4" saw w/case 129
2708W 8-1/4" tbl saw ct blade279
3612C 3hp plunge router 269
LS121112" cmpnd mitre saw 599
9820-2 blade sharpener 229
3901 New plate joiner 159



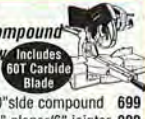
Emqlo

AM78-HC4V
1-1/2 HP Vertical
Twin Tank
\$314
M79-HC4V 1-1/2 hp v ank 339



HITACHI

C8FB2K
8-1/2" Compound
Mitre Saw
\$479
C10FS 10" side compound 699
P12RA 12" planer/6" jointer 999
C10C 10" cmpnd mitre saw 199
C10RA 10" table saw w/stand 299
C7BD 7-1/4" circ. saw w/bkr 134
DN10DYK vs 9.6v R.A. drill 159
M12V 3-1/4 hp vs pl. router 189
CB75F resaw bandsaw 2399
NR83A full head stick nailer 379
NR83AAClipped head stick nr 329
NV45AB coil roofing nailer 379
NT65AA angled finish nailer 339
EC12 2hp air compressor 269



JDS COMPANY

750J
Air Filtration
System
\$259
8-12 air filtration system 489
10-16 air filtration system 689
18-34 accu miter gauge 149



STANLEY BOSTITCH

N60FN-2 Kit
1-1/4" - 2-1/2"
Finish Nailer
\$299
N80S-1 16d stick nailer 329
N80C-1 New coil nailer 329
RN45B-1 New roofing nailer 369
MIIIF5 floor stapler 549
S32SX 1/2-1-3/8 stapler kt 149



Wap

60113
Turbo
Vacuum
\$499



PRICE GUARANTEE

Panasonic

EY6100FQKW
12 V 3/8" Drill
Kit w/2
Batteries
\$184
EY6230 15.6v 1/2" drill kit 199



JET

JTAS-10X50W
10" WhiteSaw
3 HP w/50"
XACTA Fence
& Motor Cover
\$1299*



JPM-13 13" planr/moulder 749*
JWTS-10JF10" saw w/let fnc499*
JWB5-14CS 14" 1hp wd bds 544*
JJ-6CSXW 6" long bed joinr469*
JWP-15CS 15" 3hp w/plnr 1099*
DC-650 1hp 650cfm elect204*
DC-1200 2hp1200cfm elect 359*
*Price after mail-in rebate

David White

LP6-20
20X Sight
Level Package
\$219



LP6-20XL sight level pkg. 279
ML200 visible beam laser 899
ALTP6-90018 auto ivl trnst pk 459
LT8-300 26 x transit 999
LT8300P 26 x opt. transit 599

BOSCH

1587AVSK VS
Top Handle
Jig Saw w/Case
\$154



1584VSKbarrel jigsaw w/case 164
1634VSK vs recip saw kit 184
3107DVSK 5" rdm sndr kt 119
3107DVS dstls rdm orb sndr kt 99
3315K 12v T-handle w/2 bat 159
3615K 14.4v 3/8" vsr 2/bat 179

11224VSR
7/8" Bulldog SDS
Rotary Hammer
\$219



11304 Brute breaker hamr1249
1194VSRK1/2" hmr drill w/cs 159
1276DVS 4x24 vs belt sander 229
1275DVS 3x24vs sndr w/bg 214
1274DVS 3x21 vs sndr w/bag 169
1617EVS 2p vs router 189
1618B 1-3/4hp D-hndl router 179

1613EVS
2 HP, VS,
Microfine
Plunge Router
\$189



3725DVS 5" H&L vs sander 144
3727DVS 6" H&L vs sander 149
83915 10" slide compnd saw 499
1609XK laminate trimmer kt 229
3296K 3-1/4" planer kit 179

Serving You For 50 Years!

DEWALT

DW708K
12" Sliding
Dual Compound
Miter Saw
\$649



DW733 12-1/2" port planer 429
DW788 20" vs scroll saw 399
DW744 10" port table saw 499
DW995KS-2

18 Volt Contractors
Combo Kit
\$389



DW995KC-2 18v drill/recip kt 399
DW938K 18v recip saw kt 269
DW936K 18 v crdls saw kit 249
DW935K 14.4 cdlvs saw kit 129
DW621 2hp vs plng router 199
DW625 3hp vs plunge router 289
DW673K laminate trimmer kit 169

DW321K
VS Jigsaw
With Case
\$164

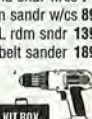


DW705 12" cmpnd mitr saw 349
DW364 7-1/4" saw w/brake 159
DW677K 3-1/8" planer w/case 159
DW378G 7-1/4" framing saw 169
DW309K 10 amp recip saw 179
DW965K 12 volt RA drill kit 189

DW682K
Plate Jointer
Kit
\$189



DW421K 5"h&l rand sndr w/cs 74
DW423K5" vs rdm snandr w/cs 89
DW443 6" RA H&L rdm sndr 139
DW431 3"x21" vs belt sander 189
DW995K
18 Volt 1/2"
VSR Drill Kit
\$229



DW991K-22 14.4v3/8" dv/dr k 209
DW991KS-214.4v drill/saw kt 349

PERFORMAX PRODUCTS, INC.

16-32 Plus
16" - 32" Bench
Drum Sander
\$899



VEVOR

MSXE-636-2
VS Triangular Oscillating
Sander w/Case
& Paper
\$174



9-55-13 turbo ll vacuum 249

SENCO

SFN40K
1-1/2 - 2-1/2
Finish Nailer
\$349



SFN-1 Plus 1"-2" finish nailer 299
SN65 full hd stick nailer 379
SLP-20 5/8"-1-5/8" brd nal kt 229
SLS20 finish stapler w/cs 249
SKS 1/4" crown finish stapler 279

Call TOLL-FREE and mention code 71-118

1-800-358-3096

Catalog Requests 1-800-582-6704

Box 14040 • Grand Forks, ND • 58208-4040

Wood
Nov. '98

Visit Our Web Site at <http://www.toolcribothenorth.com>

FedEx
UPS
2ND DAY AIR

FAX US YOUR ORDER!
1-800-343-4205

*Any comparable National ad in this issue.
We reserve the right to verify competitors
price and stock. Limited to stock on hand.



TOOL CRIBE

OF THE NORTH



**WOOD®
CLASSIFIED MART**
For rates: 1-800/424-3090 Fax 312/464-0512

AUTOMOTIVE

SEIZED CARS FROM \$175. Porsches, Cadillacs, Chevys, BMW's, Corvettes. Also Jeeps, 4WD's. Your Area. Toll Free 1-800/218-9000 Ext. A-14094 for current listings.

FINANCIAL SERVICES

FREE CASH GRANTS! College, Scholarships. Business, Medical bills. Never repay. Toll Free 1-800/218-9000 Ext. G-14094.

FINISHING/RESTORATION

LINE BOXES EASILY. Spray-on suede. 31 colors. Free Brochure. DonJer Products, Ilene Court-Bldg. 8W, Bellemead, NJ 08502. 1-800/336-6537.

INSTRUCTION/EDUCATION

WOODWORKING COURSE. Computer-Based CD-ROM Training. Windows 95/98, Interactive. Manual included. \$59. White Mountain Design, Visit www.whitemountdesign.com 613-837-1800.

INVENTIONS

IDEAS, INVENTIONS, NEW PRODUCTS! One of America's leading invention firms can help you submit to industry. Patent services. Call 1-800/288-IDEA.

JOB/BUSINESS OPPORTUNITIES

EASY WORK! EXCELLENT PAY! Assemble Products at Home. Call Toll Free 1-800-467-5566 EXT. 11856.

COUNTRY CRAFTS. Earn \$2,000/weekend making crafts and small wooden furniture. To receive free information packet, call 800-382-3180 ext. 7027.

BUNK BEDS. Clear \$300/day making Bunk Beds. Start at home in your spare time. Low start-up cost. 800-382-3180 ext 1236.

MUSIC/SUPPLIES

PLANS, KITS, SUPPLIES for musical instruments: harps, dulcimers, psalteries, banjos, guitars, more. Musicmaker's Kits, Dept. B98, PO Box 2117, Stillwater, MN 55082. 612/439-9120.

PLANS/KITS/PATTERNS

FURNITURE PLANS. Rolltop desk, Cradle, Winerack, and many conventional designs. Catalog \$3.00; Lake Superior Design, Box 751, Grand Marais, MN 55804-0751.

TOOLS/EQUIPMENT

BAND SAW BLADES: Low tension Swedish Silicon Steel "TIMBER-WOLF" bands. 1/16" thru 1 1/4". FREE CATALOG 1-800/234-7297. Email: timberwolf2@worldnet.att.net HOME PAGE: timberwolf1.com

5000 USED 50 Grit Norton Belts. 4" x 300". Excellent condition, \$2.00 each. 1-800-466-6211.

YOUR SHOP SOLUTION SOURCE

You've invested a lot in your workshop. Now get the most out of your equipment.

- Mobile Bases
- Outfeed Rollers
- Sawing Centers
- Planing Centers
- Saw Guards
- Pedestal Rollers
- Roller Tables
- Tool Tables
- Tool Pedestals
- Mitre Saw Stands
- Drill Press Support
- Spindle Sanders
- Router Accessories
- Machine Covers



HTC Products, Inc.
Royal Oak, MI 48068-0839

Call for a **FREE** Shop Solutions Catalog.
1-800-624-2027

**Start Your Own Business
CUSTOM ENGRAVING**

No Experience Necessary • No Artistic Ability Needed

• 400,000 RPM Engraving Tool

• Unlimited Potential

• Complete Stencils



Professional Results



There is no experience necessary because SCM has developed a business opportunity that will have you producing professional engraving in a few short hours – just by tracing lines! *It's That Easy!*

Engrave on... • Glass • Wood • Metal • Stone • Marble • Eggs

To Find Out
Just How Easy It Is
Call Now For Details...

1-800-755-0261

W140 N5946 Lilly Road • Menomonee Falls, WI 53051 (414) 252-3989



HEGNER Scroll Saws
THE EXPERTS' CHOICE

"I have personally owned and enjoyed HEGNER Saws for over twelve years. HEGNER's smooth, quiet performance is only one of it's many unique advantages. Choose a HEGNER and you'll enjoy scrolling the way it's meant to be."

— Patrick Spielman

America's #1 Woodworking Author and Publisher of Home Workshop Magazine

For over twenty years, HEGNER Scroll Saws have been the experts' choice because of features like space-saving design, fast and easy blade changes, unmatched reliability, and superior warranties. Call for your **FREE** Catalog today.



Home Workshop Magazine is packed with detailed project patterns and instructions, news, tips and techniques. Subscribe now for only **\$19.95 per year** (6 issues).

If you order a HEGNER saw before December 31, 1998, we will give you a **FREE** one year subscription to Home Workshop Magazine.

Call for your **FREE** Catalog or to order your Home Workshop subscription now.

1.800.727.6553

ADVANCED MACHINERY

P.O. BOX 312 • DEPT. 886 • NEW CASTLE DE 19720 • WWW.ADVMACHINERY.COM

DELTA TOOLS			
Model	Description	List	Sale
50-860	New 850 CFM Air Cleaner	239	239
31-695	6" Belt/9" Disc Sander	441	299
23-710	New Sharpening Center	217	145
23-680	6" Bench Grinder 1/4 HP	80	69
40-460	4" Belt/Disc Sander	198	119
15-160	2" Speed Scroll Saw	230	155
40-440	16" w/ispd Scroll Saw	249	179
11-990	12" Bench Drill Press	255	184
11-090	32" Radial Bench Drill Press	405	279
43-505	1/2" Bench Router/Shaper	398	299
22-540	12" Bench Top Planer	259	259
28-195	10" Band Saw	390	309
22-560	12-1/2" Planer w/ extra knives	329	259
36-865	Versa Feeder Stock Feeder	259	259
30-220	10" Compound Miter Saw	294	199
28-185	Bench Band Saw	213	168
39-240	10" Sliding Miter Saw	589	439
37-070	6" w/ispd Bench Joiner	351	265
14-650	Hollow Chisel Mortiser	380	239
33-990	10" Radial Arm Saw	981	799
17-900	16-1/2" Floor Drill Press	490	349
36-285	8-1/4" Builders Saw w/stands	268	268
36-210	10" Compound Miter Saw	344	199
34-555	Sliding Table	487	289
36-250	10" Slide Compound Saw	825	449
31-780	Oscillating Spindle Sander	253	194
31-760K31-780	w/ 31-781 spindle set	209	209
46-700	12" Wood Lathe	575	465
40-650	Q3 18" Scroll Saw	349	299
36-905	30" Unifence	346	255
36-906	50" Unifence	444	325
34-444	10" Contractors Table Saw	544	579

The following tools have a \$50.00 rebate! Price shown is before rebate.

36-455	10" Contractors Table Saw w/ 30" unifence, cast iron wing, 34-914 table board, & carbide blade	839	789
22-675	DC380 15" Planer	1175	995
28-275	14" Band Saw 3/4 HP	595	595
28-280	14" Band Saw 1 HP motor with enclosed stand	739	739
28-280Z	14" Band Saw 1 HP w/ 50-274 mobile base, 28-843 rip fence, & 28-266 cool blocks	839	839
31-280	Standing Center w/ stand	789	789
37-190	6" Deluxe Joiner	603	445

NEW Single Stage Dust Collectors			
50-850	1-1/2 HP, 1200 CFM	309	259
50-851	2 HP, 1500 CFM	455	399

MILWAUKEE TOOLS			
6527	New Sawzall with case	343	169
6537-2	6527 w/quick lok blade change	224	175
4007-212V	Drill w/keys chuck&2 batt	380	175
0224-1	3/8" Drill 4.5 amp magnum	236	132
0234-6	1/2" Drill 4.5A mag 0-850 rpm	255	134
0235-1	1/2" Drill w/keys chuck	255	142
0244-1	1/2" Drill 4.5A mag 0-600 rpm	255	134
0222-1	3/8" Drill 3.5 amp 0-1000 rpm	213	109
0228-6	3/8" Drill 3.5 amp 0-1000 rpm	207	109
0375-1	3/8" close quarter Drill	255	148
0379-1	1/2" close quarter Drill	288	155
6546-6	cds Screwdr 200 & 400 rpm	150	108
6547-6	6546-1 w/bits, 1/4" chuck & cs185	108	108
5399	1/2" D-handle Hammer Drill Kit	356	219
5397-1	3/8" w/ispd Hammer Drill Kit	275	145
5371-6	1/2" w/ispd Hammer Drill Kit	360	194
3107-6	1/2" w/ispd right angle Drill Kit	411	234
3300-1	1/2" w/ispd right angle Drill	378	219
6142	4-1/2" Grinder w/cse & acc.	224	129
6490-6	10" Miter Saw	496	265
6491	6490 w/ carbide blade & bag	594	328
6494-6	10" Compound Miter Saw	585	315
6266-6	Top Handle Jig Saw	315	159
6496-6	10" Slide Compound Saw	1050	569

FREUD CARBIDE TIPPED SAW BLADES			
5/8" Bore - Industrial Grade			
Item	Description	Teeth	List Sale
LU72M010	Gen Pur. A.T.B. 10"	60	69 42
LU82M010	Cut-off 10"	60	93 44
LU84M010	Comb 10"	50	78 45
LU85M010	Super Cut-off 10"	60	115 59
LM72M010	Ripping 10"	24	69 38
LU73M010	Cut off 10"	60	84 49
LU87M010	Thin Kerf 10"	24	72 45
LU88M010	Thin Kerf 10"	60	88 49
LU98M010	Ultimate 10"	60	128 68
LU91M010	Compound Miter 10"	60	88 54
F410	Quiet Blade 10"	40	95 49
SD308	8" Dado - Carbide	230	119
SD508	8" carbide w/cse & shims	344	168
FB100	16 piece Forsner Bit Set	338	194
94-100	5 pc. Router Bit Door System	320	169
FT200E	Plunge Router	388	189
JS102	Biscuit Joiner	388	119

HITACHI TOOLS			
CBF82	8-1/2" Slide Compound Saw	1169	448
C10FS	10" Slide Compound Saw	1627	699
C15FB	15" Miter Saw	1346	645
NV45AB	Coil Roofing Nailer	935	379
C10RA	NEW 10" Table Saw	632	319

MAKITA TOOLS			
5090DW	3-3/8" Saw Kit 9.6 volt	280	155
DA391D	3/8 angle Drill 9.6V	166	114
D391DW	3/8" angle Drill Kit 9.6V	341	189
ML902	Incandescent Flashlight 9.6V	14.95	
6095DW69	6" w/ispd Drill Kit w/2 batt	125	125
6095DW1E2	6095DW w/flashlight	139	139
6095D	6095DW Drill only & cse	Special 65	
632007-4	9.6 volt Battery	47	30
632002-4	9.6 volt Battery	39	28
6203DWAE	9.6V 3/8" Drill Kit w/2 batt	351	159
6211DWH6	12V 3/8" Drill Kit w/2 batt	368	175

CORDLESS DRILLS WITH 2.0 AMP HIGHER CAPACITY BATTERIES

6213DWAE	12V 3/8" Drill Kit	325	169
6233DWAE	14.4V 3/8" Drill Kit	358	205
9900B	3"x21" Belt Sander w/bag	347	179
9924BD	3"x24" Belt Sander w/bag	360	189
N1900B	3-1/4" Planer with case	263	142
1912B	4-3/8" Planer	352	205
N9514B	4" Disc Grinder 4.6 amp	118	65
34A000R3/8"	Angle Drill	355	185
2708W	8-1/4" Table Saw	637	295
6405	3/8" Drill Rev. 0-2100 rpm	115	65
6013BR	1/2" Drill Rev. 6 amp	270	159
9401	4" x 24" Belt Sander w/bag	458	235
5007NBK7-1/4"	Circ Saw w/ case	250	125
LS1011	10" Slide Compound Saw	995	428
LS1211	12" Slide Compound Saw	1620	695
3901	Plate Joiner Kit	376	209
3612C	3 HP Plunge Router	492	269
LS1040	10" Compound Miter Saw	460	259
LS1013	10" Dual Compound Slide Miter Saw	1088	599
BO5010	5" Random Orbit Sander	142	72
LS1220	NEW 12" Compound Miter Saw	379	
9227C	NEW 7/8" Polisher	350	195
SJ401	NEW 16" Bench Scroll Saw	300	175

SENCO AIR NAILERS			
SFN1	Finishing Nailer 1" - 2" w/ cs448	299	299
SN325	Nailer 1-7/8" - 3-1/4"	655	365
SLP20	Pinner w/cs 5/8" - 1-5/8"	422	229
SKS	Stapler 5/8" - 1-1/2"	390	279
SN70	Framing - Clip End 2 - 3-1/2"	725	449
SN65	Framing - Full Hd 2 - 3-1/2"	709	379
SN600	NEW Framing 2 - 3-1/2"	699	399
SFN40	Finish Nailer 1-1/4" - 2-1/2"	569	349

NEW Accuset Nailers by SENCO			
A100LS	Finish Stapler 1/2" - 1"	180	119
A150LS	Finish Stapler 1/2" - 1-1/2"	220	149
A125BN	Brad Nailer 5/8" - 1-1/4"	160	99
A200BN	Brad Nailer 5/8" - 2"	215	139

BOSTITCH AIR NAILERS			
Model	Description	List	Sale
N80S-1	Stick Nailer	Super Sale	325
RN45	Coil Roof Nailer 3/4 - 1-3/4	845	359
N60FN-2K	Finishing Nailer w/ case	557	275
BT35-2K	Brad Tacker 5/8" - 1-3/8" with case, oil, & brads	279	125
CWC100	1 HP Pancake Compressor	440	305
M11FS	Flooring Stapler 15 gauge	902	529
SJ32S-1K	Finish Stapler 1/2" - 1-3/8" with case & oil	269	145

JORGENSEN ADJUSTABLE HANDSCREWS			
Item#	Length	Capacity	List Sale of 6
#0	8"	4-1/2"	20.35 12.90 66.95
#1	10"	6"	23.30 12.90 71.95
#2	12"	8-1/2"	26.75 14.90 83.95
#3	14"	10"	33.85 18.55 105.75

PONY CLAMP FIXTURES			
Model	Description	List	Sale of 12
52	1/2" Black Pipe	15.45	3.50 92.50
52	1/2" Black Pipe	12.65	6.95 74.95

PANASER CORDLESS			
EY610FOFKW	12V 3/8" Drill kit w/ 2 Ironman batteries, 15 min. charger, & case	379	179
EY6101FOKW	12V 1/2" Drill w/ 2 Ironman batteries, 15 min. charger, & case	324	199
EY6230FOKW	NEW 15.6V Drill Kit with 2 Ironman batteries, 30 minute charger & case	425	209

EY3503FOFKW NEW 5-3/8" 12V Wood Cutting Saw Kit			
Model	Description	List	Sale
EY3503FOFKW	NEW 5-3/8" 12V Wood Cutting Saw Kit	500	259

BIESEMEYER FENCES			
B-50	50" Commer. Saw	443	325
T-SQUARE 52	52" Homeshop	360	275
T-SQUARE 40	40" Homeshop	335	255
T-SQUARE 28	28" Homeshop	325	245

AIRY AIR NAILERS			
Model	Description	List	Sale
0241SK	Brad Nailer 3/8" - 1-9/16"	180	98
0626SK	1-1/4" Crown Stapler 3/8" - 1-1/4"	194	98

STABILA LEVELS			
25010	10" cast Torpedo Level	43	29
24640	24" Level w/ hand holes	62.20	43
24670	48" Level w/ hand holes	79.70	58
24610	48" Level w/ angle setter	80	59

1998 TOOL CATALOG AVAILABLE Call Toll-Free 1-800-328-0457 In Minn. Call (612)224-4859 FAX: (612)224-8263 • www.7cornershdw.com CHECK • MONEY ORDER • VISA • MASTERCARD • DISCOVER

SEVEN CORNERS ACE HDW. INC.
216 West 7th St. • St. Paul, MN 55102 • Est. 1933

We are one of the last mail order companies to provide

FREE FREIGHT!

Order with confidence from Tools On Sale™

There are no hidden charges.

TOOLS ON SALE™
AMERICA'S LOWEST PRICED TOOLS
FREE FREIGHT TO THE 48 CONTINENTAL STATES ON EVERY ITEM
PRICES SUBJECT TO CHANGE WITHOUT NOTICE

DEWALT TOOLS			
Model	Description	List	Sale
DW308KNEW	Recipro Saw 10 amp	318	169
DW3786NEW	7-1/4" Framers Saw	210	169
DW222	3/8" Drill 0-1200 rpm, 6.7 amp	184	99
DW231	1/2" Drill, 0-850 rpm, 7.0 amp	240	129
DW236	1/2" Drill, 0-850 rpm, 7.8 amp with keyless chuck	254	149
DW124K	1/2" right angle Drill	590	329
DW321K	Top Handle Jigsaw Kit	300	164
DW364	7-1/4" Circ. Saw w/broke	294	162
DW610	1-1/2 HP 2 handle Router	286	149
DW411K1/4	sheet Palm Sander w/ cse	68	58
DW682K	Biscuit Joiner with case	448	199
DW705	12" Compound Miter Saw	734	359
DW621	2 HP Plunge Router	400	218

DEWALT CORDLESS DRILLS			
DW952K	2 3/8" w/ispd w/ two 9.6V XR batteries	284	129
DW972K	2 3/8" variable speed w/ two 12V XR batteries	362	182
DW972KQ	2 Above drill kit with 15 minute charger	254	129
DW991K	2 3/8" variable speed w/ two 14.4V XR batteries	415	209
DW991KQ	2 Above drill kit with 15 minute charger	245	129
DW994KQ	1/2" variable speed w/ one 14.4V XR batteries	458	239

DEWALT 18 VOLT CORDLESS TOOLS			
DW938K	Recipro Saw Kit	520	269
DW995K	1/2" Drill Kit	428	229
DW997K	1/2" Drill/Hammer Drill Kit	454	249
DW936K	5-3/8" Saw Kit	459	249
DW995KS-2	DW995K Drill, DW996 Saw and case	545	305
DW991KC-2	DW991K 14.4V drill kit, DW937 14.4V reciproc saw, & case	375	215
DW995KC-2	DW995K 18V drill kit, DW938 18V reciproc saw, & case	395	235
DW997KC-2	DW997K 18V drill kit, DW93		

Where are all the sawmills?

If you've never visited a sawmill but would like to, here's the perfect locator. *The American Sawmill Directory* lists over 3,500 sawmills across the United States and Canada, plus distributors and indexing by species. The 300-plus page book is published annually by *Southern Lumberman Magazine*, a publication serving the forest products industry since 1881.

There's a catch, though. The only way you can get the 1999 directory is by ordering a year's subscription to the magazine (12 issues). To get on the list to receive a directory, send \$21 U.S. or \$38 Canadian, to *Southern Lumberman Magazine*, 128 Holiday Court, Suite 116, Franklin, TN 37067.

Bosch finds oldest jigsaw

Last year marked the 50th anniversary of the jigsaw's introduction to U.S. woodworkers by Bosch Power Tools. Invented in 1946 by an employee of the Swiss company Scintilla AG, the jigsaw first went into production in 1947 under the Scinta and then Lesto brand names. Eventually, Bosch acquired a majority share of Scintilla and began selling its jigsaw in 1954. Company officials say that since then more than 20 million Bosch jigsaws have been sold, but they wanted to find some of the early models.

Bosch's yearlong search for the oldest jigsaw turned up many veterans. But the 48-year-old, still-operational jigsaw shown *above*, owned by Lee Wright, of Grand Rapids, Michigan, was determined



Bosch Power Tools awarded the prize for oldest jigsaw to the owner of this nearly 50-year-old Scinta jigsaw, which still works.

the eldest. The lead carpenter for the Grand Rapids' public schools, Lee originally bought the jigsaw at a local hardware store. In exchange for the jigsaw, which will go on permanent display at Bosch's Chicago headquarters, the carpenter received a year's supply of Swiss chocolate, a state-of-the-art Bosch jigsaw, and a Swiss watch.

Elder woodworking that pays for itself

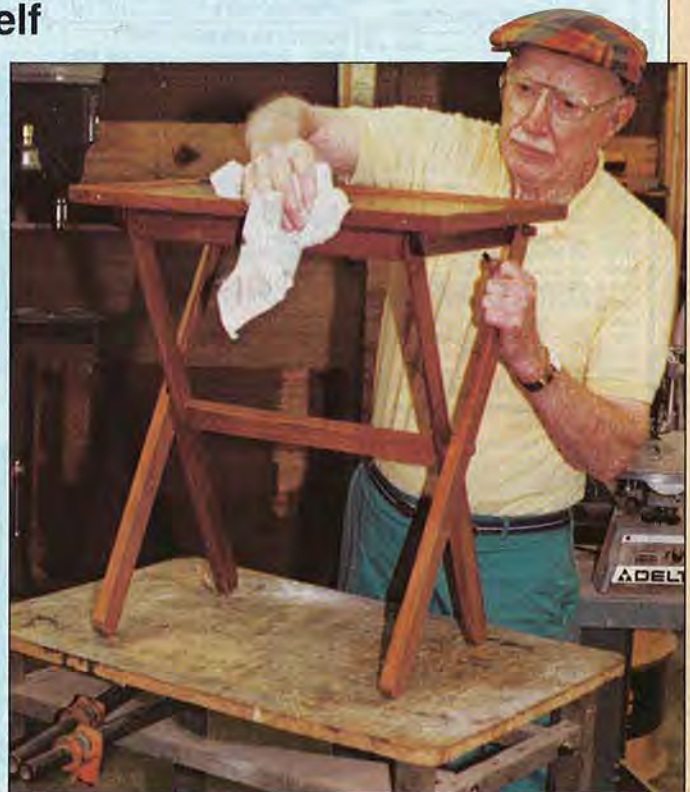
Bill Boardman, a *WOOD*® magazine reader and resident of Friendship Village, a Schaumburg, Illinois, retirement community, wrote to tell us about what he and his 30 or so woodworking buddies have going for themselves.

"We have 800 residents here, more women than men, naturally," he penned, "and most of them brought their own household goods with them. This means that a lot of things need fixing, and that's where we come in. We repair any item within the scope of our expertise—from furniture to toasters—and charge only for materials plus a requested donation to the Fix-It-Shop.

"That donation, plus what we make and sell at resident craft shows, keeps us in saw blades, sanding belts, screws, and an occasional piece of new equipment. This enables us to do our own woodworking projects for just the cost of materials."

Bill had another reason for writing, though. "Perhaps this information will encourage other retirement facilities throughout the country to get involved in something like this. The management here thinks so highly of our shop that they have just completed a new building for us. The shop is also a good sales tool for prospective residents."

Management covers the energy bills for the Fix-It-Shop, and participants sign waivers of liability. But according to Bill, it was up to his friends and him to furnish the start-up tools, as well as maintain them. ♣



Bill Boardman puts the final polish on one of several tray tables he built in his Illinois retirement community's woodworking shop.

Photographs: Courtesy of Bosch Power Tools; Friendship Village





The Freedom Of A Hammer, The Power Of A PneumaticSM

BAMMERTM

No Cord, No Hose, No Compressor... No Problem!

Three Models Perfect For The Job At Hand



**CDA250 Cordless
Angle Finish Nailer**
15 Ga., 1 1/4" - 2 1/2"



**CFN250 Cordless
Finish Nailer**
16 Ga., 3/4" - 2 1/2"



**CMS200 Cordless
Medium-Crown Stapler**
16 Ga., 7/16" crown 1" - 2"

No Regular Maintenance

The amazing oil-free piston and cylinder design keep carbon deposits to a minimum, delivering shot after shot without the need for maintenance and downtime. Plus there's no messy oil to spoil finish work.

No Complicated Fuel System

Bammer's pressurized fuel is injected into the engine as a gas. Together, the easy-load cartridge and heavy-duty two stage fuel regulator and fuel injection valve supply a smooth and consistent flow of fuel to the engine. The fuel is ignited instantaneously by 18 fingers of fire from the pre-combustion chamber, making every shot consistent and powerful. This helps you nail longer, up to 3,000 shots per cartridge, and into the hardest material.

No Batteries, No Motor, No Fan.

Piezo ignition eliminates batteries and complicated electronics. You generate the spark when you pull the trigger for consistent, trouble-free and uniform firing. Manual recycling means more reliable operation and lower costs.



Porter-Cable's new bammer line accepts Porter-Cable and competitive nails and staples

To experience the freedom and power of the Bammer, visit your local Porter-Cable retailer. Or call 1-800-487-8665 (519-836-2840 in Canada) for the dealer nearest you.

PORTER-CABLE

INNOVATION THAT WORKS

<http://www.porter-cable.com>

WANTED

~~RETIRED~~

Wanted for sawing, planing, drilling, molding and jointing in all 50 states. JET's band of woodworking tools was last seen in the company of the legendary contractor's style tablesaw. Anyone with information leading to the

purchase of these tools is advised to follow the stampede to your local JET dealer to round up the tools you've always wanted. JET is offering rewards of up to \$100 for the purchase of these notorious tools.

REBATES
up
to **\$100**

October 1, 1998 through February 28, 1999

JET
EQUIPMENT & TOOLS



JWTS-10
Contractor's
Style Tablesaw
\$549 MSRP

-\$50 mfr. rebate

\$499
after mfr. rebate



JSL-12BS
SHOPLINE™
Bandsaw
\$20
REBATE



JWP-15HO
Planer
\$100
REBATE



JWBS-14 Bandsaw
Open or Closed Stand
\$25
REBATE



JJ-6CSX
Closed Stand Jointer
\$20
REBATE



JPM-13
Planer/Molder
\$50
REBATE



DC-650 Dust Collector
\$15
REBATE



JTAS-10
Left or Right
XACTA SAW™
\$100
REBATE



JSL-10TS
SHOPLINE™
Tablesaw
\$20
REBATE



JDP-17MF
Drill Press
\$20
REBATE

DC-1200 Dust Collector
\$20
REBATE

For the name of your local JET dealer, call (800) 274-6848 or go to www.jettools.com.

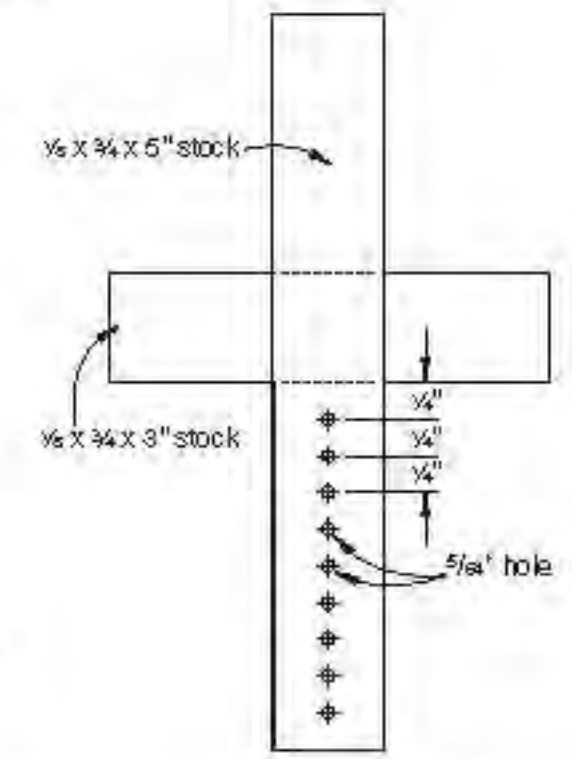
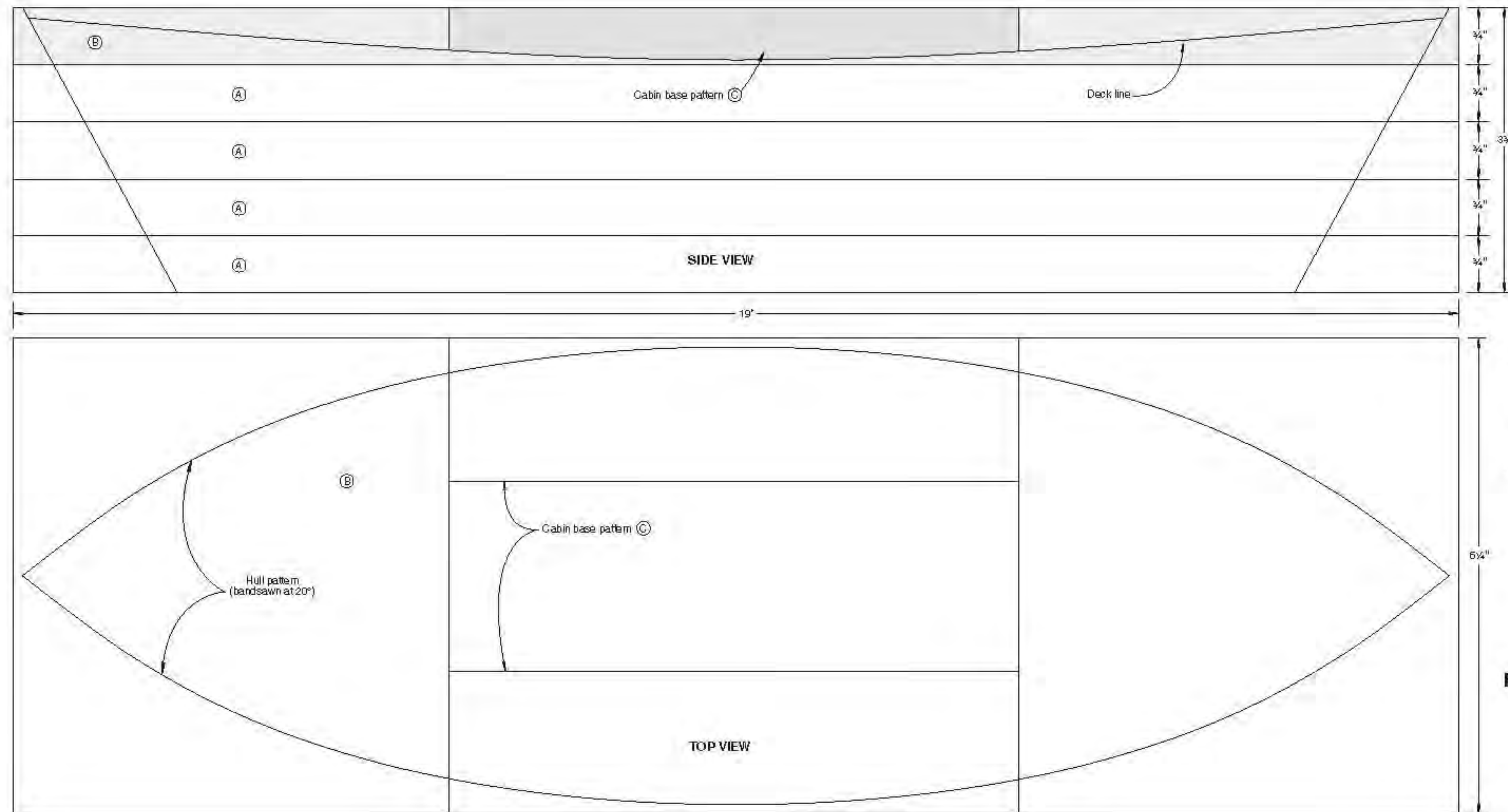
Amounts shown are manufacturer's rebates. Rebates also apply to 40th Anniversary Limited Edition tools.

Better Homes and Gardens®
WOOD PATTERNS

For your woodworking convenience

NOVEMBER 1998 ISSUE 109

Dear Reader: As a service to you, we've included full-size patterns on this insert for irregular-shaped and intricate project parts. You can machine all other project parts using the Bill of Materials and the drawings accompanying the project you're building.

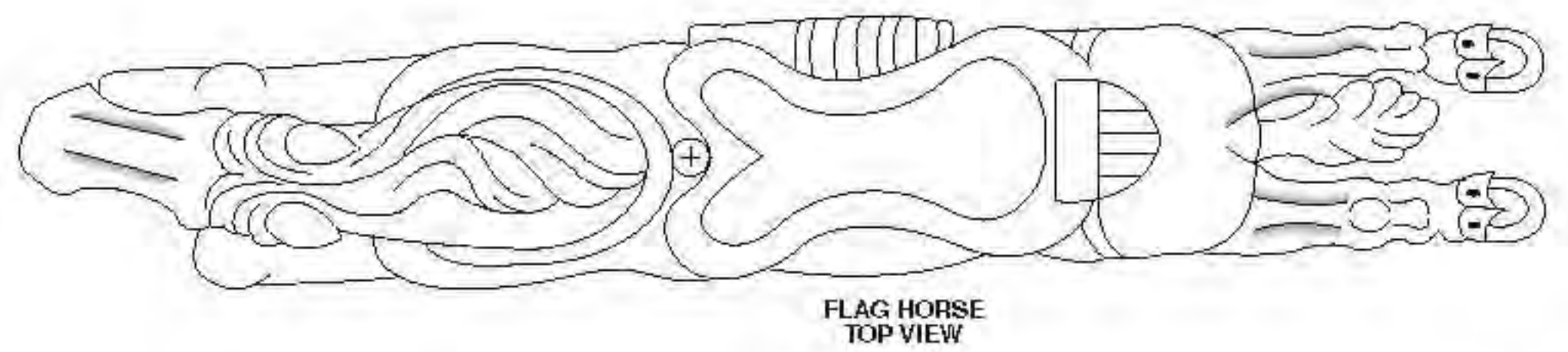


**NOAH'S ARK
 FULL-SIZE PATTERNS**
 Page 68

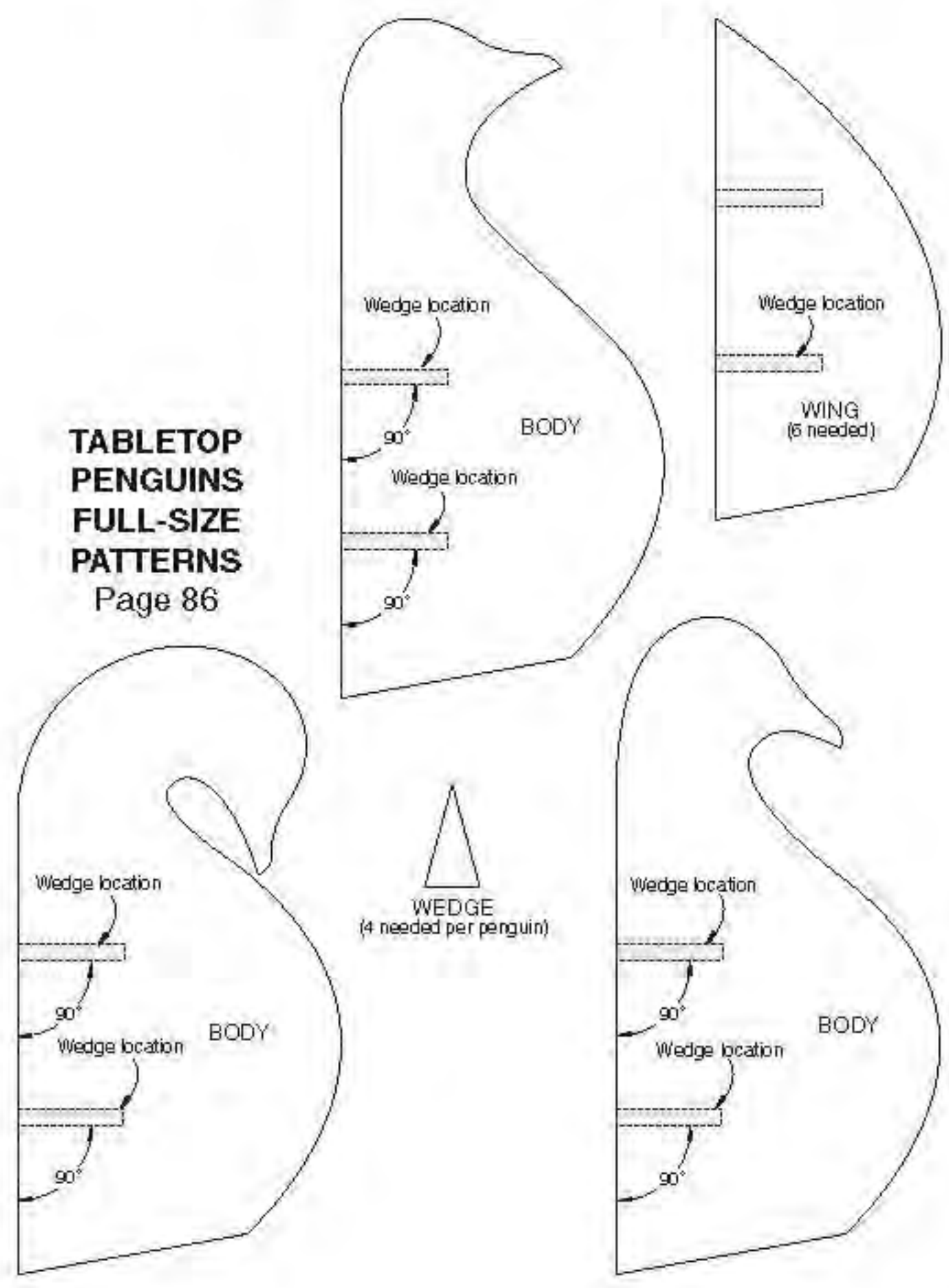
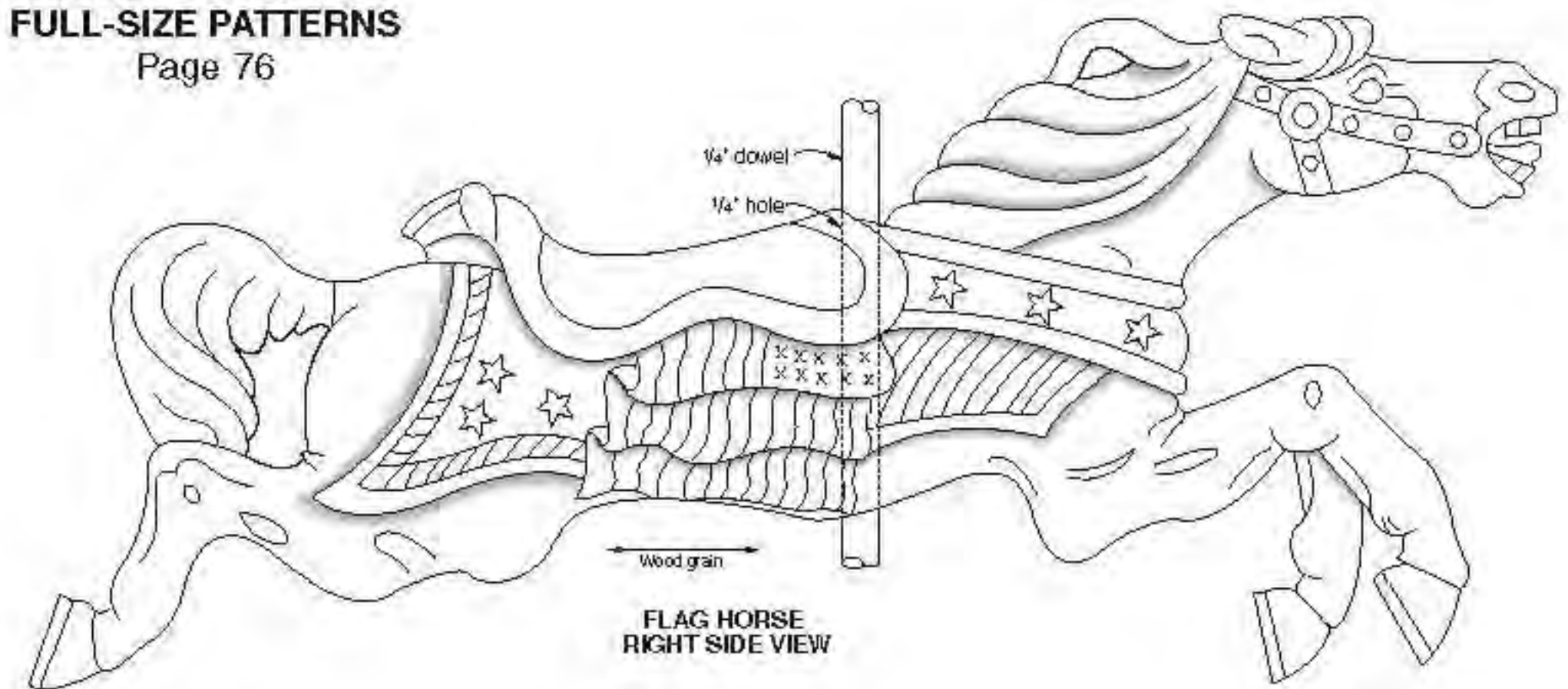
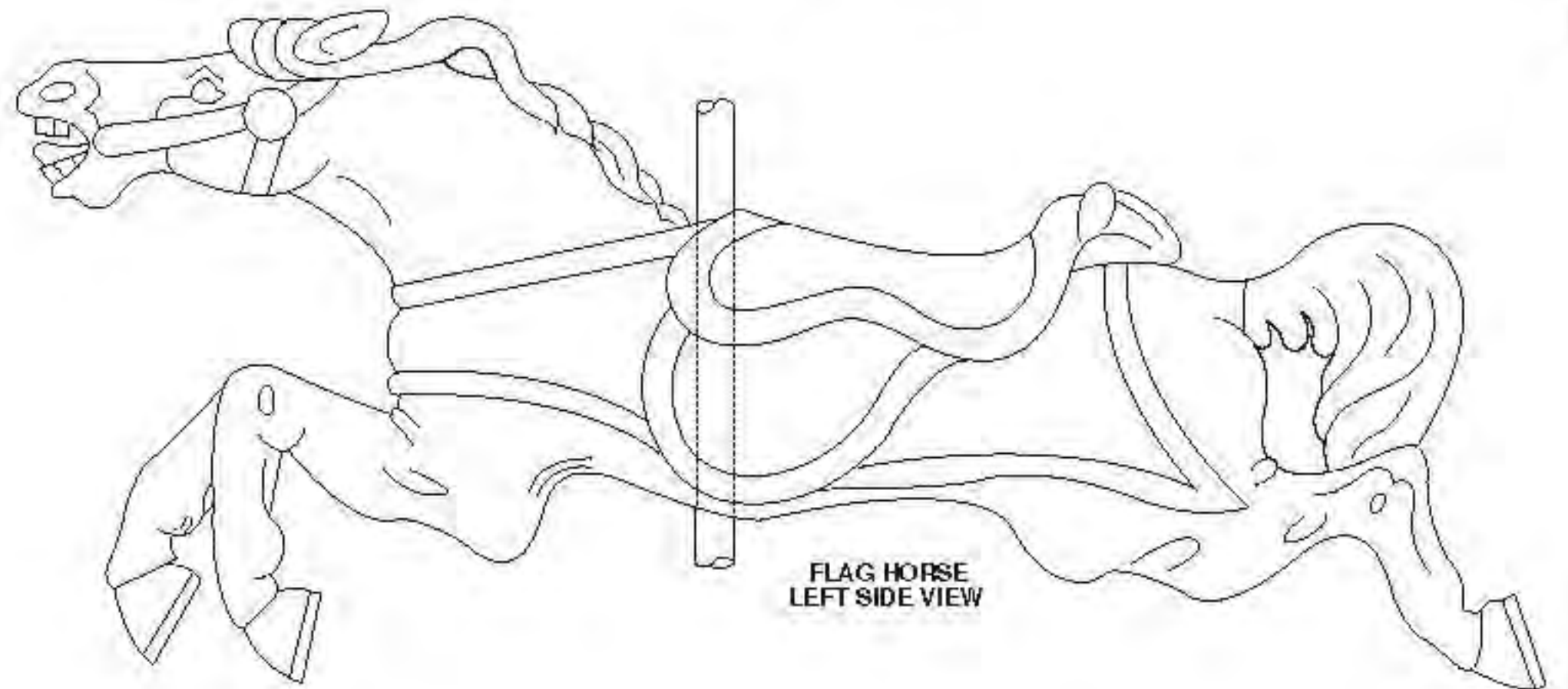
Tabletop Penguins
Router Table Cabinet
Birdfeeder
Carousel Horse
Nativity Music Box
Noah's Ark

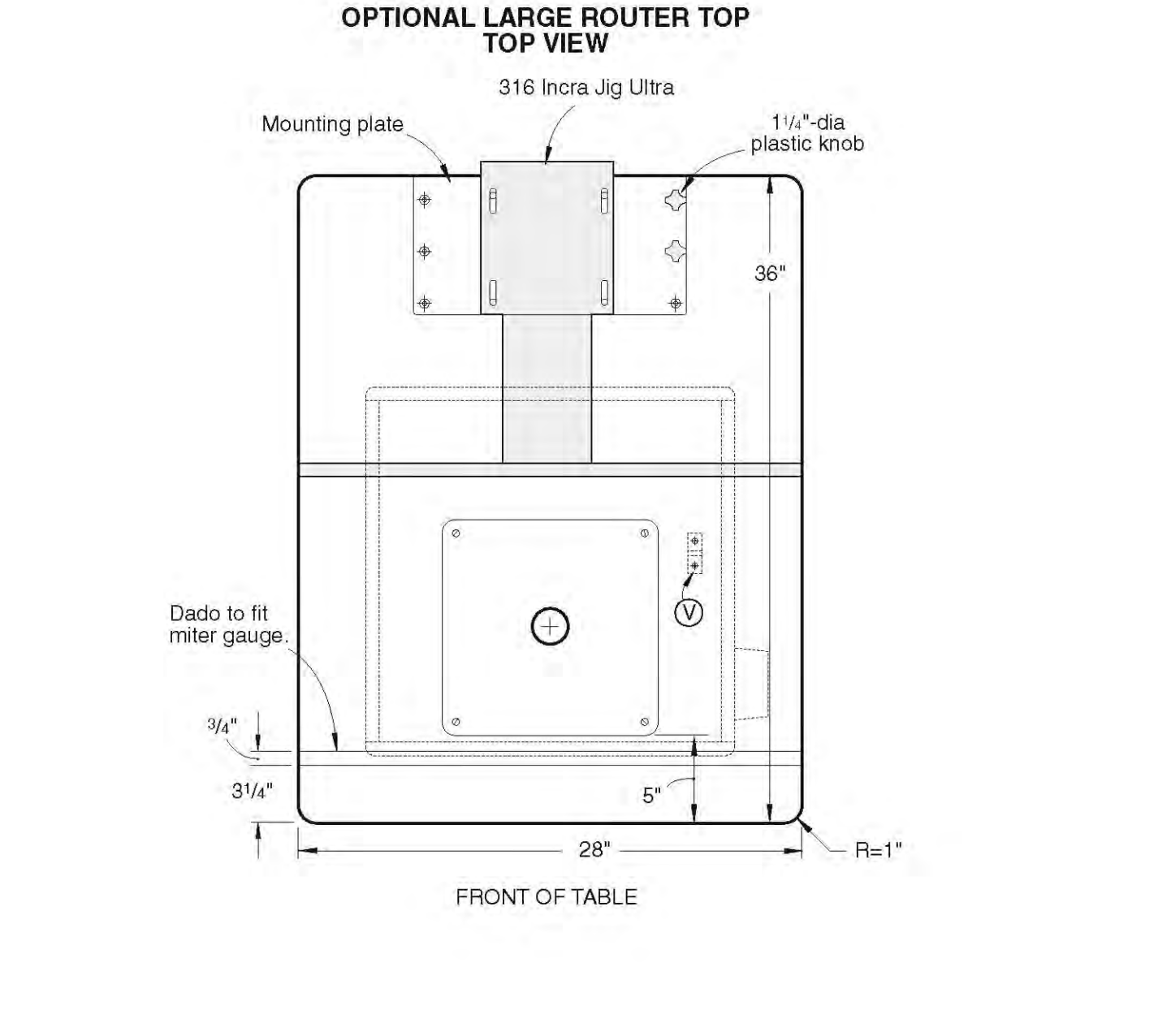
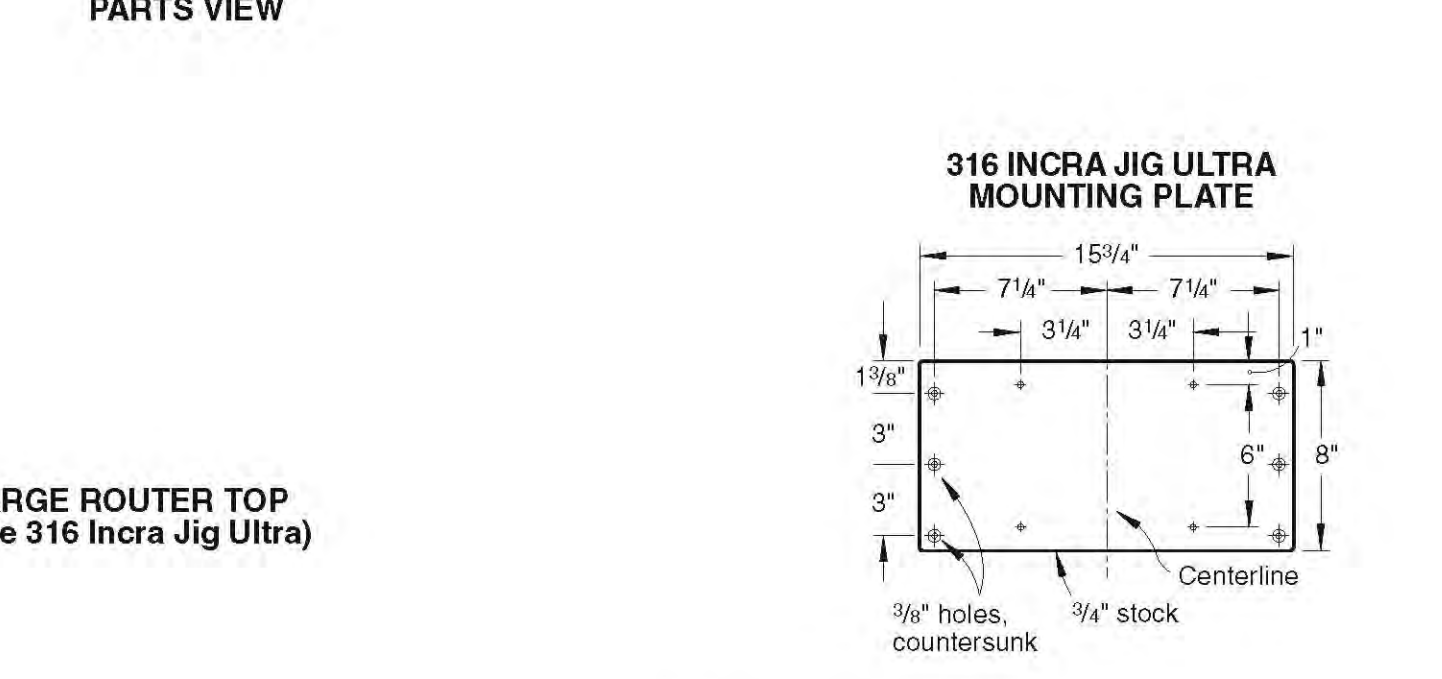
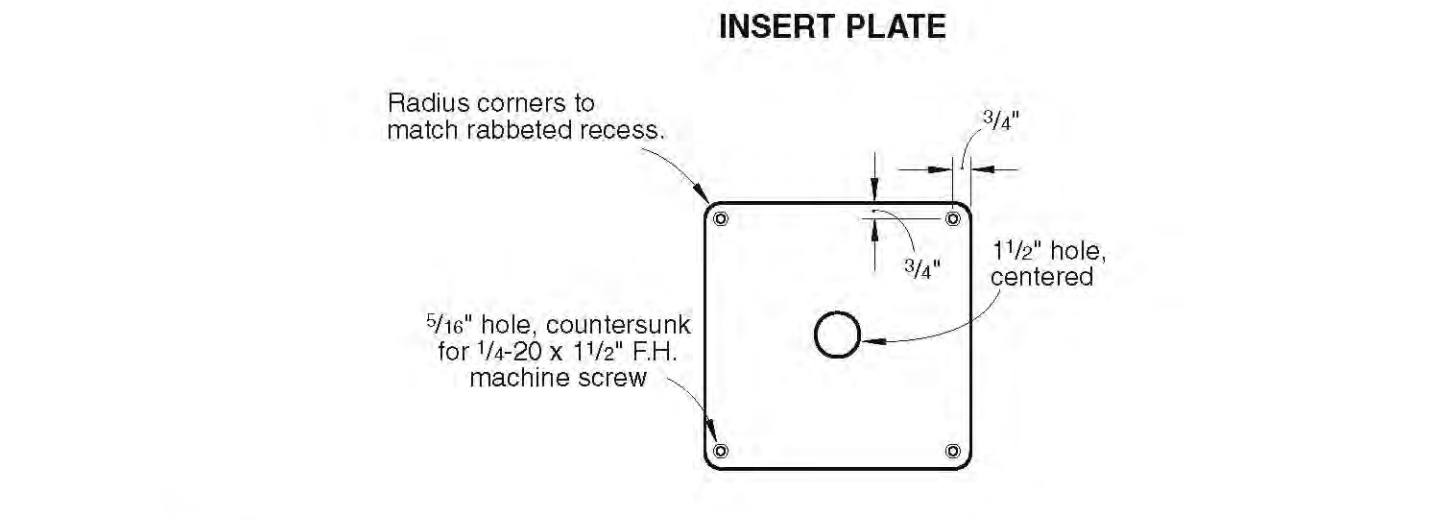
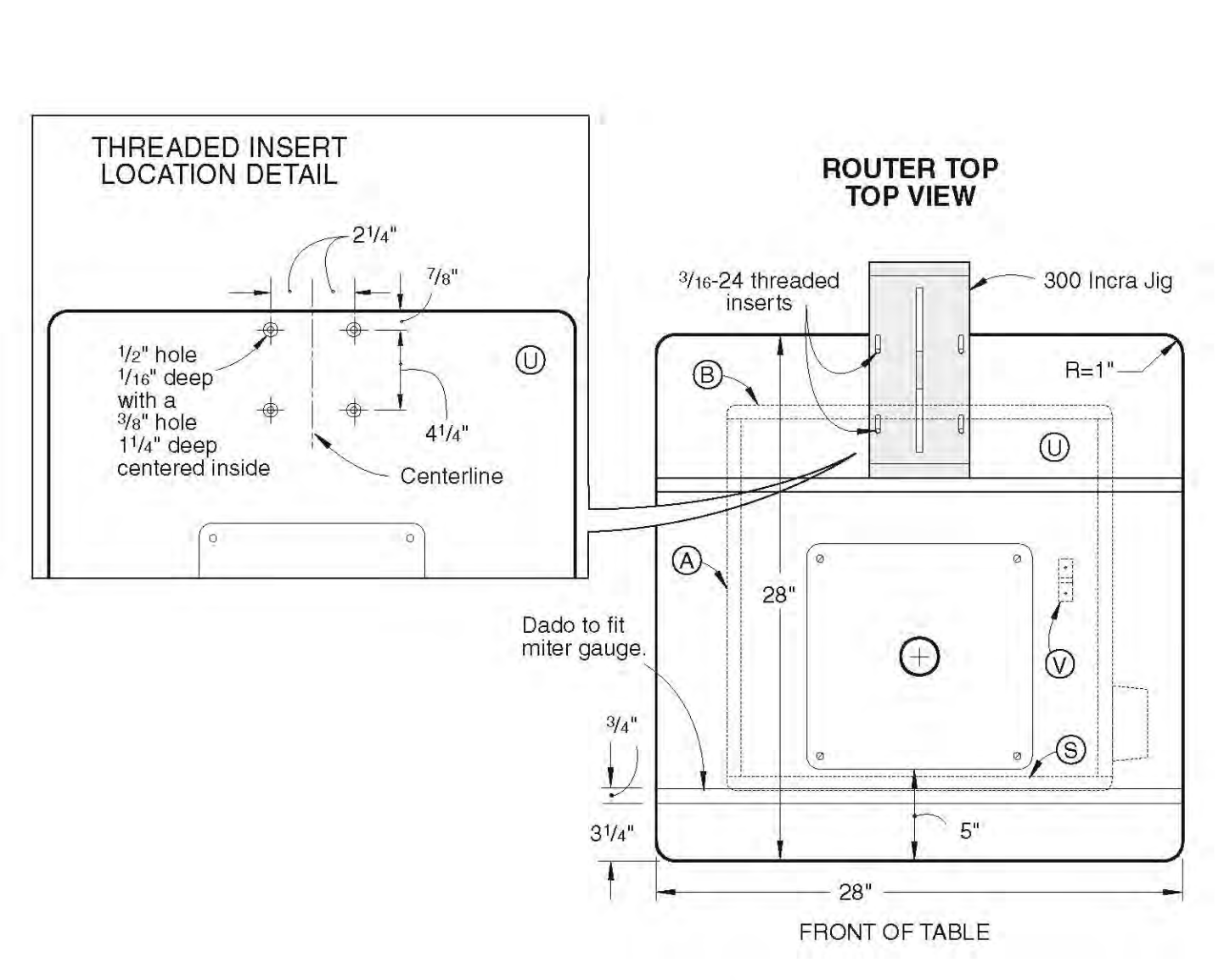
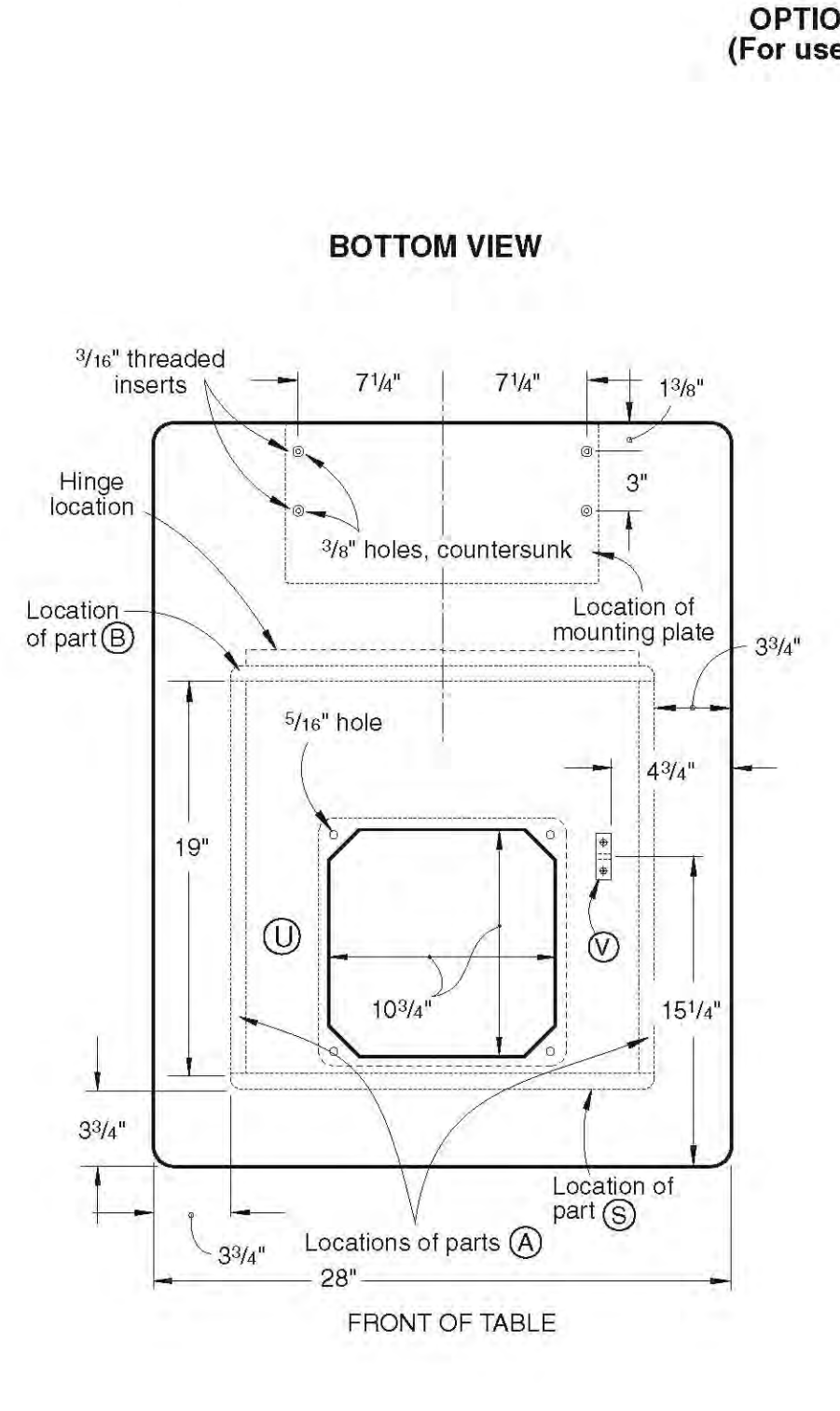
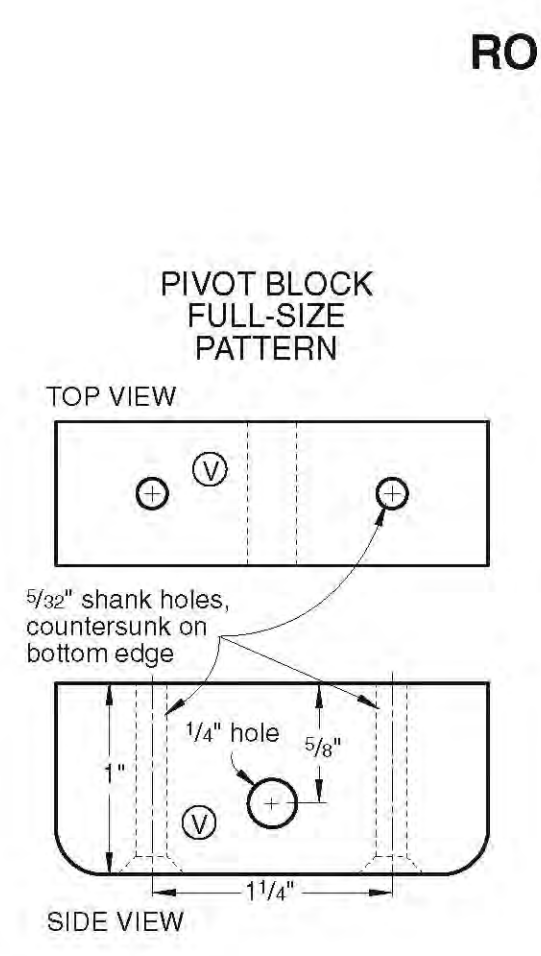
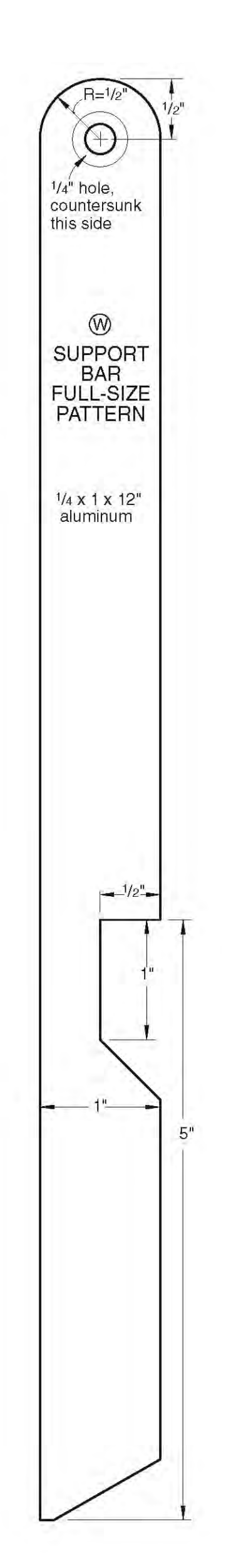
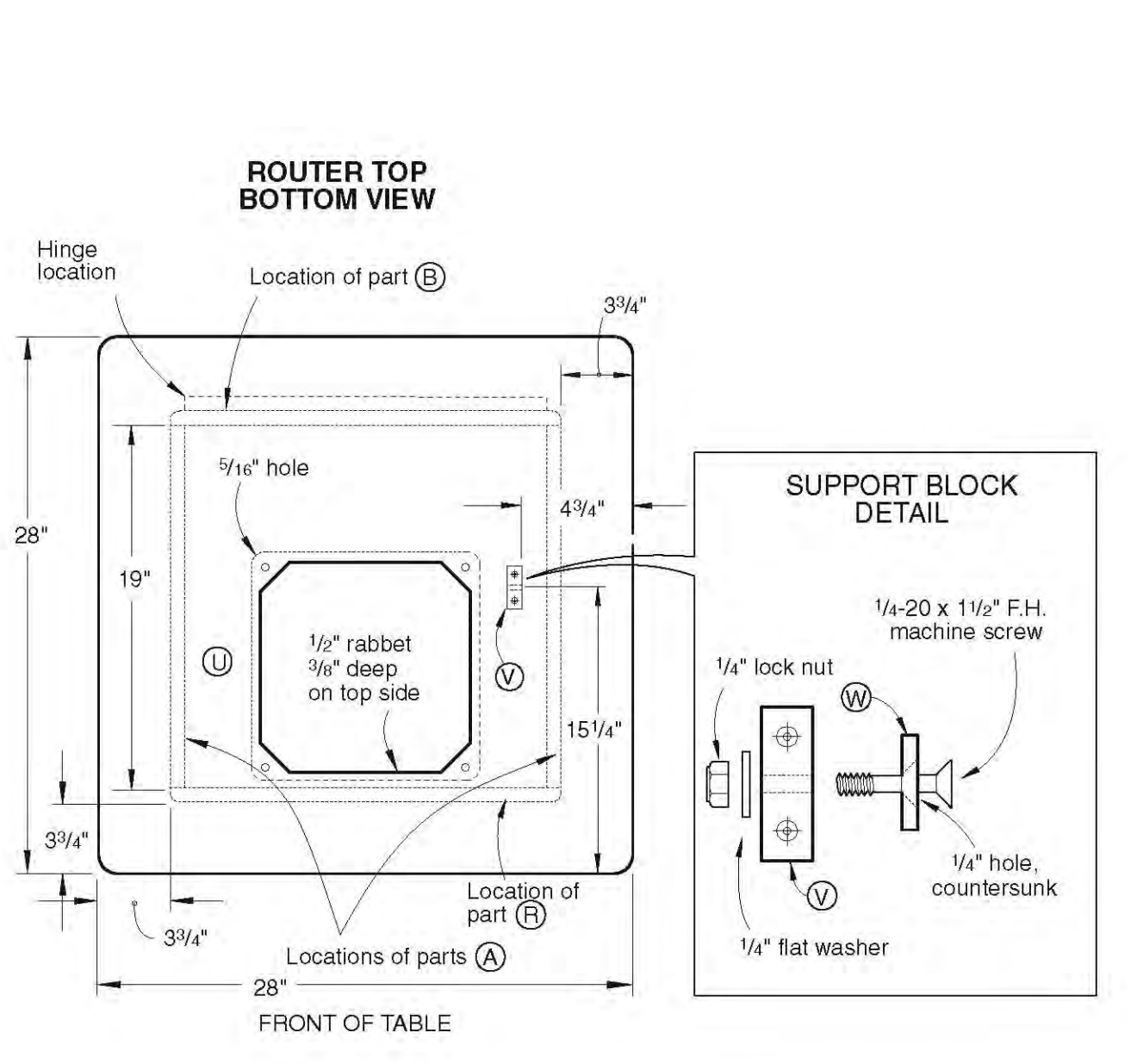
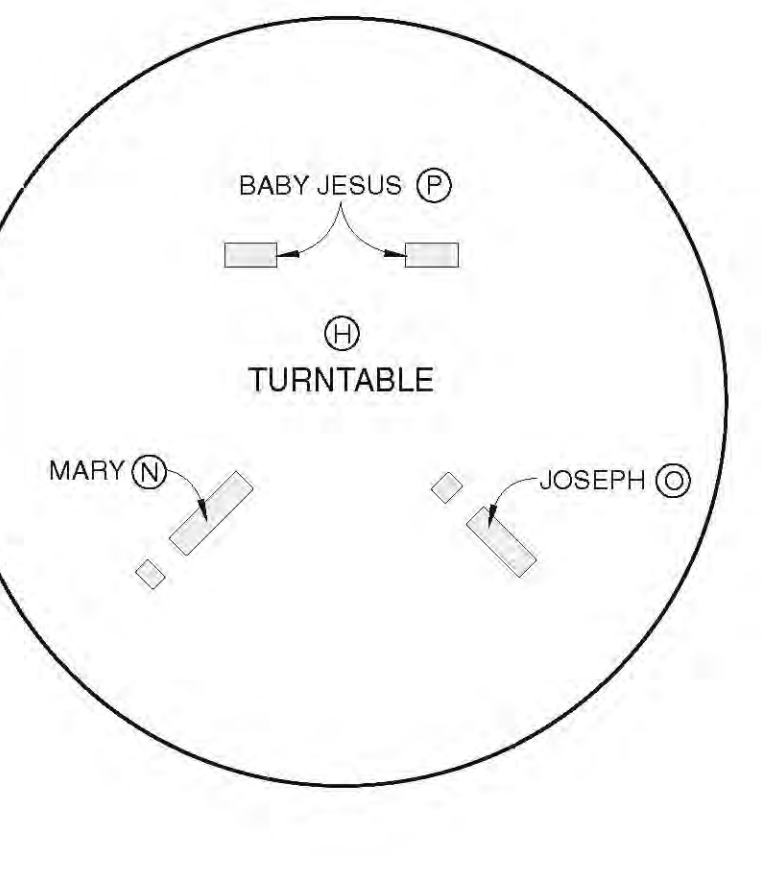
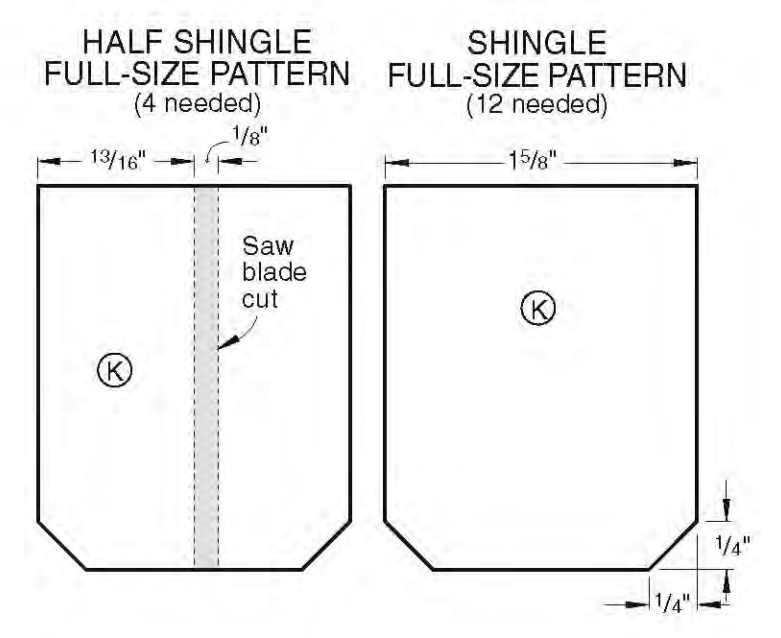
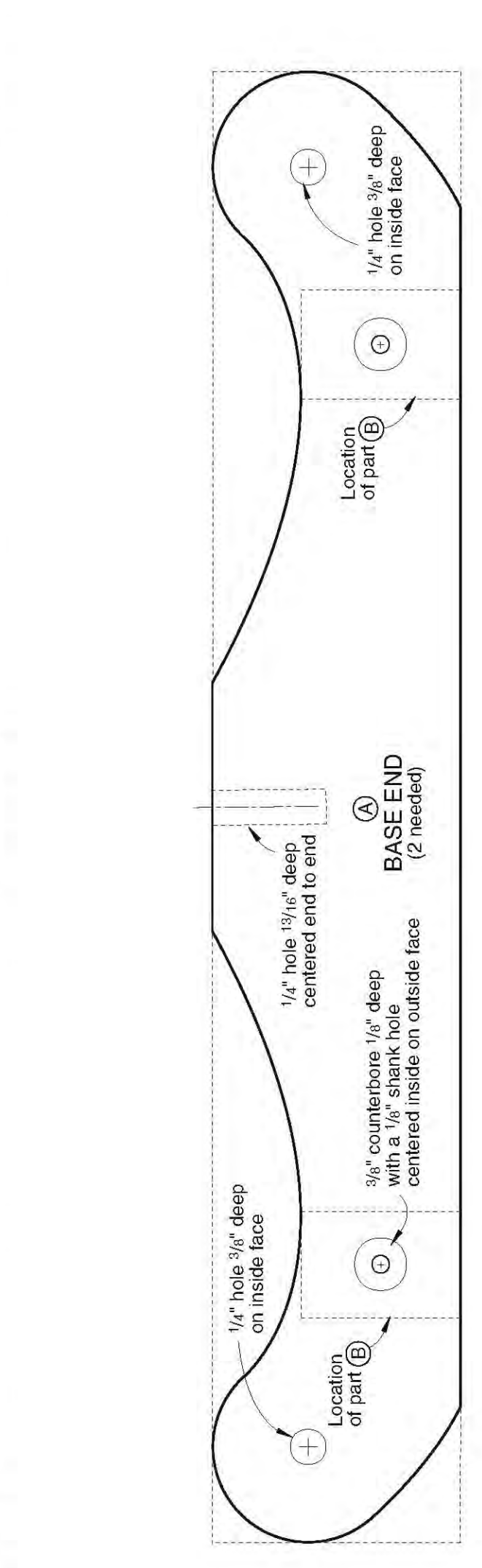
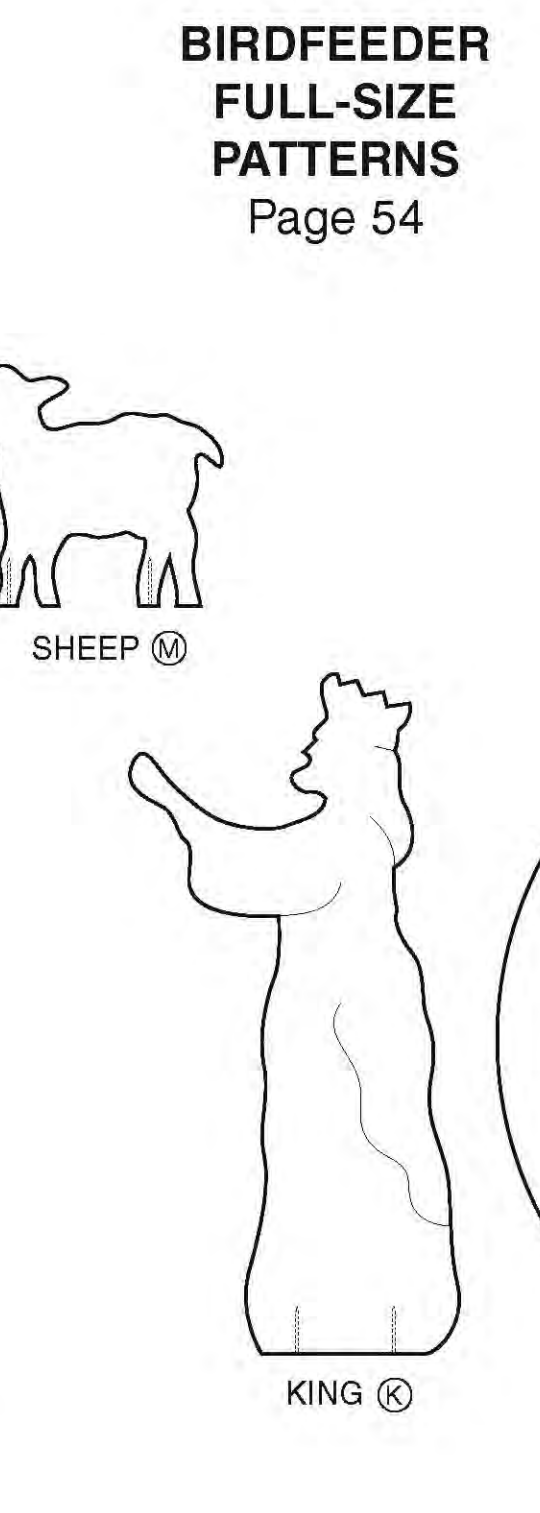
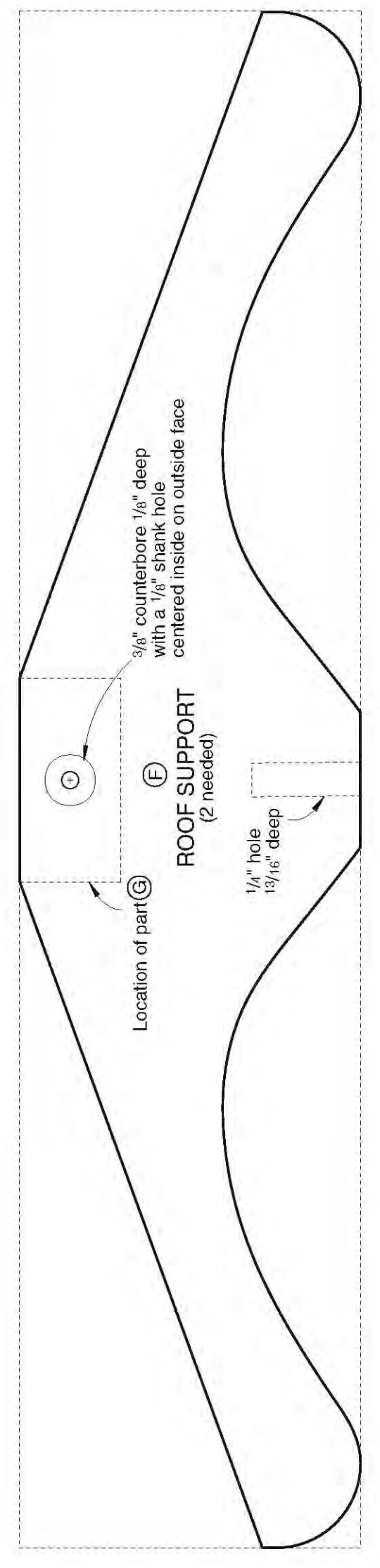
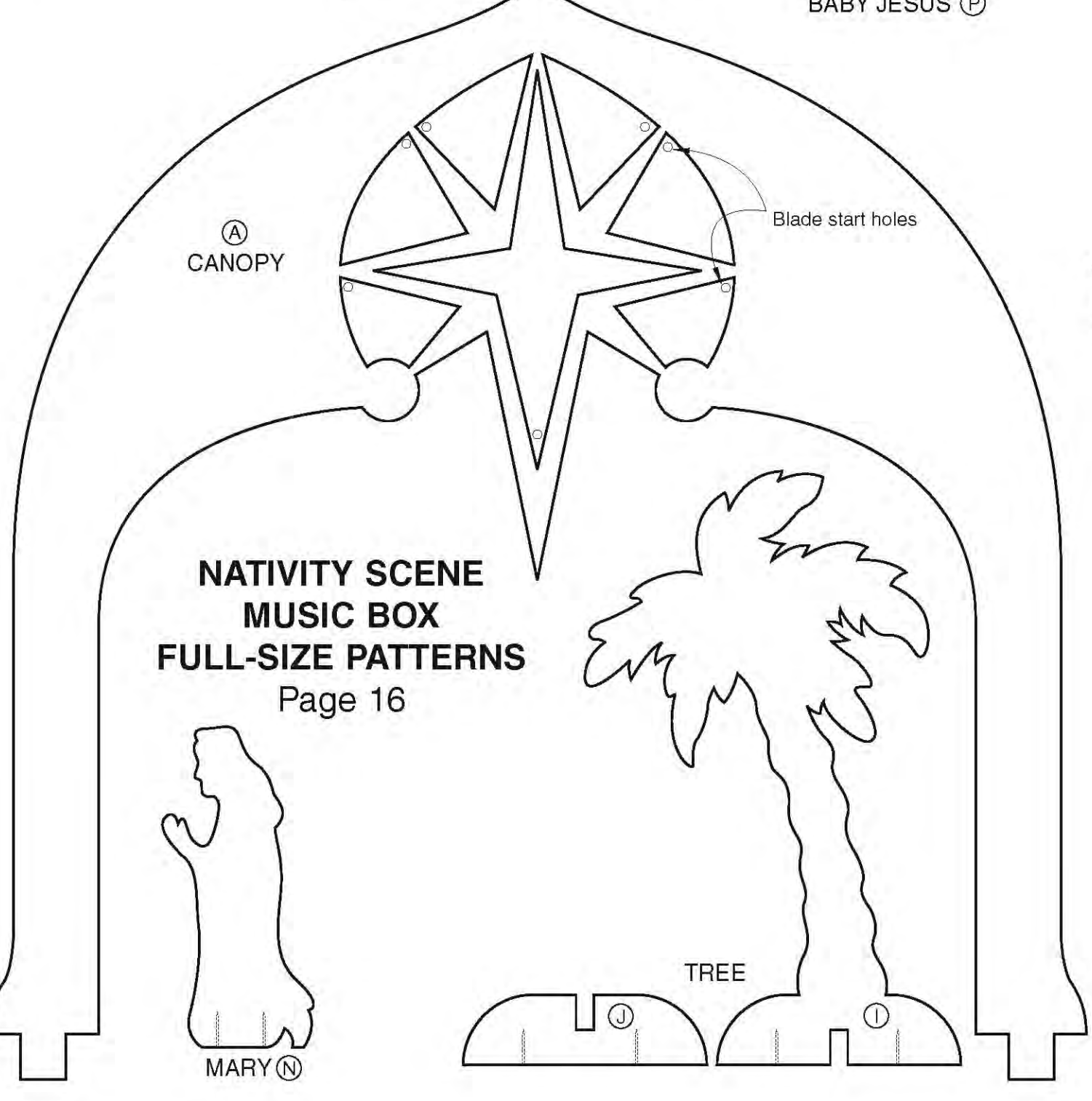
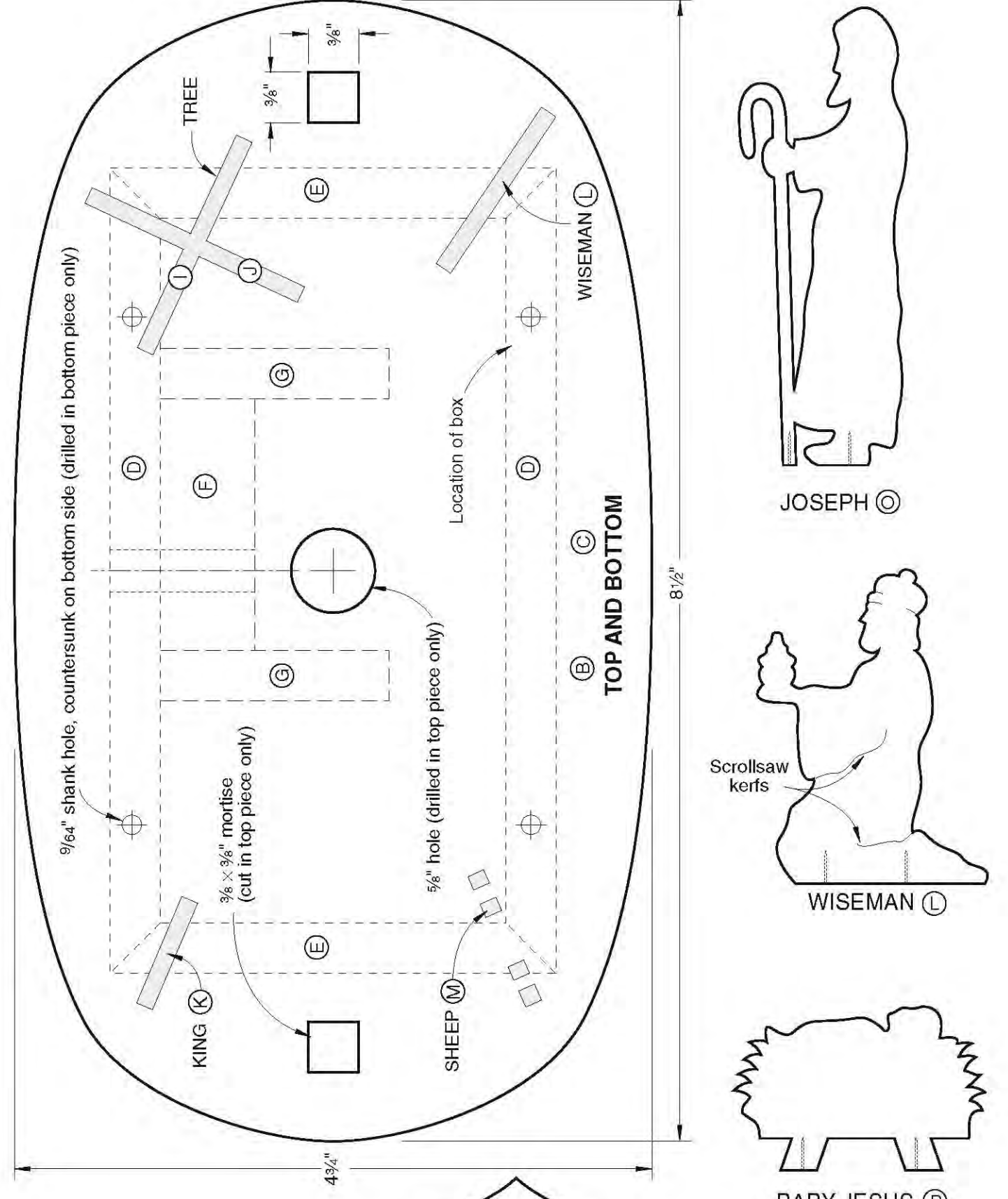
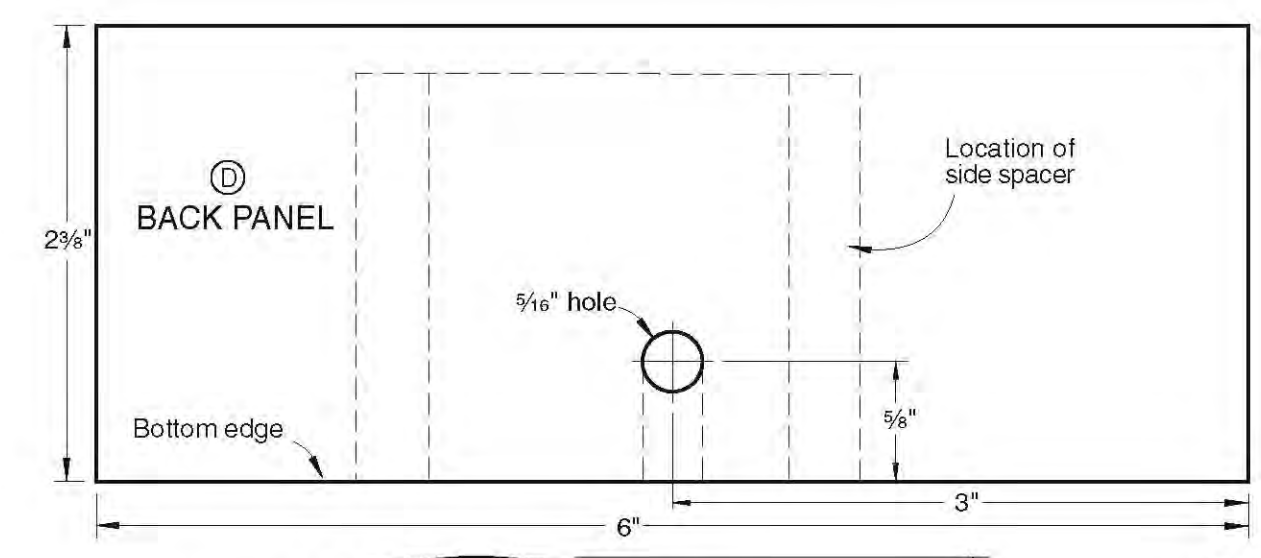
Page 86
 Page 80
 Page 54
 Page 76
 Page 16
 Page 68

© Copyright Meredith Corporation, 1998. All rights reserved. Printed in the U.S.A.



**CAROUSEL HORSE
 FULL-SIZE PATTERNS**
 Page 76





ROUTER TABLE CABINET
 Page 80

OPTIONAL LARGE ROUTER TOP
 (For use with the 316 Inkra Jig Ultra)

