

Fine Woodworking's

S U M M E R 1 9 9 5

home furniture



A TAUNTON MAGAZINE



\$5.95 U.S.
\$6.95 Canada
£3.60 U.K.

A CHAIR BUILT FOR COMFORT



© 1994 S-B Power Tool Company, 4300 W. Peterson Ave., Chicago, IL 60646

Few things in life give you this much control.



There isn't a cordless drill that offers a better combination of power and precision than the Bosch B2300.

This variable speed, reversing drill/driver harnesses 12 volts of power with the innovative Quiet Torque™ clutch—a Bosch exclusive.

At the turn of a dial, you can fine-tune the setting to an unprecedented 21-levels in two speed ranges. And unlike the noisy clutches on other drills, there's no mechanical grinding and wear. The result is quieter operation and longer tool life.

The B2300 also features a ball-bearing keyless chuck and a quick-action brake. Plus there's a one year warranty, 90 day satisfaction guarantee and one year service protection plan.

So get the cordless drill that puts you in control of any situation, the B2300 from Bosch.



BOSCH
POWER TOOLS

ENGINEERED FOR PERFORMANCE™



THE WORLD'S FINEST CHISEL



Oishi Blue Steel chisels will take a sharper edge and hold it longer than any other chisel in the world. They can be driven with a 26 oz. hammer or hand guided for the most delicate of cuts, backed by 100 years of sword-making tradition,

the Oishi family prides itself on making only the best. For a two year subscription to the only complete catalog of Japanese wood-working tools reflecting this same pride and age old tradition, send \$1.50 to:

WOODLINE
THE JAPAN WOODWORKER
1731 Clement Avenue, HF2
Alameda, CA 94501
Phone 510-521-1810

READER SERVICE NO. 58

Veneering with Vacuum



Once you've flattened, matched, seamed, taped and fussed over the veneer for your rosewood and babinga coffee table, you don't want to take any chances when it comes time to press it. With a VacuPress® veneering and laminating system you get high quality consistent results whether it's the diamond matched top or the curved apron. You can depend on it.

Whether you are a custom wood-worker who wants to try your hand at veneering or a large shop with a specific veneering problem to solve, give us a call, we have the right VacuPress® system for you.

Video available

VacuPress Systems, Inc.

553 River Road, Brunswick, Maine 04011
Telephone 207-725-0935 Fax 207-725-0932

READER SERVICE NO. 51

JoinTECH

Introduces the
CabinetMaker's System™



Call, Write or Fax for
a FREE BROCHURE and
Special Introductory
Offer Details

JoinTECH

P.O. Box 790727
San Antonio, TX 78279

TOLL FREE:
(800) 619-1288
TEL: (210) 377-1288
FAX: (210) 377-1282

This NEW System invented by JOINTECH, whose Dovetail Machine has already been recognized as the Best and Easiest to use, can perform all operations in Cabinet and Furniture making.

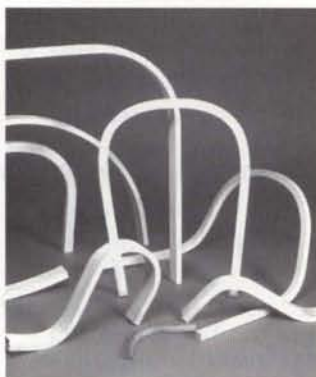
With the Cabinet Maker's System™, you can make raised panels, rails and stiles, tongue and groove, do face frame construction, drawers, edgework and much, much more. It includes everything you need to make 48 beautiful dovetail and box joints.

JOINTECH's Cabinet Maker's System™ can do it all! It is simply the best investment in high quality performance and at a very affordable price.



READER SERVICE NO. 116

Bentwood Furniture Parts



Uniformity.
Quality.
Consistency.

Uniformity, Quality & Consistency are essential factors for smooth assembly & profitability in furniture construction. At Sawyer Bentwood, our parts meet or exceed the highest standards in the industry.

In business since 1801. Specializing in solid hardwood steambent components since 1954, we dry in our own kilns, cut & plane in our mill & steam bend with our proprietary system.

Please call us for your bentwood product needs. We assure prompt attention, quality & pride of craftsmanship.



**Sawyer
Bentwood, Inc.**
Maple Drive, RR Box 25A
Whitingham, VT 05361-9703

Contact: Bob Sawyer
or George Campo III
(802) 368-2357
Fax: (802) 368-7446

READER SERVICE NO. 119

No. 3 • THE • ANDOVER • QUALITY • WOOD • SERIES • No. 3

NEW!

Solid Rock Maple
Shaker inspired "Shawl Rail"
Ladder Back
Arm & Side Chairs



Ready
to
Assemble

Third in the Andover Quality Wood Series is the ready-to-assemble, Shaker Inspired "Shawl Rail" Ladder Back chair. Each component is crafted from quality solid rock maple to exact tolerances for ease of assembly. And our proven wedge construction insures you a tight, stable, solid fit for utmost strength of the front post to arm and shawl rail to back post, resulting in a chair with classic country style. Extreme care has been given to the selection of wood and aligned parts that become part of the chair. The attention to detail is impeccable. All parts are fully kiln dried, shaped, turned and sanded. Assemble, sand wedges and apply your finish. Assembly instructions included. Price includes enough tape to weave one seat. Order from one pair up. Packed 2 to a box. Choice of 6 colors for material of woven seat. Call Andover Wood Products for color swatches.

Delivered prices: Side: \$124.⁹⁹ ea. • Arm: \$140.⁹⁹ ea.
West of the Mississippi: Add \$5.00 per chair.

Price includes shipping. Send check or money order payable to:

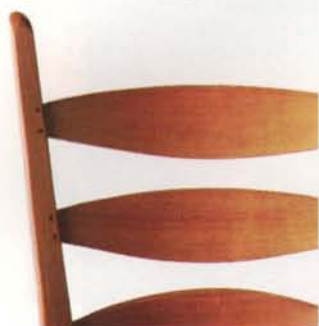
ANDOVER WOOD PRODUCTS, Inc.

Dept. HF • P.O. Box 38 • Andover, ME 04216-0038 • (207) 392-2101 • FAX (207) 392-1241

READER SERVICE NO. 52

home furniture

SUMMER 1995 NO. 3



On the cover: The back splats for this chair, made by Brian Boggs, were bent around a model of the human torso. See p. 76. Cover photo by Boyd Hagen.

Departments

- 6 Letters
- 10 The Drawing Board
- 14 The Finish Line
- 96 How They Did It
- 100 Sources
- 106 About the Furniture Makers

Features

- 18 From Concept to Cabinet
BY JOHN GALLAGHER
Visualizing the piece through sketches, models and mockups
- 24 Origins of Arts and Crafts
BY ANNETTE CARRUTHERS
The seeds of the style now in revival were sown in turn-of-the-century England
- 82 A CAD Primer
BY GLENN THOMPSON
A computer-aided design program is a powerful drafting tool
- 86 An Artist Masters the Craft of Furniture Making
BY JONATHAN BINZEN
Duane Paluska builds furniture that speaks with the unassuming eloquence of its maker



Furniture Collection

TABLES AND DESKS

- 36 Mesquite Desk
BY PETER A. CHRISMAN
- 42 Hall Table in Sapele
BY BRIAN CHITWOOD
- 60 Hall Table with Ebony Applique
BY BRIAN KELLY
- 64 Tables Inspired by the Desert
BY PHIL ELIA
- 66 A Desk with Distinguished Ancestry
BY JEFFREY P. GREENE
- 70 Design Simplifies Construction
BY NIAL BARRETT
- 74 Cherry Side Table
BY PETER TURNER
- 80 Writing Desk with a Touch of Texture
BY GEOFFREY D. WARNER

CHAIRS

- 34 Low-Arm Dining Chairs
BY DOUGLAS RICE
- 40 Spindle Chair and Upholstered Settee
BY BOB INGRAM
- 46 Dining Set in Cherry and Imbuja
BY GENE MARTIN
- 56 Cherry Bench
BY RICHARD BITTNER
- 76 A Chair Built for Comfort
BY BRIAN BOGGS

CABINETS, CHESTS AND BUILT-INS

- 32 Philadelphia Highboy
BY CHRIS ARATO AND ROBERT McCULLOUGH
- 38 Cherry Sideboard with American and British Bloodlines
BY KEVIN RODEL
- 48 Entertainment Center on a Tight Budget
BY PAULA GARBARINO
- 50 Western Tansu Bureau
BY MICHAEL HURWITZ
- 58 Mahogany Entertainment Unit
BY DALE CARSON
- 63 Cherry Doll Cabinet
BY PETER R. JENSEN

ACCESSORIES

- 69 Walnut Spice Rack
BY DAVE DENEKAS
- 72 Maple Music Stand
BY J. SCHREUTELKAMP
- 79 Vaulted Silverware Box
BY ABIJAH REED

BEDROOM FURNITURE

- 44 A Gem of a Bed
BY GLEN GURNER
- 53 Sheraton Field Bed
BY G.R. CLIDENCE

PLEASE, NO TEMPLATES OR MEASURED DRAWINGS

I just received *Home Furniture* No. 2 and am thrilled with the content. But your letters section gives me concern that you will even consider measured drawings. Don't change!

This is the exact magazine I've been looking for. Every other woodworking magazine has several compromises. Even your ads reflect the right level. I'd pay double the price (and cancel other magazines), if needed, to keep this magazine as it is! We don't need another magazine featuring, "Build this Queen Anne Highboy from scrap lumber with only your chainsaw and router!" I've just canceled two magazines that have changed to offering full-size templates. When I see ads for scroll saws, I'll worry about your direction.

—W.A. Siggelkow, Rochester, Minn.

PRINT FURNITURE MAKERS' ADDRESSES, PHONE NUMBERS

First of all, I want to admit to a complete turn-around in my thinking on *Home Furniture* after reading the first two issues. At first, I was very upset, like others, about the lack of detailed dimensions on the fine pieces of furniture. Then, after thinking about it, I firmly believe your stated purpose of the magazine is correct, so keep it up.

However, there ought to be a means provided to your readers that allows them to get details that cannot be achieved with the ruler, computer, eyeballing or whatever. Perhaps you could print the authors' complete addresses, with their permission, to allow direct communication.

Keep up the fine work on *Home Furniture*. My wife reads it before I get a chance.

—William K. Springfield, Arden, N.C.

When I subscribed to *Home Furniture*, I was hoping to see some wonderful examples of fine woodworking—and I have not been disappointed. The selections featured have been top-notch, and your layout, editing and illustrations are equally well done. But I do have one great disappointment, and that is the lack of mailing addresses for the men and women whose work is featured. It strikes me that it would be quite easy to include the mailing addresses and phone numbers in About the Furniture Makers at the back of the magazine. Being a weaver, I know that most artists just get by on what they are able to make from their craft, and I suspect these men and women would welcome contact from prospective customers.

—Brother Mark Ligett OFM, Harlan, Ky.

Editor replies: The requests of Brother Ligett, Mr. Springfield and many other readers have convinced us to print the addresses and telephone numbers of the furniture makers whose work is showcased in each issue. Beginning with this issue, our About the Furniture Makers department will include such information—unless the maker requests that it be omitted.

WHAT FURNITURE FILLS THE BILL?

I am an amateur woodworker who has been making furniture on weekends and during vacations for 25

home furniture

MANAGING EDITOR
Timothy D. Schreiner

ART DIRECTOR
Jodie Delohery

ASSOCIATE EDITOR
Jonathan Binzen

ASSISTANT EDITOR
Zachary Gaulkin

COPY/PRODUCTION EDITOR
Thomas C. McKenna

ADMINISTRATIVE SECRETARY
Susan M. Clark

DESIGN DIRECTOR
Susan Edelman

EDITOR-IN-CHIEF
John Lively

CIRCULATION MANAGER
Brenda Hamilton

PUBLISHER
James P. Chiavelli

ADVERTISING SALES MANAGER
Roy Landis

ADVERTISING SALES MANAGER
FINE WOODWORKING
Dick West

NATIONAL ACCOUNT MANAGERS
Barney Barrett, Norman Sippel

SENIOR ADVERTISING COORDINATOR
Kathryn Simonds

TO CONTACT HOME FURNITURE

TELEPHONE: (800) 283-7252
(203) 426-8171

FAX: (203) 426-3434

SUBSCRIPTIONS:
Orders: (800) 888-8286
Customer Service: (800) 477-8727

ADVERTISING SALES: (800) 283-7252 x 512

TAUNTON TRADE CO:
Retail Sales: (800) 283-7252 x 238

Copyright 1995 by The Taunton Press, Inc. No reproduction without permission of The Taunton Press, Inc. Subscription rates: U.S. and possessions, \$20 for one year, \$38 for two years, \$54 for three years; outside the U.S. and possessions, \$25 for one year, \$48 for two years, \$68 for three years (in U.S. dollars, please). Single copy, \$5.95. Single copies outside the U.S. and possessions: \$6.95. Address all correspondence to the appropriate department (Subscription, Editorial or Advertising), The Taunton Press, 63 South Main Street, P.O. Box 5506, Newtown, CT 06470-5506.

Full Color Postcards

\$95

500 copies

Modern Postcard
1-800-959-8365

READER SERVICE NO. 81

SCISSOR LIFT THE FINEST ON THE MARKET



Made in the U.S.A.

**Serving cabinetmakers, architects,
builders & the design industry**

Use this lift to retrieve TV sets, bars, computers & stereo components out of cabinets and reduce the chance of theft and unauthorized use.

- No assembly required • One year guarantee
- Very affordable • No extra cost for remote
- Quick Turnaround

Lift America Inc.

425 SE 1st Avenue • Delray Beach, FL 33444
Phone: (407) 265-3852 • Fax: (407) 265-0626

READER SERVICE NO. 99

QUARTERSAWN OAK

Everyone knows that Northern Minnesota produces the finest red and white oak available - anywhere. Our severe winters produce the slow growth and tight grain that is famous throughout the world. We quartersaw and kiln dry this fine material with loving care, resulting in fully featured oak with plenty of flake!

You can now buy direct from our low production, high quality mill (via UPS) at very attractive prices.



Wood Shed

(800) 829-0009

2505 12th Ave S., Moorhead, MN 56560

READER SERVICE NO. 113



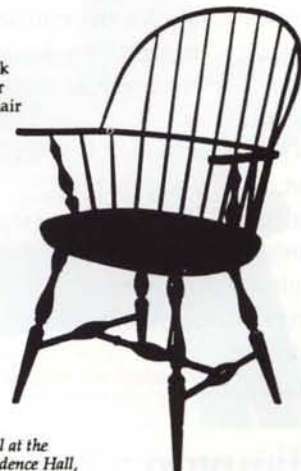
Hand-Crafted
Arts & Crafts Lighting
of unsurpassed quality.
Catalog \$4⁰⁰
New England's largest
selection of original
Stickley antique furniture.

Mission Oak Shop
109 Main St.
Putnam, Ct 06260
203-928-6662

READER SERVICE NO. 404

For woodworkers short on time

Bowback
Windsor
Arm Chair
\$298



Original at the
Independence Hall,
Philadelphia, Pennsylvania

Windsor Chairs, Harvest Tables,
Chippendale Chests, Armoires,
4-Posters, much more. Affordable,
precision cut, finish sanded,
premium cherry, maple, clear pine
kits or custom finished.

Cohasset Colonials

32-page color catalog, \$3.00
1-800-288-2389 Dept. 715DA

READER SERVICE NO. 302

years. I enthusiastically subscribed to *Home Furniture* because it sounded like the magazine I'd been seeking for years: no mortise-and-tenon joinery articles, just a discussion of the design of well-made furniture. I was further encouraged when I saw that you accept work from amateurs like me.

However, after reading two issues of the magazine, I still don't understand what type of furniture you are looking for and how you pick what goes in the magazine and what doesn't. I'd like to send in some of my work, but without knowing the criteria, it's difficult to decide what to send.

—Rich Kesar, Kansas City, Mo.

Editor replies: We would like to see the work of amateurs and professionals alike. In general, we are looking for thoughtfully designed and well-crafted furniture generally suitable for everyday use. The editors jury submissions according to two main criteria—design and craftsmanship. We are looking for:

- designs that address functional requirements well
- original designs skillfully resolved

- well-executed reproductions
- furniture that solves design problems
- furniture that effectively reinterprets designs of the past
- furniture with sound proportions, well-reasoned details and first-rate craftsmanship.

In addition, our goal is to publish work that represents various styles (modern, Shaker- or Arts and Crafts-inspired, period pieces and original designs), types (beds, desks, chairs) and geographic regions of the country. Generally, we try not to keep submissions for more than a year if we know we can't use them for one reason or another. Most importantly, don't get discouraged. Even if we pass over one of your pieces, submit the next one you make.

A CRITICAL DISCOURSE ABOUT FURNITURE DESIGN

Congratulations on your fine magazine. There are many beautiful things here, along with a store of budding concepts rich with potential for the future.

What I miss in other woodworking magazines, and what you have the

potential to provide, is something I would call a "critical discourse" about furniture design and furniture making. By critical I don't mean "this is good" or "this is bad," although one sometimes has to say these things.

I'm thinking of a broader, more humanistic sense of critical, a sense that focuses more on the interpretation of works in furniture: discussions of intentions, means, historical contexts, the processes of creative making.

In the meantime, if you do no more than continue exactly what you have done thus far, you will have made a great contribution.

—Loy Martin, Palo Alto, Calif.

CORRECTION

The height of the Curly Oak Sideboard on p. 56 in issue No. 1 is 34 inches.

Submitting an article. Home Furniture is written by its readers, and we welcome manuscripts, photographs and suggestions. We'll acknowledge submissions and return material we can't use. We pay for articles we publish. For details, give us a call or drop us a note.

Taunton PUBLICATIONS for fellow enthusiasts

The Taunton Press: Paul Roman, chairman; Janice A. Roman, president; Peter Chidsey, executive vice president; Carolyn Kovaleski, administrative secretary. **Corporate Editorial:** John Lively, editor in chief & vice president; Jennifer Renjilian, Ruth Dobseavage, managing editor; Peter Chapman, Thomas C. McKenna, Suzanne Roman, Sally Smith. **Personnel:** Carol Marotti, manager; Linda Ballerini, Christine Lincoln. **Accounting:** Wayne Reynolds, controller; Patrick Lamontagne, manager; Jeffrey Sherman, Mary Sullivan, Andrea Henschcliffe, Carol Diehm, Dorothy Blasko, Susan Burke, Lawrence Rice, Gayle Hammond, Karen Lewis, Lydia Krikorian, Elaine Yamin. **Corporate Design:** Susan Edelman, director; Robert Olah, Patricia Marmo. **Corporate Art:** Mary Terrizzi, manager; Henry Roth, Amy Bernard, Catherine Cassidy, Jodie Delohery, Rosalie Vaccaro. **Photography:** Boyd Hagen, director. **Promotion:** Philip Allard, manager; D. J. Arneson, Wendy Bowes, Christopher Casey, Julia Brine, Mary Beth Cleary, Francesca Arminio. **Manufacturing:** Kathleen Davis, director, Joanne Bisson. **Prepress:** Austin Starbird, manager; Robert Marsala, Stephen Roma, Patricia Sigetti, Deborah Cooper, William Bivona, Richard Booth, Mark Coleman, Lisa DeFeo, William Godfrey, Joseph Petrahai, Chansam Thammavongsa, Margot Knorr Mancini, W. Kathy Martin, Monica Murphy.

Print Production: Dee Flanagan, Lynda Morris, promotion; Thomas Greco, Deborah Baldwin, books; Philip VanKirk, Tracie Pavlik, magazines. **Video:** Craig Umanoff, Thomas Menard. **Corporate Marketing:** Diane Patterson, Sarah Roman. **Fulfillment & Operations:** Thomas Luxeder, director; Jane Torrence. **Client Services:** Patricia Williamson, manager; Carolyn Ameth, Kathryn Dolson. **Subscriber Services:** Patricia Malouff, manager; Penny Lefferts, Barbara Smith, Siri Wheeler. **Order Processing:** Megan Sangster, manager; Nancy Brown, Barbara Lowe, Dawn Teixeira, Marylou Thompson. **Data Entry:** Carole Ando, manager; Bonnie Beardsley, MaryLynn Beardsley, Margaret Fainer, Madelaine Frengs, Gina Pabis, Andrea Shorrock. **Distribution:** Paul Seipold, manager; David Blasko, Michael Capalbo, James Chappuis, Mary Ann Costagliola, Maureen Flynn, Linnea Ingram, Brian Leavitt, Frederick Monnes, Marcia Pelillo, Alice Saxton. **Purchasing & Facilities:** William Schappert, manager; Christopher Myers, Lois Beck, Cynthia Carroll, Beatrix Vangor, Charles Hollis, Robert Weinstein, Arthur Williams, Susan Nerich, Oscar Carranza. **Cafeteria:** Donna Freeman, manager; Geraldine Benno, Norma-Jean Taylor. **Data Processing:** Robert Peters, MIS director; Brendan Bowe, Arthur Caron, Gabriel Dunn, Marjorie Omalyev, Roger Seliga. **PC Systems:** Heidi Waldkirch, manager; Robert Nielsen, James Turner, J. Larry Kinnear, Rebecca Fanning, Laurie Yeager. **Taunton Trade Company:** Dale Brown, president; Thomas Johnson, sales manager; Laurie Clark, Frances Allen, Peter Bill, Barbara Buckalew, Donna Weinstein.

Solving Difficult Sawing Problems!

The new DURALINE HI-A/T is your answer to cutting Low Pressure Laminates and Ply Veneer. Eliminate ragged & chipped out bottom edges!

Special Sale Price
10" Diameter only

List **SALE**
\$207 **\$159**

Most other popular sizes available.

- New Tooth Design Stops Bottom Chipping Allowing for Faster Feed
- Extra-Durable Super Abrasive-Resistant Carbide Tips Increase Blade Life and Reduce Machine Downtime
- Longer Blade Life Improves Labor Efficiency and Offers Inventory Savings

With today's increasingly difficult-to-cut materials, you need DURALINE HI-A/T blades to make perfect cuts, improve efficiency and realize cost savings.

Other lines of blades are available to perfectly cut: solid oak and pine, solid surface materials, aluminum and plastic of all kinds.

FORREST

MANUFACTURING COMPANY, INC.
CA, FL, NJ, NY, PA Residents please
add state sales tax

Call to order a blade
or for more information
(800) 733-7111

461 River Road
Clifton, NJ 07014
(201) 473-5236
Fax (201) 471-3333

READER SERVICE NO. 14

THE CONOVER LATHE



ou can feel the *purr* from the moment you turn it on - but you won't hear it! Heavy cast iron construction and a timber bed absorbs vibration and noise. This is no ordinary lathe!

We've refined the woodturning lathes of yesterday by blending their finest design qualities with modern alloys and precision manufacturing. The result is a robust but elegant 16" swing lathe whose bed length is unlimited. Guaranteed to please and complement the craft of even the most discerning of craftsmen.

The Conover Lathe. A long tradition of pride in American-made quality.



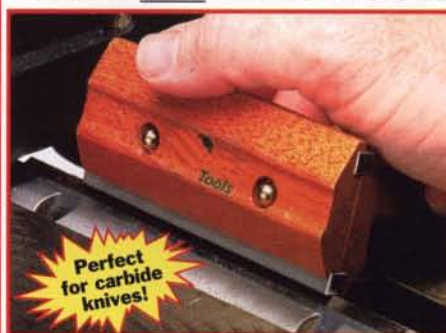
CONOVER

(216) 942-4206 • (800) 433-5221

Fax: (216) 942-6790 • Email: ConLathe@aol.com
P.O. Box 418, Mentor, OH 44060

READER SERVICE NO. 186

planer or jointer knife,
even carbide knives, with
CMT's NEW Diamond Hone



Perfect
for carbide
knives!

Put the sharpening magic of the world's hardest substance right on the cutting edge of your planer or jointer knives, without taking the knives off the tool! Micro diamonds are the best way to sharpen any knife and they're the only answer for carbide edges. CMT's hone includes two 4" long sharpeners coated with 325- and 600-mesh micro diamonds mounted in a mahogany body that aligns the sharpener perfectly with the knife. Touch up an edge anytime, even in the midst of a job where changing the set-up is out of the question.

DKH-001 **\$29.40**
Diamond Knife Hone

Shipping and Handling \$5.00

CMT TOOLS
310 Mears Boulevard
Oldsmar, FL 34677

Call toll-free 24-hours a day:

1-800-531-5559

Toll-free FAX: 1-800-870-7702

813-891-6160, FAX: 813-891-6259

Dealer & export inquiries welcome
In Canada call 1-800-387-7005



READER SERVICE NO. 66

Fine Cabinet & Box Hardware

Precision machined from high luster, high copper brass.

Add a touch of elegance to your creations.



Larry & Faye Brusso Co., Inc.

4865 Highland Road, Suite J, Waterford, MI 48328 Phone 810-674-8458

READER SERVICE NO. 109

NEW TO THE CABINET MAKERS



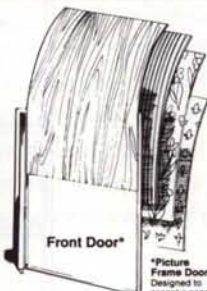
The Prince . . . Silent

• Environmentally Safe • No Ozone Depletion

Bar-Maid Minibars
362 Midland Avenue
Garfield, N.J. 07026

BAR-MAID
Hotel Guest Room Refrigerators
1-800-BAR-MAID

Tel: (201) 478-7070
Fax: (201) 478-2106
1-800-227-6243



Front Door*

*Picture Frame Door
Designed to accept a panel:
Formica, Wood,
Fabric, Artwork,
etc.

READER SERVICE NO. 48

NOW You Can Surface, Dimension and Finish Sand with the PERFORMAX 16-32 Drum Sander



Every project can be done faster
and better with Performax's proven
and patented features.

This space saving benchtop drum sander will not only surface stock but also dimension and finish sand. Select from 36-220 grit to surface rough sawn lumber, to dimension warped stock, to clean-up glued panels, and finish sand the thinnest veneers.

Sand stock as wide as 32" in two passes, as short as 2 1/4" and as thick as 3". Scroll saw cut-outs can be sanded in seconds. No press-back application or special jigs are necessary.

For more information and the dealer nearest you, call:

PERFORMAX
PRODUCTS, INC.

1-800-334-4910
(612) 895-9922

12257 Nicollet Ave. So., HF03, Burnsville, MN 55337

READER SERVICE NO. 190

the drawing board

If you've got a question about furniture design, *The Drawing Board* is the place to get it answered. Mail your queries to *The Drawing Board*, Home Furniture, The Taunton Press, P.O. Box 5506, Newtown, Conn. 06470-5506.

THE GOLDEN SECTION IS THE DESIGNER'S GOLDEN RULE

A number of readers have asked, "What is the 'golden section,' and how is it used?"

Dennis Saindon replies: The golden section refers to a proportion found in nature and reflected in man-made objects since ancient times. The pyramids of Egypt, classical Greek architecture and even the human body reflect this fundamental relationship. In furniture design, the golden section is a way to apply order and logic to proportion, and it has been used for centuries to achieve pleasing results.

I learned this firsthand when a customer brought me an old drop-leaf table to repair. I noticed this antique was the same height as a bedside table I had just made using the golden section. I compared the rest of the dimensions and discovered uncanny similarities: the widths of the bases and aprons, the thickness and taper of the legs, and the thickness of the two tops

were the same. The maker who designed the drop-leaf table almost two centuries ago probably used the very same method of proportioning as I had.

A classic method for constructing the golden section is: Draw a square and bisect a side (the base). Use the bisection point and an opposite corner to create a radius and swing an arc with that radius so that it intersects an extension of the base. The resulting rectangle is called the golden rectangle. In the drawing, the outer two rectangles—and the rectangle formed by combining the square with one of the small rectangles—are reciprocals. That is, the long sides of the small rectangle and the small sides of the large rectangle are the same. Also, both rectangles have the same proportions (by dividing the long side of each rectangle by the short side, you get 1.618).

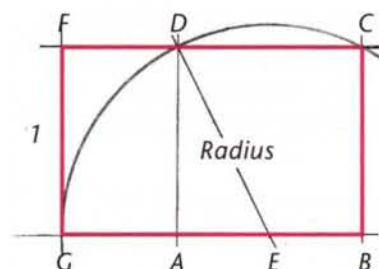
You can use the ratio of the golden section (1:1.618) to figure out the height of a chest of drawers, for example, by multiplying the width by 1.618 (bottom drawing, right).

For more information on the golden section, start with *The Power of Limits: Proportional Harmonies in Nature, Art and Architec-*

USING THE GOLDEN SECTION

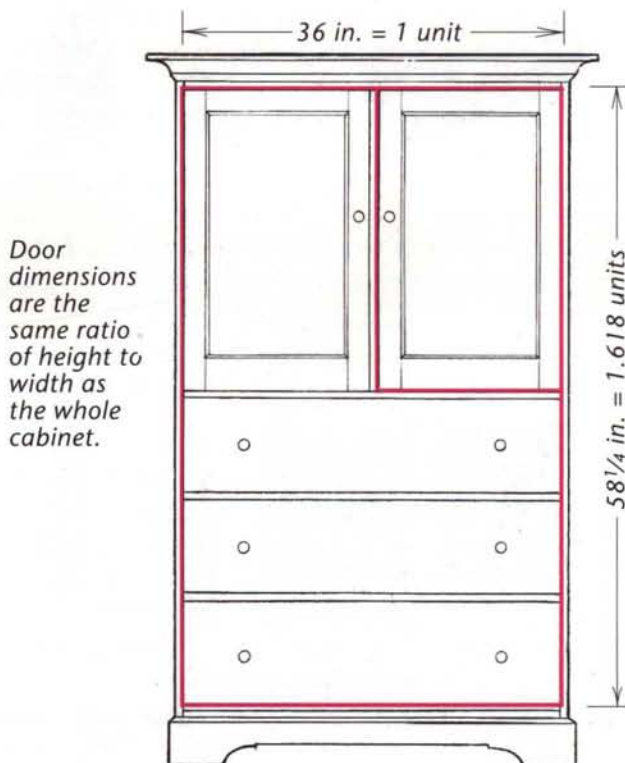
To draw a golden rectangle, start with a square (ABCD). Bisect the base (AB), and draw radius ED. Extend the base line of the square, and the point where it intersects with the radius (G) will give you the golden rectangle.

The long side of each rectangle, divided by the short side, equals 1.618.



FROM THEORY TO PRACTICE

To get the height of the cabinet using the golden rectangle, multiply 36 in. by 1.618. The overall piece, minus the moldings, is a golden rectangle, and the doors are also golden rectangles.



ture by Gyorgy Doczi (Shambhala Publishing, Inc., distributed in the U.S. by Random House, 1981). *Dennis Saindon designs and builds custom furniture in his shop in Deer Isle, Maine.*

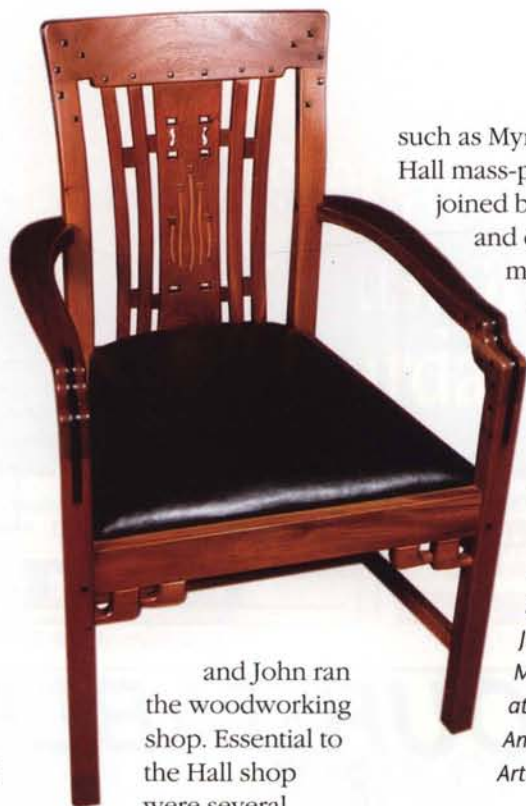
GREENE AND GREENE CRAFTSMEN

The Greene brothers get all the credit for the furniture style that bears their name, but they were only designers. Who actually built the furniture? Did those craftsmen also build in other styles or do their own designs?

—C. Lunner, Washington, D. C.

Edward S. Cooke, Jr., replies: Charles Greene (1868-1957) and Henry Greene (1870-1954) played major roles in furniture design but were not craftsmen themselves. Charles enjoyed woodworking and possessed sufficient skill to make a table as a wedding present for his wife in 1900. He also carved furniture and architectural elements, but the Greenses relied on professional craftsmen to execute their designs.

Beginning in 1906, the Greenses began using contractors Peter Hall (1867-1939) and his brother John Hall (1864-1940) to build houses and furniture. Peter oversaw the building site,



and John ran the woodworking shop. Essential to the Hall shop were several

Swedish-trained craftsmen: David Swanson, Bror Krohn, Erik Peterson, George Nelson and German-trained Gottlob Karl Lapple. Between 1907 and 1913, these craftsmen made about 400 pieces of Greene and Greene furniture and put their imprint on the final look. The use of mahogany, sophisticated table-saw joinery, housed joints, concern for wood movement and modeled surfaces all can be attributed to the craftsmen of the Hall shop.

After 1913, the Greenses designed fewer pieces of furniture. Peter Hall continued as a contractor, working for other architects

such as Myron Hunt. John Hall mass-produced finger-joined boxes for fruit and continued to make the limited amount of work designed by Charles Greene, but most of the skilled craftsmen left the Hall shop.

Edward S. Cooke, Jr., is the Charles F. Montgomery Associate Professor of American Decorative Arts at Yale University.

CHOOSING DIMENSIONS FOR A DINING TABLE

I'm designing a dining table with four legs for the base. How much should the top overhang the base, and how wide should I make the apron?

—R. Graham, Easton, Pa.

Bob March replies: You need to position the legs to allow sufficient room for people seated at the table. About 24 inches per person is good. If you want six people to sit around a rectangular table comfortably, for example, the legs must be at least 24 inches apart at the ends and 48 inches apart along the sides.

Once you have established the overall dimensions and the minimum amount of space required between the legs, you can decide how much the top should overhang the legs. In medium-sized tables, something like a kitchen table that seats four or six, an overhang of more than 10 inches will make the table a little unstable. With a larger, heavier piece, the overhang can be increased.

To ensure comfortable clearance underneath the table for a diner's legs, I would suggest a minimum of 25 inches between the floor and the bottom of the apron (the standard table height is 29 inches). If the apron is far enough back so that your legs do not go under it, like on a pedestal table, the apron (if there is one) could be wider.

There are many visual effects that can be achieved depending on your choice of dimensions. In general, if the legs and apron are near the edge of the table, they tend to give more visual weight to the top. On the other hand, if the legs and apron are set back, the top appears detached from the base and seems to float. *Bob March designs and builds custom furniture in Princeton, Mass., and teaches at the Worcester Center for Crafts.*

Versatile...
New Mini-Ligno DX

Wood Moisture Meters



Only a thorough moisture check assures problem-free woodworking. Lignomat's pin-type moisture testers can accurately measure surface and core moisture. Ideal for veneer, heavy timbers and even curved plywood.

Request our free brochure and the leaflet: "Moisture Problems, Helpful Hints and how to Choose the Right Moisture Meter."

Also ask about pin-less meters.

800/227-2105, 503/257-8957
Lignomat USA Ltd.
PO 30145, Portland, OR 97230

READER SERVICE NO. 21



Respirators for Dusts and Organic Vapors



- Filtration system on belt pack; hose brings filtered air to headpiece.
- Accommodates glasses & beards
- Available for same day shipment
- FREE FREIGHT • Low prices
- Discounts on most replacement parts

Manufactured by Racal Health and Safety

AIRSTREAM DUST HELMETS

Prices Start
at \$485

Credit Cards
Accepted

CALL FOR
FREE INFO

Box 975, Elbow Lake, MN 56531
1-800-328-1792 218-685-4457

READER SERVICE NO. 105

PETERS VALLEY CRAFT CENTER

19 Kuhn Road, Layton, NJ 07851

201-948-5200

Summer '95

WOODWORKING WORKSHOPS

Frank Finocchio • Mack Headley • James Jewell
• Wendy Maruyama • Terry Moore • Jere Osgood •
Stephen Proctor • Pete Tischler

1 9 7 0 - 1 9 9 5

CONTINUING A TRADITION OF EXCELLENCE & INSPIRATION

READER SERVICE NO. 45

SHELF PIN BORING GUIDE for use with PLUNGE ROUTER



Use this guide to prepare cabinet side for shelf pins with max. accuracy and min. tear out.

- Works with plastic laminates, melamines, veneers, and solids.
- The resulting work equals that produced on industrial equipment.
- Precision machined of 1/2" Aluminum Plate.
- Made in the U.S.A.

For a brochure or to order call: **(609) 587-7187**



PRODUCTS

9 John Lenhardt Road
Hamilton Square, NJ 08690

READER SERVICE NO. 73

UPDATE YOUR TABLE SAW

with **EXCALIBUR**

**OverArm
Blade Cover**

"The smoothest
to operate."
-American
Woodworker

**Informative new
video available!**

EXCALIBUR

MACHINE & TOOL CO.

210 Eighth St., So., Lewiston, NY 14092
(416) 291-8190
FAX (416) 293-2076

**Companion
Sliding Table**

"...for overall features
the Excalibur T-Slot
fence comes out first..."
-Fine Woodworking Magazine

- Units available individually or as a complete system to provide you greater flexibility when upgrading your table saw.
- *Guaranteed* to increase the accuracy and productivity of your table saw.
- Quick, easy installation. Fits *all* table saws.
- Fence locks on *both* front and rear guide rails and *always* stays parallel to the saw blade.
- Sliding Table - crosscut stock up to 62" wide.
- OverArm Blade Cover *comes with* Dust Collection.
- *More features* and accessories than other systems.
- *No risk* trial period - *Lifetime Guarantee*
- Finance as low as \$50 a month.

See your local tool dealer or call
1-800-387-9789 for more information

If you require immediate information,
use a FAX machine to call
1-905-887-5798.
Enter extension 700 when requested

READER SERVICE NO. 102



On the production line or in your workshop, DML precision cutting tools always perform. Over 50 years of woodworking industry experience comes with every American-made DML saw blade.

DML
Cutting everything but corners.
READER SERVICE NO. 59

Our Dyanite® C-4 carbide gives you three to five times longer cutting life. Call 1-800-242-7003 today for your authorized DML distributor.



THE BEST WOODSHOP TOOL SINCE THE ROUTER!

Reach tens of thousands
of potential clients
Nation Wide
for \$1250.00 a year.

With your four color ad in
THE CRAFTSMAN PREMIER.

A unique new catalogue featuring only high-end hand crafted furniture, cabinets, architectural details, and accessories. Targeted at upper income consumers, interior designers and architects through direct mail outs and ads in *Architectural Digest*, *Metropolitan Home* etc.

Also available, Directory listings in **THE CRAFTSMAN PREMIER** for only \$85.00

FOR MORE INFORMATION CALL
1 800 770 6602

Max Fleming Designs, ROUTE 1 BOX 3, SANTA CRUZ, NM 87567

READER SERVICE NO. 29

Shaker Style

**SPECIALIZING IN:
HOME FURNISHINGS**

- CUSTOM MADE TO ORDER
- MORTISE & TENON JOINTS
- DOVETAILING
- HIGHEST QUALITY
- OPTIONAL FEATURES TO MEET YOUR NEEDS & BUDGET

**EXPERIENCE THE QUALITY
FOR A LIFETIME**



White Oak
Hall Table
Special \$299

KDN Woodproducts
Brookline, NH 03033
603-672-3739
Fax: 603-673-4461

READER SERVICE NO. 88



Horton Brasses Inc.

mfrs of
antique reproduction
furniture hardware

*simply the best
always in stock*

Horton Brasses Inc.

Nooks Hill Rd.
PO Box 120, dept. HF
Cromwell, CT 06416
catalog: \$4.00
203-635-4400 FAX 203-635-6473

READER SERVICE NO. 401

the finish line

Let us know what finishing problems you're trying to solve, and we'll get a veteran finisher to provide the information you need. Send your questions to The Finish Line, Home Furniture, The Taunton Press, P.O. Box 5506, Newtown, Conn. 06470-5506.

SEALING WOOD FOR EVEN STAINING

I've been told to use a light shellac "wash" before staining to produce an even finish. I've tried this, but I've had trouble getting good results (the stain looks blotchy and uneven). How much should the shellac be diluted?

—J.B. Mollison, Pierre, S.D.

Doug Mooberry replies: A light coat of shellac before staining accomplishes three things:

First, it reduces the ability of the wood to absorb the stain, and it makes the stain penetrate more uniformly. This is very important on pieces with surfaces in which the grain changes dramatically—cabriole legs, for example.

Second, the shellac wash will help prevent the stain from raising the grain. When the shellac wash dries, the raised grain can be sanded smooth, and it won't reappear during staining. This reduces the risk of sanding through stained wood and changing the color of the surface.

Third, the shellac wash will give you a hint of what your piece will look like after the finish is on.

There are lots of methods for applying a shellac wash, and what works for one piece of furniture may not work for another. I would recommend trying a ½ pound cut of shellac (the equivalent of a ½ pound of shellac flakes dissolved in a gallon



of solvent). For premixed shellac, this is about a quarter of the strength you would use for a final coat. Brush or spray it on a sample, let it dry, apply your stain and see how it looks.

Doug Mooberry is the proprietor of Kinloch Woodworking, a custom furniture shop in Unionville, Pa.

RUBBING OUT A FINISH

When I rub out varnish with superfine (0000) steel wool, I have trouble producing a scratch-free, even sheen. I also have trouble removing embedded steel particles. What is the best way to achieve a rubbed finish?

—Margarita Novak,
Santa Rosa, Calif.

Matthew Burak replies: If you're having a problem with particles from the steel-wool pads getting embedded in the finish, you probably have not done enough work preparing the surface prior to finishing. Your project should be sanded to at least 220 grit before applying the finish. Sanding with 320 grit or finer after the sealer coat should give you a surface in which the steel wool can't get

embedded. When you use steel wool to rub out the finish, you should be able to vacuum up any particles or remove them with a tack cloth.

Although its particles shouldn't be embedded in the surface, steel wool does tend to leave some residue. For this reason, I only use it for the final rub down. Between coats, I use synthetic steel wool (3M #6448 Fine Scotch-Brite pads are the equivalent of 0000 steel wool). This method results in less dust and contamination in the finish room.

I rub out the final coat of varnish with 0000 steel wool, then apply a coat of paste varnish (Old Village Clear Paste Varnish or Bartley's Paste

Varnish). This fills in the scratches left by the steel wool and produces a satin surface with an even sheen.

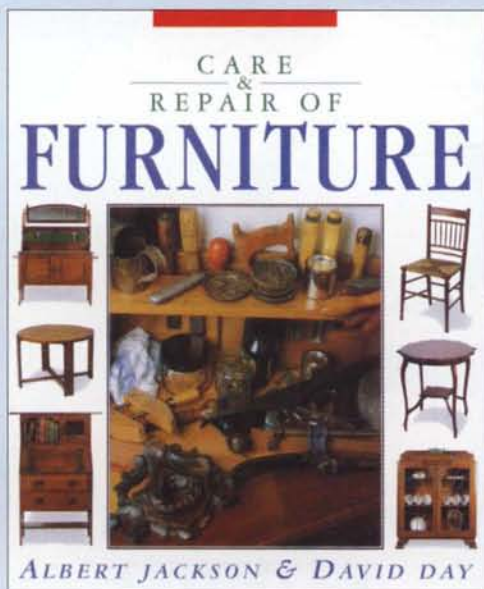
When rubbing out a finish, it also helps to develop a consistent technique. Rub with the grain (not in a circular motion), try to maintain constant pressure and try to keep your strokes consistent while moving around the surface. The larger the surface, like a dining table, the more critical these rubbing techniques become in ensuring a consistent finish.

Matthew Burak builds early American furniture and sells reproduction furniture legs from his shop in Danville, Vt.



NEW... FROM THE PUBLISHERS OF HOME FURNITURE

Now...repair and restore any furniture!



Haul that old bureau down from the attic. Get that tattered table from the garage. It's time to revive them. *Care & Repair of Furniture* shows you how.

BBC-TV furniture-making and restoration experts Albert Jackson and David Day explain every detail to you with step-by-step, full-color illustrations and dramatic exploded views.

- Diagnose damage, recognize reproductions, match finishes.
- Tighten joints, upholster with ease, apply perfect finishes.
- Make strong, virtually invisible repairs.
- Learn new techniques like caning, gilding and how to cast missing hardware.
- Preserve valuable family heirlooms and antiques.
- Recycle castaway furniture for years of added use.

Whether you're a furniture restorer, woodworker, collector or hands-on homeowner, *Care & Repair of Furniture* gives you tested information to tackle any repair with absolute confidence.

HARDCOVER, 160 PAGES, ISBN: 1-56158-096-1, ITEM 070230, \$27.95

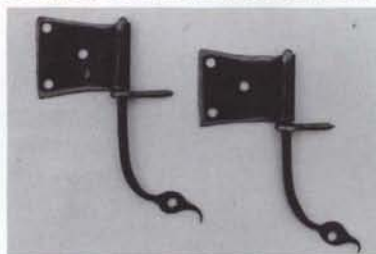
To order, call 1-800-888-8286.

Taunton Direct, Inc.
63 S. Main St., P.O. Box 5506
Newtown, CT 06470-5506

Taunton
BOOKS & VIDEOS
for fellow enthusiasts

Ironwork for the Home and Garden by
AN AUTHENTIC AMERICAN BLACKSMITH

Catalog
\$2.00



RAT TAIL
HINGES
4" high
\$35.00/pair
postpaid
Specify
right or left

NATHAN'S FORGE, Ltd.

3476 Uniontown Rd. • Uniontown, MD 21158 • 410-848-7903 • Fax 410-775-7902

READER SERVICE NO. 205

ONEIDA AIR SYSTEMS, INC.



Cyclones

Dust Collection Systems

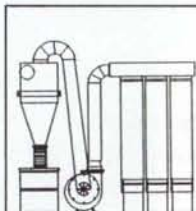
Felted Filter Media

Complete Ductwork Packages

Custom Engineering

CALL OR WRITE - FREE BROCHURE

PH (315) 476-5151 FAX (315) 476-5044
1005 W. Fayette St., Syracuse, NY 13204



Custom Dust
Collection Systems

READER SERVICE NO. 107

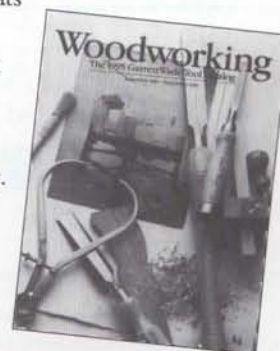
The Tool That Your Workshop Needs...

With 208 pages of full-color, our Free Catalog is the biggest in the business. We also think it's the best.

We have the high quality woodworking supplies and tools that are nearly impossible to find anymore. Everything from traditional old-style hand planes and saws to the very latest in power tools and accessories. We've got Precision Measuring tools, Chisels, Carving tools, Turning tools, Sharpening tools, plus Glues, Stains, Top Coats and much more.

Send us a post card or letter with your name and address to the address below. Or Call toll-free 800-221-2942 to receive your Free 1995 Garrett Wade Catalog.

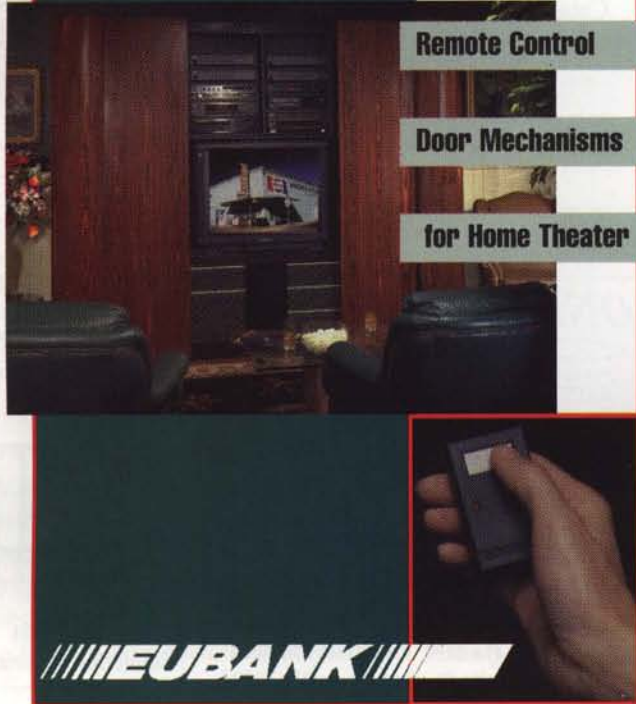
Garrett Wade Co., Inc.
161 6th Avenue, Dept. HF 1026
New York, NY 10013
800-221-2942



And It's Free, From Garrett Wade

READER SERVICE NO. 74

(215) 766-0197
8184 Easton Road
Pipersville, PA 18947



Remote Control
Door Mechanisms
for Home Theater

EUBANK

READER SERVICE NO. 85

First Choice of Restoration Authorities*

Exclusive Licensee for *Williamburg*® Buttermilk Paint Colours

AUTHENTIC COLOURS crafted by masters of 18th and 19th Century color fidelity...fifth-generation paintmakers. Natural earth pigments capture the charm and character of Colonial, Federal and Victorian periods. Perfect for furniture, walls, decorative accents, interior and exterior woodwork. Easy to use, soft-sheen velvety finish. Your choice of latex, oil-base, buttermilk formulations...or paste stains. CALL OR WRITE FOR COLOUR CARDS AND DESCRIPTIVE LITERATURE.



Old Village
PAINT COLOURS

P.O. Box 1030, Fort Washington, PA 19034 • (215) 654-1770 • FAX: (215) 654-1976

READER SERVICE NO. 47

TANSU
Hand-Forged TANSU Hardware



WARABI pull

Authentic hand-forged hardware for furniture, typically used in Arts & Craft style. Several styles and many sizes available.

FREE Brochures, by mail or Fax.

JAPANESE WOODWORKING TOOL CATALOG \$4

HIDA TOOL, INC. 1-800-443-5512
1333 San Pablo Ave., Berkeley, CA 94702 • FAX 510-524-3423

READER SERVICE NO. 406

The Wood Slicer™

Extra-durable, Precision Resawing Blades for Delta, Sears, Shopsmith, Inca & other Bandsaws

Slice through hardwoods up to 12" thick with the cleanest, easiest cuts your bandsaw has ever delivered. Wood Slicer™ blades feature individually filed, precision set teeth which are bombarded with titanium carbide and impulse hardened to stay sharp 3 times longer than ordinary blades. Carbon-manganese spring steel blade stock is thinner and stronger, allowing high tension while wasting less wood and requiring less power from your saw.

State-of-the-art welds are unconditionally guaranteed against breakage. Half-inch 3-tooth design is ideal for resawing and ripping any wood up to your saw's maximum capacity.

Specify standard length: 72" (Shopsmith), 73" (Inca), 80" (Sears), 93-1/2" (Delta 14"), or 104-3/4" (Delta 14" with riser block). Custom lengths available with 4-6 weeks delivery for \$34.95 each.*

ORDER TOLL FREE
(800) 241-6748

*Add \$3.50 per order shipping charge within 50 states.



\$29.95
(standard lengths)

highland hardware

1045 N. Highland Ave., Dept. HF2
Atlanta, GA 30306 (404) 872-4466

READER SERVICE NO. 69



QUICKSAND
constructionwear

"QUALITY
WORKWEAR
FOR THE
SERIOUS
CRAFTSMAN"

P.O. Box 9, La Canada, Ca • 91012 • 1 800 248-8194

READER SERVICE NO. 24

MLCS

Make Beautiful Raised Panel Doors With Your 1/4" or 1/2" Router or With Your 1/2" or 3/4" Shaper.

Professional production quality bit makes it quick and easy to produce matching rails and stiles - the panel raising bit with ball bearing guide makes the raised panel perfect every time!



*Supplied With Ball Bearing



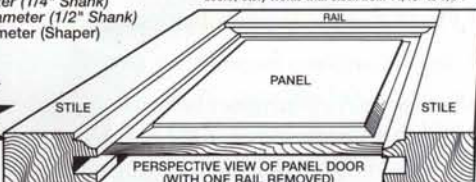
RAISED PANEL ROUTER BIT
SUPPLIED WITH BALL BEARING

CARBIDE TIPPED
*2" Large Diameter (1/4" Shank)
*3-1/2" Large Diameter (1/2" Shank)
4-5/8" Large Diameter (Shaper)

***REVERSIBLE COMBINATION RAIL and STILE BIT**

(For making matching rails and stiles in raised panel doors, etc.) Works with stock from 11/16" to 7/8".

SAVE 55%



FREE
40 PAGE CATALOG

FREE SHIPPING
IN CONT. U.S.

SIZE & FORM	ITEM #	PRICE/SET
1/4" Shank Router	#1241	\$69.95
1/2" Shank Router	#1242	\$79.95
1/2" Shaper	#1243	\$99.95

Regular Value Over \$150.00!

©1994
MLCS, Ltd.

To Order By MasterCard, VISA or Discover.
Call Toll-Free 7 Day - 24 Hour Order Service At:

1-800-533-9298

Or Send Check To: MLCS, Ltd., P.O. Box 4053 NL, Rydal, PA 19046

READER SERVICE NO. 100

PROOF THAT THE APPLE DOESN'T FALL FAR FROM THE TREE.



We've never set out to copy our Unisaw. But we've certainly learned a lot from it over the years. Most importantly, how to build a quality saw to fit the needs of its owner. Which is why we build more types and sizes of saws than any other company in the business. All with the heft and precision we put into our professional saws.

Take our new 10" Contractor's Saw IITM, for instance. Built with a massive cast iron carriage and trunnion assembly, topped off with a 20"x27" cast iron table and solid steel extension wings. Its powerful 1 1/2 HP motor and Jet-Lock[®] rip fence give you accuracy and capacity

enough for the long haul.

Admittedly, we have an advantage when it comes to making and selling saws. All those years of building tools for professionals would seem to say that Delta would be a pretty good place to start, if you're in the market for a good bench saw or a cabinet saw or any saw in between. We figure you shouldn't have to be a professional in order to work like one.



**THE
POWER
OF THE
PROS**

DELTA
WOODWORKING MACHINERY
A Pentair Company

For the name of the nearest dealer, home center or hardware store carrying Delta Tools, call Delta International Machinery Corp., 800-438-2486. In Canada, 519-836-2840.

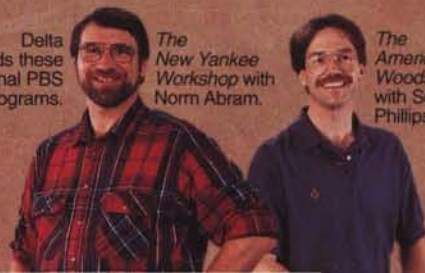


READER SERVICE NO. 46

Delta funds these national PBS programs.

The New Yankee Workshop with Norm Abram.

The American Woodshop with Scott Phillips.







From Concept to Cabinet

Visualizing the piece
through sketches,
models and mockups

BY JOHN GALLAGHER

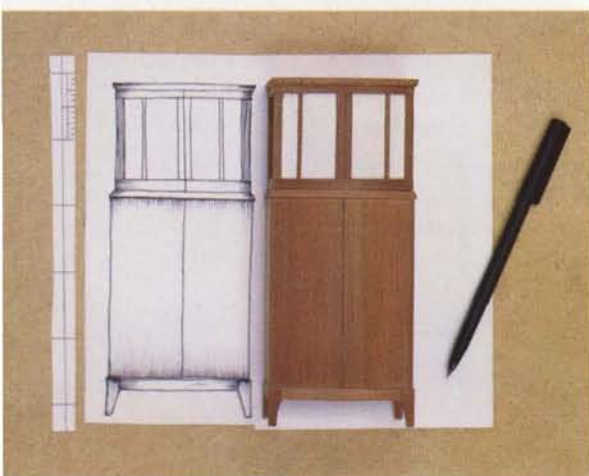
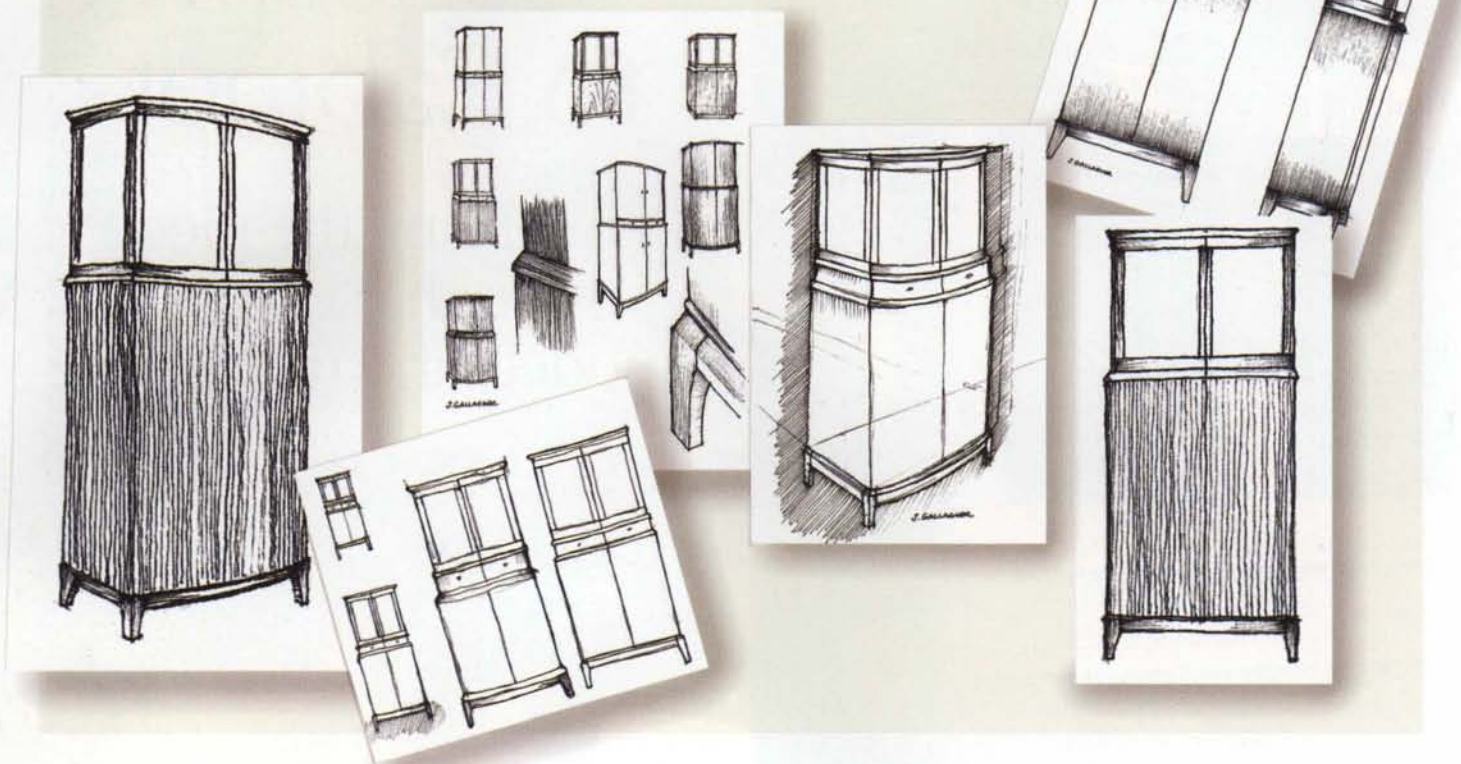
the idea came easily. I wanted to build a china cabinet that would hold dishes for a small family. It would have a glass upper case, where delicate glass and china could be displayed, and underneath I envisioned drawers, several shelves for silverware, plates and other items. I wanted to avoid something too great in size, thinking that it should be big enough to hold a dinner set for a family but not wind up as a catch-all for unused items.

But even with the function and general proportions of the cabinet clearly understood, its character was not. The question was how to get from the glimmerings of an idea to a fully developed plan. A few years ago, I might have done a few drawings and then gone directly into the construction—not because I was more confident but because I was less well-equipped to steer the design process.

Recently, while I was a student at the College of the Redwoods in Fort Bragg, California, James Krenov taught me how to use sketches, models and mockups to give definite shape to my ideas. Drawings get initial ideas recorded so that they can be seen and considered. Scale models and full-size mockups give physical presence to the drawings,

EXPLORING ON PAPER

In his early drawings for a piece of furniture, the author plays with proportion, making loose sketches of a range of possibilities. Then he selects one or two sketches to render more carefully.



Model sprung from a sketch. The author's models are fleshed-out sketches. When he has a sketch he likes, he makes the model by taking dimensions directly from the sketch.

letting me see a piece in detail before I've cut the first piece of wood.

With this approach, which utilizes construction skills during the design process, the search for form begins to blend with the craft of woodworking, making a seamless flow from the first notion to the finished cabinet. More of the senses come into play. Perceptions of depth and volume are tapped as well as gut feelings about how a piece relates to human scale. Before a piece is even built, you can see the way light and shadow will play on its surfaces. And the sense of touch—so critical to the experience of using furniture—is involved during the design stage instead of having to wait until the building begins. Using more of your senses early on makes a richer, more intimate experience for the imagination to work with.

This design process of using sketches, models and mockups isn't necessarily a straight line, and there is no one correct way to use the tools involved. For those uncomfortable with drawing, it provides other means to develop ideas. For those who like to draw, it is a way to translate drawings into three dimensions. The three tools can be used together or in any combination. In designing my china cabinet, I used all of them but not in the order I had anticipated.

SKETCHING EXPLORATION

To explore the general idea for my piece, I sketched various versions in front view, adding side and perspective drawings when I found one that was particularly attractive. I was looking to draw a cabinet with a balanced, grounded feel and with a bit of grace

in its stance to avoid heaviness. Using light pencil pressure, I roughed in the general proportions of the cabinet and then returned to darken the best lines. To some drawings I added shading, grain or color. In this type of drawing, I'm not trying for perfect results. Wavy lines are fine for sampling ideas and can even have a charm of their own.

Sometimes a couple of sketches are enough to catch the general feel of the original idea; sometimes, a couple of dozen. I made several sketches that were close to what I had in mind (drawings facing page). My sketches showed a closed lower case with a light framework to hold the glass in the upper part of the cabinet. I opted for a frame-and-panel back to add visual interest. The lower doors and sides were plain. The cabinet front was bowed, which increased storage space yet did not add much to overall size. It had a simple stand beneath.

I disregard scale while sketching because I'm really searching for proportion and form, not exact dimensions. Scale is an unnecessary taskmaster at this point and can be worked out after a good drawing has been made.

FROM SKETCH TO MOCKUP

I made a drawing I liked and decided to make a mockup from it. To establish the dimensions of the cabinet, I made a paper scale. I placed a 1/2-inch wide strip of paper on the sketch and made a mark on the strip at the top and bottom of the drawing. Because I wanted the cabinet to be 60 inches tall, I divided the distance between the marks into 60 equal units. Once I had determined the length of an inch at this scale, I measured the other dimensions with the paper strip.

When the mockup was finished (see photo p. 18), I saw that the drawer-to-molding transition was too wide, robbing height from the already short lower half of the cabinet. I felt the cabinet needed a course correction. In this case, the mockup had told me what I did not want but not what I did want.



Make your mistakes before you make your furniture. Models allow you to try new ideas without a great commitment of time or money.

Not long after building the mockup, while talking to a friend about the project, I made a quick sketch on a chalkboard to illustrate a point. I realized I had caught something I liked. The proportions were unusual but seemed to fit. I copied it in my sketchbook to save the idea. It was similar to the first drawing but with a shift in proportions. I moved the drawers to the inside of the cabinet, which gave more height to the lower doors, and I shortened the glass case to about half the height of the lower case. My cabinet grew out of that sketch.

MODEL SPRINGS FROM A SKETCH

Not wanting to commit to another mockup immediately after making my new drawing, I instead built a model. I made it in a few hours. I bandsawed the cabinet's case out of solid wood. To represent the glass and the frame-work in the upper cabinet, I glued thin wooden strips over white paper. I cut out miniature feet with a knife and



This cabinet's elegance is no accident. The author worked through a series of versions of his olive-ash china cabinet on paper, in mockups and in a model before he began building the real thing.



Mockups are made to be manipulated. The author uses dark masking tape to “erase” wood on the feet and the crown molding. A quick pass with a pencil simulates grain. Pine mullions are press-fit in the upper doors. The mockup is made as a stack of components, so it is easy to modify.



glued them in place. I built the model by measuring right off my sketch (see photo p. 20).

After seeing the problems revealed by the mockup, I wanted to be sure that the new version of my cabinet wouldn't look top-heavy. I was also concerned that with four legs in the base, the bowed front might appear unsupported. The model assured me that the new proportions of the upper and lower cases were right—about one-third above and two-thirds below—and that the cabinet would have a balanced stance.

Models are fun to make, take little time and use virtually no materials. They help me visualize the final results from any perspective, even from above. I'll often set one on the bench or windowsill while I continue with other matters. Having the model in the shop keeps the design process alive, and good ideas come along even when I'm not actively seeking them.

A MOCKUP IS A 3-D SKETCH

Models and mockups serve different purposes. Both allow you to see an object in the round, but mockups, being full-size, give a better sense of volume and of the relationship to human proportion. Details can be mocked up individually or as parts of the whole before any expensive wood is laid on a sawhorse. I often make mockups by assembling components, so ideas can easily be altered and refined (right photo, this page)

I had about a day in making the original mockup. Because I had used dry-wall screws for assembly, it took only another few hours to modify it for its reincarnation. I used dry 2x4s and 1/8-inch plywood for ease of construction and economy. I bandsawed the legs and frame parts out of the 2x4s and used the plywood for the lower portion of the cabinet.

MODIFYING A MOCKUP

I liked the overall lines and proportions of my revised mockup as much as I had liked the model and the sketch. But some of the details were bothersome. The legs in the mockup stand were too heavy and so was the glass frame and the top of the cabinet. I thinned them down visually with dark masking tape instead of disassembling the mockup and cutting. I applied tape to the legs and penciled the new shape on the tape. Then I scored the pencil line with a sharp knife and peeled the tape off along one side of the line. The tape that remained obscured part of the leg, making it look thinner. The same effect can be achieved by scribbling with a dark pencil. I also used tape to thin the top (left photo, above).

I worked on the molded edges in the transition between upper and lower parts of the cabinet in the mockup. I wanted a clear delineation, but I didn't want it to be too elaborate. Still, I wound up doing some fine-tuning on the actual cabinet. By milling a small cove, I created a shadowline and gave

some variation for the eyes to rest on (bottom photo, right).

Sometimes I tape butcher paper to the front of a mocked-up cabinet and draw various treatments on the paper. I might draw frame-and-panel doors on one sheet, then tape another sheet over the first and draw doors like the ones on my china cabinet. On a bureau I might sketch a bank of five drawers, then overlay another drawing showing it with seven. The butcher paper lets you play with different grain patterns as well.

For this cabinet, I had planned to cut a plank of olive ash into veneers. The wood had a distinct difference between its darker heartwood and pale sapwood, and I wanted to include both. I spring-clamped the veneer around the lower case of the mockup in a variety of combinations. I tried slip-matching them, but the resulting stripes were too busy. When I book-matched the veneers with the sapwood in the center, they gave the cabinet a feeling of repose. I clipped veneer to each side with a vertical band of sapwood at the back, providing some continuity with the front.

I cut mullions for the mockup so that I could press-fit them in the upper doors. This way I could experiment with different placements of the mullions in the doors. I also experimented with the cabinet's curved front. The bow is not an arc of a circle; the curve tightens as it approaches the sides. I had to play with the curve to get one I liked, and the mockup allowed me to do that easily.

SHOP DRAWINGS FROM THE MOCKUP

When I was satisfied with the mockup, I developed working drawings directly from it. I made a top-view drawing of the upper and lower halves of the cabinet, showing the placement of the dowels, rabbets for the back panels and the thickness of the doors and the glued-on edges. This view also provided me with the exact shape for the



Clay makes quick pulls. A lump of modeling clay and five minutes of manipulation were all it took to see what the cabinet would look like with handles.

Molding marks the transition from lower case to upper. The small cove along the top of the lower piece of molding creates a shadowline and provides a curved place for the eye to rest. It delineates the two parts of the cabinet without dividing them.

curved bending forms for the veneered doors below and the bent-laminated doors above.

Overall, I find it helpful and appropriate that the scale and the mechanical drawings are introduced only after the character of the piece is established. They are kept where they should be: in a supporting role.

Use of mockups and models as well as drawings makes designing a piece of furniture a much more absorbing

and reliable process. For me, even the wrong turns and false starts reaffirm the value of this approach to design. It lets me set a course for arriving at a design and lets me assess its merit and make adjustments along the way. This is the best of both worlds: exploring ideas while preserving possibilities. ■

John Gallagher builds furniture in Elkins, W. Va. He has also built stringed instruments and hewn-log houses.

Origins of Arts and Crafts

The seeds of the style now in revival
were sown in turn-of-the-century England

BY ANNETTE CARRUTHERS



Design guided by the craftsman's hand. With its exposed joinery and solid stance, Sidney Barnsley's oak buffet from 1897 displays a reliance on the forms of Gothic furniture typical of English Arts and Crafts.

Ninety years after it first swept across the United States, American Arts and Crafts furniture is in a revival that shows no sign of weakening. Entire magazines and books, as well as the work of hundreds of furniture makers, are devoted to the style that has come to be known in its various forms as Craftsman, Mission, Greene and Greene, Arts and Crafts or Stickley furniture. The furniture is so prevalent and powerful that it has come to seem distinctly American. But the ideas and forms of Arts and Crafts were born and bred in England and made their way to America later, in the notebooks of designers who visited there.

The Arts and Crafts Movement in England was a rebellion against the Victorian fashion for dark and frilly interiors. Designers instead made sturdy furniture in simple forms and natural colors, sometimes decorated but often extremely plain. The roughness and simplicity of the work was often shocking. One reviewer in 1899 referred to an Arts and Crafts piece as looking "like the work of a savage." Another reviewer remarked that "the educated man rebels at the idea of being treated as a glorified peasant." Clearly, they had struck a nerve.

But the Arts and Crafts Movement was a rebellion of substance as well as style. Much of its power came from the conviction that art and craft could change society and that the increasing-

Arts and Crafts cottage. Many English Arts and Crafts designers moved to the country. Edward Barnsley, a second-generation Arts and Crafts furniture maker, lived in this cottage and worked in the attached shop.



ly urban and industrialized society needed changing.

Nearly all English Arts and Crafts furniture demonstrates sensitivity to materials, a taste for simple, often rectilinear forms and a concern for function. But because the goals of the movement were so encompassing, its direction was somewhat diffuse, and the furniture varied in a rather bewildering way. It could be veneered or built in solid wood; it could be fashioned from plain, unpolished oak or exotic ebony, richly inlaid with silver and mother-of-pearl. Some makers worked entirely by hand while others used machines. Some designers felt it was essential to be personally involved in the making, and others sub-contracted the fabrication or even designed for production.

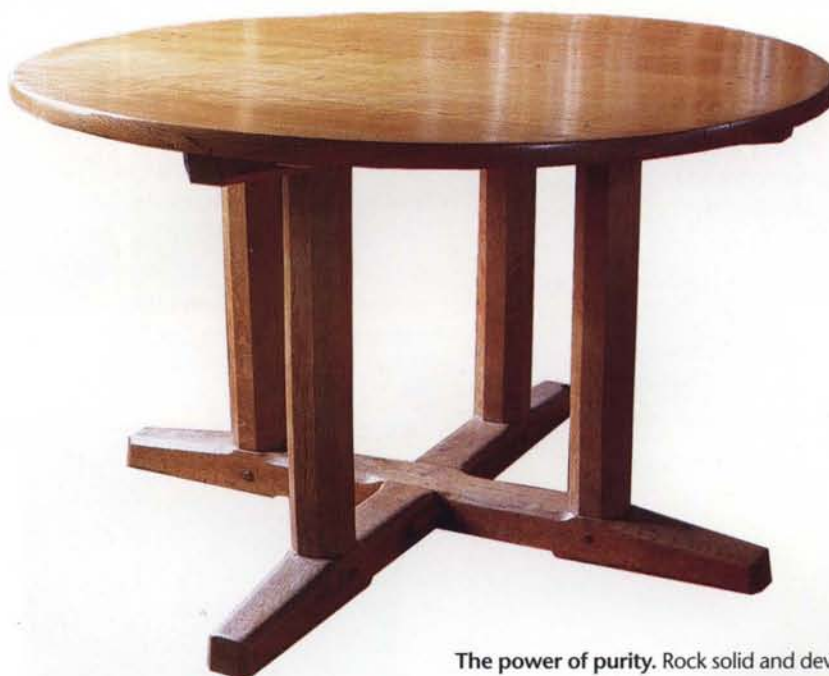
As the photos on these pages illustrate, despite the common threads running through it, English Arts and Crafts furniture was far from homogeneous. Its legacy to makers in America and Europe lay more in presenting a range of new possibilities than in developing a rigidly defined style.

THE MAN BEHIND THE MOVEMENT

William Morris was the founding spirit of the Arts and Crafts Movement. Best known today for his genius as a pattern designer, Morris was admired by his contemporaries as a poet, crafts-

man, business entrepreneur, defender of ancient buildings and campaigning socialist. The enormous energy he poured into writing and lecturing made him one of the most influential thinkers of the last century, and his ideas captivated a generation of young architects and designers.

For Morris, political ideas could not be separated from artistic ones. The



The power of purity. Rock solid and devoid of decoration, Sidney Barnsley's table from the 1920s distills William Morris' ideal that most furniture be "made of timber rather than walking sticks."



A new century's furniture started here.

These and other works by Morris & Co. prepared the way for the Arts and Crafts Movement. Morris & Co. rejected Victorian fashion and evinced instead a reliance on medieval forms and a respect for country crafts.

Stark lines under elaborate hardware.

C.F.A. Voysey's 1899 cabinet is typical of English Arts and Crafts in adding ornament to simple forms. Voysey's work prefigured Craftsman furniture in America.

major theme of his lectures was the belief that all people should be able to do useful work in pleasant surroundings rather than producing shoddy goods in the squalid factories and garret workshops of 19th-century Britain. His views and his designs drew on an admiration for Gothic art and architec-

ture, whose excellence he attributed to the greater freedom of craftworkers in the Middle Ages.

Morris designed only a few pieces of furniture himself, but his ideas guided the furniture produced by Morris & Company (photo above), the design firm he and some friends opened in London in 1861. Morris' conviction that good design could come only through knowledge of the craft led scores of designers in England and America to pick up hand tools for the first time. Morris and his disciples breathed life into the concept of an independent designer/craftsman, taken for granted by many people who run small wood-working shops today.

His ideal was of furniture made for the "good citizen" (by which he meant everyone), furniture that should be "solid and well made in workmanship" and except for movable objects such as chairs "should be made of timber rather than walking sticks." This appeal for heavy furniture deeply influenced English designers such as Sidney Barnsley (photo p. 24 and bottom photo p. 25) as well as a whole generation of Americans.



TWO VIEWS OF ARTS AND CRAFTS FURNITURE

Taken as a whole, Morris' blend of art, craft and philosophy was so broad that it could be followed in many different ways. The divergent work of two of the movement's most prominent designers, C.F.A. Voysey and C.R. Ashbee, demonstrates just how differently two men could interpret one message.

Voysey's furniture, in solid wood, tends toward the simple lines and purity of materials that characterizes what Americans now know as Craftsman furniture. He generally built in Austrian oak and left the wood plain and unpolished. Voysey relied on subtle detailing such as legs chamfered gradually from square to octagonal. He sometimes used brass strap hinges and pierced panels to add interest to a cabinet or dresser, but the overall forms were generally Shaker-like in their clean simplicity (bottom photo, facing page). Voysey took to heart Morris' insistence on good craftsmanship, but he didn't get involved with hand-work himself. He designed his furniture on paper and let cabinet-makers do the building.

Ashbee was at the opposite extreme. His furniture often was decorated with a rich variety of carving, inlay, marquetry, painting, gilding and metal-work, sometimes applied together on the same piece (photo right). As with most other Arts and Crafts work, the forms underlying this ornament tended to be elemental and rectilinear, but the decoration often was sinuous, with overtones of Art Nouveau. For Ashbee, running a workshop was of prime importance. He modeled his Guild of Handicraft after medieval craftsmen's guilds with a vision to provide untrained boys with an opportunity to become skilled craftsmen.

Between these extreme interpretations of Morris' message, there were

many shades of opinion and practice. The 1890s was a period of experiment and enterprise, during which designers found ways of working that suited themselves.

GIMSON AND THE BARNSELEYS

Ernest Gimson and Sidney and Ernest Barnsley fall somewhere between the radically different views of Voysey and Ashbee. They were deeply affected by Morris but created work and a way of

life that was entirely their own. They produced perhaps the most impressive furniture of the English Arts and Crafts Movement, furniture that has had a profound influence on wood-working in the 20th century.

Gimson and the Barnsleys were young architects in London in the 1880s and absorbed Morris' ideas about the importance for an architect to have a practical knowledge of crafts. When the design firm Gimson and Sidney



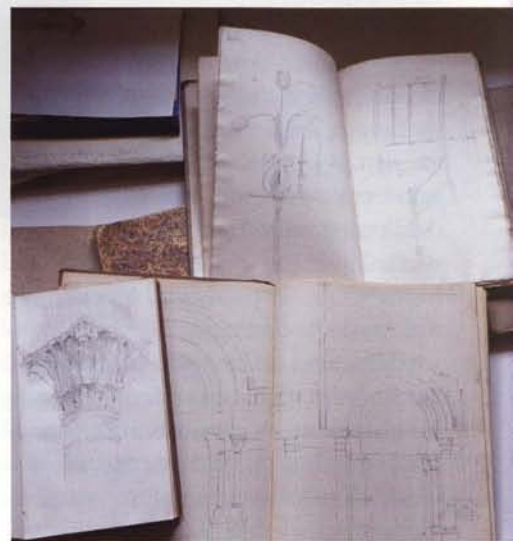
A cabinet from the community. C.R. Ashbee's writing cabinet in mahogany and holly was made in 1899 by his Guild of Handicraft, a group of craftsmen working communally.



Tying town and country together. In his walnut and ebony sideboard of 1915, Ernest Gimson blended the rich materials and proportions of a formal sideboard with the heavy chamfers of farm implements and wagons such as the one at right.



Classical training underlay Arts and Crafts innovation. Sidney Barnsley's sketchbooks teem with renderings of buildings, fragments and furniture from his study tours of Britain and the European continent.



Barnsley had helped found went out of business, they decided to become furniture makers. At Morris' suggestion, they moved to the lush and hilly Cotswold countryside 80 miles west of London to set up workshops. Sidney Barnsley's brother, Ernest, joined them, and the three craftsmen are remembered today as the "Cotswold Group."

Apart from a similarity of style derived from working closely as friends, Gimson and the Barnsleys shared an attitude toward craftsmanship that had a profound influence on all their furniture. Their appreciation of the techniques of cabinetmaking is revealed in their use of exposed joints, meticulously worked inlays and handmade hardware. They adopted methods of

construction seen on woodwork from a variety of sources, including fine historic furniture but also architectural woodwork and rural crafts such as wheelwrighting and toolmaking. The chamfered edges that are distinctive of their work were derived from their enthusiasm for traditional farm wagons.

Like other Arts and Crafts designers, Gimson and the Barnsleys looked past

the neoclassical furniture that became popular in the 18th century, instead finding inspiration in earlier work. After seeing Gothic pieces in museums and historic houses, they produced coffers and chests made of solid planks as well as elaborately decorated cabinets based on *vargueños*, 16th- and 17th-century Spanish chests on open stands. In farmhouses and inns, they were inspired by settles and buffets by country makers of the 18th and 19th centuries—simple, traditional work that was beginning to die out because of competition from cheaper and more decorated furniture made in city factories. The influence of country furniture meshed well with Morris' appeal for plain, heavy furniture.

Such simplicity marks much of the work Gimson and the Barnsleys and other English designers produced, but it did not result in the sameness that characterizes much of American Arts and Crafts furniture. In England, a single maker might produce some heavily proportioned pieces in solid wood, with rough country-inspired details and exposed joinery, and other pieces with glossy finishes and complex veneering. The apparent dichotomy can be traced to Morris and his message that furniture fell into two categories, requiring different approaches to design.

One category included "chairs, dining and working tables and the like, the necessary work-a-day furniture." This furniture, Morris felt, should be "simple to the last degree; nay, if it were rough I should like it better." This radical call for roughness from a highly refined designer had a profound impact in America as well as in England.



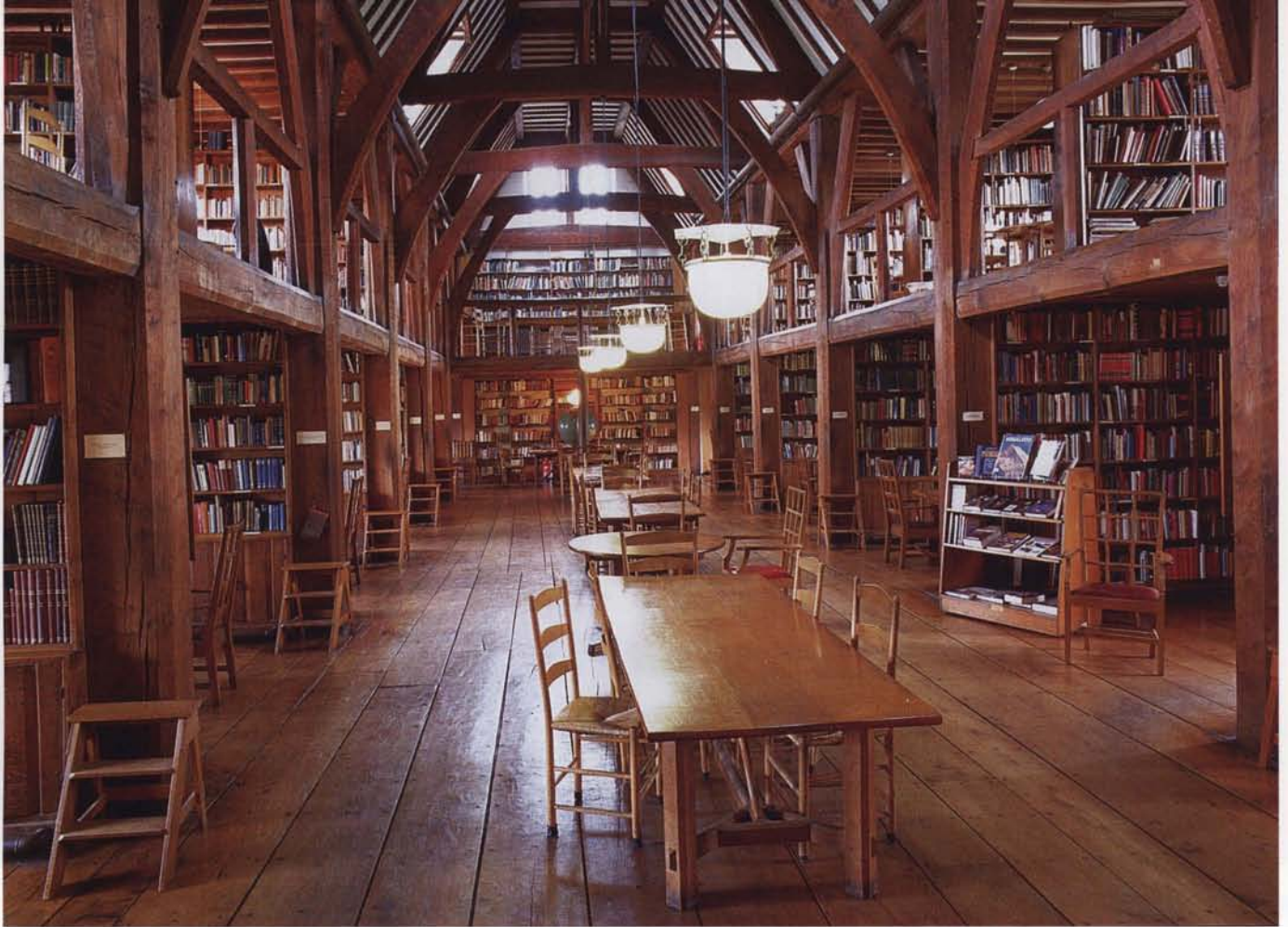
But Morris thought that people ought to have decorative pieces as well, used sparingly in an interior to provide beauty and focus. He called these pieces "state" furniture: "I mean sideboards, cabinets and the like, which we have quite as much for beauty's sake as for use." On these he suggested that designers spare no ornament and "make them as elegant and elaborate as we can." The impact of this side of Morris' vision is clear in the elaborately detailed casework of Ernest Gimson.

Gimson's 1915 sideboard in walnut with an ebony plate rack and understructure (top photo, facing page) is clearly a piece of state furniture. But in it he deftly blended formal pro-



Savage simplicity. An early bed and chest of drawers by Sidney Barnsley demonstrate the fascination for the forms and details of rough country crafts that led one critic to call his furniture "the work of a savage."

A flair for the informal. A side chair made in 1891, before he left London for the Cotswolds, reveals Ernest Gimson's affinity for the straightforward.



One part barn, one part chapel. Ernest Gimson's design for a library at Bedales school reveals his love of the heavy timbers and solid joinery of rural crafts and buildings as well as his training as an architect in a time when the ultimate commission was a church. The chairs were designed by Gimson, the tables by Sidney Barnsley.

Arts and Crafts evolving. Peter Waals, for many years Ernest Gimson's shop foreman, continued making pieces after Gimson's death in 1919. This Macassar-ebony veneer bookcase from 1937 is based on a Gimson design.



portions and materials with detailing drawn from country crafts. The carcase of the sideboard sets the formal tone with its bowed center section, custom brass hardware and checkered ebony and holly inlay. On the openwork plate rack and on the legs and the stretchers, however, he employed the heavy

chamfering that he and the Barnsleys had admired on country wagons.

Despite his fascination with the materials and techniques of cabinetmaking, Gimson restricted his hands-on work to making turned chairs while employing others to make his cabinet pieces from his drawings. Like Ashbee, Gimson placed great importance on the training of his craftsmen.

Sidney Barnsley, on the other hand, worked alone for most of his life, enjoying the satisfaction of doing skilled work with his hands. In the chest of drawers he built for his Cotswold cottage (photo p. 29), his love of the craft is written in the directness and the roughness of the piece. He proudly left the dovetails and the tenons exposed and used a simple chip carving pattern to decorate the piece. The chest's pulls, dovetailed into the drawer fronts, are a wonderfully direct and original solution that became a hallmark of his work.

CARRYING ON ARTS AND CRAFTS

By 1916 the Arts and Crafts Movement had burned itself out in Britain as far as the world of art and design was concerned. In America, the movement dimmed at the same time, then went into complete eclipse, reemerging only in the late 1970s as prices for original pieces skyrocketed, and contemporary makers began reproducing and adapting American Arts and Crafts furniture.

In England, however, Arts and Crafts never went away entirely. The work of Gimson and the Barnsleys, in particular, was carried on through the 20th century by a number of furniture makers. After Gimson's death in 1919, his foreman, Peter Waals, continued his work, building slightly altered versions of the master's designs (bottom photo, facing page).

Sidney Barnsley's son, Edward, worked from the early 1920s until his death in 1987, making furniture in the Arts and Crafts tradition (bottom photo, right) but refined by influences from Regency and Danish design. Many fine craftsmen who have since gone out on their own trained in his shop. The impact of Edward Barnsley's designs and his high standards of craftsmanship is evident in much of the finest furniture being built in America today.

But perhaps the most direct link to the origins of English Arts and Crafts can be found in a small stone building on the main street in Stockton, a tiny country town just north of the Cotswolds. Here, Neville Neal and his son, Lawrence, make chairs to Gimson's designs. Neville Neal was apprenticed to Gimson's chairmaker, Edward Gardiner, in 1939 and has been making Gimson chairs ever since with patterns made from Gimson's original drawings (top photo, right).

Using wood felled locally and rush they pick themselves, father and son make about 200 chairs a year. Between the two, they have over 80 years of experience. But there is no sense of antiquity in the shop. In their obvious



Living link to the origins of Arts and Crafts. Neville Neal has been making chairs to Ernest Gimson's designs for 56 years. He apprenticed with Edward Gardiner, Gimson's chairmaker, and inherited Gardiner's patterns for all of Gimson's chairs

Design from father to son. Sidney Barnsley's son, Edward, carried on the Arts and Crafts tradition from 1923 until his death in 1987. He made this walnut and ebony bookcase in 1924.

love of the work and in their excellence, the English Arts and Crafts Movement is very much alive. ■

*Annette Carruthers teaches museum studies at the University of St. Andrews in Scotland. She is the author of *Edward Barnsley and His Workshop* (White Cockade Publishing, 1992).*

Philadelphia Highboy

BY CHRIS ARATO
AND ROBERT McCULLOUGH



*W*hen the two of us worked at Irion Company Furnituremakers in Pennsylvania, we collaborated on a lot of furniture. Then Chris moved to far northern Maine, and Rob opened his own carving shop. Collaboration over? Not yet. We both still do plenty of work for Irion Company, and last year when the company wanted a show-piece Philadelphia Chippendale highboy, we were asked to build it. No problem. Chris would do the cabinet-making on the Canadian border, and Rob would do the carving 800 miles to the south.

The collaboration began on the telephone, as we zeroed in on which highboy we'd like to build. We chose two very similar Philadelphia highboys, one in a collection in the East, the other in the Midwest. Instead of copying either one, we blended the two. We each had photos of the originals and began by scaling the photos and comparing the dimensions we came up with. When we had them nailed down, we drew various details on tracing paper and sent them back

Cutting edge at the time of the revolution. Two 18th-century Philadelphia Chippendale highboys were the basis for this 20th-century reproduction. The makers studied the originals in photographs and blended details and dimensions to arrive at their design.



Always face your audience. McCullough carved this lower drawer front, which is below eye level, with a slight upward tilt. He did the opposite for the carving on the upper drawer.

Well-traveled legs. The highboy was a collaboration between two woodworkers who live 800 miles apart. The cabriole legs were roughed out in Maine, mailed to Pennsylvania for carving and sent back to Maine to be attached to the case.



At the pinnacle of the carver's art. As with other carving, the trick with a cartouche, the ornament at the top of the highboy, is to make the composition strong enough to attract the eye from across the room, and the detail clean enough to satisfy scrutiny from a few feet away.

and forth. When one of us received a sketch of a leg, midmolding or goose-neck in the mail, he'd lay it over his own sketch to see how closely we were thinking. In most cases, very closely.

When the piece got underway, the packages traveling through the mail got heavier. Chris roughed out the cabriole legs and cut the joints for them. Then he popped the legs in the mail so that Rob could carve them. The carved drawer fronts were also well-traveled. Chris milled blanks for them and sent them south. Rob did the flower, leaf and tendril carving and sent them back

north. Chris cut the dovetails and assembled the drawers.

The cartouche and the flame finials are very fragile, so we didn't mail them. We waited until Chris drove the completed highboy down to Pennsylvania, where Kendl Monn of Iron Company applied the finish. Then, like the trimming on a Christmas tree, the finials and the cartouche took their places on top of the piece. ■

SPECIFICATIONS

DIMENSIONS

44¼ in. wide, 23 in. deep and 95½ in. high.

MATERIALS

Mahogany and crotch mahogany with poplar secondary wood.

FINISH

Aniline dye, pigmented stain and shellac.



Low arms add structure and style. Curved low arms help stabilize the dining chair and add a downward curve that mirrors the curve of the seat rail below.

*t*he most unusual thing about this chair, one of a set of six, is its low-slung arms. I first saw arms like this on a chair by Sam Maloof. They aren't really arms at all, at least not ones that support your elbows, but in my chairs they solved problems of structure, function and aesthetics.

When I began the chair, I knew I wanted curved legs to match those of a dining table that I had designed first. I didn't want stretchers between the chair legs because I thought stretchers would detract from the composition of curves. But I'm skeptical of chairs with nothing to reinforce their leg-to-seat joints. The low arms filled in for stretchers, giving me a second point at which to anchor the legs.

With the arm so low to the seat, the chairs fit right under the table's apron. My favorite functional dividend, however, is the handle the arms offer for scooting up to the dinner table after you sit down.

Visually, the curve of the arm serves two purposes. First, it presents a mirror image of the curved bottom edge of the seat rail, striking a balance above and below the seat. Second, the arms also extend the curvature of the chair's back, drawing it forward and making it part of the chair as a whole.

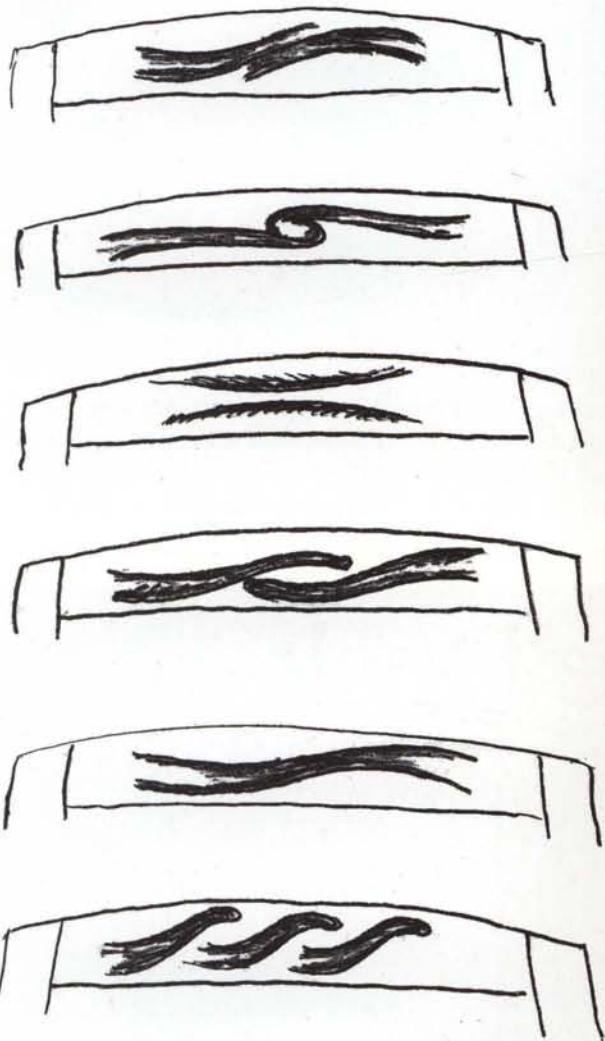
I measured a number of chairs before settling on dimensions for my design. I did a series of sketches and some scale drawings, and then I made a full-scale mockup in solid wood. I gave the seat generous proportions,

Low-Arm Dining Chairs

BY DOUGLAS RICE

CREST-RAIL CARVINGS

Each chair in the set of six has a different carving in its crest rail.



more on the order of an armchair than a side chair. Along with a wide seat, I got a wide back, too, of course, and when I made the mockup, I saw that the back looked too big. My solution was to cant both sides of the chair in toward the top. In addition to making the back smaller, angling the sides in splayed the legs out, increasing the chair's stability and making it look more solidly planted on the floor. ■

SPECIFICATIONS

DIMENSIONS

24 in. wide, 22 in. deep and 36 in. high.

MATERIALS

Cherry, poplar seat and back upholstery frames, and fabric.

FINISH

Tung-oil sealer under tung-oil/polyurethane varnish.



Black fabric is the perfect partner for solid cherry. The author and his client chose black upholstery because it complements cherry both when the wood is newly milled and light-hued and when it darkens with age.



An executive desk from the Southwest. Mesquite, a tree native to the Southwest, is the dominant wood in this desk, which was made for a Tucson law office.

Mesquite Desk

BY PETER A. CHRISMAN

Mesquite is usually associated with Southwestern barbecue, not furniture. Many woodworkers are frustrated by it because it's hard to work with. But when it's sanded and finished with oil, mesquite is one of the most beautiful and exotic-looking woods I have seen.

I got an opportunity to use mesquite when a lawyer asked me to build this desk as a showpiece for his office. To determine some general features, we looked at books and magazines and studied furniture in galleries. We decided on a flush top, frame-and-panel construction and a dark band around the base.

The top has a solid mesquite border, and the panels are veneered with mesquite. I inlaid a pattern in the corners and along the front and back, drawing on traditional Southwestern designs. I used wenge and camphorwood, which is light brown, for the inlays. The recesses under the top and the band around the base are also wenge. The recesses ease the mass of the desk, and the dark color of the wenge gives the piece authority.

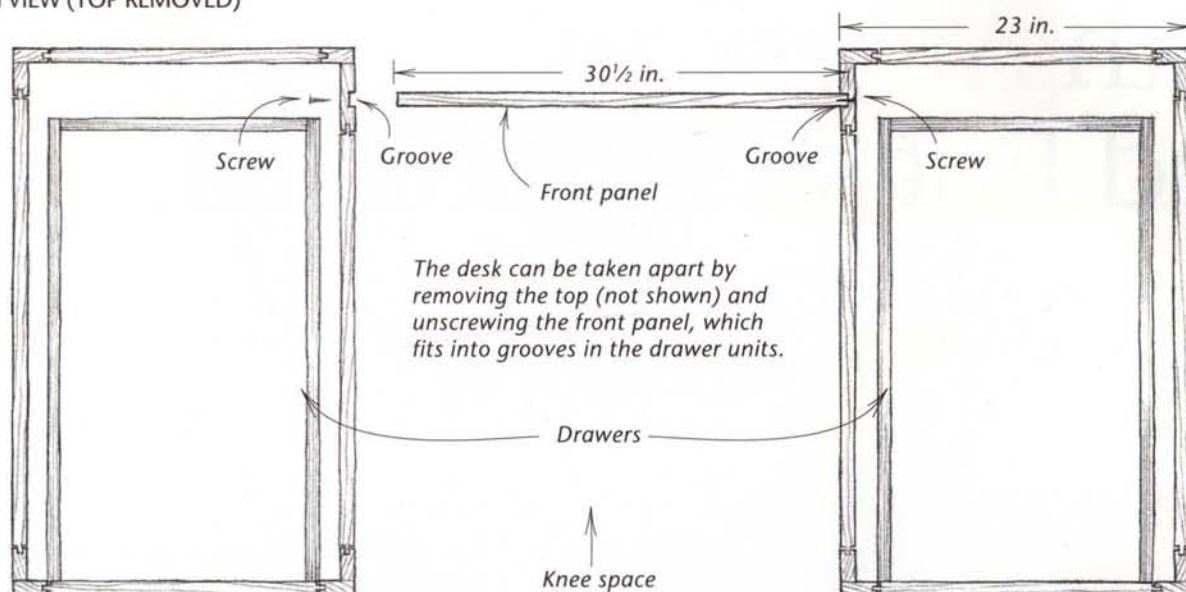
We didn't want any visible hardware for the drawers, so I routed finger pulls in the bottoms. Because mesquite is available only in relatively narrow pieces up to 8 inches wide, I glued up

three boards for the drawer fronts, using the center board to set off the finger pulls. The desk is large, so I made it in four parts, which are easy to take apart and move (drawing facing page).

Mesquite trees twist and bend as they grow, and as a result, the lumber from them has lots of flaws. I had to fill large checks and voids with a polyester resin, similar to an epoxy, which I tinted black. The black resin complements the wenge, and both contrast nicely with the mesquite. ■

A FOUR-PIECE DESK

PLAN VIEW (TOP REMOVED)



Wenge inlays and recesses lend authority. Dark wenge strips below the top and around the base break up the bulk of the desk.

Southwestern design decorates top. Combined with the mesquite, the wenge and camphorwood inlays, adapted from traditional Southwestern designs, reflect the builder's—and owner's—surroundings.



SPECIFICATIONS

DIMENSIONS

76 in. long, 36 in. wide and 29 in. high.

MATERIALS

Mesquite, mesquite veneer, wenge, camphorwood and birch plywood drawers.

FINISH

Oil and lacquer.

Cherry Sideboard with American and British Bloodlines

BY KEVIN RODEL



*t*he house was a wonderful blend of Wright-influenced Prairie-style and Shingle-style architecture built on the coast of Maine. The owners wanted a sideboard to stand in the large combined living and dining room with its stone hearth, cathedral ceiling and impressive woodwork that evoked the Craftsman era. They asked that the sideboard be tied to the overall design of the interior and that it match the cherry dining table I'd made them several years earlier. They also gave me overall dimensions I shouldn't exceed and asked that the sideboard have doors and a silverware drawer hidden behind the doors.

With this information in hand, I sat down to sketch some ideas. My overall mood for the piece would be of the Arts and Crafts period. Besides being the most appropriate for the house, it happens to be my preferred style.

Inlaid squares create lateral sweep. The author tinkered with the inlaid squares, the overhang of the top, the width and inlay of the lower rails and the arrangement of stretchers to mitigate the strong vertical lines of the legs, the doors and the center divider.



Period pulls cinch an already tight design.
The motif of four squares in the pulls, picked up in the long stretcher, also determined the size and location of the inlaid maple squares.

A quick drawing using the given dimensions and storage requirements revealed that two pairs of doors would be most practical. My sketch was technically correct but boring. And it was too strong in its vertical lines. I prefer my designs to show an interplay of horizontal and vertical elements, with the horizontal being dominant. So I sought to make the sideboard interesting and to emphasize the horizontal.

First, I sketched a broadly overhanging top. I borrowed the curved-under shape at the edge from a piece designed by the English Arts and Crafts architect C.F.A. Voysey.

Another horizontal element, the long, broad stretcher between the sideboard's legs, with its four-square motif, adds interest and visual balance. This stretcher is filched from a table by another turn-of-the-century designer, Scotsman Charles Rennie Mackintosh.

SPECIFICATIONS

DIMENSIONS

70 in. long, 46 in. high and 22 in. deep.

MATERIALS

Cherry with maple inlay.

FINISH

Penetrating oil, wax.

My next revision was to widen the rail below the doors and add a simple inlay. This provides another strong horizontal element and links the sideboard to the dining table, which has a maple string inlay along its skirt.

Still, I felt there was too much vertical emphasis in the piece because of the lines of the doors and the center divider, which I'd left wide so that it relates to the center stiles on the ends of the cabinet. Then I sketched in the series of flush-inlaid maple squares, situated in line with the upper squares of the door pulls (for more on the Arts and Crafts hardware, see Sources, p. 102). They add a fourth horizontal element that, to my eye, balances all the features of the sideboard. ■



Spindle Chair and Upholstered Settee

BY BOB INGRAM

a Windsor chair and an upholstered settee would seem to be polar opposites. One is stuffed, and the other is skeletal. But when someone saw my spindle chairs and wanted to buy a set for a reception room, he asked me to design a settee that would feel as though it belonged with the chairs.

In my spindle chairs, I had attempted to make a version of the traditional continuous-arm Windsor chair, but one that's definitely planted at the end of

the 20th century. In most Windsor chairs, the spindles lean back and splay outward so that the chair wraps around you like a baseball glove. I chose to square off my chair and not to splay the spindles. To provide comfort and support without splaying, I steam-bent the spindles in a back-catching curve.

A big, overstuffed settee might have made the spindle chairs look anemic, so I tried to keep the settee spare. I kept the sides thin and used minimal padding on the seat and on the back. I gave the settee's back the same curve I'd used for the chair's back spindles, which linked the two pieces visually and provided comfort with far less padding than a straight back would have required.



SPECIFICATIONS

DIMENSIONS

Settee: 54 in. long, 26 in. deep and 34 in. high.

Chair: 24 in. wide, 24 in. deep and 36 in. high.

MATERIALS

Cherry, poplar upholstery framing and wool fabric.

FINISH

Nitrocellulose lacquer.

Right angles revivify the Windsor. Squaring off the continuous-arm and the base of his cherry Windsor and declining to splay its spindles, the author puts a 20th-century stamp on a traditionally sinuous chair.

Lend me your arm. The author borrowed the curves of his spindle chair when he designed a mating settee. He let the settee's arm nose out over the side to provide a fingerhold and to mimic the width of the chair's arm.

I also borrowed the curve of the chair's arms for the settee. When I made the chair, I chose the gentlest possible curve that would handle the job, flowing down the arms and then sweeping up a bit at the ends. On both the chair and the settee, I wanted a sitter's arms to be slightly cradled so that it would be easy to feel settled in either seat. ■



Hall Table in Sapele

BY BRIAN CHITWOOD



The table is a tribute to sapele wood.

When cut along the radius of the log, sapele, a relative of mahogany, shows a strong pattern of contrasting dark and light bands. The restrained design of the table lets the figure shine.

*m*y hall table grew out of a desire to make something practical that would display the natural beauty of some sapele wood I had been saving. I decided on a simple design to keep the wood the focal point of the table. The design was influenced by Shaker work, but I wanted a little more pizzazz than Shaker pieces offer. I used contrasting wood for the inlay, the feet and the drawer pull to give the table a dressed-up elegance.

Choosing a treatment for the table's edge was difficult. I wanted something distinctive, not the traditional routed edge. I had some very white maple, which made a dramatic contrast with the reddish-brown sapele. I decided to have a pair of maple stripes banding the solid sapele tabletop. Instead of inlaying the maple flush, I let it project $\frac{1}{8}$ inch. Sapele seems to move little with seasonal changes, and the miters on my banding haven't opened yet, but with most other woods, a veneered top might be a better solution if you want this type of edge treatment.



Maple edge molding frames the top and draws the touch. Along with the holly pinstripes in the legs, the bright white maple beads around the tabletop, $\frac{1}{8}$ in. proud of the sapele and rounded over, give the table a formal yet inviting presence.

SPECIFICATIONS

DIMENSIONS

36 in. long, $18\frac{1}{2}$ in. wide and $30\frac{3}{4}$ in. high.

MATERIALS

Sapele, maple and holly.

FINISH

High-gloss tung oil.



I made thin, tapered legs that terminate in dainty maple feet for a light, refined appearance. I added the pinstripes of holly on the legs as another refinement.

For the drawer pull, I used the same contrast of maple and sapele and gave it a shape that would make people want to use it. ■

Another morsel for the hand and eye. The author glued a piece of sapele veneer between blocks of maple to make a drawer pull with tactile as well as visual appeal. Similar sandwiches formed the leg blanks.

A Gem of a Bed

BY GLEN GURNER



The diamond is the theme. Made in exchange for a diamond wedding ring, this bed reflects its origins in the tops of the posts.

the idea for this bed began as a simple swap on the softball field: I needed a diamond wedding ring for my fiancée, Mimi, and one of my teammates, a metalsmith, happened to need a bed. Because Mimi and I also needed a bed, I decided to design one that would appeal to all of us, saving time and money, commodities all too rare for most woodworkers.

The metalsmith, Deb Todd Wheeler, had a hand in the design. She was insistent about having the tops of the tapered posts resolve in an angled top. I liked the idea of angling the cuts across the diagonal to reveal a diamond shape. This alludes to the stone she was setting for me, as well as to the geometry of the softball diamond, where this deal was struck.

Despite its angular, modernist geometry, this piece speaks in a traditional language. The cathedral-shaped headboard, with its triad of raised panels, is reminiscent of the Gothic style. The elongated corner posts seem as out of scale as the seat backs of Charles Rennie Mackintosh or Frank Lloyd Wright.

The quilt, which was a wedding gift, also figured into the design problem. The colors are distinctly Amish, and I wanted the bed to appear compatible with that tradition. The deep ruby tones of the aging cherry complement the hues in the quilt.

We've all lived with these pieces (including the ring) for more than two years, and everyone seems comfortable with the trade. Especially Mimi, who is fortunate enough to have reaped the benefits of *both* creations. ■



SPECIFICATIONS

DIMENSIONS

85 in. long, 65 in. wide and 72 in. high.

MATERIALS

Cherry.

FINISH

Malloof's oil and wax blend.

Quilt mirrored in headboard. The Amish pattern of the handmade quilt was a consideration in the design and is in keeping with the diamond motif.

Chairs reflect table details. After using imbuya for the contrasting inlays on the table, the author decided to make the chairs entirely of imbuya.



Dining Set in Cherry and Imbuya

BY GENE MARTIN

Slender simplicity was the goal in designing this straightforward dining-room furniture. I didn't want to clutter the elegance of the design, so I used embellishments sparingly.

The table is cherry, which I chose for its durability and its warm, soft color. The inlays along the apron and down the legs are Brazilian imbuya. This dark wood accentuates the thin lines of the legs. It has a similar effect on the apron, drawing attention to the cove without overwhelming it.

Imbuya seemed like a natural selection for the chairs, providing contrast with the cherry and continuity with the inlay. After some sketches and a few conversations with the couple buying these pieces, I made a pine prototype. The prototype allowed the three of us to work out the angles and the height of the seat for a comfortable fit.

The final step in designing the chairs was to trim unnecessary bulk from the prototype without sacrificing strength. Paring down the back slats, the crest rail and the legs reinforced the chair's slender lines. ■



SPECIFICATIONS

DIMENSIONS

Chairs: 18 in. wide, 20 in. deep and 43 in. high.

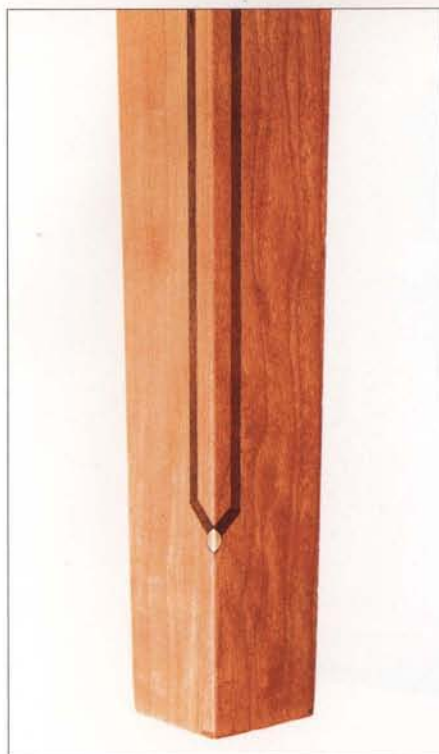
Table: 64 in. long, 44 in. wide and 30 in. high (80 in. with removable leaf).

MATERIALS

Cherry, imbuya, leather and brass.

FINISH

Oil.



Finding the correct curve. The author made a pine prototype of these chairs to make sure they would feel comfortable.

Inlays embellished with brass. It's hard to notice at first glance, but the imbuya inlays converge on the outside corners of the table legs. Where they meet, just a few inches above the floor, the author inlaid a diamond-shaped piece of brass.

Entertainment Center on a Tight Budget

BY PAULA GARBARINO



*t*hree constraints led to the design of this cabinet: First, it needed to be in keeping with the traditional Cape Cod house for which it was planned. Second, the cabinet had to hold a 26-inch television, but the visual bulk had to be reduced as much as possible. Third, it couldn't be expensive. So to come in on budget, I needed to rely on familiar techniques and minimal handwork (I used store-bought pulls) without compromising the joinery.

A TV cabinet in the Shaker style may seem incongruous, but that style satisfied all three of these design requirements, and most important, it suited the client's taste.

I started by designing solid-wood cases with dovetail joinery for the upper and lower cabinets. The upper case, which is shallow and slightly taller, counterbalances the bulk of the lower case. This is a common trick in traditional furniture design, and it is used to good effect in large pieces, such as secretaries, highboys and various kinds of display cabinets. By putting the large television in the low-

A shallow upper case lightens the look. The upper cabinet on this entertainment center is only 17 in. deep, reducing the overall bulk of the piece.

Shaker simplicity holds modern electronics.

The upper case holds record albums and stereo equipment. The television, a bulkier piece of equipment, sits on a pull-out shelf in the lower case.

er case, I could make the upper case only 17 inches deep.

I gave the door frames a coped, molded inner edge, and I cut the door rails from the same board to get continuous figure. The solid-wood panels are bookmatched and float in grooves. The cornice profile was cove-cut on a table saw. The alternative—making or buying shaper knives—would have added cost to the project.

The lower unit has a slide-out shelf for the television and a shelf for a VCR; the upper case holds a tuner, a CD player and a slide-out shelf for the turntable. The drawers hold CDs, and the space above is for record storage. The plywood back has openings for wiring and ventilation. ■



SPECIFICATIONS

DIMENSIONS

36½ in. wide, 23¾ in. deep
and 77¼ in. high.

MATERIALS

Cherry.

FINISH

Shellac sealer, Waterlox and
butcher's wax.

Western Tansu Bureau

BY MICHAEL HURWITZ



Tansu interpreted. The proportions of the drawers mark this chest as a derivation of the Japanese tansu tradition. But the curved sides, curved top and arched stretchers tie it to western furniture.



Drawers close on a cushion of air. The precise fit makes the drawers a pleasure to use, as does the scent of the cedar of Lebanon sides. The cherry wear strips glued to the bottom of the drawer sides is a detail adapted from shoji, the traditional Japanese sliding screens.



The pigment is in the lacquer. A Japanese lacquer derived from cashew pods gives the curly maple chest, seen here from the back, its ruddy color. Cashew lacquer is a substitute for traditional irushi lacquer, which can cause violent allergic reactions.



Custom pulls raise the chest to another level. Inspired by Japanese swords, the author designed the pulls and had them made by a metalsmith specializing in Damascus steel. He used two types of pulls to underscore the cascading of different-size drawers.

While I was staying in Kyoto one year, dating the Japanese woman I would later marry, I spent six months studying traditional Japanese tea-tray carving and lacquering. Surrounded by old Japanese buildings and furniture and learning something of Japanese craft, I was moved to design a piece of furniture to commemorate the experience.

I had heard of the tradition in Japan of parents planting a paulownia tree when a daughter is born and then cut-

ting it when she is married to have it made into a tansu chest. It inspired me to design a bureau that drew on that tradition. I didn't want to make something that seemed like an imitation of tansu, even a good imitation. I wanted it to be clear that I was thinking of tansu and that I was bringing other influences to the piece. I eventually used the one design in two separate pieces—one made of narra, the other of maple.

I began, as I often do, by trying to design something I'd like to live with. In this case, the proportions popped out immediately. My first sketches showed a chubby, squat bureau with something friendly about its posture.

I drew boxy drawers rather than slender ones and staggered the vertical dividers to create a visual cascade that leads your eye downward over the front of the bureau.

Boxy drawers are common in traditional tansu, and the way I staggered

them makes a link to stepped tansu. But the curved top, the curved sides and the arched stretcher on my bureau, which I've used on a number of other case pieces to give them a visual lift off the ground, are clear departures from tradition.

Although I bought some planks of paulownia with the wedding tansu tradition in mind, I didn't use them. I had designed the bureau on a tight schedule, and when time got short, I decided to use the maple and the narra and have the bureaus built by Tim Wells, a superb cabinetmaker in Freeville, New York. So the planks of paulownia are still stacked in my shop, waiting until I have the time to make a tansu bureau myself. (For more information on narra and the Damascus steel pulls, see Sources on p. 100.)

SPECIFICATIONS

DIMENSIONS

28 in. wide, 17 in. deep and 49 in. high.

MATERIALS

Red chest: curly maple exterior, cedar of Lebanon drawer sides and Damascus steel pulls.

Brown chest: narra exterior, cedar of Lebanon drawer sides and Damascus steel pulls.

FINISH

Red chest: cashew lacquer

Brown chest: clear lacquer.



Memento of a trip to Japan. The author designed his tansu-inspired bureaus after half a year spent studying traditional tea-tray carving in Kyoto. This bureau is made of narra.

Sheraton Field Bed

BY G. R. CLIDENCE



Bed rails are sturdy. In original beds of the Sheraton period, the rails were made out of thick stock to support a taugt rope mesh, which held the mattress. In this bed, the mattress sits on a platform, but the heavy rails were preserved for historical accuracy.

Since the late 1700s, when Thomas Sheraton popularized the style, the field bed has always surpassed the basic requirement of providing a good night's rest. It was designed for field generals and aristocratic types with discriminating sleeping habits. In response to the demands of their wealthy clients, furniture makers of the period tried to outdo each other by adding decorative details. As a result, few of these beds were the same, so I had lots of latitude in designing one.

The biggest challenge was to marry today's practical sleeping requirements with the appearance of a genuine period piece. Bed sizes in the 18th century were smaller and not standardized as they are today. Today's sleepers also prefer higher headboards than did our forebears. These factors made it necessary to enlarge and re-proportion the posts to appear correct in relation to the rest of the bed.

The posts shown here were made from one large mahogany plank. Each post was turned and reeded in two sections and then joined back together. The decoration on the posts is moderate for the period. In early versions of the field bed, only the posts at the foot of the bed were turned and sometimes reeded. Later, as the design accumulated layers of adornment, all four



A bed worthy of a general. The inspiration for this canopy bed was the "field bed" designed in the late 1700s by Thomas Sheraton and used by generals in the military.

posts were reeded or fluted, and some had elaborate foliage carvings.

Original beds also used a rope mesh to hold the mattress. The ropes were tightly tensioned, so the sides had to be thick, sometimes 3 inches or 4 inches square. I preserved this feature, even though it was unnecessary because the mattress sits on a platform, not on a rope mesh.

Mattresses today are thicker than 18th-century mattresses, so the platform between the bed rails had to be recessed to preserve the original look. I beveled the inside edge of the rails to make it easier to tuck in the sheets and the blankets.

The canopy framework was another challenge. In originals I had seen, the serpentine canopy is sawn and hinged in the middle for mobility and ease of construction. To me, these looked bulky and crude, although they were usually hidden behind the canopy dressing. Instead, I steam-bent the oak canopy to the serpentine shape, and I chamfered the edges. This canopy frame is sturdy but a little more graceful than some of the originals. It is beautiful either left uncovered or partially visible through lace hangings. ■

SPECIFICATIONS

DIMENSIONS

87 in. long, 67 in. wide and 82 in. high.

MATERIALS

Mahogany, oak and brass.

FINISH

Stain and flat polyurethane rubbed with gel varnish.



Updating a classic. Modern beds are bigger than those of the early 1800s, which meant the author had to redesign the posts and the headboard to preserve the original proportions.

Adornments are in the bedposts. Sheraton-style field beds had varying amounts of decoration, depending on the builder. Here the posts are turned and reeded and topped by a finial.



Cherry Bench

BY RICHARD BITTNER



An exercise in freehand design. The serpentine backrest, the curved armrests and the sculpted legs evolved by eye and feel, not from a set of plans.

an enduring childhood memory prompted me to put an unusual spin on the design of this bench. My grandfather had an old rocking chair that I loved to sit in as a young boy. Like most traditional chairs, the armrests curved out at the ends. I can remember spending hours fruitlessly trying to get my arms to conform to the turned-out armrests, wondering why on earth they were made that way.

When I got the chance to build this bench, I decided to do the reverse. Shaping the arms to flare out and then turn inward gives it a feeling of intimacy, as if the arms are reaching out to embrace the person sitting on it.

I left most of the designing to my eyes and my hands as I worked. I started out with no more than an imperfect sketch and inexact dimensions. I shaped the top of the backrest, which has a slight bow, out of a thick piece of cherry. Then I drew the serpentine on the backrest, freehanding and erasing until I got a smooth curve I liked. I wanted the piece to look freeform, not rigidly geometrical, so I didn't use any patterns or templates.

I shaped the legs by feel more than anything else, using my own leg as a rough guide for proportion and shape. I wanted the shape of the legs and the armrests to evoke a human form. ■

SPECIFICATIONS

DIMENSIONS

50 in. long, 19 in. deep and 35½ in. high.

MATERIALS

Cherry, cotton fabric and foam.

FINISH

Oil and varnish.



Legs are based on the human form. The legs on this bench, shaped by chisels and spokeshaves, evoke the musculature of a human leg.

Armrests embrace the seat. Unlike the armrests of traditional furniture, these armrests curve out and then in.

Mahogany Entertainment Unit

BY DALE CARSON



*p*roportioning and hardware are two of the peskiest parts of making an entertainment center. On the proportioning end, you've got to find a way to make a great big box look less imposing. And when it comes to hardware, you've got to grapple with the problems presented by pocket doors.

For this piece, I started with proportioning. My first decision was to break the cabinet into two parts visually. I made the lower case wider than the upper one. Then, instead of wrapping some waist molding around the middle, I made a "counter" (actually, the bottom of the upper case) to heighten the feeling that the upper case is placed on the lower one. I wanted to emphasize the separateness of the two cases, but I also wanted some continuity between them. So I made the doors in both cases the same width; I also

Deft detailing can turn a big box into a piece of furniture. The author made his mahogany entertainment center less imposing by designing the upper and lower cases to look as if they are separate. Then he tied them together visually by making all doors the same width.

UPPER CASE JOINERY

Top is attached with screws through subtop.

Blocking, tenoned to dovetailed braces, strengthens joint and creates continuous surface for pocket-door track.

Case side

Plastic track

Dovetailed braces provide racking resistance in place of a face frame.

Pins ride in plastic track let into cabinet.

Subtop

Door

made the bookmatched mahogany panels from long boards so that the grain is continuous above and below.

Pocket doors that slip out of sight are certainly a good idea on a big cabinet that will stand open for long periods. But I've always been annoyed by the bulk and complexity of pocket-door hardware. I'm also disturbed by the wasted space that pocket doors create.

I searched for pocket-door hardware and finally located a simple non-mechanical system consisting of a plastic track and a pair of metal pins that are fixed to the door and ride in the track (available from the Woodworker's Store, 21801 Industrial Blvd., Rogers, Minn. 55374; 800-279-4441). It took some trial and error, but eventually I got the doors working easily. They open with a push on the hinge-side stile and glide back into the case. With no need for an inner divider to mount or hide the hardware, the doors take up only about 1½ inches on each side of the case.

To reduce wasted space even more, I decided to forego a face frame on the upper case of my cabinet. I compensated for the loss of resistance to racking in two ways. At the top of the upper case, I designed a subtop of through-dovetailed braces. And where the upper-cabinet sides meet the counter below, I made the joint with long, solid-wood splines ¾ inch thick and 1 inch high. I milled the splines with the grain running vertically, so they'll never fail. ■

SPECIFICATIONS

DIMENSIONS

48 in. wide, 24 in. deep and 72 in. high.

MATERIALS

Philippine mahogany and mahogany plywood.

FINISH

Tung oil over hand-planed surface.



Minimum hardware. Simple, nearly invisible pocket-door hardware keeps the appearance clean and the wasted space to a minimum inside the television cabinet. Beeswax, not drawer slides, makes it easy to open the solid mahogany drawers below. The handleless lower doors open with touch latches.



Hall Table with Ebony Applique

BY BRIAN KELLY

Variations in tone and texture attract the eye. Very fine-grained cherry in the top panel, the drawer fronts and the end panels (photo left) makes a slight contrast in tone and grain with the cherry in the rest of the table. Proud pegs and offset adjacent surfaces add further definition.



as a boy growing up on a farm in South Florida, I watched my father build everything from barns to simple furniture. My first piece of furniture was a crude bench I built in a section of the Big Cypress Swamp that abutted my family's farm. I attached the bench to two trees with wooden pegs. The brace and bit I carried to the swamp are probably still out there. The bench, I'm sure, is long gone.

Since then, I've become more responsible about caring for tools, and I've learned a lot about joinery and design, but I still seek the feeling that I'm

building something just for the pleasure of it. The people who asked me to make this table must have guessed that. After giving me some general guidelines for the piece, they said they wanted me to design something I would enjoy making.

The table was to stand in an entry hallway where some artwork would be displayed. The table was to be the centerpiece of the hall and also provide a display surface.

The tabletop has a solid panel within a mitered frame. To convey a sense of importance to the objects displayed

A scooped frame creates a plinth. By coving his tabletop's frame and cutting steps into the panel's perimeter, the author accentuated the table's function as a place to display objects of art.

upon it, I made the frame members curved in section, so they sweep gently down to the panel, which then steps up to the top surface.

I wanted to make a piece one would want to touch. I softened the corners of the legs, created offsets between the surfaces of the legs, rails and drawer fronts and let the tenons and the ebony pegs protrude, all to make the table more inviting to the hand as well as to the eye.

I decided against the flush-inlaid decoration I had originally considered and experimented with the idea of an applied design.

I traced and adapted a brushy Japanese drawing of a plum tree for one end of the piece, and then a pine tree for the other end. I made the lines somewhat disconnected so that they could be comprised of small pieces of wood. I cut the pieces from a thin sheet of ebony and glued them to the veneered end panels of the desk. I then used chisels to dome all the little pieces so that now you feel only small, smooth bumps when you run your hand over the decoration. ■

SPECIFICATIONS

DIMENSIONS

80 in. long, 21 in. wide and 38 in. high.

MATERIALS

Cherry and ebony with rift-sawn white oak interior.

FINISH

Oil.



This drawing uses ebony for ink. The author traced and adapted a Japanese depiction of a pine tree and reproduced his drawing by cutting bits from a thin sheet of ebony and gluing them to a cherry-veneered end panel.

Cherry Doll Cabinet

BY PETER R. JENSEN

When I was given free rein to design a cabinet for an antique doll collection, my first impulse was to fashion a dwelling for the dolls. The architectural elements of this piece—the gabled pediment, shaped soffit and pilasters in the base—convey, at least to me, the idea of a building.

The pediment is a classical Greek form. I tried to soften its triangular shape with the gentle arc of the half-elliptical fan (for more on making the fan, see *How They Did It*, p. 96). Like a decoration in relief that you might find in a classical building, the fan and the moldings add shadows and texture to the pediment.

The pediment creates a high ceiling inside the cabinet, leaving plenty of room for lights above the shelves. The soft glow of these lights can be used as a night light.

The 7-foot height of the cabinet and the adjustable glass shelves allow for any arrangement of dolls. I intended the front and the glass panels on each side to be like windows on a dollhouse, giving a viewer a close look at the collection. The mirror at the back of the cabinet reveals a different view of the dolls and gives the cabinet the appearance of more depth.

I wanted the base to anchor this glass house to the floor, so I gave it some height and mass. The pilasters and the moldings on the front complete the architectural theme. ■



Fan is applied, not carved. Inspired by architectural decorations, the author applied this elliptical fan (with a turned rosette at the center) to the face of the pediment.

Doll cabinet borrows from classical architecture. The gabled pediment and base pilasters were used to evoke a Greek temple.

SPECIFICATIONS

DIMENSIONS

36 in. wide, 17 in. deep and 84 in. high.

MATERIALS

Cherry, glass and brass hardware.

FINISH

Oil and lacquer.

Tables Inspired by the Desert

BY PHIL ELIA



Design drawn from the desert. This 3-ft. by 3-ft. coffee table recalls the breadth and subtle tones of the desert landscape. Heavy legs and a thick top give it solid bearing; beaded corners on the legs keep it from looking too massive.

*i*f it hadn't been for my sister, these tables would have looked a lot different. She introduced me to the Southwest by moving to Arizona a few years ago. On my visits to see her there, I've been inspired by the architecture and the furniture—it's quite a change from what I'm used to in the northeast corner of Ohio.

When my other sister, who has not yet defected from Ohio, asked me to design a coffee table and a side table and gave me the freedom to make

whatever I wanted, I decided to try something in the Southwestern vein.

One thing was certain: the furniture had to look sturdy. I made the legs very hefty, $2\frac{3}{8}$ inches by $2\frac{3}{8}$ inches, and the tabletop a full inch thick. To keep the legs from looking too bulky and plain, I routed a bead into all four corners of the legs.

I wanted to incorporate the stepped detail typical of much Southwestern furniture, so I cut a triple-bead molding into the lower edge of the aprons.

As the project moved along, I was pleased with the proportions of the coffee table. At 3 feet square, it sat solidly on the floor. But the end table, with its tall legs and small, rectangular top, looked spindly by comparison. I decided to give it a lower visual center of gravity by adding the slatted magazine shelf between the legs.

Although clear-finished pine is popular in the Southwest, I chose red oak and treated the wood with a white wiping stain. I used the wiping stain on both the solid wood and the veneered tops. My wife put her art degree to work, helping me mix soft colors that evoke the parched tones of the desert. For the turquoise highlights we added teal green and a little yellow ochre to the white stain. To obtain the pinkish color on the top's edging and the center of the inlay, we added raw sienna and burnt umber to the white stain. I brushed on the accent colors and wiped off the excess.



Slatted shelf adds visual weight to a leggy table. Before the author added a magazine shelf, this end table seemed too tall beside the broad, low coffee table shown on the facing page.



Wiping stains produced the washed-out tones the author sought. White stain gave the red oak a pinkish cast. Pigments mixed by hand into the white stain produced the accent colors.

SPECIFICATIONS

DIMENSIONS

Coffee table: 36 in. square and 16 in. high.

End table: 27¼ in. long, 20 in. wide and 22 in. high.

MATERIALS

Red oak and red-oak veneer on medium-density fiberboard.

FINISH

Wiping stains with a topcoat of water-based lacquer.



A Desk with Distinguished Ancestry

BY JEFFREY P. GREENE

The laptop of the 18th century. A slant-front desk, like this one designed by John Townsend of Newport, was a requirement for merchants and businessmen of the time.

a good desk was essential to any businessman in the 18th century, and the level of its elegance was a measure of status and success. This was especially true in bustling Newport, Rhode Island, at the time New England's second largest city after Boston.

Newport in the 18th century was a hive of activity. Its streets and wharves were crowded with commerce, and two Quaker families—the Goddards and the Townsends—built much of the best furniture for the rising merchant class. It is little wonder, therefore, that these two preeminent cabinetmaking families were hired to build many slant-front desks like this one.

The desk is a faithful replica of one built between 1760 and 1790 and authenticated to John Townsend. (The original is at the John Brown house in Providence.) Although the Goddards and the Townsends are best known for their mahogany furniture, they did use other woods, such as soft maple. The maple boards I used for this replication were sawn from one tree and kept in sequence for consistent figure.

The design genius of the Goddards and the Townsends resided in their ability to infuse a simple form with the utmost refinement. The exterior of the desk has carefully graduated drawers, a simple but pronounced base molding and ogee feet of exceptional form



A multitude of drawers. There are 17 drawers on the inside of this desk (including three behind the carved door), plus a sliding panel, or well, for access to the top drawer while the lid is open.



Inspiration from a similar piece. This period chest of drawers, circa 1750 and attributed to John Townsend, was in the author's shop, giving him inspiration as he replicated the slant-front desk.

A "blocked" interior. In a signature of the Goddard and Townsend style, the inside drawers are "blocked," which means the carved shells and panels are alternately raised and recessed.

SPECIFICATIONS

DIMENSIONS

38½ in. long, 21¼ in. wide and
41½ in. high.

MATERIALS

Soft tiger maple, eastern white pine
and brass.

FINISH

Aniline dye and shellac.

and grace. The outside is void of ornament, with the exception of the bold brass pull plates and escutcheons.

The interior is characteristically powerful but orderly. The blocking, the alternately raised and recessed panels, adds interest to what would otherwise be a plain array of drawers and pigeonholes. The blocking is smoothly integrated from the writing surface up to the three carved shells. The scrolled fronts of the pigeonhole dividers add to the three-dimensional effect of the interior and connect the lower drawers to the valances with flair.

While building this desk, I was fortunate to have a maple chest of drawers attributed to John Townsend in my workshop. The similarities between the two pieces, and the privilege of having an original close at hand, proved inspirational. ■

Walnut Spice Rack

BY DAVE DENEKAS



Locked to the wall. Keyhole fittings hold the rack flush to the wall and allow for instant removal. The frame-and-panel back of the spice rack is also easily removable for cleaning and reoil.

Tapers season a simple spice rack. The author relieved the projecting elements of his black walnut spice rack, creating a composition of gradual curves that gives a visual flair to this functional piece.

i like to cook, and my cooking seems to get more elaborate as time passes. It certainly requires more spices. Over the years, I've made and outgrown a succession of spice racks. For this, my most recent rack, I made a purely functional piece but tried to give it some visual appeal.

I used richly colored black walnut for all parts of the spice rack. For the back, I borrowed a simple frame-and-panel design I'd admired in one of James Krenov's books on cabinetmaking. And I joined the sides of the rack to the top and bottom with through-dovetails. Both these details are simple and pretty, but I needed something more because the back would be largely ob-

scured by spice bottles, and the dovetails would seldom be appreciated, as the rack is shallow and usually seen from the front.

I played with the most prominent surfaces of the rack, the front edges of the box and shelves. I started by relieving the outside edges of the box in a shallow curve so that when seen from the front, the parts would be thinner in the middle. Then I did the same to the bottom edges of the shelves and to both sides of the vertical dividers. Without reducing the area available for the joints, these gentle curves, cut with a spokeshave, lighten the piece visually and give it flair. ■

SPECIFICATIONS

DIMENSIONS

32 in. wide, 4 in. deep and 25 in. high.

MATERIALS

Black walnut.

FINISH

Tung oil and wax.



Compatible but not the same. Because the table and chairs are both made of cherry with accents of ebonized cherry, they complement each other without looking like they are a set.

Design Simplifies Construction

BY NIALL BARRETT

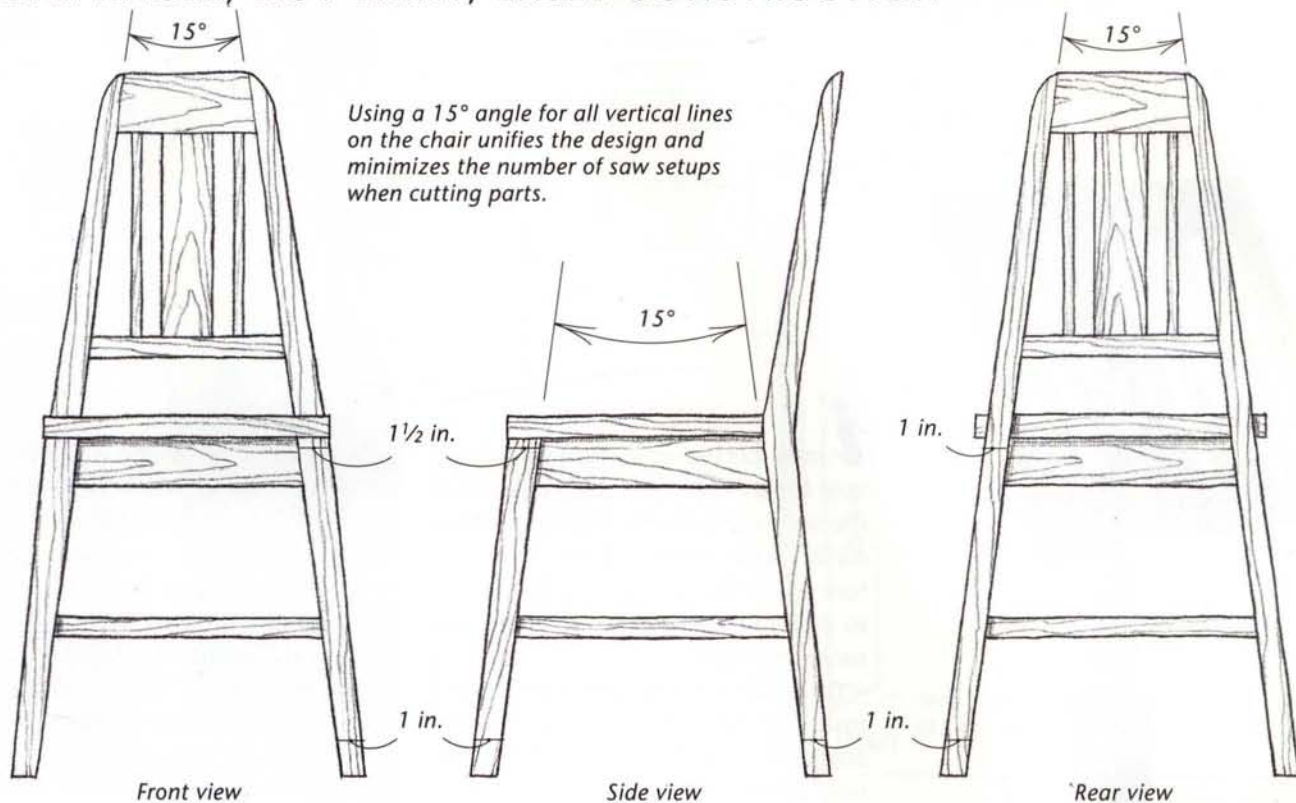
*i*n Denmark, a country whose name is synonymous with good design, it's not enough that a piece of furniture be functional or even aesthetically pleasing. If a design is to become noteworthy, it also must be easy to put into production. The inspiration for this chair came from an antique chair I saw in Denmark, and I approached the design as a Dane would—by taking the construction process into account.

The chair that I saw was compact and had a low, narrow back that angled inward at the top. I wanted a chair with the same basic shape and scale. While working on the design, it occurred to me that if all the vertical lines on all sides were drawn at the same angle, I would have a chair with only one compound angle. I then set out to limit the number of different-sized parts. Making the seat frame square meant that the side, front and back

rails could be identical. That helped. In the end, I thought the chair would be quick and efficient to build in any number, as well as being stylish.

It took some time before a project came along that allowed me to use this design. The opportunity came in the form of a table. The chairs were the right size to go with a round table less than 5 feet in diameter, the space I had to work with. The table had to fit into an awkward, limited space, and it had

ONE ANGLE, NOT MANY, EASES CONSTRUCTION



SPECIFICATIONS

DIMENSIONS

Chairs: 17 in. wide, 17 in. deep and 33 in. high.

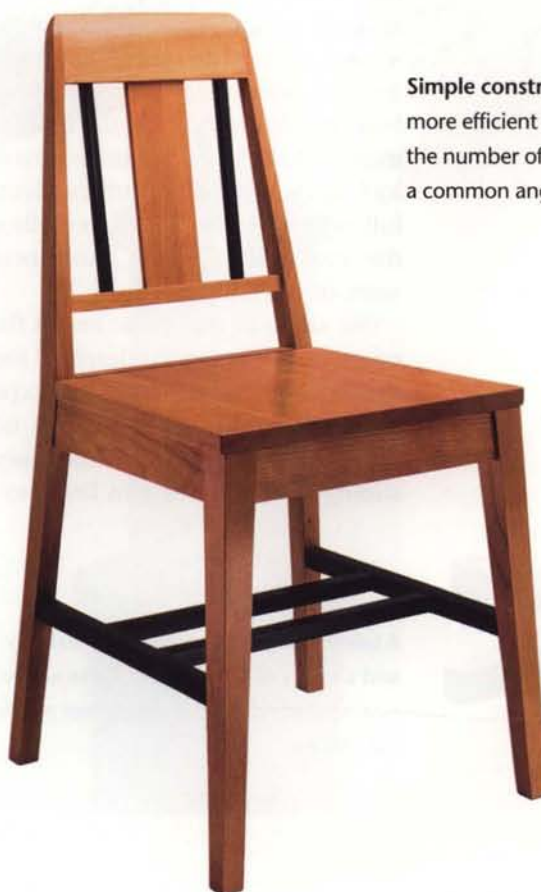
Table: 56 in. in dia. and 29 1/2 in. high.

MATERIALS

Cherry and ebonized cherry.

FINISH

Lacquer.



Simple construction. To make the chair more efficient to build, the author reduced the number of different-sized parts and chose a common angle for all vertical lines.

to look formal but be able to stand up to hard, daily use.

And while the clients wanted the chairs and the table to complement each other, they didn't want the pieces to look like a set, more like two separate things that went well together.

Although on close inspection, the styles of these pieces are very different, I think they work well together. ■

Maple Music Stand

BY J. SCHREUTELKAMP



i built this music stand at Christmas-time for my wife and my youngest son, the musicians in my family. A flimsy metal music stand had become a fixture in our living room, and I wanted to make something more stable and more attractive.

The central design problem was to make the stand sturdy but also widely adjustable. It had to suit a little boy sitting down to play the cello and a grown woman standing up to play the flute. I solved the problem with a telescoping column made of three square-section shafts. The inner shaft is solid, and the middle and outer shafts are hollow. I drilled holes in the inner and middle shafts to accept brass pins that lock in the height adjustment. Even at full extension, my flute player tells me, the stand holds heavy music books without wavering.

The angle of the music rest is fixed on my stand. Using the despised metal music stand, my wife and son experimented to find an angle they both liked, and I adopted it. I machined a sliding-dovetail fitting in brass to at-

tach the music rest to the top of the inner shaft. This way, the music rest is secure but can easily be removed for transport or storage. (For a description of how I made all the hardware for the stand, see *How They Did It*, p. 97.)

I gave the stand a flat base because the metal stand's tripod legs look spindly and get in the way of a cellist's feet. I made the base with two boards half-lapped together to form a cross. I tapered the pieces so that they wouldn't look clunky and added small blocks under the tips for better balance. I suppose the shape of the base was also inspired by the simple, cross-shaped bases that vendors nail onto Christmas trees here in Holland. ■

SPECIFICATIONS

DIMENSIONS

Height range: 39 $\frac{3}{8}$ in. to 74 $\frac{3}{4}$ in.
Music rest: 15 $\frac{5}{8}$ in. wide and
13 $\frac{7}{8}$ in. high.

MATERIALS

Maple and brass.

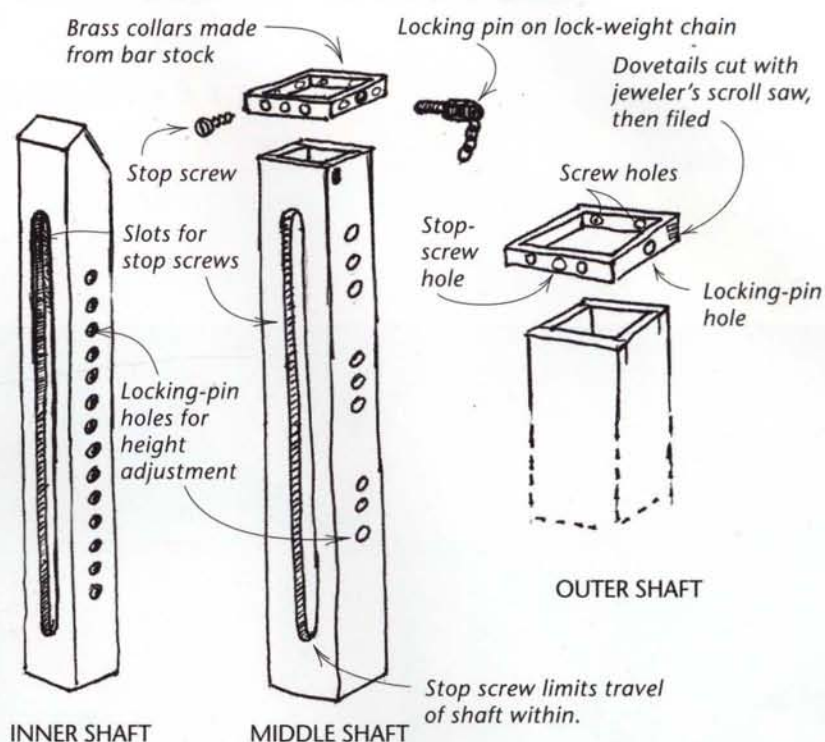
FINISH

Linseed oil and beeswax.

A telescoping column provides stability and a range of adjustment. Three simple, nesting shafts drilled for adjustment pins form the column.



ADJUSTABLE-COLUMN DETAILS



Brass dovetail locks the music rest to the column. Made up from brass bar stock, the sliding dovetail (above) provides secure attachment but is easily uncoupled for transport or storage.

Homemade hardware. The author fitted the stand's shafts with brass collars (right) to provide a long-wearing surface for the height-adjustment pins and stop screws. He bought brass bar stock and dovetailed and soft-soldered the pieces together.



Cherry Side Table

BY PETER TURNER



Joinery is traditional, too. Half-blind dovetails on the drawer and pinned tenons connecting aprons and legs were signature details of Shaker furniture. They still work.

SPECIFICATIONS

DIMENSIONS

26½ in. long, 18⅞ in. wide
and 26½ in. high.

MATERIALS

Cherry with hard maple drawer sides
and runners.

FINISH

Polymerized tung oil.

Shaker craftsmen had an eye for beauty and function in the furniture they made. I expressed that appealing combination, paying particular attention to proportion and simple details. The table is sized to flank my sofa at home, with the height of the table matching that of the sofa arm.

I kept the top and the shelf fairly thin to lighten the overall appearance of the table. The top's ample overhang allows a large work area while keeping the base fairly light. I had seen a turning detail that I liked for the leg and found a drawing of it in one of Ejner Handberg's books of shop drawings (*Shop Drawings of Shaker Furniture and Woodenware*, The Berkshire Traveller Press, 1975). The leg has a long, square section at the top and a graceful barrel shape below.

Breadboard ends on the top and the shelf provide stability and isolate the legs from any seasonal movement in the shelf (for more on the joinery between shelf and legs, see *How They Did It*, p. 96). The shelf allows my wife and me to clear the tabletop of clutter in seconds. But its location near the top of the table doesn't detract from the table's overall proportions. ■



Shaker origins. A simple turned leg, a thin top and wide overhangs help define the Shaker style. Splayed legs give the table a confident stance, and the shelf makes the table practical.



Made for the human form. For a commission that began with a downed cherry tree, the author designed this chair around a scale drawing of the human back. Slats were bent around a plywood torso so that they'd fit comfortably.

A Chair Built for Comfort

BY BRIAN BOGGS



Roots in Appalachian furniture. A seat of woven hickory bark speaks clearly of the chair's regional origins.

When I started making chairs 11 years ago, I kept them simple. My heart was set on mastering the old Appalachian chairs and the down-to-earth techniques of early chairmakers in this region. The chairs were definitely rustic. As I grew more confident of my skill, I experimented and began to drift away from my early simple ladderback chairs.

Most of my energy was focused on arrowback chairs, whose back sup-

ports run up and down rather than side to side. But three years ago, I got a call about a cherry tree that came down in a storm near a house that my brother was remodeling. The landowner also happened to be in the market for several chairs, and he wanted to know if I could make them out of a log from this tree. The house where the chairs were to go was being done in a very slick, contemporary style, and I needed a design that was suitable. Of the styles I had been working in, the ladderback was the only one that I

would want to build in cherry. But at the time, my ladderbacks just wouldn't go well in this house. I had to rethink what I had been doing.

I wanted to do more than design a chair that looked slick. I wanted it to be more comfortable than any chair I had made before and have it retain as much of the Appalachian style as possible. So I did a scale drawing of a person sitting on a seat and drew the rear



It's not the work of a machine. The top of the back post shows the clean facets made by a sharp knife. The marks aren't obscured by sandpaper or a scraper, making the chair a blend of graceful lines and honest workmanship.

Getting the rungs off the floor. The author placed the chair's rungs as high as he could without affecting the strength of the frame so that the legs would look graceful.

legs of the chair so that they followed the contours of the person's back precisely. I drew the lumbar curve to flow into a straight leg that splayed outward for stability and visual balance.

For flexibility on the seat, I wove hickory bark in a pattern (for more on the bark, see Sources, p. 102). On the curved back, I placed the slats where flat places would be the least disruptive to the chair's visual flow and to its comfort. I wanted the legs to appear as long and graceful as possible, so I raised the rung locations as high as I could without losing frame strength. Only a short section of each leg—where the rungs intersect it—is at full

thickness. The rest of the leg tapers, so it doesn't look stocky.

To get each slat to fit the back, I made what is essentially a plywood torso to use as a bending form. Each slat was bent differently, according to its location on the form. The bottom slat was even slightly twisted to get a perfect fit. What I have now is an Appalachian chair designed around a human form. Borrowing the curves from the human body not only gave me the look I wanted, but it also provided what is probably the most comfort you can get from a wooden chair. ■

SPECIFICATIONS

DIMENSIONS

15¼ in. deep and 38½ in. high. Seat is 19¼ in. wide at the front and 15¼ in. wide at the back.

MATERIALS

Cherry and hickory bark.

FINISH

Varnish and linseed oil.

Vaulted Silverware Box

BY ABIJAH REED



Flannel prevents tarnish. Foam rubber was shaped for the different sizes of silverware and then covered with a special flannel material to prevent the silver from tarnishing.

Vaulted top suggests treasure chest. The author shaped a slight bulge into the top panel to break up the boxy design. This detail also hints at the silver treasure inside.



*t*his little box, meant to replace its aging, worn-out predecessor, has done an admirable job holding and displaying my family silver. The design is simple—there are no feet or moldings, and the top and bottom panels float freely in grooves cut into the sides. The top is vaulted to break an otherwise hard and rectangular look. To me, this slight bulge suggests the fullness of the treasure within.

I made the mating edges of the box and its lid with complementary bevels. These bevels provide alignment and tight closure, and they also look good when the box is open. A finger-hold on the front allows one's thumb to open the top without slipping.

For the interior, I used a scrap piece of firm foam rubber, which I purchased from an upholstery supplier. I cut the foam to receive the different sizes of forks and spoons. The knives, stored inside the top, are held in slots by their tips, and the handles are pressed into fitted spaces. A simple fabric strap glued to the inside of the box limits the opening of the top.

I covered the foam rubber with a special cotton flannel that I bought at a local fabric store. The flannel prevents tarnish from forming on the silver. (For more on the flannel material, see Sources, p. 102.) ■

SPECIFICATIONS

DIMENSIONS

17 in. long, 10½ in. wide and 3¾ in. high.

MATERIALS

Walnut, foam and cotton flannel.

FINISH

Linseed oil.

Writing Desk with a Touch of Texture

BY GEOFFREY D. WARNER



Positive and negative forms guide the design of this desk. To give definition to the space between the desk's legs, the author used vertical supports with a curving buttress shape cut into them.

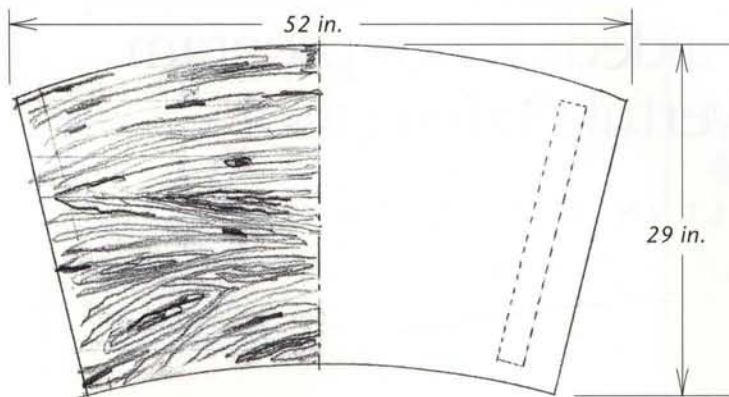
*a*t first I was a great borrower of ideas. I would look at historical pieces and adopt whatever I most liked, borrowing the styles and details that best suited a project. But as time passed, my own style developed. I continued to borrow, but I borrowed from myself.

For this desk, I lifted the carving treatment from one of my past designs.

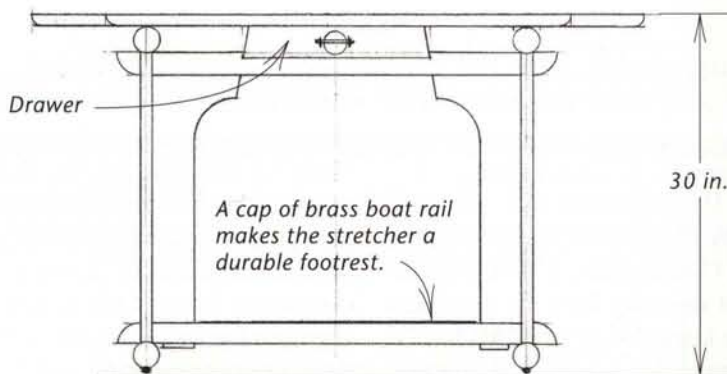
I use this type of carving to give a bit of texture to a primarily smooth, geometric design. I work freehand with a router and follow with carving gouges to obtain a loose, nonuniform pattern. I sometimes do naturalistic carving—carved fish on the panels of an armoire, for instance—but it is a very strong language and tends to dominate

FIRST DRAFT OF A WRITING DESK

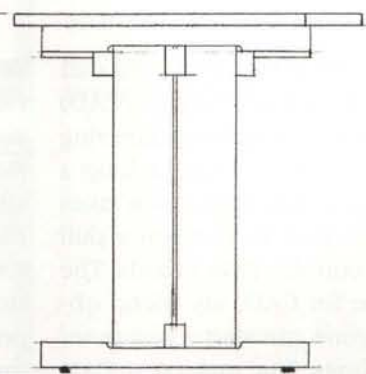
TOP VIEW



FRONT VIEW



SIDE VIEW



In this early version of the author's writing desk, the forms were settled but not the details. When he decided to texture the drawer front, he dropped the handle because it would have drawn too much attention to the drawer. Then, to unify the drawer and the desktop, he relieved the underside of the top to accept the drawer front.

a piece. This freehand wavy carving is really just texturing that lets me create visual highlights without focusing too much attention on one spot or competing with the overall forms of the furniture.

With this desk, I first thought of texturing the drawer front. I wanted it to draw the eye and be a pleasure to touch. But I couldn't stop there. For a detail to work best, it can't occur just once in a piece of furniture. In a rectilinear design, for example, a single curve will often look out of place. If the curve is reflected in other details of the piece, however, it can become a theme and begin to make sense. So I added the texturing to the edges of the table's legs and to the inside edges of the curved, vertical supports. ■

SPECIFICATIONS

DIMENSIONS

52 in. long, 29 in. wide and 30 in. high.

MATERIALS

Cherry and brass.

FINISH

Tung oil.



Freehand texturing introduces irregularity. Making every detail count, the author played a series of textured surfaces against smooth ones, and rounded forms against flat ones.

A CAD Primer

A computer-aided design program is a powerful drafting tool

BY GLENN THOMPSON

a friend of mine once said that learning computer-aided design (CAD) is no more intimidating than mastering a hand plane. Anyone can pick up a plane and make shavings, but it takes time to learn how to sharpen a dull plane and routinely joint boards. The same is true for CAD, my friend observed. Anyone can start a computer and draw lines, but making a CAD program really useful takes some time and practice.

This is a good analogy except that, unlike a hand plane, CAD is not—at least, not yet—an indispensable tool for every shop. CAD is a big investment, and for some tasks it takes time before it proves more efficient than manual drafting. Beginners may discover, for example, that simple things like erasing lines on a computer are more time-consuming than on paper.

Once mastered, however, a computer can speed the drawing process, leaving you free to concentrate on your design, not on your drawing. And the cost hurdle is becoming easier to clear, especially if you already own a computer. My program, Drafix CAD Professional for Windows (a two-dimensional design program) sells for about \$500, and cheaper software is available (see sidebar on p. 85 for more on setting up a CAD system).

WHY I USE CAD

I started using a CAD program several years ago because I wanted my project proposals to look more professional. My sketches are the first examples of my skill that customers see, and I like to make a good impression. But drawing isn't my strongest point, so I decided to use CAD for the same reason that I use word-process-

entertainment centers, desks, coffee tables, cabinets and even a softball trophy. Once I have a basic drawing of a piece of furniture on my computer screen, CAD allows me to modify the design in countless ways and quickly produce high-quality drawings for my customers. In my CAD drawings, the lines and the arcs meet with precision, the corners are square, and the notes and the dimensions are clearly legible.

HOW CAD WORKS

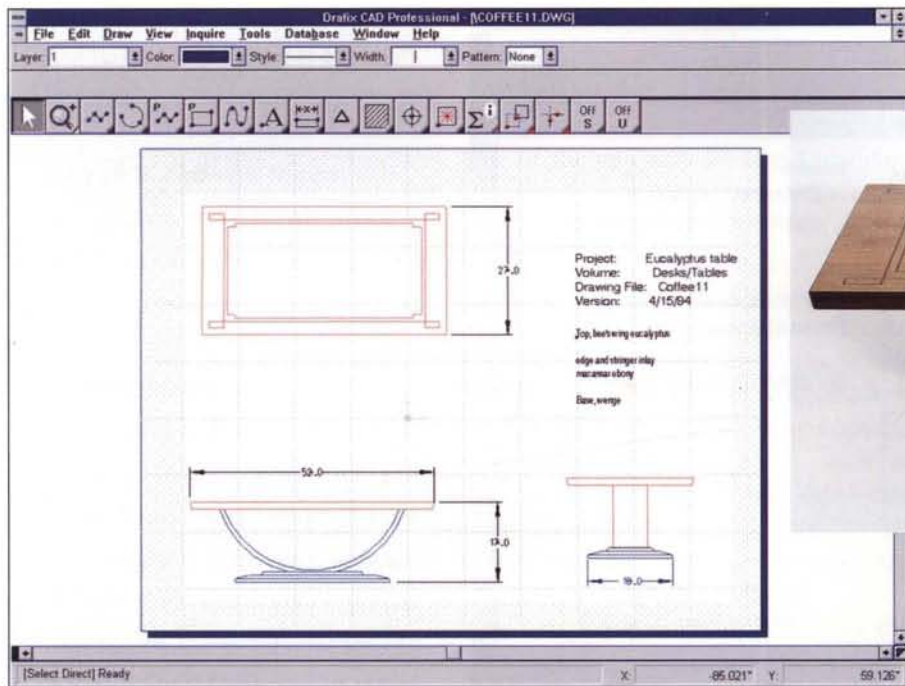
Using CAD is similar to word-processing, but instead of typing text, I use the computer's keyboard and "mouse" to draw different shapes. To make an initial drawing of a piece of furniture, I select a screen grid that is reasonably scaled for the object I intend to draw. I typically use a 1 in. = 1 ft. scale with a corresponding screen grid. Then, from a menu, I select an element I wish to draw—a line, a rectangle, a circle or other shape. I position this element by using the mouse to move cross hairs to any location on the grid.

When I want to switch to a different drawing element—from lines to arcs, for example—I simply go back to the on-screen menu and select the new element. I can erase, copy or modify anything I draw as I work. And with the screen grid as a guide, I can

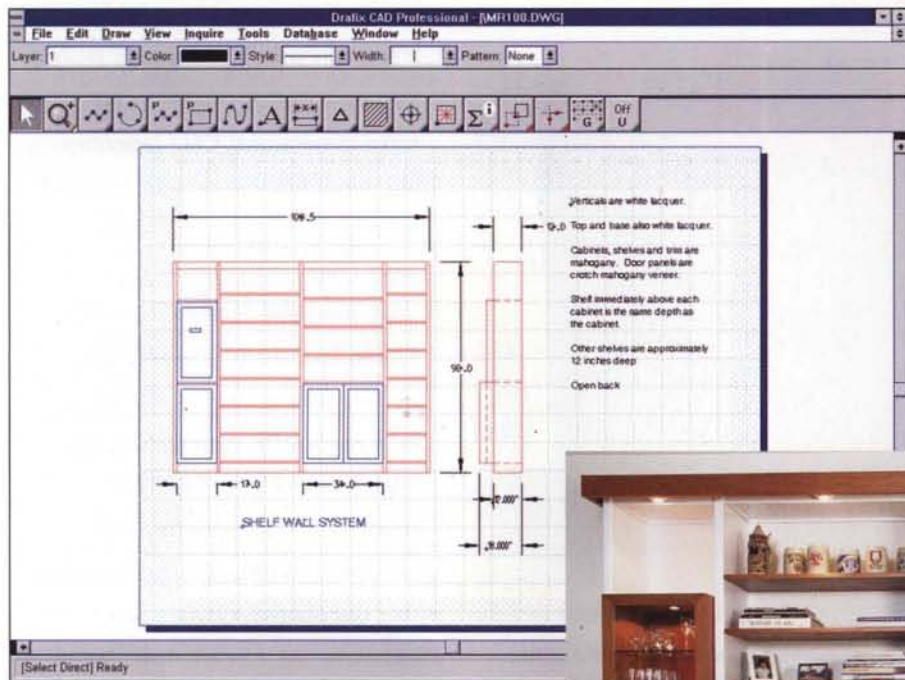
A computer
can leave you free
to concentrate
on your design,
not on your
drawing

ing software—to prepare an attractive presentation quickly.

Now I use it for every step of the design process, from sketch to scale drawing to full-size shop drawing. I have used CAD to design bookcases,

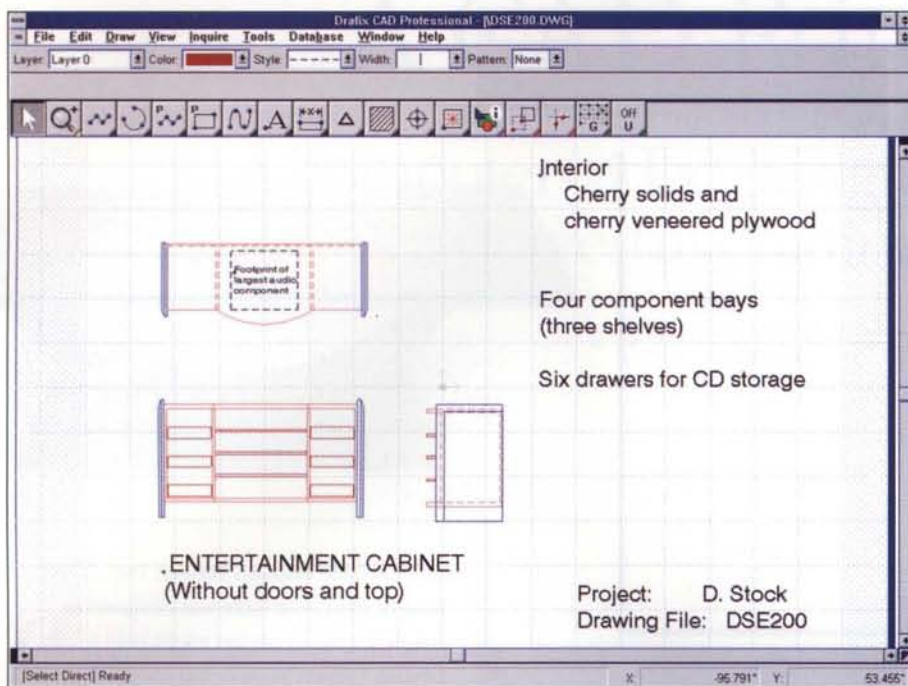


Curved base displays veneer. The curved base of this coffee table was designed to mimic the way a person might hold a beautiful object in his or her hands.



A basic design with repetitive parts. This set of shelves, with highly figured mahogany veneers, would have been a major undertaking if drafted manually.





Stereo cabinet scaled to room size. The drawing of the top view of this cabinet, with sapele and fiddleback makore veneers, was printed full-size to make sure the piece would fit in the room.

Shelves and drawers sized on screen. The author used the dimensions of the electronic components in his drawings to design the cherry and plywood interior of the cabinet.

Setting up a CAD system

CAD's biggest drawback is its price. If you're starting from scratch, you'll probably need to spend close to \$2,000 for a computer, a printer and software.

I use a 386SX computer with 4 megabytes of memory (RAM). This has been fine for my drawings, but most computer professionals would consider it too slow. If I were buying a new computer, a 486DX (33 megahertz) with 4 megabytes of RAM—around \$1,200—would be the minimum I would consider.

You can spend as much as several thousand dollars on advanced, three-dimensional CAD programs like AutoCAD. For two-dimensional drawings, the cheaper programs work fine.

My program, Drafix CAD Professional for Windows is made by Foresight Resources (10725 Ambassador Dr., Kansas City, Mo. 64153; 800-231-8574). The suggested retail price for each program is \$495, but you can often find discounted software at a

computer store or by mail. Before you buy software, make sure it will work on your computer.

Lastly, you will need a printer. I use a black-and-white Hewlett-Packard ink-jet printer, which sells for about \$300. Again, make sure the software you choose works with your printer.

— G.T.

concentrate on the design of the piece, not on the dimensions.

Drawing to a screen grid is fast and easy to learn. Most people use this approach—similar to freehand sketching on graph paper—when they first learn a CAD program. With the computer, unlike manual drafting, I can change the grid size or magnify a section of the drawing at any time.

I use my initial computer drawings as I would sketches—to ensure that the customer and I are in general agreement on the style of a piece of furniture. When it's time to proceed with the work, I convert the computer "sketch" into a mechanical drawing, including dimensions, without having to start from scratch.

REDRAWING IS EASIER WITH CAD

Once I've got a drawing, CAD makes it easy to enlarge it, separate an assembly drawing into components or add greater detail.

For example, I designed a coffee table with my CAD program using the grid method (top photo, p. 83). I had two magnificent pieces of bee's-wing eucalyptus veneer, and I wanted to make a simple base that presented the eucalyptus as I might hold a special object in my hands. I chose an upwardly curving base to hold the table surface. As I worked out the design on the computer, I modified the curvature of the base several times before arriving at the final version (top drawing, p. 83). I was able to stretch and move components on the screen more easily than by erasing and redrawing lines on paper. If you revise a lot, CAD can be a big timesaver.

I usually print different versions of drawings as I design. I find it easier to make decisions by comparing two drawings, rather than trying to remember how the original looked before I erased and redrew it. This ability to save and print different versions of the same drawing is another advantage CAD has over manual drafting.

REPETITIVE TASKS TAKE LESS TIME

CAD also reduces drawing time whenever there are repetitive elements. A set of shelves and cabinets I installed recently, for example, would have taken much longer to draw if I had done it manually (bottom photo, p. 83).

The design had 18 shelves, a china cabinet, plus a second cabinet for audio equipment. Once I had a basic box drawn on the screen, I could produce refined drawings quickly by copying and moving similar parts, such as shelves. I printed two drawings—one with lights at the top—so that I could show my customer the options (bottom drawing, p. 83).

When I got approval to build the shelves, I wanted construction drawings of the various components. This is

If you revise a lot, CAD can be a big timesaver

easy when the drawings are saved in the computer: I recalled the drawing, erased all the shelves, separated the cabinets into individual drawings and added the construction details of each cabinet. I saved all the new drawings under different names, preserving the original in case I needed to refer back to it or use it again for another job.

CAD also helps you draw difficult shapes, such as ellipses. Drawing an ellipse typically requires templates, approximation methods or plotting points. Most CAD programs, however, draw ellipses and other tricky shapes as easily as a rectangle or a circle.

CHANGING SCALES

A stereo cabinet I was asked to build illustrates another advantage of CAD: the ability to change the scale of drawings quickly and accurately.

The woman who wanted the stereo cabinet liked the design but worried that the piece would be too large for the room (photos facing page). She also was afraid that the cabinet's interior would not be large enough to hold all the electronic components. I resolved the first problem—the overall size of the piece—by printing the top view of the drawing full-size. My printer uses standard 8½ by 11 sheets of paper, so I had to print sections of the drawing on several sheets. The program took this into account and added alignment marks, so I could tape the pages together to form the large drawing. I placed this drawing on the floor of the client's room to see whether the cabinet would be an appropriate size. It was.

With that problem settled, I modified the drawing again (always saving the original) to show the interior lines of the cabinet. When I inserted an outline of the largest electronic component, I found it fit inside these lines, so I knew the cabinet would be the right size (drawing facing page).

STORING YOUR DRAWINGS

Computer drawing files are much easier to store, sort and transmit than conventional ones. My drawings require less than 10 kilobytes of disk space. This means that I can store more than 100 drawings on a standard, 50-cent floppy disk. (It's always a good idea to make backup copies, and multiple copies may be stored at different locations for security.)

As with your hand plane, CAD use may be frustrating at first. It also may take time to learn and may seem to be expensive. But with practice, you will develop proficiency and speed. Once you learn a program and feel comfortable with it, CAD will enable you to spend more time designing and less time putting your ideas on paper. ■

Glenn Thompson is a full-time furniture maker and proprietor of Whitney Thompson, Inc., a custom furniture shop in Dexter, Mich.



An Artist Masters the Craft of Furniture Making

Duane Paluska builds furniture that speaks with the unassuming eloquence of its maker

BY JONATHAN BINZEN

The artist's eye is evident everywhere. In the house Paluska built and furnished for himself and his family (left), there is no magnum opus. Each piece of furniture and element of the house plays a role in the overall composition. The painting above the desk is by Dean Richardson.

Symmetry and contrast are basic building blocks. The interior of Paluska's writing desk (right) illustrates a pleasing sense of balance achieved by grouping elements in twos and threes, and use of materials that strengthen each other with contrasts of color and texture.



in Duane Paluska's workshop in Brunswick, Maine, there is a collection of old industrial woodworking machines and a plain, sturdy bench where Paluska makes both furniture and fine art. On the bench and on shelves nearby, planes and drill bits fight for space with brushes and paints. A short hallway joins the shop to the back of a two-story building that houses an art gallery where paintings and photographs by local artists hang. The link is convenient because Paluska is the proprietor of the gallery as well as the workshop. Push a bell in the gallery, and Paluska will emerge from the shop—speckled with sawdust or smudged with paint.

Many furniture makers trip on the line between furniture and fine art. In the 20 years since he left the English professorship that brought him to Maine, and he began making a living with his hands, Paluska has learned how to cross that line without mishap. His furniture, supremely functional but filled with nuances of texture, color and shape, reveals the eye of an artist but contains none of the imagery of art; his art, painted, three-dimensional

pieces he calls "wall reliefs," shows the refined hand of a craftsman but eschews the functions and forms of furniture. The strength this symbiosis gives his furniture is most evident in the house he built and filled with his furniture, where all but three of the photos for this article were taken.

BUILDING PATIENTLY ON THE PAST

While furniture and fine art aim in different directions, Paluska says that, to succeed, both must incorporate the spirit of their maker. Yet, with furniture, too much spirit can be damaging, he feels. Innovations ought to be slight and should come slowly. He observes that many of today's studio furniture makers "have taken a page out of contemporary fine arts—they want something striking and original, something novel. But good furniture doesn't require earthshaking originality. The best furniture results from a slow, step-by-step process of modifying something that you and others have done before."

The slow evolution of Paluska's own furniture is most easily traced in his



Color defines space. In his entryway, Paluska used color to distinguish a public part of the house from a private one. Unfinished pine warms the vestibule downstairs; upstairs, painted pine creates a cooler effect outside the bedrooms. The gleaming banister connecting the two is mahogany.



Furniture that knows its place. The dining table and chairs that stand between the living room and the kitchen feel comfortable enough for a quick breakfast and formal enough for a dinner party.

Simple details suit the kitchen. Sturdy scoop pulls and plain detailing reflect the heavy use of the kitchen cabinets.

chairs. When he began making furniture for a living, he made chairs closely based on American country versions of Chippendale and Queen Anne chairs—sturdy, functional and handsome. His versions of those old chairs grew more stylized and contemporary over the years until they became recognizably Paluska's own.

The growth didn't end there, however. The slightly mismatched chairs around his dining table are evidence of his use of the same forms again and again (see photo above). With each run of chairs, he makes refinements. His earlier chairs, for instance, were flat on both sides of the back. Now Paluska leaves the front surfaces flat, but he subtly rounds, relieves and



chamfers the rear surfaces to make the chairs more interesting to see from all angles and more inviting to touch. What keeps him making refinements is the dream that out there somewhere is the perfect chair. "But of course," he says, "I'll never reach it."

The basic leg and back structure of the country chairs still underlies Paluska's current chairs, but the stronger heritage is in the attributes those early chairmakers taught him to strive for in his work: "Simplicity, clarity and understatement; usefulness, strength and elegance." It's a tall order, but one Paluska's work regularly fills.

AN ARTIST'S CASE AGAINST DRAWING

If you ask to see the finely rendered drawings Paluska makes before building a piece of furniture, he won't oblige. He can't. I expected that Paluska, being an artist, would lean on drawings to develop his designs. But he does very little drawing as a furniture maker. In his woodworking, as in his art, he develops the piece as he works. He thinks that by leaving details unresolved at the start, they become more a part of the piece, growing right out of the building process. "I find this a much more interesting way of doing things," he says. "I admire an architect's ability to design something entirely on paper, but for me, having everything settled from the start would make the construction dull. The disadvantage, of course, is that you can blunder. But I like the constant engagement of my imagination that working this way requires. I'd have a hard time maintaining interest otherwise."

Paluska also jumps right into the construction because he believes that drawings and models, by miniaturizing an object, make it look too cute and make it hard to sort out the ungainly from the graceful. He also feels that trying to render on paper something as complex as a chair is futile. "Seeing a chair in front, side and back elevations just won't show you what it



Sewing tools and spirit in a small box. As in much of Paluska's work, the quilted mahogany sewing box he made for his wife, Ellen Golden, is designed for function but also glows with the spirit of its maker.

Use an old chair to reach new heights.

Paluska learned chairmaking by studying the examples of country chairmakers. The basic structure of this Queen Anne and Chippendale-derived side chair leads directly to his modern-looking chairs.





Slatted doors give an impression of openness without revealing the interior of Paluska's cabinet in mahogany and ebony. His client wanted a formal storage cabinet but didn't want to have to keep it tidy, so glass doors would have been impractical.



will look like. That's not how chairs are perceived." With simpler, rectilinear work such as case pieces, though, he feels a drawing can be useful.

THE WELL-COMPOSED HOUSE

Paluska spends about half his time making custom furniture and the rest tending his gallery, making art and working around his house and property. Paluska built the house and nearly all the furniture in it. Here his facility for selecting and combining materials, textures and levels of craftsmanship is demonstrated in every room.

He was inspired by turn-of-the-century houses of California architects and furniture designers Charles and Henry Greene, among others, but the feeling in his house couldn't be farther from the feeling inside the Greenes' Gamble House. The Greenes built their extraordinary Arts and Crafts bungalows like giant pieces of furniture: Architectural details were taken to the level of furniture. Even in the garage of the Gamble House, the woodworking is magnificent. The furnishings and the house are one organism; you can barely tell where one leaves off and the other begins.

In Paluska's case, the house is still a house. It is a container for the furniture. And the furniture, rather than all being exquisitely detailed and lovingly burnished, is designed to fit a niche, to carry a certain weight, to perform a specific function and to express that function. In his house, each piece of furniture, each door, each wall, is part of the whole composition. And like any good artist, he knows that composition requires contrast; if all lines are the same weight or all surfaces the same color or texture, the composition loses its power.

As you walk through Paluska's house, things constantly make you feel good. After passing through the entry hall, I had a stray sensation of pleasure. I'd examined the entry before: the fine cabinet in the style of James Krenov on a plain wall of beaded pine planks, the

sensuous banister made without spindles to keep the small entry from feeling cramped, the closet door with its panel of vertical slats adding an unexpected touch of texture. But there must have been something that previously escaped my notice. I walked back through and looked around. It was the bathroom door. A simple, painted frame-and-panel door. What had registered was the variation. Instead of having three panels like the bedroom doors upstairs, it had four, and the medial stiles in the upper panel were splayed slightly in a tall V shape. Although on first glance they appeared alike, I found that no two doors in the house were the same.

A RETICENT MAN MAKES A MODEST LIVING

Paluska enjoyed teaching, but after five years at Bowdoin College, he was spending as much time making furniture as he was teaching English and decided he preferred furniture making. Then, as now, he got commissions strictly by word of mouth. And in the years since he left Bowdoin, he's never been short of work.

"Earning a modest living hasn't been a problem. I've always had six months to a year of work ahead of me. As far as stability goes, I've got it all over General Motors, where people work week to week." He's managed this stability without ever advertising. Selling himself doesn't come naturally, and he hasn't tried to learn. "In a certain way," he says, "the ideal would be if I never actually had to meet any clients. I'd just like to make things and then hear second-hand that they were appreciated and useful."

Paluska's friends probably would describe him the way he describes the ideal chair: "one that quietly does its job, that does not call attention to itself but rewards the scrutiny of a person who chooses to give it a close look." ■

Jonathan Binzen is associate editor of Home Furniture.



Cabin launches a house. Paluska and his wife lived in the cabin, which he built in several weeks, for the year-and-a-half it took him to build his house and its built-ins. Now the cabin is their guest house.



Symmetry and solidity. Flush panels and heavy rails and stiles make the entry door satisfyingly solid. A blend of paired and tripled elements give the door and the doorway a classical balance.



Furniture and fine art from the same hand. Paluska sits for his portrait with a chair and a "wall relief" that illustrate his command of both disciplines. "My paintings are usually about anxiety and death," he says. "Furniture doesn't speak that language."

GILT EDGE ENGLISH LEATHER for your desk or tabletop

5 exquisite colors to choose from
Handcrafted to order in Europe

Call or write for more information
or color brochure. LAVINIA INTERIORS
170 Boston Post Road, Madison, CT. 06443
Phone/Fax (203) 245-0885

READER SERVICE NO. 50

SKIDMORE'S



FINE BEESWAX FINISHES

Furniture • Architectural Woodwork • Antiques
Musical Instruments • Rare & Exotic Woods

FREE Brochure • 1-800-785-2446
652 North Pierce • Laramie, Wyoming 82070

READER SERVICE NO. 72



• BAR CLAMPS • HAND SCREWS
• MITRE CLAMPS • DOUBLE BAR CLAMPS
MAKERS OF FINE CLAMPS FOR OVER 70 YEARS

PROMPT SHIPMENT • CUSTOMER SATISFACTION
FREE CATALOG • REPLACEMENT PARTS

HARTFORD CLAMP CO. • P.O. BOX 280131
EAST HARTFORD, CT 06128-0131 • 203-528-1708

READER SERVICE NO. 5

America's Premier Source of Hardwood Veneers and Exotic Lumber



Our expert staff
will work with
you on any size
veneer requirement,
quickly shipping
only A-grade, full
length veneer.
That's A Promise!
FREE CATALOG

Highest Quality Veneers
Lowest Prices, Full Length
Large Selection
Exotic Hardwoods

certainly wood

11783 Big Tree Road • East Aurora, NY 14052
Ph: (716) 655-0206 Fx: (716) 655-3446
Our Wood Certainly Makes A Difference

READER SERVICE NO. 8

800-248-1919

SAVE ON:

- Blades • Hinges
- Bolts • Screws
- Wood Parts
- Bits

FREE HARDWARE & SUPPLY CATALOG
• Lots More!
PROFESSIONAL DISCOUNT HARDWARE

READER SERVICE NO. 34

Van Dyke's

RESTORERS

WE OFFER A WHOLESALE CATALOG FOR ARTISANS WITH
ITEMS YOU CANNOT FIND FROM ANY OTHER SINGLE SOURCE.
INCLUDING OIL LAMPS AND PARTS, LARGEST SELECTION
BRASS HARDWARE IN U.S., WOOD FINISHING, CANING, BAS-
KETRY MATERIALS, CARVINGS, MOLDINGS, HARDWOOD LUM-
BER, VENEERS, ROLLTOP DESK PARTS, CURVED CHINA CABI-
NET, GLASS, ETC. CATALOG UNLIKE ANY OTHER!

CATALOG: \$1.00

VAN DYKE'S, Dept. R132, P.O. Box 278, Woonsocket, SD 57385

READER SERVICE NO. 187

Make This "SILENT BUTLER" Console Shelf.

Welcome your guests
with this whimsical
hall shelf in classic
American hardwoods.
Only 7 pieces to cut.
33" long. Full size patterns for
easy construction. Order now! \$11.00 postpaid.



1-Off Wood Designs • Plan SB-2F
3703 S. Ferguson • Springfield, MO • 65807



SAWMILL DIRECT • BEST PRICES

OVER 70 QUALITY SPECIES INCLUDING:

- COCOBOLO • EBONY • BOCOTE
- PINK IVORY • MEXICAN KINGWOOD • ROSEWOODS
- FIGURED MAPLES • MAHOGANIES

LARGE INVENTORY OF:

- LUMBER • SQUARES • TURNING STOCK
- SLABS • LOGS • BILLETS

WE HAVE WHAT YOU WANT!

SAVE FOR LIST

TROPICAL EXOTIC HARDWOODS
of Latin America
619-434-3030

MITCH TALCOVE
P.O. Box 1806
Carlsbad, CA 92018

DIRECT
IMPORTER
FAX 619-434-5423

READER SERVICE NO. 43

ANTIQUE & USED TOOLS

for COLLECTORS & WOODWORKERS ©

Quality scarce, older & complete ready to use
handtools of all kinds. Many planes & other
edge tools. Hundreds of items on each list.

SUBSCRIPTION > \$12.00/yr. for

5 ILLUSTRATED LISTS (CURRENT LIST > \$3.50)

Satisfaction Guaranteed

BOB KAUNE

specializing in

Stanley Tools

buy and sell

511 W. 11th
Dept. HF95
Pt. Angeles, WA.
98362
(360) 452-2292



GROFF & HEARNE LUMBER, INC.



Curly Cherry 4/4 to 16/4

Birdseye & Tiger Maple

Premium Walnut & Cherry, etc.

& Many Unusual Species!

Matching flitches, slabs to 40" wide

K.D. Nationwide

& International Shipping

No Order Too Large or Too Small

(800) 342-0001

(717) 284-0001 • Fax (717) 284-2400

858 Scotland Rd • Quarryville, PA 17566

READER SERVICE NO. 41



We Manufacture & Service SHAPER KNIVES MOULDER KNIVES

Williams & Hussey Profile Knives

FOLEY BELSAW • MOULDER KNIVES

RBI & WOODMASTER KNIVES

LOCK EDGE COLLARS

ROSETTE CUTTERS

CUSTOM ROUTERS &

CUSTOM CUTTERS

Quick Turnaround Time

Top Quality Products

at Competitive Prices

W. Moore Profiles LTD.

17 Montgomery St.

Middletown, NY 10940

1-800-228-8151

(914) 344-4450 - Serving the Industry for over 10 Years - Fax (914) 341-7056

READER SERVICE NO. 16

HOMESTEAD FINISHING PRODUCTS

Traditional supplies for finishing, restoration &
conservation. 4 grades dry shellac flakes, aniline dyes,
hide glue, & Behlen products. Excellent brush selection,
Touch-Up Kits, French Polishing supplies, Milk Paint,
Satellite City Glues & more. Technical support to answer
all finishing questions. Call or write for free catalog.

11929 Abbey Rd. Unit G, N. Royalton, OH 44133 216/582-8929

READER SERVICE NO. 33

SELF-ADHESIVE FELT

70% WOOL
TAPES • STRIPS • TABS • RIC-O-BAC
DOTS • SOFT BOTTOMS

1-800-796-2333

APPROX. 1/8" & 1/4" THICK
BROWN, GREEN, BLACK,
WHITE, AND SILVER GRAY

3905 W. 64TH PLACE
CHICAGO, IL 60629
312-735-2344 • FAX 312-735-2390

UBDANN
PRODUCTS, INC.

READER SERVICE NO. 184

WOODWORKING BOOKS OVER 300 HARD TO FIND TITLES

Looking for information? We have it!

The Best Books on: CARPENTRY • BLACKSMITHING

FURNITURE • CABINET MAKING • STAIRBUILDING

JOINERY • CARVING • COACHBUILDING

FINISHING • WOOD & TIMBER • TOOLS

TOYS & GAMES • TURNING • VIDEOS

Send \$1.00 for two year catalog subscription

SPECIALIST PUBLISHERS & BOOKSELLERS

LINDEN PUBLISHING

SINCE 1977

3845 N. BLACKSTONE • FRESNO, CA 93726

READER SERVICE NO. 189

GENERAL WOODWORKING EQUIPMENT

QUALITY AND PERFORMANCE FEATURES REQUIRED FOR
SERIOUS WOODWORKING MADE IN CANADA.
WITH WORKMANSHIP AND PERFORMANCE GUARANTEED.

special pricing

To order your own copy of the
GENERAL WOODWORKING
EQUIPMENT CATALOGUE

50 pages of illustrated equipment detailed, write to:

ASHMAN TECHNICAL LTD.

351 Nash Rd, N. Hamilton, Ontario, CANADA L8H 7P4
Phone 905-560-2400 • FAX: 905-560-2404 • 1-800-668-5721

READER SERVICE NO. 25

RARE & EXOTIC WOODS

LOGS * PLANKS * SQUARES

Over 50 species in stock. Custom milling available.

WE STOCK: Lumber 1" to 6". Squares to 12 x 12. Logs and Burls. Thin Woods. Sample Sets & Assortments.

WOODS FOR: Furniture, Boxes, Musical Instruments, Carving, Paneling, Turning.

503-274-1271 **Gilmer Wood Co.** FAX 503-274-9839
2211 NW St. Helens Rd., Portland, OR 97210
Call Today for Prices

READER SERVICE NO. 40

MERCURY VACUUM PRESSES

Create perfectly veneered panels & bent laminations with vacuum! membrane presses • vacuum bags vacuum pumps • venturi generators

Call: 800-995-4506
Box 2232 • Fort Bragg • CA 95437

707-964-7557 • Fax 707-964-7606

READER SERVICE NO. 185

Tool Traditions™ Catalog

Featuring specialty and hard-to-find woodworking tools from Stanley and other topnotch toolmakers worldwide.

Tools you need for clamping, fastening, cutting, measuring, striking, layout & more!

Send for your FREE copy today!
Call 800-860-8396

Stanley Mail Media, Inc.
7815 S. 46th St., Phoenix, AZ 85044

READER SERVICE NO. 49

MESQUITE WOOD PRODUCTS

FLOORING
LUMBER



FURNITURE
TURNING
BLANKS

Blake Wernette Rte. 1, Box 68 B Hondo, TX 78861 210-426-3000

READER SERVICE NO. 12

PROTECT YOUR FINISHED WORK

with NEW MOVERS BLANKETS

Heavily quilted with canvas binding. Size 72" x 80"



- \$109.00 per dozen
- Quantity discounts available
- Rapid shipment via UPS
- Free brochure available

The company also offers hardwood dollies and steel tube panelcarts

KARDAE SUPPLY CO.

31 Cedar Lane • Hillsdale, NJ 07642
Ph: (201) 664-1787 • Fax: (201) 664-1429

READER SERVICE NO. 79

WATER BASED & VOC COMPLIANT
Clearwater Color Co.® stains; Hydrocote® finishes & stains; EagleSpray® HVLP systems.

**TERRY
LOCKE**
DISTRIBUTING

2128 S. Kalamath St.
Denver, CO 80223
(800) 783-5772

READER SERVICE NO. 65



Shaker & Contemporary plans

Instructions, detailed drawings, material list/price list. Written and drawn by builder. Send for FREE catalog. Or send check or MO for plans at left.

Unabridged Woodworking Plans
P.O. Box 502068 hf
Indianapolis, IN 46250-7068

READER SERVICE NO. 87

"SUPERHANDY, SETS UP IN SECONDS"

Wood Magazine

Why risk your fingers?

The Grip-Tite Guide™ sets up in 3 seconds, forces wood to fence and down, with more force (40 lbs.) than shaper springs. Rip, resaw, joint and shape-chopsticks to 2x8's safely and accurately.

Mesa Vista Design
1-800-475-0293

**Grip-tite™
Guide**

The Magnetic Featherboard

READER SERVICE NO. 103

Furniture Hardware of Lasting Quality

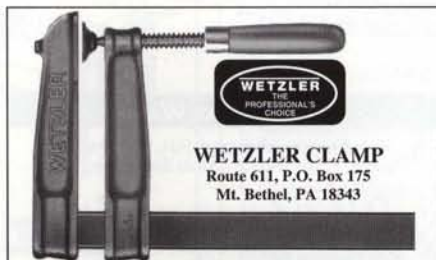


Chippendale
Hepplewhite
Queen Anne
Victorian
Mission
Locks, Hinges
Cane
Lamp Fittings

DAXTON HARDWARE LTD.

PO Box 256, Dept HF02, Upper Falls, MD 21156
Phone: 410-592-8505
76 Page Catalog \$4.00

READER SERVICE NO. 402



WETZLER CLAMP
Route 611, P.O. Box 175
Mt. Bethel, PA 18343

FAX: 717-897-5891

800-451-1852

MADE IN U.S.A.

READER SERVICE NO. 91

VINTAGE TOOL HOUSE

Antique, New & Used Hand Tools

Authorized Dealer



STANLEY
Buy/Sell

Illustrated catalogs published 6 times per year.
\$2 Single Copy • \$12 Subscription U.S. (\$17 Foreign.)

Box 855 • Suffern, NY 10901
914-352-1347 • FAX 914-352-2606

READER SERVICE NO. 204



Homestead Hardwoods

2111 S. Mesick Road
NORTH BLOOMFIELD, OHIO 44450

Kiln Dried Hardwoods

BIRDSEYE MAPLE	6.00, 8.00, 10.00
BUTTERNUT	4.00
CHERRY	3.75
CHESTNUT	used 6.00 new 12.00
CURLY MAPLE	6.00
CURLY CHERRY	6.00
ELM	2.50
PHILIPPINE MAHOAGANY	4.00
POPLAR	2.25
SASSAFRAS	2.75
WALNUT	3.50, 5.00

More Species Available.

Quantity Discounts Available.

TOLL FREE -
OHIO, PA, and NY
1-800-241-3770
216-888-3770

Price Per Board Foot Rough -
Great widths & thicknesses.
All Prices Subject to Change Without Notice
Personalized Service

READER SERVICE NO. 62

THE TOOL CHEST

CRAFTSMAN
LIBRARY
CATALOG

... for both the professional and amateur.

1000's OF BOOKS COVERING

- Woodworking - All Aspects • Home Remodeling & Maintenance
- Tools & Their Uses • Contracting • Projects For Home & Recreation

\$2 refundable with first order
THE TOOL CHEST • 45 Emerson Plaza East • Emerson, NJ 07630
201-261-8665 1-800-617-TOOLS FAX: 201-261-3865

FREE SHIPPING • ALL BOOK ORDERS

READER SERVICE NO. 202



Quality German Workbenches
at reasonable prices
Call 1-800-322-3624

Diefenbach Benches
P.O. Box 370043
Denver, CO 80237



READER SERVICE NO. 71

Build Your Own Speakers

Combine the electronic components in our kits with cabinets you build. Use our sample cabinet designs or design your own to suit your tastes. A range of models is available, all at a fraction of retail prices.

Call or write for a free information packet

Magpie Innovations, Inc., 2201 Pleasant Dr.,
Baltimore, MD 21228 (410) 719-6635

READER SERVICE NO. 83

LANDMARK LOGWORKS

3489 Landmark Road, The Plains, Virginia 22171
The Finest Quartersawn Sycamore & Oak
Apple, Cherry, Osage Orange
Walnut, Poplar & Other Local Species
Meticulously Sawn by a Woodworker for Woodworkers
Call 703-687-4124 for our Newsletter



MAPLE BENCH TOPS

New, solid, kiln dried 1 3/4" thick laminated maple
Solid - no softcore.
30" x 60" - \$145; 24" x 120" - \$239
You've seen these elsewhere
for 15% more!

Many other sizes • Freight collect

BRAND-NEW (805) 648-6913
2538 Pierpont Blvd. Dept. 055, Ventura, CA 93001

READER SERVICE NO. 54

THE Fine Gold Leaf People

- Genuine, Composition and Variegated
- In Sheets and Rolls
- Brushes, Supplies and Tools
- Technical Literature and Videos



3 Cross Street, Suffern, NY 10901
Toll Free: 800-283-5323 Fax: 914-368-1535
Canadian Affiliate Tel/Fax: 416-787-7331

Work with the best in the business!!

READER SERVICE NO. 182

STEAMBENDING FOR WOODWORKERS!



A "How-to" video. Covering the theory of bending, selection of wood, & construction of a homemade steam box. Demonstrates several bending operations, simple to complex. VHS 65 mins. \$27.00 plus \$3 S&H.

NORTHWOODS CANOE CO., 336 Range Rd., Atkinson, ME 04426

READER SERVICE NO. 60



CHESTNUT LUMBER

wormy or clear
Furniture Grade Antique Woods
1/4" to 8/4" thickness,
T & G, Custom Millwork
Call for Samples and Prices
(203) 672-4300

CHESTNUT WOODWORKING



Friday 9-9
Saturday 9-6
Sunday 10-6

Box 920 Durham
Ont. N0G 1R0
(519) 369-6902

August 11, 12, 13, 1995

Woodworking Tools • Custom Wooden Crafts
Women's Workshop • Free Children's Workshop
Free Seminars • Juried Wood-Art Competition
Send for Show Brochure

THE WOOD SHOW

Excellence • in • Woodworking

READER SERVICE NO. 104

TAKE AN EDUCATION VACATION!

Classes in woodworking, woodturning and the traditional crafts, ranging from one day to a week in length. All staff are nationally known instructors who are distinguished in their field. A variety of lodging situations: college dorm, B&B inns, Hotels/motels and campgrounds. For complete details call, write or fax



CONOVER WORKSHOPS
18125 Madison Rd., PO Box 679
Parkman, OH 44080-0679
(216) 548-3491 • FAX (216) 548-2721

THE SMART SWITCHING SYSTEM

DCS-100 Gives You Wireless Control Of Your Central Dust Collection System

The DCS-100 system allows you to switch your DUST COLLECTION SYSTEM from any location in the shop with a pocket TRANSMITTER.

The Basic starter kit requires no additional wiring components - plug directly into standard outlets so it only takes minutes to install.

Extra transmitters available.

STARTER KIT
for 110/220 VAC Collectors:
\$87.50 VISA/MC

FERNBROOK • 704-524-6125



READER SERVICE NO. 9

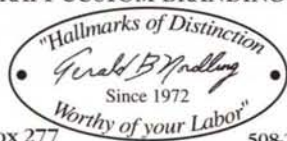


LIBERON™/star™ Supplies
for Finishing, Refinishing
Touch-Up & Restoration
Carnauba & Beeswaxes

BLACK BISON Cabinet Makers Wax
Aniline Dyes, Stains, Lacquers
Hide Glue, **LIBERON™ Steel Wool**
HOT STUFF instant Glues, Brushes
S&P touch-up & repair supplies

P.O. Box 86, Mendocino, CA 95460
Order Desk: 800-245-5611 • 707-937-0375

NORCRAFT CUSTOM BRANDING IRONS



P.O. Box 277
So. Easton, MA 02375
508-238-2163
ANYTIME

READER SERVICE NO. 188

Oregon Black Walnut

Wide Lumber - 1/8 through 16/4, High Quality -
Figured - Large Selection, All At Reasonable Prices.



WALNUT PRODUCTS

5016 Palestine Rd.
Albany, OR 97321



NO MINIMUM ORDER

(503) 926-7516

READER SERVICE NO. 4

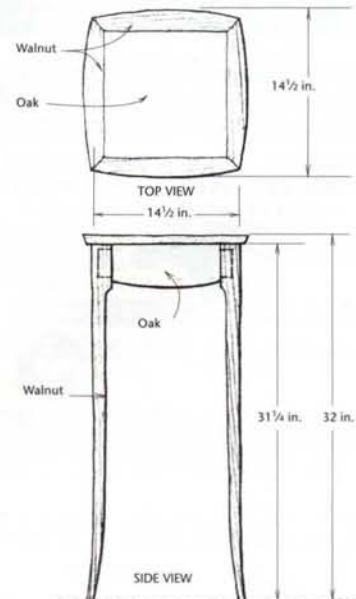
Attention Furniture Makers

Home Furniture magazine gives you a brand-new marketing tool. Our dedicated readers know, care about and desire the kind and quality of furniture you build.

Reach this strong new market with your ad in *Home Furniture*. To learn more about the wide range of advertising options, contact the *Home Furniture* Advertising Department at 1-800-926-8776, ext. 512, or write to:

Advertising Department
Home Furniture
63 S. Main St., P.O. Box 5506
Newtown, CT 06470-5506

TALL TABLE



home furniture

Here's the one thing Belgians don't waffle on.



90 Minute
Demo Video
Available

The Robland X31 is as welcomed in European workshops as a home run in the World Series. We put together a 12" jointer, 12" planer, 10" table saw, 50" sliding table, and a shaper with a mortiser. No cheating. No compromises. Some 1100 lbs. of cast iron stability, with three separate 3HP motors. It stays put. It stays true. And it stays neatly in a little corner of your shop.

That's why Belgians call the Robland X31 The Intelligent One Man Shop. About the only thing you can't make on it is breakfast.

LAGUNA TOOLS

(800) 234-1976 (714) 494-7006

2265 Laguna Canyon Road, Laguna Beach, CA 92651

READER SERVICE NO. 80

Imported European Hardware

a Division of Woodworker's Emporium

4320 W. Bell Dr. • Las Vegas, NV 89118

PH. 800-779-7458 FAX 702-871-0991

CATALOG \$3⁰⁰



READER SERVICE NO. 301

Full-Size Professional Plan MORRIS CHAIR

Build this comfortable chair with wide bow arms and adjustable 3-position back. an excellent example of the Arts & Crafts style. Overall size:
33" wide x 38½" high x 33½" deep



Plan #724(postpaid) \$19.50
Catalog (free with order) \$3.00

Fine Furniture Plans Since 1968

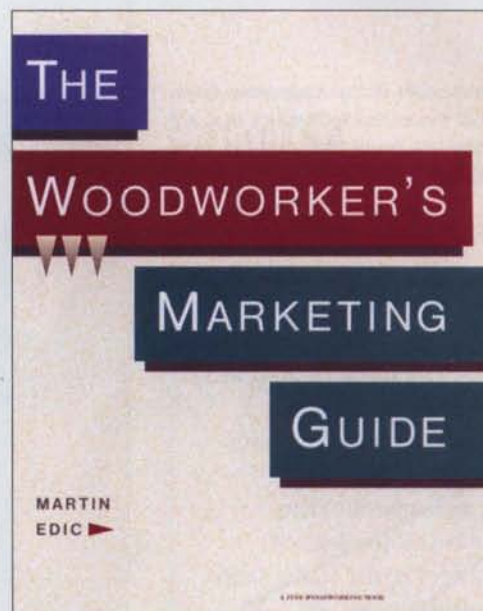
FURNITURE DESIGNS, INC., Dept. HM-135
1827 Elmdale Ave., Glenview, IL 60025
(708) 657-7526



READER SERVICE NO. 304

NEW...FROM THE PUBLISHERS OF HOME FURNITURE

Practical strategies for woodworkers in business.



If you sell woodworking as a profession or as a sideline or someday dream you will—you need to know how to find customers for your work. The secret is effective marketing. And *The Woodworker's Marketing Guide* shows you how.

Business writer/marketing consultant Martin Edic gives you his step-by-step method to make your business profitable. Plus, specific examples and proven ideas help you bring your work and customers together.

- Learn how to sell more woodworking...with less effort.
- Discover marketing techniques that fit your product and your style.
- Take advantage of regional and national markets.
- Reach your financial and professional goals using proven strategies.

Edic's "can-do" attitude can help you expand your business and your profit.

SOFTCOVER, 144 PAGES, ISBN: 1-56158-091-0, ITEM 070220, **\$17.95**

To order, call 1-800-888-8286.

Taunton Direct, Inc.
63 S. Main St., P.O. Box 5506
Newtown, CT 06470-5506

Taunton
BOOKS & VIDEOS
for fellow enthusiasts

how they did it

Some furniture makers in this issue have developed unusual or innovative techniques that are important to the success of their projects. *How They Did It* illustrates those techniques.

SHELF FOR A SIDE TABLE

The Shaker-style side table I made (page 74) is a lot more practical because of its broad shelf. It provides a second top. The breadboard ends, which are pinned to the shelf, gave me a way to hang it without worrying that the seasonal cross-grain movement of the wood might break the legs or crack the joinery in the frame (top drawing, right).

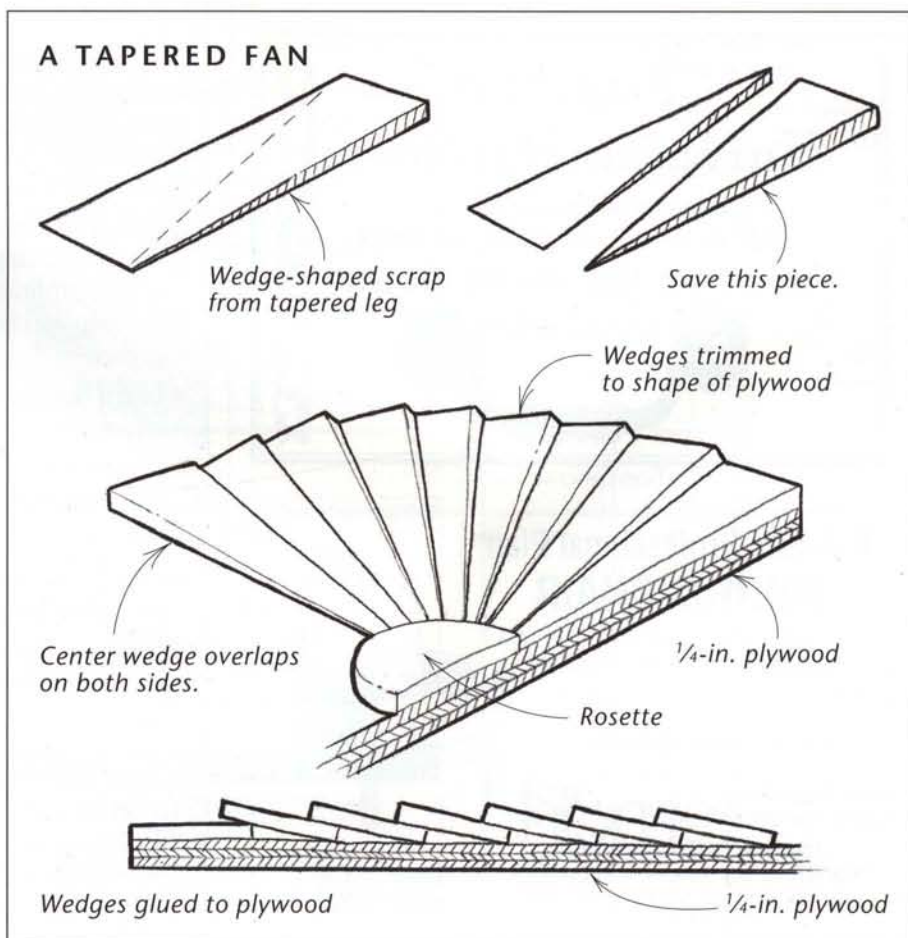
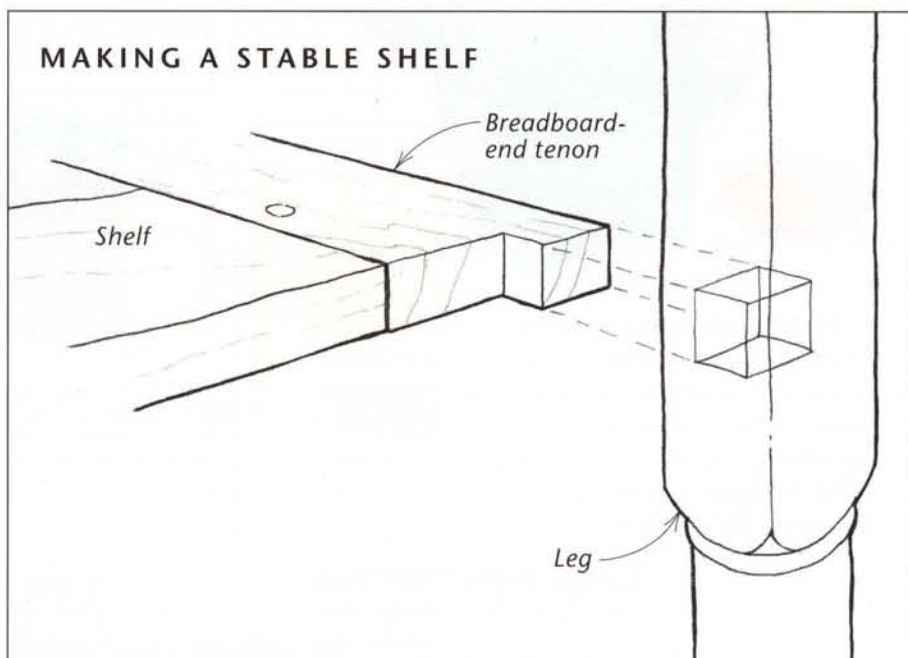
I left the breadboard ends of the shelf long enough so that the excess could be trimmed into tenons. The tenons fit into mortises cut on the inside edges of the legs. Because wood expands and shrinks across the grain a great deal more than it does along the length of the grain, the dimensions of the shelf where it intersects the legs won't change much. Had I not used a breadboard end on the shelf, but just a solid panel of wood, the table eventually would have come to grief.

If you try this, make sure the breadboard piece is wide enough so that the joint between the end and the shelf panel is set inside the leg. That way the panel won't push into the leg as it expands with high humidity.

—Peter Turner

TAPERED-FAN CONSTRUCTION

To help soften the Greek temple-form pediment of my doll house (page 63), I applied rather than carved an elliptical fan. I used a building trick to make this decoration, one I learned



when I made a large fan to spruce up a house gable.

The fan is thickest at the outside edge and tapers toward the center. Each section, or ray, of the fan is a wedge-shaped piece that I cut from the scraps of tapered legs. (On the job site, I cut triangular sections off clapboards.)

I started by making an elliptical pattern of the fan from 1/4-inch plywood. I glued the wedges to the plywood, starting at opposite ends and working toward the middle, overlapping them as I went along (bottom drawing, facing page). Using a slow-curing epoxy, I held each wedge in place with masking tape and spring clamps. I didn't have to worry about a perfect fit at the middle because the center wedge would overlap the last left and right wedges.

After the epoxy cured, a router made trimming the wedges to the elliptical form easy. Next, I turned the 1 1/2-inch rosette on the lathe and cut it into a half circle. Using a 1 1/2-inch bit, I drilled through the axis point of the fan and glued the half rosette to it. I then glued on the elliptical trim. Finally, I glued the entire fan assembly to the plywood pediment.

—Peter Jensen

A SLIDING DOVETAIL IN BRASS

When I built my music stand (page 72), I needed a way to attach the music rest to the column. I decided to use a tapered dovetail fitting. This made a solid connection that can be taken apart easily when the stand has to travel. I made the fitting from brass and applied woodworking

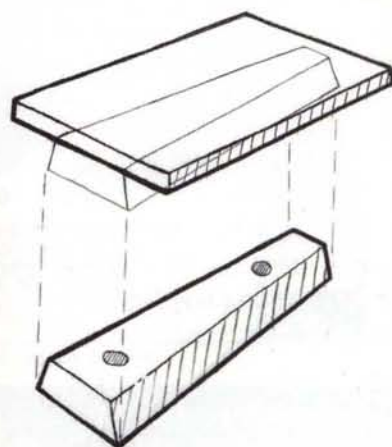


techniques to the process because I didn't know much about metalworking.

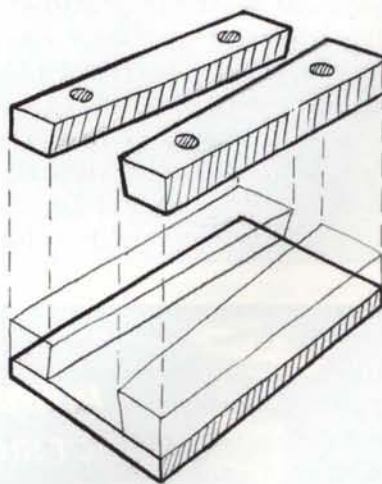
Both halves of the joint consist of a baseplate with a wedge or wedges fastened to it (drawing right). I cut all the pieces out of scrap brass bar stock with a hacksaw and filed them smooth. To attach the wedges to the baseplates, I used brass machine screws. I countersunk and drilled through the baseplates and then drilled through and tapped the wedges. I screwed the pieces together and then cut and filed flush the protruding ends of the screws. Then I drilled and countersunk holes for wood screws to attach the dovetails to the music stand. I sanded the parts to 600 grit and polished them on a buffing wheel.

—J. Schreutelkamp

SLIDING BRASS DOVETAIL



Edges are beveled before wedges are attached to back plate.



Back plates and wedges fastened with brass screws, which are filed flush.

Embossed Wood Mouldings and Carvings from Victorian Dies, Homemade in the Early 1900's



We emboss on birch or your choice of oak, walnut, cherry, mahogany, or pine. We also do custom work using your own design.

Artistic Woodworking, Inc.

Rt 2 Box 40B
Imperial, NE 69033

(308) 882-4873
(800) 621-3992
FAX (308) 882-5507

READER SERVICE NO. 23

ATTENTION CABINET MAKERS

AUTOCABINET

No other cabinet software program is as easy to learn. Begin doing cabinet jobs the first day you use the system. Impress customers by designing their kitchen right before their eyes, then send the job to print, and get a complete and accurate cut list in minutes

- ✓ Runs in Windows
- ✓ Easy to learn and use
- ✓ Produces complete drawings and cut list
- ✓ Produces colorful 3-D renderings
- ✓ Available panel optimizer

AFFORDABLY PRICED AT... **\$1,295** (No Hidden Costs)

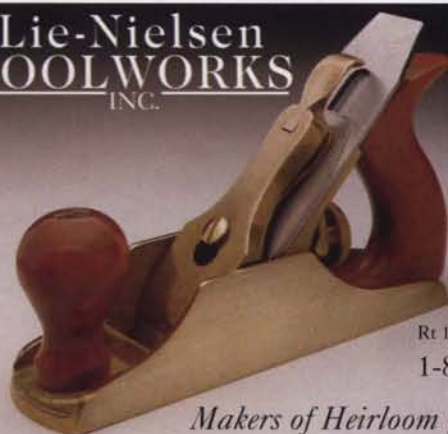


CALL FOR A FREE BROCHURE
OR FULL FUNCTIONAL DEMO **\$109.00**
800 995 1389

INTEGRITY MICROSYSTEMS, INC. • 204 H. EL CAMINO REAL • SUITE E431 • ENCINITAS, CA 92024
619 634 4477 • FAX: 619 632 9386

READER SERVICE NO. 114

Lie-Nielsen
TOOLWORKS
INC.



No 2: Bronze
\$195.
Iron \$180.

Free Brochure

Rt 1, Warren, ME 04864
1-800-327-2520

Makers of Heirloom Quality Tools

READER SERVICE NO. 19



POWERMATIC
HOT SHEET SPECIAL!

Call New York State's
Largest **POWERMATIC** Dealer
today for special pricing.

Over 50 different machines in Stock.

315-724-1299 Northland Woodworking Supply FAX 315-724-1298

READER SERVICE NO. 42

FROM THE PUBLISHERS OF HOME FURNITURE

"An authoritative guide to every aspect of wood finishing..."

—Woodshop News

The Woodfinishing Book



Michael Dresdner's book and video explain in clear, concise language which finishes are best suited to wiping, brushing and spraying, the pluses and minuses of each, the safety factors and more. Here's an opportunity to study the style of an expert finisher from the comfort of your favorite chair.

"...a wealth of detailed information...a considerable asset for the serious woodworker..."

—Chicago Tribune

THE BOOK: SOFTCOVER, COLOR, 224 PAGES, 141 PHOTOS, 36 DRAWINGS, 5 CHARTS, ISBN: 1-56158-037-6, ITEM 070172, **\$24.95** (\$3 p&h)

THE VIDEO: 40 MINUTES, ISBN: 1-56158-044-9, ITEM 060085, **\$19.95** (\$3 p&h)

THE SET: ITEM 07A215, **\$39.95** (\$4 p&h)

To order, call 1-800-888-8286 or write to: The Taunton Press, 63 S. Main St., P.O. Box 5506, Newtown, CT 06470-5506.

Taunton
BOOKS & VIDEOS

for fellow enthusiasts

MOLDER / PLANER

FOR STRAIGHT, CIRCULAR, ELLIPTICAL* MOLDINGS
(Casings, Crowns, Picture Frames, Raised Panels)



Our W • 7S Model offers Versatility and Durability

FEATURES:

- Duplication of historic profiles up to 3/4 in. deep
- Solid cast-iron base & head
- Molder-to-planer in less than 2 minutes
- Portable – on site or in the shop
- 7,000 rpm/two-knife system produces 78 cuts per in.
- 100 standard knives
- Custom knives
- Five-year warranty
- Fully American-made!

* Elliptical jig required

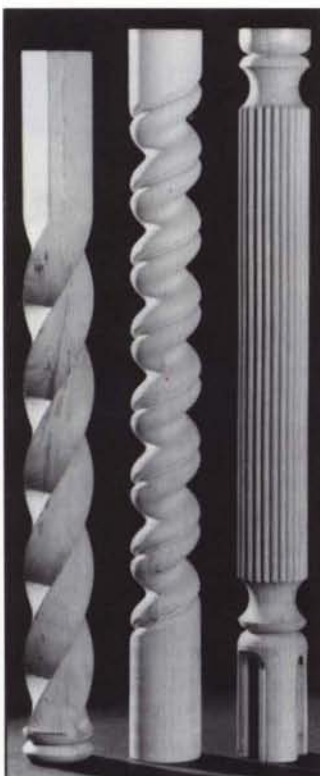
EJ Elliptical jig allows radii as small as 7 in.



Williams & Hussey Machine Co., Inc.

Dept. 495DB P.O. Box 1149, Wilton, NH 03086
Tel: (603) 654-6828 • Fax: (603) 654-5446
1-800-258-1380

READER SERVICE NO. 32



Create The Fine Details That Get Noticed!

Whether your building custom cabinetry, Architectural components or fine furniture, Woodchuck™ Five Axis Milling Systems allow you to step away from the crowd and get noticed.

For less than \$2,000.00 you can quickly create parts in your shop that feature spirals, flutes, beads, circular moulding, precision joinery and much more.

Phantom Eng., Inc.

(800) 279-4570

**View our Demo View
FREE! Call for details.**

READER SERVICE NO. 111

V·I·C·T·O·R FURNITURE

Hand Crafted
Stained Glass & Wood
Floor Lamps, Wall Sconces &
Hanging Lamps
Done in Arts & Crafts Style

Available in a variety of colors & woods



P.O. Box 610 • Sandpoint, ID 83864 • 208/265-1584

READER SERVICE NO. 183

Wayne's Woods, Inc. Hardware & Refinishing Supplies



- Hardware • Strippers
- Stains • Finishes
- Touch-up Supplies • Glues

Authorized Dealer For:

BEHLEN **Kwik Klean**

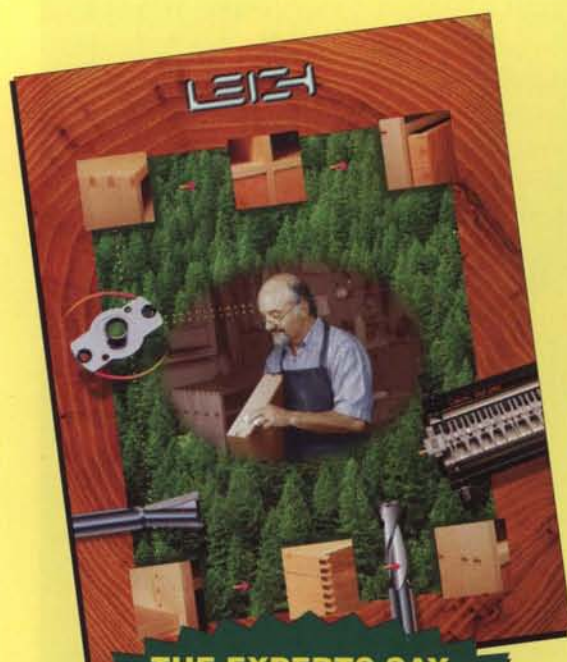
Send \$2.00 for our complete catalog. (Refundable on first order)

39 N. Plains Industrial Rd., Dept. HF • Wallingford, CT 06492

1-800-793-6208

FAX: (203) 949-0769

READER SERVICE NO. 201



THE EXPERTS SAY...

"I was amazed that this jig...could make so many joints...in any pattern you like."

FINE WOODWORKING MAGAZINE

"A sophisticated dovetailing jig...what I really like is...there is an infinite number of combinations."

NORM ABRAMS, NEW YANKEE WORKSHOP

This FREE Catalog Will Change the Way You Work FOREVER!

The amazing Leigh Dovetail Jig is the most powerful woodworking innovation to appear in decades. So versatile, so convenient, so accurate, this ingenious patented tool is like having the abilities of a master craftsmen magically implanted in your router!

Now you can find out — absolutely free! — how the Leigh jig will raise all your woodworking to a whole new level of quality, creativity, and confidence. Just call our toll free number for your complimentary 32 page colour catalog of Leigh router jigs and accessories. Don't waste another minute...or another workpiece!!

Call Our Toll Free Number Now!

1-800-663-8932

LEIGH

Leigh Industries Ltd., P.O. Box 357, Port Coquitlam, B.C., Canada V3C 4K6
Tel. 604 464-2700 Fax 604 464-7404

NARRA: A PRIZED WOOD FROM SOUTHEAST ASIA

Many pieces of furniture in this issue contain exotic wood. We asked James H. Flynn, a wood collector and author, to describe one of the more unusual ones—narra (see "Western Tansu Bureau" on p. 50).

From Rangoon to Manila you will find them. They are

usually street trees because of their lush, shiny leaves and clusters of showy yellow flowers, and they provide the most welcome shade on the hot and dusty byways of the Orient.

Known by their scientific name as *Pterocarpus indicus* of the *Leguminosae* family, these are the national trees of the Philippines. And from these Oriental prizes, we get the wood called narra.

Narra can be perplexing to examine and difficult to describe. Its characteristics often vary because it can thrive in a range of climates and soils. The heartwood of narra can be light yellow, golden brown, reddish

brown or deep red. At one time, these various shades were separated and marketed by color in the Philippines, but no longer. If you are planning a project that will include narra, order all you need at one time. The color will tend to vary less from piece to piece.

The density of narra also varies, but it is generally in

the medium-weight category, similar in hardness to red maple. The wood is ring-porous, adding to the attractive grain pattern, which is often wavy and beautifully figured with dark growth bands.

It is not unusual to find that a great

many tropical woods, which grow over a wide area, have a number of common names. In the case of narra, this is especially true, making identification a little confusing at best and at worst a nightmare. In parts of Southeast Asia, it is called *New Guinea rosewood*, *ang-sana* and *sena*. In old Ceylon, now Sri Lanka, it is called *padauk*. To compli-

cate matters further, the figured veneers cut from the burls of narra are marketed as *amboyna*. (A word of caution: There are many tropical trees in the genus *Pterocarpus*. The timber from these other species of *Pterocarpus* is often called *Andaman padauk*, *Burma padauk*, *vermillion wood* and others. Don't confuse these with narra.)

Narra has long been a favorite of woodworkers in Southeast Asia. Considering the wealth of exotic trees in that part of the world, this fact speaks highly of the timber. The wood is easy to work with, using both machine and hand tools, but care must be taken when planing because the wood may chip when the grain is uneven. Instead, use a cabinet scraper and sand carefully in the final stages of construction.

The wood is easy to finish and takes a fine polish, though it may require a filler. Enjoy working with narra, and when your shop is scented with the smell of the Orient, think of Kipling. James H. Flynn, is a woodworker and the author of *A Guide to Useful Woods of the World* (King Philip Publishing, 1994). He also writes for *World of Wood*, the monthly newsletter of the *International Wood Collectors Society*.

SOURCES FOR NARRA

Narra is available in the United States, although it is expensive (in the range of \$10 per board foot). Much of the narra sold today comes from New Guinea, according to retailers, because of a dwindling supply and changes in harvesting and trade regulations in the Philippines. Suppliers include: **Rare**

Earth Hardwoods (formerly BRE Lumber, 6778 E.

Traverse Hwy., Traverse City, Mich. 49684; 616-946-0043); **Gilmer Wood Co.**

(2211 N.W. St. Helens Road, Portland, Ore. 97210; 503-274-9839); **MacBeath**

Hardwood Co. (930 Ashby Ave., Berkeley, Calif. 94710; 510-843-4390); and

EcoTimber (350 Treat St., San Francisco, Calif. 94110; 415-864-4900). EcoTimber

acquires its narra from sustainable-yield forest-management operations in New Guinea, to reduce ecological damage in tropical forests.

TANSU HARDWARE

The Damascus steel hardware that Michael Hurwitz used for his *tansu* chest was made by **Bill Fiorini** (503 S. 5th St., LaCrosse, Wis. 54601; 608-784-3417). Fiorini is primarily a knife maker and swordsmith, although he also does one-



FISCHER GLASS

Why use ordinary glass?
Imagine a glass pallet of over 500 colors of authentic German blown glass ranging from textured clears, delicate opals to vibrant, rich colors to enhance any door, window or cabinet.

A.C. Fischer Real Antique Glass is entirely mouth-blown and fashioned by hand. This 1000 year old process gives A.C. Fischer Glass the unique optical quality, clarity and depth of color that a machine-made process can never match. Each sheet contains provocative elements of color and textural variations seen only in real antique glass. With it's distinctive surface appearances and colors, A.C. Fischer Glass is the finest available for use in any glass application, whether it be authentic restoration, remodel or contemporary to modern architectural settings.

Send \$4 for a catalog and two 4" x 5" framed samples of glass, VISA and MC accepted or, call for a free catalog.

800-996-3939



C&R LOO, INC.
1085 Essex Ave. • Richmond, CA 94801

READER SERVICE NO. 405

TABLE & CHAIR KITS READY TO ASSEMBLE & FINISH SOLID WALNUT CHERRY-OAK-MAHOGANY



SOLID WALNUT Free Catalogue

Adams Wood Products, Inc.

974 Forest Dr., Dept. HF03

Morristown, TN 37814

615-587-2942

FAX 615-586-2188



READER SERVICE NO. 22

NEW DELUXE DADO-KING!

From the Leader
in Dado
Technology!

"No tearouts on all
five woods tested"

• See Fine Woodworking, J/A, 1991, p. 59

• **NEW 3/4" CHIPPER**—
allows twice as many grooves to
match thin plywood, shims included.

• **NO SPLINTERING**—
cross-cutting oak, ply
veneers and melamine.

• **CUTS IN ALL DIRECTIONS**—
rip, cross-cut, miter, any depth.

• **PERFECT FLAT-
BOTTOM GROOVES**—
not staggered steps or round bottoms like a wobble-dado leaves!

• **CUTS ALL SIZED GROOVES**—
1/8" thru 3/4" in 1/8" increments.

• **SUPER-HARD CARBIDE**—
gives up to 300% longer life, especially good on plywoods and abrasive particle-boards.



Here is why this
great Dado Head
has no equal!

C-4 Carbide Tips—
4 on each chipper, with
special face hooks.

**SPECIAL SALE!
10% OFF!**

FORREST

FORREST MANUFACTURING COMPANY, INC.
461 River Road, Clifton, NJ 07014

PHONE TOLL FREE!

(800) 733-7111

In NJ: (201) 473-5236 • Fax: (201) 471-3333

CA, FL, NJ, NY, PA Residents
please add state tax

C-4 Carbide Tips—
24 on each saw blade—
twice as many as most
competitors.



NEW
1/2" x 4" TEETH
1/4" x 4" TEETH
1/2" x 4" TEETH
1/4" x 4" TEETH
1/2" x 4" TEETH
8" dia. — 3/4" Bore
List \$321 **SALE \$289**
bore up to 1 1/4" — \$25 per set
10" dia. — 3/4" or 1" Bore
List \$388 **SALE \$349**
Plus \$5.50 Shipping

We honor Amex, Visa & Master
Card, Money Orders, Personal
Checks and C.O.D.'s. To Order By Mail
clip ad, circle choices and enclose
payment. Specify Dept. FW when
ordering.

READER SERVICE NO. 13



Get Back To Nature.

Peel off paint & varnish as easy
as peeling an orange.



CITRISTRIP

Citristrip is the only stripper with a pleasant orange scent and a powerful No Methylene Chloride formula that works. It also stays wet and active over 24 hours, so you can strip away multiple layers and complete your entire project in one easy step. With the Citristrip's refinishing system, including paint remover wash & pads, you can easily make any product natural again. For more info 1-800-899-0401.

READER SERVICE NO. 110

The Secret's in the blend.

Since 1860, wood craftsmen have used **BRIWAX** to protect, restore and recondition fine furniture and antiques to their original "patina" which could only be duplicated by laborious hand rubbing before the **BRIWAX** blend. This unique "craftsman's choice" is now available to American professional woodworkers and refinishers, as well as the quality conscious individual who simply wants to keep their furnishings in top condition.

BRIWAX is available in Clear, Light Brown, Dark Brown, Golden Oak, and Antique Mahogany (Cherry).

For more information, or to order, call or write:

TRG Products 1-800-3BRIWAX
6135 Peachtree Dunwoody Rd., Suite 201
Atlanta, Georgia 30328-4541
(404) 399-0776 • (800) 327-4929



READER SERVICE NO. 18

CRAFTSMAN HARDWARE

by CHRIS EFKER

Hand-hammered copper, brass and bronze hardware with authentic craftsman detail and style. Most complete line of Arts and Crafts period cabinet and architectural hardware available, including a full line of electrical plates.



For Catalog and price list send \$4.00 to:
CHRIS EFKER / CRAFTSMAN HARDWARE
P.O. Box 161 Marceline, Missouri 64658

READER SERVICE NO. 403



of-a-kind decorative and functional metalwork.

Hida Tool and Hardware Co. (1333 San Pablo Ave., Berkeley, Calif. 94702; 510-524-3700) carries a variety of hand-forged and machined drawer pulls and other hardware for *tansu* chests. Another supplier is **Whitechapel Ltd.**, whose address is listed under Arts and Crafts Hardware.

FLANNEL THAT PREVENTS TARNISH ON SILVER

The flannel used in the silverware box (see p. 79) is a special kind of cotton treated to prevent tarnish on silver. This type of flannel is available at many fabric

stores. **G Street Fabrics** (11854 Rockville Pike, Rockville, Md. 20852; 301-231-8998) carries a material called Pacific silver cloth, which is impregnated with tiny pieces of silver that will attract tarnish before it reaches the silverware. The cloth is available in 40-inch wide rolls and sells for \$18.98 a yard.

ARTS AND CRAFTS HARDWARE



The hardware used by Kevin Rodel and Susan Mack for their Craftsman-style sideboard (see p. 38) was made by **Buffalo Studios** (1925 E. Deere Ave., Santa Ana, Calif. 92705; 714-250-7333). Buffalo Studios makes a wide range of hand-hammered copper hardware, including custom pieces and lamps in the Arts and Crafts style. Other makers and suppliers of Arts and Crafts hardware include: **Chris Efker/Craftsman Hardware** (P.O. Box

161, Marceline, Mo. 64658; 816-376-2481); **Arts and Crafts Hardware/Bruce Szopo** (3860 Ellamae, Oakland, Mich. 48363; 810-652-7652); **Crown City Hardware** (1047 N. Allen Ave., Pasadena, Calif. 91104; 800-950-1047); **Manchester Sash and Door** (1228 West Manchester Ave., Los Angeles, Calif. 90044; 213-759-0344); **Paxton Hardware** (P.O. Box 256, Upper Falls, Md. 21156; 410-592-8505); and **Whitechapel Ltd.** (P.O. Box 136, Wilson, Wyo. 83104; 800-468-5534).

HICKORY SPLINT FOR CHAIR SEATS

The splint that Brian Boggs used for his chair seat (p. 76) was made from green hickory, harvested in the spring. To make the splint, Boggs cuts down the tree, takes off the outer crust of bark with a

drawknife and scores the log lengthwise into 6-inch wide strips. He then peels off the inner layers of bark. These layers become the splint, which he cuts into narrower strips for weaving the seat.

Making hickory splint is a demanding and time-consuming job, and therefore it's not easy to find. You can order splint from Boggs (118 Lester, Berea, Ky. 40403; 606-986-4638), or you can use substitutes (oak, ash, rush or Shaker tape). Other suppliers include: **Unfinished Universe** (525 W. Short St., Lexington, Ky. 40507; 606-252-3289); **Cane and Basket Supply Co.** (1283 S. Cochran Ave., Los Angeles, Calif. 90019; 800-468-3966); and **H.H. Perkins Co.** (10 S. Bradley Road, Woodbridge, Conn. 06525; 800-462-6660).





Get your **FREE** copy THE WOODTURNERS CATALOG

Craft Supplies USA
offers the best in
woodturning tools
and supplies available.

Artisan™ brand pen turning supplies, letter
openers, key rings and Mont Blanc® style pen
kits are only a few of the many turning projects
available.

Choose from:

Woodfast Wood Lathes
Axminster Chuck System
Henry Taylor Tools
Sorby Tools

Artisan™ Project Kits
Dymondwood
Corian Turning Squares
Ray Key Videos
Dale Nish Workshops

For a **FREE** copy of
The Woodturners Catalog

Call toll free **1-800-551-8876**

Write to: Craft Supplies USA

P.O. Box 50300 Provo, UT 84605-0030

READER SERVICE NO. 117

FOUR CENTURIES OF BEAUTIFUL REPRODUCTION HARDWARE
FOR FURNITURE, CABINET AND HOME. 112 PAGE CATALOG. \$3.00

POST OFFICE BOX 136, WILSON, WYOMING, 83014. 1-307-739-9478

READER SERVICE NO. 303

CUSTOM LATHE TURNINGS

We will produce Turnings which
faithfully duplicate your desired profiles.
We also offer a diverse selection of our own designs.

- PEDESTAL CENTERS
- TABLE LEGS
- BED POST
- FINIALS
- ROSETTES
- CABINETRY FEET
- SPINDLES



- NO MINIMUM
ORDER REQUIRED
- YOUR CHOICE OF
WOOD
- FOR SPECIFICS AND
PRICING CALL:
(516)878-4482

CHARLES H. O'MALLEY
DEDICATION TO WOOD
23 NEVILLE STREET
CENTER MORICHES, NY 11934

READER SERVICE NO. 53

FINEST EBONY & BRASS TOOLS

SQUARES & BEVELS
MITER SQUARES
PANEL GAUGES
MINIATURE TOOLS
45 & 55 REPRO. PARTS
ANTIQUE TOOLS



800-574-2589

(602)-835-1767

ST. JAMES BAY TOOL CO.

122 E. MAIN STREET, MESA AZ 85201

FREE BROCHURE

READER SERVICE NO. 56

PRECISION TOOLS

Take the Frustration
Out of Achieving a Perfect Fit!

Height
Gauge
Measure
to .001"

Adjustable
Triangle
Measure to
1/10°

Miter
Guide

Precise
to 1/15°

Call For Info: **310/471-7432**



AngleWright Tool Co.

P.O. Box 25632, Los Angeles, CA 90025

READER SERVICE NO. 86

"Sunhill's SDM-15 is a fantastic time saver. I can change belts
in a matter of seconds. We continue to be amazed with the time
savings. For the money, it's an excellent machine."

-- Richard Oram / Furniture Art, Seattle, WA

5HP, 1PH or 7.5HP, 3PH
16 F.P.M.
Pneumatic Tracking
Control
Space Efficient
850 lbs.

SDM-15
\$3199
plus motor
\$358

SDM-25
\$5995

- 15 HP
- 2 Speed
- Variable
Speed
Available



"Jun Shiao produces
high quality machines."

-- Fine Woodworking

Sunhill is the Exclusive Distributor
of Jun Shiao wide belt sanders.

SDM-37
\$8995

- 20 HP
- 2 Speed
- Variable
Speed
Available

44", 52", & Double Head 25" & 37"
models also available

OVER 2,000 UNITS
IN OPERATION IN THE U.S. **CALL 1-800-929-4321**



SUNHILL MACHINERY
500 Andover Park East
Seattle, WA 98188
Sales: 1-800-929-4321
Service: (206) 575-4131
Fax: (206) 575-3617



Exclusive Distributor:

SUNHILL
MACHINERY

READER SERVICE NO. 112



**Incredible Quality.
Incredible Price.**



\$189



\$1299



\$489



\$349



\$899



\$539



\$639



\$1290

LOBO POWER TOOLS

For Our New Catalog Or Orders Please Call 1-800-786-5626



Main Office:
9031 E. Slauson Ave.
Pico Rivera, CA 90660
(310) 949-3747

Chicago:
(219) 794-9255
Birmingham:
(205) 956-1806

READER SERVICE NO. 121

Like Having A Lumberyard Right in Your Shop!



**NOW! Plane, Mold, Sand
& Saw . . . with Infinitely
Variable Power-Feed!**

Put this versatile power-feed tool to work in your own shop. See how fast it pays for itself! Quickly converts low-cost rough lumber into valuable finished stock, quarter-round, casing, base mold, tongue & groove all popular patterns . . . even custom designs!

Variable Feed Makes The Difference!

Now, just a twist of the dial adjusts your planer from 70 to over 1000 cuts-per-inch! Produces a glass-smooth finish on tricky grain patterns no other planer can handle. Converts to Molder, Drum Sander or Gang Rip Saw in under five minutes.

FREE FACTS! 1-800-821-6651, Ext. PK2
Woodmaster Tools, Inc., Dept. PK2
1431 N. Topping Ave., Kansas City, MO 64120

READER SERVICE NO. 31

Woodworking that takes your breath away.



You will be amazed, . . . entertained and inspired by over 260 full-color photos of superbly crafted furniture, finely detailed carvings and imaginative accessories. (Photos of the projects were submitted by *Fine Woodworking's* readers in over 8,000 entries.) *Design Book Six* also contains an insightful essay on apprenticeship.

SOFTCOVER, COLOR, 192 PAGES, ISBN: 1-56158-017-1, ITEM 070160, \$25.95

"Here we have one of the most thorough pictorial accounts of modern contemporary design to date."

—*The New England Review of Books*

"This is another book that should be included in the serious woodworker's library. The standard of photography is superb..."

—*Woodturning magazine*

Taunton
BOOKS & VIDEOS
for fellow enthusiasts

To order, call toll free, 1-800-888-8286
or write to: The Taunton Press,
63 S. Main St., P.O. Box 5506,
Newtown, CT 06470-5506

Heavy Glass Tabletops

BUY DIRECT AND SAVE!



**SATISFACTION
GUARANTEED!**

- Table Tops
- Shelves
- Doors
- Display Cases
- 1/4 In. to 1 Inch Thick Glass
- Tempered Glass

Pencil Polished

Flat Polished

O.G. Edge

1" Bevel

(Other Edgeworks Available - Please Inquire)

WGB GLASS

19785 W 12 MILE RD. ■ SOUTHFIELD, MI 48076

**FOR ORDERS CALL
1-800-288-6854**

For free idea catalog
Mail or use reader service card

READER SERVICE NO. 76

**Dovetail your next
drawer – in less
than 10 minutes...**

including setup!

**only with the Keller
Dovetail System.**

All other jigs require endless
test cuts and wasted wood.

The Keller Dovetail System is
very different: it is easy, quick,
accurate and versatile.

Cut unlimited widths. Classic and variable
spacing. Angled and curved dovetails.
Box joints. Projects from jewelry boxes to
entertainment centers. Made in USA
since 1976. 20-yr. warranty.

VIDEO: \$8.95 + \$2 P/H

KELLER & CO. Dept. FH55
1327 'I' Street, Petaluma, CA 94952
(800) 995-2456 (707) 763-9336

**The Keller
Dovetail System
Simply the best.**



READER SERVICE NO. 84

**Make Your
Own Lumber!**

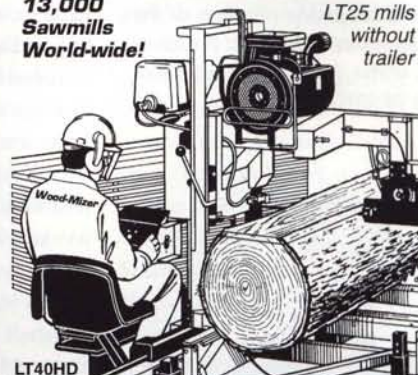
**WITH A WOOD-MIZER
PORTABLE SAWMILL**

- Sawing your own lumber
lowers costs, improves quality.
- All-products mill, kiln, and edger
catalog: \$2.00; 60-minute
video: \$10.00. *Catalog has mill specs.

\$6995!

Over
**13,000
Sawmills
World-wide!**

LT25 mills
without
trailer



LT40HD

1-800-553-0219

Wood-Mizer Products, Inc.
8180 West 10th Street, Dept. Z73; Indianapolis, IN 46214-2400

READER SERVICE NO. 203

Osborne Wood Products, Inc.

WOOD WITH A TWIST

Finials

Balusters

Bed Posts

Table Legs

Stair Newels

Specialty Feet

Stock Patterns in
Pine

No Minimum Order

Other Woods and Custom
Turnings Available

Competitive Rates for Setup
and Turnings

Send or Call For Free Catalog of Products

Route 3, Box 551 • Toccoa, Georgia 30577

1-800-849-8876

FAX: 1-706-886-8526

READER SERVICE NO. 20

WOODWORKER'S CATALOG

Over 4000 products to
**BUILD, REPAIR,
RESTORE, REFINISH**
anything made of wood!

It's the catalog woodworkers rely on—120
pages jam-packed with fine woods, veneers,
tools, finishing supplies and much more—all
top quality, all reasonably priced, all with
our 60-day no-questions-asked guarantee.

For your 2-year subscription send \$1.00 to:



CONSTANTINE

Serving Woodworkers for 183 years

2050 Eastchester Rd., Dpt. 57504, Bronx NY 10461

READER SERVICE NO. 181

Ready... Aim... **SPRAY!**



Throw away your staining brush
forever! **SPRAY-ON WOOD STAIN**
is the best kept secret in the finishing
industry! Now available nationwide.

CALL TODAY! 1-800-346-1490

READER SERVICE NO. 37

about the furniture makers

Home Furniture prints the addresses and telephone numbers of the furniture makers featured in each issue, unless the maker requests that they be omitted.



BRIAN BOGGS

(above) is a chairmaker who at one time thought he would make his living as an artist. In addition to making chairs and conducting workshops, he is working to set up a chairmaking operation for students in Honduras. The effort is part of a sustainable-yield forest program that produces finished furniture (118 Lester St., Berea, Ky. 40403; 606-986-4638). *A Chair Built for Comfort* on p. 76.

CHRIS ARATO

makes custom period furniture in Fort Fairfield, Maine. He discovered furniture making through a friend, Lou Irion. Arato and Irion opened their own shop, Irion Company Furnituremakers, where Arato worked for 15 years before his wife's medical practice took him to Maine (RFD 1 Box 1490, Marshall Road, Fort Fairfield, Maine 04742; 207-472-4030). *Philadelphia Highboy* on p. 32.

NIALL BARRETT

was a telephone-company employee and part-time furniture builder until 1985. He established Avalon Studios, a full-time woodworking business. He says he learned by accepting any work he was offered and then figuring out how to do it (116 Bridge St., Narrowsburg, N.Y. 12764; 914-252-3614). *Design Simplifies Construction* on p. 70.

RICHARD BITTNER

designs and builds houses and furniture and restores 18th- and 19th-century homes. He and his wife, Lynne, often work together designing custom furniture (RD2 114A-15, Greenwich, N.Y. 12834; 518-692-7304). *Cherry Bench* on p. 56.

DALE CARSON

builds furniture and does architectural millwork in his one-person shop. He started as a carpenter and gravitated toward furniture by making built-in cabinetry (c/o The LaGrange General Store, West 6098 Highway 12, Whitewater, Wis. 53190; 414-495-8660). *Mahogany Entertainment Unit* on p. 58.

BRIAN CHITWOOD

is a youth minister. He worked for several years in cabinet and furniture shops in Nebraska. These days he builds custom furniture in his spare time (530 400th Ave., Grinnel, Iowa 50112; 515-236-4183). *Hall Table in Sapele* on p. 42.

PETER A. CHRISMAN

has been a professional woodworker for 20 years and now runs a one-man shop in Tucson, Arizona. Born in northern California and self-taught, he says his greatest inspiration has come from his uncle, a physician and amateur—but accomplished—woodworker and carver. *Modern Mesquite Desk* on p. 36.

G.R. CLIDENCE

set up his furniture shop in a replica of a 19th-century woodworking mill—complete with turn-of-the-century machinery—which he built (272 James Trail, West Kingston, R.I. 02892; 401-539-2558). *Sheraton Field Bed* on p. 53.

DAVE DENEKAS

is an emergency-room physician and off-hours woodworker. Largely self-taught in woodworking, he recently attended a summer course taught by James Krenov at the College of the Redwoods in Fort Bragg, California (6220 Shore Dr., Tracy's Landing, Md. 20779; 301-261-9358). *Walnut Spice Rack* on p. 69.

PHIL ELIA

has been building custom cabinets and furniture for 10 years. He taught himself woodworking from an early age and tackled any challenge that came along (P.O. Box 864, Chesterland, Ohio 44026; 216-729-2098). *Tables Inspired by the Desert* on p. 64.

PAULA GARBARINO

started out in carpentry and, as she says, moved "from the very rough to the very fine." Once a student at the North Bennet Street School in Boston, she has returned as a full-time instructor after several years building custom furniture in a cooperative shop (574 Boston Ave., Medford, Mass. 02155; 617-395-8889). *Entertainment Center on a Tight Budget* on p. 48.

JEFFREY P. GREENE

makes historical reproductions. He also lectures and is writing a book on 18th-century furniture, which will be published next year (*The Ball & Claw*, 1 West Main St., Wickford, R.I. 02852; 401-295-1200). *A Desk With Distinguished Ancestry* on p. 66.

GLEN GURNER

has been a woodworker since 1974, when he took a class on making stringed instruments. He also teaches photography and woodworking at the Massachusetts College of Art (14 Bismarck St., Jamaica Plain, Mass. 02130; 617-524-0234). *A Gem of a Bed* on p. 44.

MICHAEL HURWITZ

designs and makes furniture in Philadelphia. He studied at Boston University's Program in Artisanry in the late 1970s. More recently, he headed the woodworking program at Philadelphia College of Art (now University of the Arts). *Western Tansu Bureau* on p. 50.

BOB INGRAM

has been designing and building furniture for 15 years. His education as a furniture maker included stints at Leeds Design Workshop in Massachusetts and Pratt Institute in New York (1102 E. Columbia Ave., Philadelphia, Pa. 19125; 215-739-7253). *Spindle Chair and Upholstered Settee* on p. 40.

PETER R. JENSEN

is a high-school drafting teacher who has been designing and building furniture and doing custom cabinet work for more than 18 years. His home, shop and showroom, which he built with his family's help, overlooks Lake Champlain (RD #3 Lake St., West Addison, Vt. 05491; 802-759-2646). *Cherry Doll Cabinet* on p. 63.

BRIAN KELLY

is a former instructor in the furniture program at Boston's North Bennet Street School. He left the school in 1994 to devote his time to designing and building custom furniture and millwork (574 Boston Ave., Medford, Mass. 02155; 617-395-8889). *Hall Table with Ebony Applique* on p. 60.

ROBERT McCULLOUGH

carves full-time in his one-man shop west of Philadelphia. After studying figurative sculpture at Westchester University, he got a job at Irion Company Furnituremakers and worked his way up from emptying trash cans to carving. Now that he's on his own, he continues to do work for Irion and other period furniture makers (35 W. Rynear Road, Christiana, Pa. 17509; 717-529-1218). *Philadelphia Highboy* on p. 32.

GENE MARTIN

was a house builder before turning his attention to furniture design. In 1981, he built a timber-frame shop behind his home in a small town west of Toronto (P.O. Box 167, Inverkip, Ont., Canada N0J 1M0; 519-469-3051). *Dining Set in Cherry and Imbuja* on p. 46.

DUANE PALUSKA

splits his time between his one-person shop and his art interests (19 Mason St., Brunswick, Maine 04011; 207-725-8157). He is the subject of the profile on p. 86.

ABIJAH REED

opened his furniture shop two years ago, after leaving a career as a mechanical engineer. He also makes harpsichords, clavichords and hammered dulcimers (RR4 Box 1090, Putney, Vt. 05346; 802-387-2402). *Walnut Silverware Box* on p. 79.

DOUGLAS RICE

was a hobbyist woodworker for 10 years while a research scientist specializing in molecular biology. Then he ran a one-person shop full-time for three-and-a-half years in Durham, North Carolina, before moving to Iowa last year (4334 Woodland Ave., Des Moines, Iowa 50312; 515-279-5422). *Low-Arm Dining Chairs* on p. 34.

KEVIN RODEL

and his wife, Sue Mack, started Mack and Rodel Cabinetmakers in 1985. For the past four years, they've worked exclusively in the Arts and Crafts style (Mack & Rodel, 44 Leighton Road, Pownal, Maine 04069; 207-688-4483). *Cherry Sideboard with American and British Bloodlines* on p. 38.

J. SCHREUTELKAMP

is now the director of an organization in Rotterdam, The Netherlands, providing care and services to elderly people living at home. He learned woodworking by watching his father, who was a carpenter (le Sweelinkstraat 6, 2517 GC Den Haag, The Netherlands). *Maple Music Stand* on p. 72.

PETER TURNER

has been woodworking for seven years. He learned while working in custom shops and by reading and experimenting (P.O. Box 1165, Portland, Ore. 04104; 207-657-3356). *Cherry Side Table* on p. 74.

GEOFFREY D. WARNER

has been designing and building furniture for a dozen years. Since attending Rhode Island School of Design, where he studied under Tage Frid, he has been making custom furniture on commission in a one-man shop (99 Pardon Joslin Road, Exeter, R.I. 02822; 401-295-1243). *Writing Desk with a Touch of Texture* on p. 80.

craftsman's corner

*This space is reserved
for advertising of hand-crafted
custom furniture for sale.*

For more information call
800-926-8776, ext. 283

Exceptional Craftsmanship and Spectacular Wood.



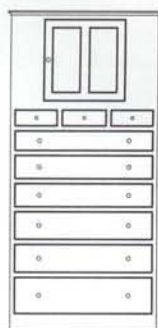
KINLOCH WOODWORKING, Ltd.

D. Douglas Mooberry, proprietor
PO Box 461, Unionville, PA 19375
610-347-2070 FAX 610-347-0353
Showroom Open M-S 9-4 Rte 82, Unionville

READER SERVICE NO. 98

K.A. Neitzel Cabinetmakers

Handcrafted Furniture and Custom Cabinetry



Ken and Irene Neitzel
PO Box 808
West Denmark Road
Denmark, ME 04022

207-935-3098



Color Catalogue Available - \$2

READER SERVICE NO. 210

JAMES REDWAY



Furniture Makers

American Renaissance Furniture



18th Century Country
19th Century Shaker
Furniture

The Christmas Table™
17 1/4" x 21 1/2" x 25" High
Solid Cherry
\$199.00 PPD — Catalog \$3.00

87 Main Street North, Woodbury, CT 06798
Showroom Open Tues.-Sun. 1-800-326-5977

READER SERVICE NO. 97

NEW HARMONY WOODWORKS

*Handmade Windsor chairs, done in the
traditional way.*



Photo: Lee Thomas

David Wright
PO Box 132, Berea, KY 40403
606-986-7962
One-on-one workshops available.

READER SERVICE NO. 101

R. S. Wilkinson

Creating

*Fine American Furniture of Uncompromised
Integrity and Quality*



*Selected as one of "America's 200 Best Craftsmen"
by Early American Life Magazine*

69 Bushnell Hollow Road
Baltic, CT 06330
203-822-6790

READER SERVICE NO. 95

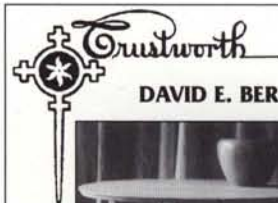
Bench Made Furniture from a small Maine shop.



Traditional, tasteful, beautiful for you.....

CHARLES DURFEE, CABINETMAKER
RD1, Box 1132, Woolwich, ME 04579
207-442-7049

READER SERVICE NO. 191



DAVID E. BERMAN



Furniture and
Accessories Reproduced
and Inspired by The Arts
& Crafts Movement

Photographs \$7

Box 1109, Plymouth, MA 02362
508-746-1847 FAX: 508-746-3736
As seen on *This Old House*

AT MANHATTAN CABINETRY, QUALITY IS OUR CUSTOM.



*You're unique. So it makes sense that
your furniture is, too. At Manhattan
Cabinetry, we transform ideas into
superior custom-crafted solutions.*

At a price that may surprise you.

**Call for our free color brochure:
1-800-MANHATTAN.**

Custom Design Furniture

**MANHATTAN
CABINETRY**
Custom Design Furniture
Since 1976

READER SERVICE NO. 120

*Let Reader Service work for you.
Receive information direct from your
choice of advertisers by using the
Reader Service form located next
to the inside back cover.*

Not Just a Reproduction, An Evolution
Original Designs Inspired by
the 18th Century Masters



Russ Loomis, Jr.
fine furniture & cabinetmaker

1413 West Road, Williamsburg, MA 01096 413-628-3813

READER SERVICE NO. 92

G. R. Clidence
18th Century Woodworks
Colonial Reproductions



Beds and tables of fine hardwoods
CUSTOM ORDERS
Brochure Available
272 James Trail, W. Kingston, RI 02892
401-539-2558

READER SERVICE NO. 96

INDEX TO ADVERTISERS

Adams Wood Products	101	Homestead Hardwoods	93	Oneida Air Systems	15
Airstream Dust Helmets	12	Horton Brasses, Inc.	13	Osborne Wood Products	105
Andover Wood Products	3	Imported European	95	Paxton Hardware, Ltd.	93
AngleWright Tool Co.	103	Hardware	95	Performax Sanders	9
Artistic Woodworking	98	Integrity Microsystems	98	Peters Valley Craft Center	12
Ashman Technical Ltd.	92	Japan Woodworker	3	Phantom Engineering	99
Auton	111	JB Dawn Felt	92	Pro-Discount Hardware	92
Bar-Maid Minibars	9	Jointech	3	Quicksand	
Bosch Power	2	KDN Wood Products	13	Constructionwear	16
Brand New	94	Kardae Supply Co.	93	Redway Furniture	109
Larry & Faye Brusso Co.	9	Bob Kaune Antique Tools	92	Sawyer Bentwood, Inc.	3
CMT Tools	9	Keller Dovetail Systems	105	Skidmore's Bees Wax	
C&R Loo, Inc.	101	Kinloch Woodworking, Ltd.	108	Finishes	92
Certainly Wood	92	Laguna Tools	95	Spray-On Wood Stain	105
Chestnut Woodworking	94	Landmark Logworks	93	St. James Bay Tool Co.	103
Citri-Strip	101	Lavinia Interiors	92	Star/Liberon Supplies	94
G. R. Clidence	109	Leigh Industries	99	Sunhill Machinery	103
Cohasset Colonials	7	Lie-Nielsen Toolworks	98	TRG Products	101
Conover Lathes	9	Lift America	7	Taunton Press	15, 95, 98, 104
Conover Workshops	94	Lignomat USA	12	Tool Chest	93
Constantine	105	Linden Publishing	92	Tool Traditions	93
Craft Supplies USA	103	Lobo Power	104	Tropical Exotic	
Craftsman Premier	13	Terry Locke Distributing	93	Hardwoods	92
DML Saw Blades	13	Russ Loomis, Jr.	109	Trustworth	108
Delta	17	MILCS	16	Unabridged Woodworking	
Designer Furniture Plans	108	Maggie Innovations	93	Plans	93
Diefenbach Benches	93	Manhattan Cabinetry	108	Vacuum Pressing Systems	3
Charles Durfee, Cabinetmaker	108	MEG Products	12	Van Dyke's Restorers	92
Chris Efker	101	Mercury Vacuum Presses	93	Victor's Furniture	99
Eubank	16	Mesa Vista Design	93	Vintage Tool House	93
Excalibur Machine	12	Mission Oak Shop	7	WCW Mesquite	93
Fernbrook	94	Modern Postcard	7	WGB Glass	105
Fine Gold Leaf People	94	W. Moore Profiles	92	Garret Wade	15
Forrest Manufacturing	9, 101	Nathan's Forge	15	Wayne's Woods, Inc.	99
Furniture Designs	95	K. A. Neitzel Cabinetmakers	108	Wetzler Clamp	93
Gilmer Wood	93	New Harmony Woodworks	108	Whitechapel Ltd.	103
Goby's Walnut	94	Norcraft Branding Irons	94	R. S. Wilkinson	108
Groff & Hearne Lumber	92	Northland Woodworking	98	Williams & Hussey	98
Hartford Clamp	92	Northwoods Canoe	94	Wood Shed	7
Hida Tool & Hardware	16	Charles O'Malley	103	The Wood Show	94
Highland Hardware	16	Old Village	16	Wood-Mizer Sawmill	105
Homestead Finishing	92	One-Off-Wood Designs	92	Woodmaster	104

Attention Furniture Gallery Owners

Home Furniture magazine gives you a brand-new marketing tool. Reach dedicated readers who are enthusiastic about well-designed quality furniture by placing your ad in Home Furniture now.

To learn more about our wide range of advertising options, contact the Home Furniture Advertising Department at 1-800-926-8776, ext. 512, or write to:

Advertising Department
Home Furniture
63 S. Main St., P.O. Box 5506
Newtown, CT 06470-5506

home
furniture

BEST
SELLING



JEWELRY ARMOIRE

FROM PROFESSIONALLY
DESIGNED
FULL SIZE PLAN

Build this classic chest to hold a collection of fine jewelry. Our piece has a lift mirror with a double secret compartment. Behind two necklace storage doors hide five drawers divided for assorted types of jewelry. Three larger bottom drawers hold belts, scarves, etc.

JEWELRY ARMOIRE #197...\$18.00 SEND TODAY FOR PLANS

20 x 15 x 45ht.

Send for CATALOG - 54 Best Selling Designs - \$3.00 Check or M.O. (US Funds only)

DESIGNER FURNITURE PLANS

179 Davidson Ave., Dept. 15, Somerset, NJ 08873

READER SERVICE NO. 305

Send us your best work.



We hope that the collection of furniture featured in this issue of *Home Furniture* will inspire you to start that special project of your own. We also hope that you'll be inspired to have your own project featured in a future issue.

As you can see, the selected pieces have two things in common; thoughtful design and careful execution. Pieces for any room and from any period are welcome.

What we'd like you to do is send some photographs (not negatives or slides) of your best work with a short description of the piece written on the back of the photo. We can't return the photos, so send us only those you can spare.

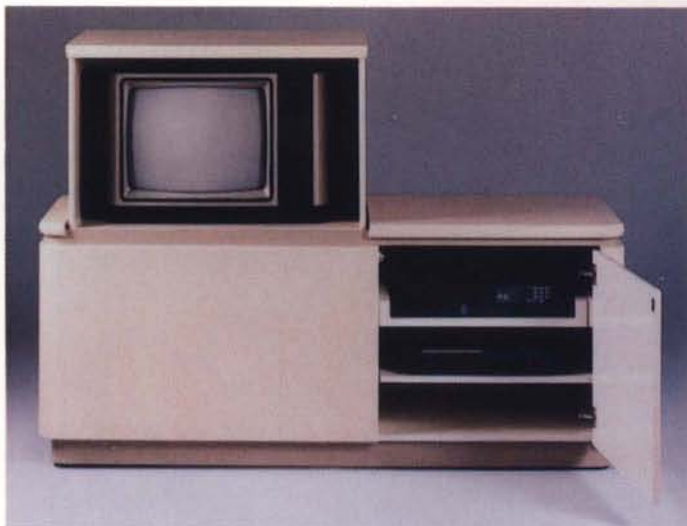
All entries will be juried by the editors and publishers of *Home Furniture*. We'll notify you promptly if your project is one we'd like to consider for a future issue, and we'll send you guidelines at that time.

Send your photographs to:
Home Furniture entries
63 S. Main Street
P.O. Box 5506
Newtown, CT 06470-5506

home
■ furniture

Featured Nationally on
"This Old House" PBS-TV

Pop-Up TV



Pop-Up Speakers in Home Theatre

Play Hide & See



Since 1955, the Auton Company has served the design community with quality lift systems that utilize remote controls.

Auton has developed a unique "rack and pinion" system that raises and lowers TVs, ceiling projectors, "smart waiters", computers, bars and panel lifts. Unlike the wobble-prone "old fashioned" scissor lifts, Auton has produced a motorized platform that glides smoothly and quietly on

four racks and pinions, which will allow lifting uneven loads, all at a touch of a button.

The Auton Co. manufactures a



AUTON
MOTORIZED LIFT SYSTEMS

complete line of custom and standard motorized lifts that help builders, architects, interior designers and specifiers, furniture and cabinet makers, develop their creations in homes, offices, ships, aircraft, conference and hotel facilities.

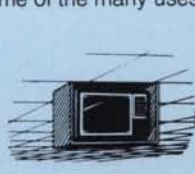
Auton has become known world-wide for the systems that you can recommend with confidence.

Auton Company Box 801960
Valencia, CA 91380-1960
(805) 257-9282-FAX (805) 295-5638

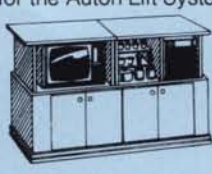
Some of the many uses for the Auton Lift System:



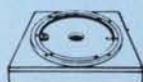
Pop-Up Computer & Keyboard



Pop-Down TV Monitor



Pop-Up TV/Bar



Motorized Swivel Base



Panel Lift



Variable Height Table



Pop-Down Projector



Pop-Down Ceiling TV

Auton does not manufacture furniture. Made in USA. US and Foreign Patent Pending
READER SERVICE NO. 67

A sampling of the more than 30 pieces featured in this issue.



32



74



42



56



50