
The Woodworker's Journal

Vol. 6, No. 4

July/August 1982

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19th Century Danish Washstand

**Included In This Issue: 18th Cent. Lawyer's Case • Toy Chest
Wall Valet • Dovetailed Footstool • Trestle Table • Plant Stand**

BACK ISSUES



Each issue of THE WOODWORKER'S JOURNAL is filled with fully detailed plans for all types of woodworking projects, from a roll-top desk to simple pull toys. Whether your taste is traditional or contemporary, you are sure to find interesting ideas in every issue. There are regular columns on restoring antiques and workshop income plus useful jigs and shop tips, but our main purpose has always been to provide our readers with a variety of PROJECT PLANS. Check the contents of available issues below and send your order today...supplies are limited.

Vol. 1 No. 5 Sept-Oct '77: Taper Jig, Counting-House Desk, Dancing Man Folk Toy, Shaker Step-Chest, Duck Decoys, 3 Wall Decorations, Hutch Cupboard, Collector's Pier Cabinet, Box Joint Jig, Picture Frame.

Vol. 3 No. 6 Nov-Dec '79: Clothes Tree, Pine Floor Lamp, Harvest Table, 5 Holiday Gifts, 19th Cent. Washstand, Tablesaw Round Tapering Jig, Quilting Frame, Tot's Tricycle, Swedish Door Harp.

Vol. 4 No. 1 Jan-Feb '80: Doughbox End Table, Contemp. Loveseat, Mahogany Chairside Table, Corner Cupboard Part I, Small Pine Corner Cabinet, Knife Rack-Cutting Board, Apple-Shaped Mirror, Pine Tape Dispenser, Auxilliary Cut-Off Table for Tablesaw.

Vol. 4 No. 2 Mar-Apr '80: Firewood Rack & Carrier, Red Baron Triplane Toy, Pine Pie Safe with Pierced Tin Panels, Contemp. Glass Top Coffee Table and Matching End Table, 19th Cent. Pine Commode, Corner Cupboard Part II, Butcher Block Toy Box, Mahogany Corner Shelf, Jig for Wooden Trivets, Radial Arm Crosscut Table.

Vol. 4 No. 3 May-June '80: Miniature Campaign Chest, 19th Cent. Sawbuck Table, Decorative Frog, Violin Sconce, Shaker Cutlery Tray, Swinging Bracket & Planter, Club Chair & Ottoman, Oak Cottage Chair, Wooden Lock.

Vol. 4 No. 4 July-Aug '80: Magazine Rack, Gothic Oak Stool, Whale Cribbage Board, Doll Cradle, Nut & Bolt Toy, Basketweave Planters, Easy Wall Clock, Router Bit Box, Pine Cellarette, Lap Chessboard, Pine Wall Box.

Vol. 4, No. 5 Sept-Oct '80: Cabinetmaker's Workbench, Cobbler's Bench Coffee Table, 19th Cent. Cherry Table, Kitchen Utensils, Book Rack, Nuts & Bolts, Nutcracker, Walnut & Glass Bank, Schoolhouse Desk, Booster Seat.

Vol. 4 No. 6 Nov-Dec '80: 17th Cent. Mantle Clock, Toy Truck, Bud Vase, Grain Scoop, Letter Rack, Phone Memo Caddy, Toy Circus Wagons, Animal Puzzles, Library Stool, Quilt Rack, Ratchet Table/Lamp, 18th Cent. Trestle Table, Lathe Steady Rest.

Vol. 5, No. 1 Jan-Feb '81: 18th Cent. Wall Shelves, Hand Mirror, Cutting Boards, Tic-Tac-Toe Game, 18th Cent. Vanity, Shaker Pine Cupboard, Tenon Jig, Towel Ring, Matchbox, Corner Shelves, Contemporary Cabinet, Black Forest Clock, Shop Drawing Board.

Vol. 5, No. 2 Mar-Apr '81: Child's Rocker, Bandsaw Jig, Push-Pull Toy, Half-Round Table, Spoon Rack, Salt and Pepper Shakers, Calculator Stand, Anchor Thermometer, Plant Stand, Oak Writing Desk, 18 Cent. Chair Table, Shop-Built Handscrew.

Vol. 5, No. 3 May-June '81: 18th Cent. Sleigh Seat, Child's Step Stool, Kiddie Gym, Flying Duck, Dominoes, Trouser Hanger, Mug Rack, Folding Sun Seat, Ship's Wheel Table, Contemporary Buffet.

Vol. 5, No. 4 July-Aug '81: Longhorn Steer, Bike Rack, Miniature Chest, Doll House Bed, Curio Shelves, Belt Rack, Rocker Footrest, Early American Wall Shelf, Multipurpose Cabinet, Box Cutting Jig.

Vol. 5, No. 5 Sept-Oct '81: 18th Cent. Rudder Table, Musical Jewelry Box, Colonial Candlestick, Deacon's Wall Shelf, Toy Hippo, Spalted Boxes, Woodbox, Sewing Cabinet with Tambour Doors, 18th Cent. Tavern Table, Router Jig for Stopped Dadoes.

Vol. 5, No. 6 Nov-Dec '81: Old-Time Icebox, Victorian Sled, Tile Clock, Wine Glass Holder, Mahogany Wall Shelf, Inkwell, Bagel Slicer, Seal Push Toy, Wooden Combs, Antique Knife Tray, Memo Cube, Fireplace Bellows, Contemporary Shelving, Weather Station, Shop-Built Bar Clamp.

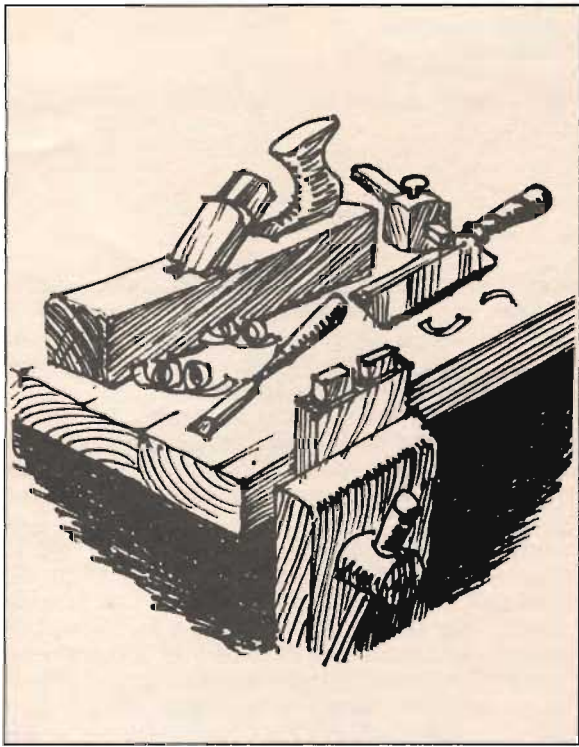
Vol. 6, No. 1 Jan-Feb '82: Contemporary Sofa Table, Artist's Easel, Candle Box, Laminated Box, Butcher Block Knife Rack, Frog Pull Toy, Infinity Mirror, Japanese Style Table Lamp, Empire Footstool, Desk Caddy, Stepped-Back Hutch, Buckboard Seat, Latticework Cutting Jig.

Vol. 6, No. 2 Mar-Apr '82: Early American Blanket Chest, 18th Cent. Corner Shelf, Pine Footstool, Cheese Cutting Board, Napkin Holder, Trivets, Coaster Set, Pierced Tin Cabinet, Hutch Clock, Oak File Cabinet, Mahogany Tripod Table, Wall Hung Plant Bracket.

Vol. 6 No. 3 May-June '82: Country Kitchen Cabinet, Rough-Sawn Cedar Clock, Swinging Cradle, Toy Helicopter, Casserole Dish Holder, Ship's Wheel Weather Station, Octagonal Planter, Tambour Desk, Band Saw Boxes, 19th Cent. Step-Chair, Sailing Ship Weather Vane.

Please Note

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The Woodworker's Journal

VOLUME 6, NUMBER 4
JULY/AUGUST 1982

DEPARTMENTS

- 4 Shoptalk
- 5 Letters
- 12 Workshop Income
Bookkeeping, Part II
- 14 Restoring Antiques
Finishing Tips
- 16 The Beginning Woodworker
Cabinet Scrapers and How to Use Them
- 38 Shop Tips
- 39 Cabinetmakers' Supplies
Furniture Kits

Editor and Publisher
James J. McQuillan

Associate Publisher
Margaret E. McQuillan

Managing Editor
Thomas G. Begnal

Contributing Editors
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Subscription Department
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Art and Paste-Up
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Contributions

We welcome contributions in the form of manuscripts, drawings and photographs and will be glad to consider such for possible publication. Contributors should include a stamped, self-addressed envelope of suitable size with each submission. While we cannot assume responsibility for loss or damage, all materials will be treated with care while in our possession. Payment for the use of unsolicited material will be made upon acceptance. Address all contributions to: Editor, The Woodworker's Journal, P.O. Box 1629, New Milford, CT 06776.

PROJECTS

- 20 Dovetailed Footstool *by James R. Spence, Jr.*
- 21 Toy Chest *by John M. Wilson*
- 23 Plant Stand
- 24 18th Cent. Lawyer's Case *by Robert C. Lewis*
- 26 Frame and Panel Joint with Decorative Bevel
- 27 Collector's Plate Frame
by Clarence D. Stallman
- 28 Toy Jeep *by C.J. Maginley*
- 30 Trestle Table and Bench *by Paul Gerhards*
- 33 19th Century Danish Washstand
- 36 Contemporary Wall Valet

Shoptalk

Summer Bargains

In New England they're called tag sales; in many other areas they're referred to as garage sales. Whatever you call them in your neighborhood, they offer a fine opportunity to pick up good tools at bargain prices. Over the years I've amassed a nice collection of fine hand tools purchased, for the most part, at prices that made me feel almost, but not quite, guilty.

Most of these tools were in excellent condition when purchased. For example: a \$6.00 hand drill complete with a set of bits in the handle, and equal to the very best obtainable today for nearly \$50.00. How about five steel turning gouges from 1/2 to 1 1/4 inches width at \$1.00 each minus handles...or lovely wooden molding planes complete and ready for use at \$8.00 apiece.

Then there was the almost new multiplane nestled in its wooden chest with a full set of cutting irons. I missed out on that one as I didn't have my checkbook and the seller wouldn't promise to hold it. When I returned hours later, with \$75.00 cash in my sweaty hand, the prize was gone.

The big week-end flea markets held in fields and drive-in movie parking lots are another good source for tools although the people who sell at these affairs are generally quite knowledgeable when it comes to setting prices and genuine "steals" are harder to find. These flea markets are always good for loading up on the more mundane items, particularly clamps and old saws with broken teeth that can be cut up to make various cutter blades for scratch stocks

and other home-made shaping tools. It's an interesting way to spend a few hours.

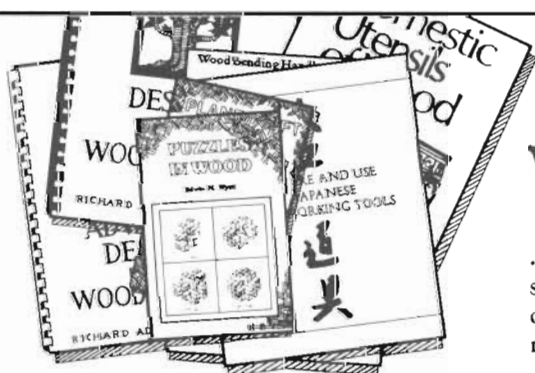
Stinkwood

Have you ever heard of stinkwood? Or how about sneezewood, black bean and onionwood? A friend gave me a British book on cabinetmaking first published in 1909 and under the chapter sub-heading "Cabinet Woods from the Colonies", the above woods are listed. Honest!

In case you're interested, stinkwood comes (or came) from South Africa. It's a dark brown, close grained hardwood having an unpleasant smell when freshly cut, which (fortunately) diminishes with seasoning. Not a good choice for building a hope chest.

Sneezewood, also from South Africa, is comparable to greenheart, which is pretty durable stuff still used for bridges and pilings. Guess what happens when you breathe the dust? Black bean (I always thought it was a soup) is native to western Australia and is described as being similar to walnut but with a more strongly marked grain. It was used for heavy furniture, paneling and gun stocks. Also from Australia is onionwood... "a kind of bastard cedar and used for similar purposes." Freshly cut, it has an onion-like smell. I imagine it would work very nicely as an inlay on hamburgerwood. Have a nice summer.

Jim McQuillan



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Letters

I am a relative youngster in wood-working, having done a little for 15 years. I have the basic tools: radial arm saw, router, sanders, drill press, etc. I do woodworking as a hobby. My question is this - is there a book or other information available showing homemade jigs for these tools?

Jim Olyniec, Scottsboro, AL

The Complete Book of Power Tools, by R.J. De Cristoforo, is an excellent source of ideas for all kinds of power tool jigs. It's published by Harper & Row, and can be ordered by your local bookstore.

In your March/April 1982 issue, a Mr. R.L. King, of Bluff City, TN wanted a book with designs for tables and chairs that could be caned. When I read this letter, I remembered the Folding Sun Seat in the May/June 1981 issue, and couldn't resist reminding you of this.

Richard Hutchinson, Princeton, NJ

Thanks. That issue can be ordered from our Back Issue Department for \$2.25.

More On Glue Adhesion Theory

Editor's Note: The subject of glue adhesion was discussed in our "Restoring Antiques" column (Jan/Feb 1982) and Letters (May/June 1982). Here are some further thoughts on the subject.

There are at least four glue adhesion theories, each with supporters and detractors. Most commercial bonding is done without the slightest idea how adhesives work, however this does not detract from the results. One cannot even class adhesives, they are only defined by usage. One thing is very certain - that adhesion is an intrasurface phenomenon, and that wetting of surfaces is essential to adhesion. Precisely from this outer space research it has been shown that, in outer space, freshly broken surfaces of metals will adhere to each other again with about 95% of the original strength of the metal. With no appreciable atmosphere around the metal, surfaces are kept free from adhered gas atoms, consequently the intramolecular forces will have their greatest effect. Also it has been shown that pieces of metal that are sawn apart will readily readhere, depending on the perfectness of the surface with various degrees of strength.

The four theories of adhesion are: electric theory, diffusion theory, adsorption theory (van der Waals forces) and rheological theory. Each

theory falls down in certain adhesive applications; it may therefore be a combination of all of them at different degrees at different circumstances. However, it has nothing to do with the atmospheric pressure of the earth's atmosphere. Simple physics will tell you that the bondstrength is many times greater than the force of the atmosphere on the glued cross section. I assume Mr. Schulzinger overlooked that simple argument.

Paul Elias, Ph.D, Greenwich, CT

Can you tell me where to get the drawer slides for the oak file cabinet featured in your March/April 1982 issue?

Howard Berg, Dolgeville, NY

A good quality full extension drawer slide is available from The Woodworkers' Store, 21801 Industrial Blvd., Rogers, MN 55374. It's p/n P5430, 22 inch, and the price is \$23.00 per pair.

I would appreciate receiving a source for small wood spindles for gallery rails.

Herschel Rock, New Paris, IN

Small wood spindles suitable for gallery rails are available from the company Woodworks, P.O. Box 79238, Saginaw, TX 76179. Also, The Woodworker's Store, 21801 Industrial Blvd., Rogers, MN 55374.

Thought you might be interested in a stranger-than-fiction event that happened while I was operating my 10" Craftsman Table Saw.

I had recently installed a new carbide tip blade and was in the process of cutting spline grooves for a small picture frame. The frame was secured to a homemade jig, and I was about to move the setup into the spinning blade. Suddenly a dark object shot upward from near the blade and at the same time I heard a sound which could only have been metal hitting metal at high speed.

I stopped the saw immediately, and fearing the worst, revolved the blade. Sure enough, one of the tips was badly damaged. I inspected the setup, but found nothing amiss - I hadn't even touched the blade with the stock. Then I remembered the object that flew up out of the blade and disappeared. This had to be the culprit, but what was it and where did it go?

(Continued on Next Page)

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Letters (Cont'd)

After sifting through sawdust under and around the saw to no avail, I used my shop vac as a last resort. The vac sucked up the dust and left behind was the villain - a small half-moon shaped piece of metal with a 1/4" gash in it. The object was a "Woodruff" key, but how did it come into contact with the blade?

I examined the saw arbor and found that the belt pulley on the opposite end of the arbor was loose. I removed the pulley and found that the key was missing. But, how could that piece of steel go from one end of the arbor, circumvent the large tilt/elevating mechanism in the center, and wind up in contact with the blade on the other side?

I concluded that the key had worked its way out of its slot in the arbor, was hurled upward, ricocheted off the bottom of the saw table at such an angle allowing it to pass through a small opening between the top of the mechanism and the saw table bottom thence to the spinning blade.

I suppose the lesson to be learned is that it's a good idea to periodically check the snugness of all fastenings on power equipment. The set screw in the pulley worked loose causing the mishap. It could have been worse - the steel could have struck me in the eye.

Jim Buckles, Minneapolis, MN

I have been woodworking for several years and have expanded to the point where I am adding a store to our house. What started as a hobby has turned into a full-time job. I have been making wooden toys and bowls but have been unable to find a non-toxic finish. Can you provide a source?

Philip Peters, Cherry Creek, NY

Woodcraft Supply Corp., 313 Montvale Ave., Woburn, MA 01888 sells a product called Salad Bowl Finish. It's approved by the United States Food and Drug Administration for use on products that come in contact with food. Price is \$6.60 a pint, or \$10.45 a quart, postpaid.

Bob Plath's "Workshop Income" article on bookkeeping (May/June 1982) contains some erroneous information on depreciation of equipment and the tax consequences.

He says, "...the purchase of a new jointer might seem like a good way to shelter some income in a year when sales are high, but it's mighty disappointing to learn later that only one-tenth of the cost can be deducted each year, for ten years." Not so.

"For tangible [income-producing] business property that you place in service after 1980 [i.e., after December 31, 1980], you must figure your depreciation deductions under ACRS [the Accelerated Cost Recovery System]." That's a direct quote from Internal Revenue Service Publication 334, *Tax Guide for Small Business*, page 39.

Under ACRS, shop tools having a useful life of more than one year would be classed as 5-year property, with first-year depreciation of 15%, second-year depreciation of 22%, and depreciation of 21% in each of the third through fifth years -- a total of 100% in five years, not ten.

Further, depreciable income-producing property is also eligible for a 10% Investment Credit in the tax year in which it is placed in service. An Investment Tax Credit is a flat deduction from taxes owed, applied after all other Schedule C business deductions, after all Form 1040 personal exemptions, and after all Schedule A personal deductions. It's worth much more than 10% -- the amount depending on one's effective tax bracket.

There are certain limitations on the total of allowable credit. And if the property is used partially for person work and partially for income-producing work, both the tax credit and the depreciation deduction must be scaled down to reflect the percentage of income-producing work.

Still further, I must take exception to Mr. Plath's suggestion that purchase

(Continued on Page 8)

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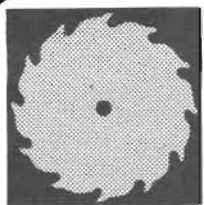
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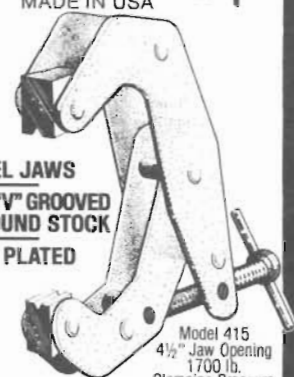
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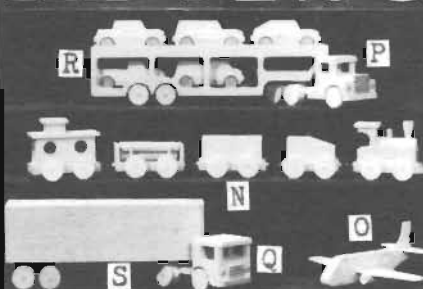
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Letters (Cont'd)

of equipment is a way to shelter income. Equipment purchases do not "shelter" anything and accepting the notion that they do is a very effective way to get into business trouble and into trouble with the IRS.

A decision about purchase of capital equipment should hinge on whether it's a cost-effective investment or not. The Investment Credit and the Accelerated Cost Recovery System for depreciation calculations are important and helpful incentives toward making equipment-investment decisions more cost effective, but reducing taxes does not a profit make.

Paul Kellam, Ipswich, MA

Bob Plath replies:

Mr. Kellam is correct, ACRS (Accelerated Cost Recovery System) must be used for assets placed in service after 1980. I regret that my example, which was intended to convey the idea that equipment purchases are subject to write-off over a period of time, might have been misleading by failing to take into account the new ACRS method. However, I believe that my interpretation of equipment purchases as a tax shelter is valid. My article was addressed to the operators of part-time businesses, begun perhaps with a minimum of equipment. Reinvesting income into more sophisticated equipment that reduces production cost and expands the capabilities of the operation to accept a wider range of assignments is certainly preferable to paying a portion of that income in taxes.

Editor's Note: when readers write to us asking for information about wood-working, we usually are able to offer some kind of help. Sometimes, however, we just don't have an answer, and can't even think of a worthwhile suggestion. Such is the case with the following letters. Therefore, we've decided to print them in the hope that some of our readers may be able to provide help.

Could you tell me where I can secure a key for a chrome treated precision dado, number 12060, made for Yuba Power Products, Inc. by Shopsmith. Shopsmith had advised that this key is no longer in production. I have the dado blade but need this key to make adjustments.

Paul F. Wandel
1002 Portola
Duarte, CA 91010

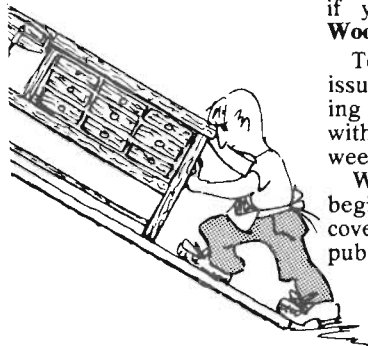
(Continued on Page 10)

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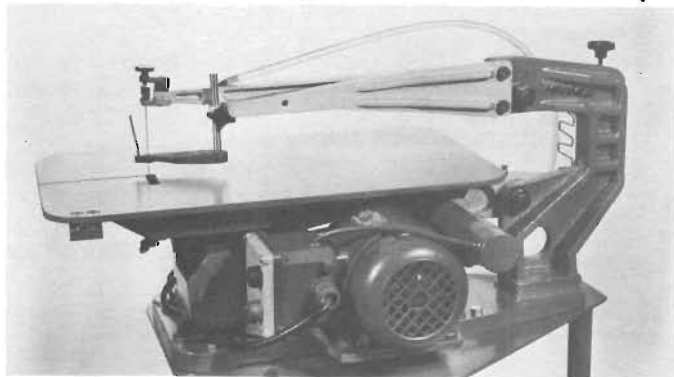
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James H. Smith
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Englewood, CO 80110

I recently acquired an old set of oak stackable bookcases. They have a glass door that picks up and slides back on toothed tracks. As one of the tracks is missing, do you know where I can get a replacement?

William Stone
20-28 120th St.
College Point, NY 11356

I have a 6 inch jointer/planer purchased second hand (almost like new) and made by the King-Seely Corp. under the Sears Craftsman name. The serial number is 103.20660. I'm having trouble making infeed table adjustment and Sears has no information, nor can they help. If someone has the service guide for it, and can send me the information, I'll be glad to pay any necessary charges.

Walter A. Wisniewski
812 Kline Ave.
N. Versailles, PA 15187

Where could I buy a two-wing fly cutter, to be used for making wooden wheels?

Wilbur Bray
995 Homer St.
Logan, UT 43138

Can you please tell me where I can get a 4 inch diameter dado set? It's for a Montgomery Ward table saw that's about 30 years old. They don't carry them anymore, but I need one badly.

Ray Rylander
805 E. San Rafael St.
Colorado Springs, CO 80903

Where can I buy wood turnings in a variety of lengths and shapes? I have several project ideas that require various sizes of turnings but I do not have a lathe on which to make them.

Ken Bachand
440 Seabreeze Dr.
Indialantic, FL 32903

My sources for 2 inch wide blades for my 36 inch band saw have virtually disappeared since the heavy slump in the timber industry on the west coast. Do you know of a company that still makes them, 18 1/2 feet long, three teeth per inch?

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Workshop Income

Bookkeeping - Part II

by Bob Plath

In the last issue, I discussed the various ways to acquire the knowledge to set up a bookkeeping system to keep track of income and expenditures, and to satisfy tax requirements. This time, I'll talk about improving your present bookkeeping system so that it provides additional information on which to base intelligent decisions.

A well-structured bookkeeping system's most valuable by-product is its use as an aid in determining fair prices for your products. Fair prices not only for the consumer, but also for you, the producer. A product sold below its fair price is not worth producing, and a product offered for sale above its fair price will not sell. Of course, sometimes items offered at their fair price will not sell either, but that indicates a problem in design or execution, not in pricing. I've built some things I couldn't give away.

Product price should be the sum of four components: Materials plus Supplies plus Overhead plus Labor.

Materials are those items that are used in the fabrication of a product that are conveniently identifiable in terms of quantity. Lumber, plywood, veneers, and decorative hardware all fit into this category. The best way to apply these costs to a product is to maintain subledgers of these materials and charge them directly to each product as it is produced. If the subledgers are set up by item, such as 1 x 4's, 1 x 6's, etc., and the purchases are added to it, and charge-outs deducted from it, the subledgers function as a perpetual inventory system, and can be used as a record of what items you have in stock.

This system of bookkeeping is called Job Order, or Cost Accounting. Its chief advantage is that it automatically provides data on which future decisions can be made. For instance, the material subledgers provide an accurate record of how much material is consumed, by type. You may find that 1 x 6 pine is your most often used material, and may be able to negotiate quantity discounts with a vendor based on the historical data contained in your subledgers.

A sales ledger, arranged by source of sale, can provide valuable data on the relative lucrativeness of various markets. For instance, if you sell at craft fairs, consignment shops, and through an advertisement placed in a local paper, it is worthwhile to chart how much of your income is derived from each of these sources, so that you can get an idea where your efforts are best applied. This can be accomplished by simply setting up subsidiary ledgers to the Sales ledger, entitled Craft Fair Sales, Consignment Sales, etc. Aside from the additional time required to set up these pages, the posting takes no longer and offers much more useful information.

I produce products both on speculation, and on special

order. All the items produced on speculation are transferred to a Finished Goods Inventory when they are completed. This subledger has a page for each of my products, with the quantity produced, the costs for labor, overhead, and materials and supplies required to produce it, columns for the colors of stains and types of finishes applied, and anticipated selling price. When items are sold, this fact is noted in the subledger, with the actual selling price (I'm not above haggling). The Finished Goods Inventory then becomes a permanent record of what I've produced and sold, and is a valuable aid in planning production.

As you become adept at using these more sophisticated bookkeeping systems, opportunities to collect other relevant data will present themselves. It's an almost painless task, and the reward can be a more profitable, efficient business.

Supplies are items more difficult to quantify: fastening hardware such as screws and brads, sandpaper, adhesives, finishing supplies, and saw blades. These are best handled by using a periodic inventory system. Count and make a list of all the items in this category that you have on hand, figure their value, and post this amount to an account called "Shop Supplies". Each time additional supplies are purchased, add this cost to the account. Determine a rate to charge these items out to individual products by using a percentage of the cost of materials. I use 20%, and it seems to be about right.

Each time a product is completed, credit the Shop Supplies account by an amount based on this formula. At the end of the year, again count, make a list, and value the items on hand. The original amount, plus the additional purchases, minus the amount remaining on hand equals the total cost of supplies used in the year. If this total is significantly different from the amount charged out to individual products, some adjustment of the allocation rate should be effected, so that future estimates are more accurate.

Overhead is all the costs associated with conducting your business that are not materials, supplies, or your own labor. These will include equipment depreciation, insurance, vehicle use, postage, advertising, utilities, office supplies, etc. These costs are best charged out in the following manner: estimate what these expenses will be for some period of time, say three months, and divide this total by the number of hours of your labor that you expect to sell. For instance, if your total expenses in these categories is expected to be \$160 for three months, and you expect to sell 80 hours worth of your labor during that time, the overhead rate should be \$2 per hour.

Labor, if the cost of materials, supplies, and overhead are figured properly, should be pure profit. Any underestimation of the above costs will have to come out of the money which rightfully belongs in your pocket, so do some analysis and research to accurately forecast and apply the costs in the other categories. Any overestimation, of course, is a bonus, but will drive up the price you must charge for your products, reducing their likelihood of sale.



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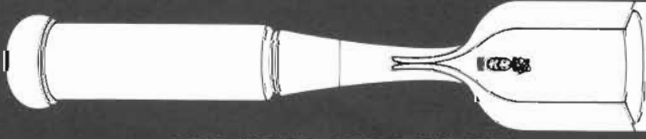
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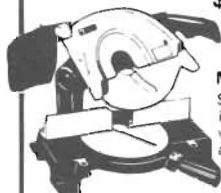
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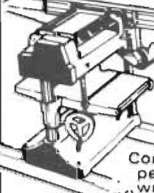
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Model: 2030



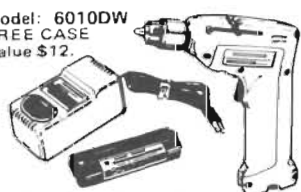
Compact design. 2 H.P. single phase 115 V. motor. 12" width, 6 1/2" depth planer. 6 1/2" joiner. Fully assembled, ready to run. Comes with blades, sharpening holder, spanner wrench. Weighs 275 lbs.

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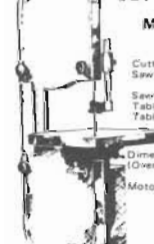
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Restoring Antiques

by John Olson

Finishing Tips

Experienced woodcrafters, whether restoring antiques or building new projects, are keenly aware of the importance of the finishing process. They know that it takes many hours of hard work to build or restore a fine piece of furniture, yet it can be quickly reduced to an ugly mess if the final finish is a poor one.

A good finish doesn't just happen, it takes planning and patience. The first step, sanding, is one of the most important ones. The surface must be sanded to a smooth even texture. Depending on the condition of the surface, I usually start with an 80 or 100 grit sandpaper. I prefer a sandpaper made with aluminum oxide or silicon carbide, although garnet paper also does a satisfactory job if used with patience and replaced frequently. Flint sandpaper doesn't really give good results when used for furniture finishing.

For really fine sanding, silicon carbide paper is the ticket. Each grit size should be followed by a progressively finer one, for example: 80 - 100 - 120 - 150 - 180 - 220. With softer woods a final finish of 120 or 150 grit is usually sufficient. Harder woods can be smoothed through 180 grit, while very hard woods will almost have a polished surface if the process is carried to 280 grit or finer. Silicon carbide sandpaper can be obtained in grits ranging to 400, and in some special cases as fine as 600. These latter grades are generally used in metal finishing. I rarely carry even hard woods beyond 220.

Sanding is a special technique and is only successful if all the marks and scratches left by the previous paper are completely removed by the succeeding one. The paper should be renewed frequently, especially when using power sanders. Any buildup leaves marks and scratches that are difficult to remove and make extra work. When sanding by hand, a block should be used to prevent (as much as possible) the hills and valleys that become visible when the surface is examined in reflected light. If the piece is turned so the light is reflected at various angles, flaws become apparent that weren't noticeable before. Another approach is to pass the tips of your fingers over the surface. Any unevenness that you can feel, even if you can't see it, will become

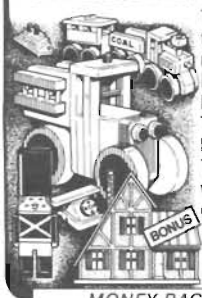
plainly visible under the final coat of clear finish.

When you have attained the desired degree of smoothness it's time to take the next step. If the piece is to be stained, the color can be chosen and/or mixed as I described in the last issue. Open-grained woods (oak, ash, mahogany, walnut, among others) require the application of a paste wood filler to obtain an even smooth finish such as on a shiny dining room table top. Attractive results can also be achieved by partial filling which, when properly done, can approximate an antique finish.

Natural paste wood filler is made of finely ground silica based minerals. When dry it resembles rock flour. This flour is mixed with a carrier, usually boiled linseed oil. Also available are colored fillers from specialty supply houses or these fillers can be prepared by mixing pigments and/or colors in oil with natural paste filler. Finely ground aluminum mixed with a paste filler and applied to a surface that has been stained black gives spectacular results. Black filler applied to a white surface is also impressive. A green surface with gold filler makes a Christmas motif. The possibilities for special effects are limited only by the imagination and skill of the technician.

Instructions on the manufacturer's label usually call for application of the filler with a brush, after being thinned to the consistency of thick cream. How thick is thick cream? I have found that most beginners and many amateurs err on the side of too high a viscosity. Better too thin than too thick. The filler should run readily and spread when poured on the surface to be filled. I find the ideal applicator to be a very stiff brush. My favorite is an inch and a half diameter stencil brush which is used to scrub the filler into the pores across the grain. After allowing suitable time for the filler to set (usually about 30 minutes to an hour), the excess is carefully removed with a piece of burlap or coarse rag rubbed across the grain, packing the filler into the grain pores. If the surface was previously stained it's a good idea to tint the filler to match the stain unless contrast is desired. The filler should be allowed to set overnight before proceeding with the finishing process. I'll continue with this discussion in the next issue.

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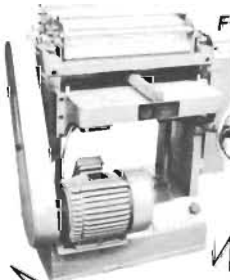
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The Beginning Woodworker

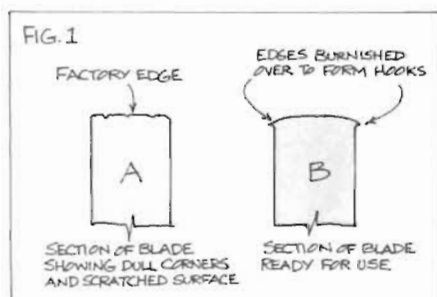
Cabinet Scrapers And How To Use Them

The ordinary rectangular steel scraper blade has an image problem. It just doesn't look important or interesting enough to be taken seriously. The idea of scraping wood somehow implies a rather tedious and primitive method of preparing the surface of a board for finishing. In this age of power sanders, the humble scraper blade has been gradually slipping into obscurity and it's high time we gave this small thin 2½" x 5½" oblong of steel its rightful place of importance in the cabinet shop.

After handplaning the surface of a board there are usually slight marks remaining that require a lot of sanding to remove. This is exactly the kind of job for which the scraper is intended. A few passes of the blade and the slight ridges are easily removed. Router burn marks, jointer ripples, glue drippings and veneer tape are likewise removed with little effort, minimum dust and noise.

Sanding, even with fine grits, tends to obscure the grain while the scraper blade will leave the grain figures sharp and clean; in fact in many cases, sanding can be omitted entirely, particularly in the case of highly figured woods and burl veneers.

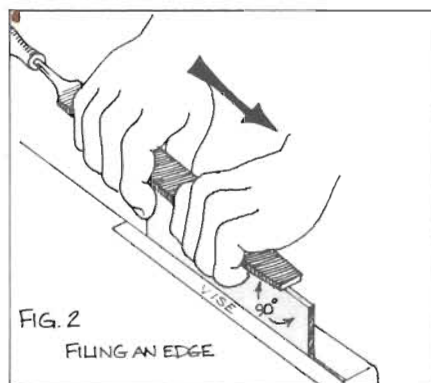
Although simple to use, the scraper blade requires a careful and somewhat unusual sharpening technique in order for it to perform as it should. The technique is not difficult to master nor does it take but a few minutes to execute but it does require a certain touch which will come with a bit of practice.



As it leaves the factory, the scraper blade is not ready for immediate use. Although the edges are cut square, they will be unpolished and somewhat rough. Figure 1A shows how the edges will look when purchased while Figure 1B shows the edges after the blade has been sharpened and is ready for use. The burrs or hooks on each side of the edge cut the fibers of the wood, producing very thin shavings. Thus the tool is not really a scraper which would produce dust, but rather it's a cutter

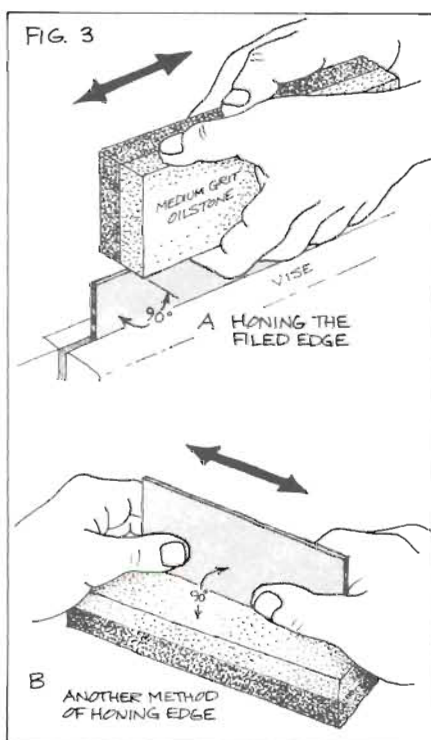
producing very thin shavings.

In order to achieve the sharp hooks on the edge of the blade, a bench vise and three simple tools are needed: a fine cut flat mill file, oilstone (medium grit carborundum) and a burnisher which is simply a piece of steel harder than the scraper (the back of a chisel works well).



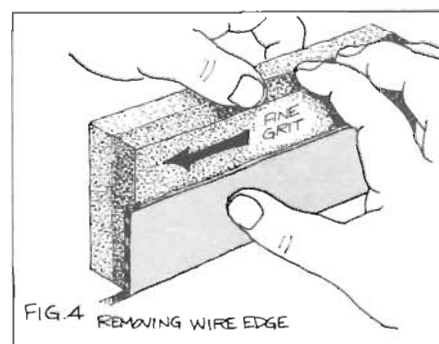
The first step is to file the edges of the blade square. To do this, lock the blade in the vise with a long edge up. Hold the file square to the edge of the blade and draw it along the edges in even easy strokes. Let the file cut only as you push it forward to avoid chatter. Curling the fingers around the file and letting them bear against the side of the blade will help you control the file and keep it square on the blade edge (Fig. 2).

When the edge has been squared



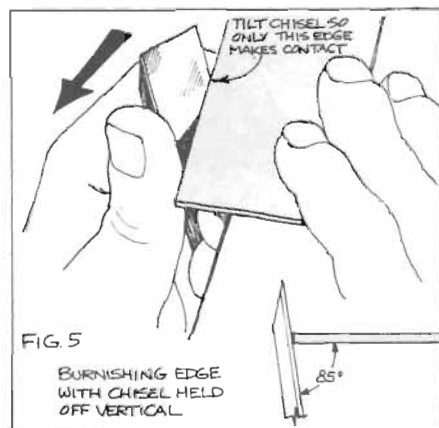
and the nicks removed, use a dry oilstone to hone the file marks from the edge. It's important that the stone be held square to the blade edge and that you avoid rocking the stone as you move it back and forth along the edge. Figure 3A shows the process with the oilstone being held on edge. This is done to avoid making grooves in the working or flat face of your stone.

Some workers prefer to remove the blade from the vise and hone it by holding it upright and square to the flat of the stone (Fig. 3B). If you prefer this method, be sure to work over various portions of the stone to avoid grooving it in one particular area.



After honing, you'll find that a slight burr or wire edge has formed along the edges of the blade. This is easily removed by honing with the stone flat against first one face of the scraper, then against the opposite face (Fig. 4).

The final step consists of burnishing or rubbing the square honed edge until a slight overhang or hook is formed. This is done by holding the scraper

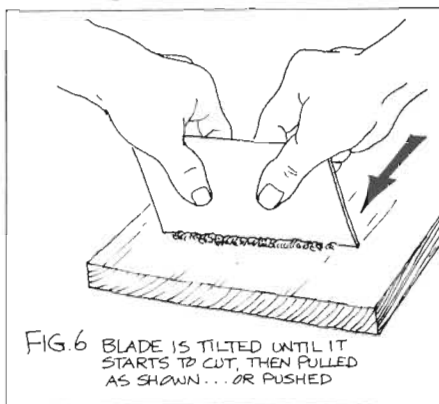


blade flat on the bench top overhanging the edge. To reduce friction, smear some oil on the blade and chisel. Hold the chisel at an angle of about 85 degrees to the scraper edge and starting at the far end, pull the chisel toward you, exerting a steady light pressure (Fig. 5).

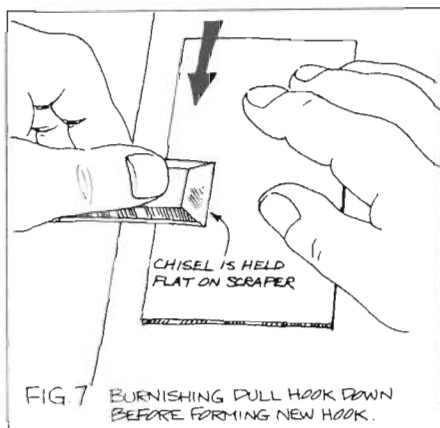
As you rub the chisel along the edge it should be tilted so that only one of its edges contacts the scraper blade while still maintaining the 85 degree angle.

Repeat this process two more times, then carefully run the ball of your thumb along the burnished edge. You should be able to feel a very slight hook or burr. Next, flip the blade over and put a hook on the other side of the same edge.

Try out the edge on a piece of hardwood by holding the scraper tilted as shown in Figure 6 and pulling the blade toward you. Your thumb should exert enough pressure to put a slight bow in the thin blade. The blade should remove fine shavings along its entire length.



There's a lot of confusion about whether the scraper should be pushed or pulled in use. Actually, with a hook on both sides of the edge, the blade will cut in either direction but most people seem to feel more comfortable pulling the scraper, probably because it's easier to control. Try it both ways and decide for yourself which way is most comfortable and efficient for you. If you're happy with the way the scraper works, go ahead and sharpen the remaining three edges so no matter how you use the scraper, there will be a good cutting edge.



When your scraper starts to get dull, it's not necessary to refire and hone it. All you need to do is burnish the worn hook down to resquare the edge by running an oiled chisel blade flat along the full length of the scraper (Fig. 7).

(Continued on Next Page)

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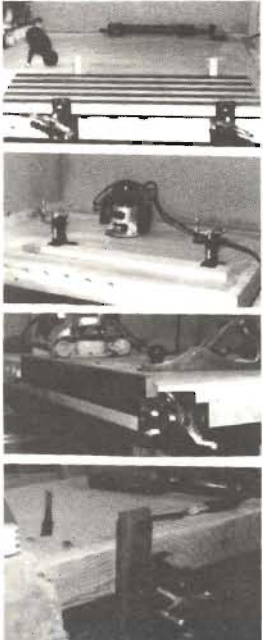
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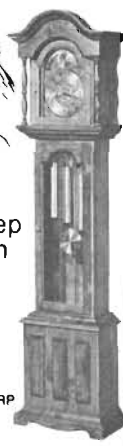
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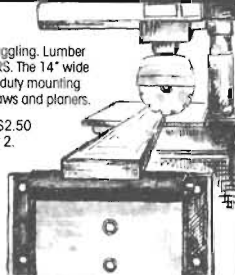


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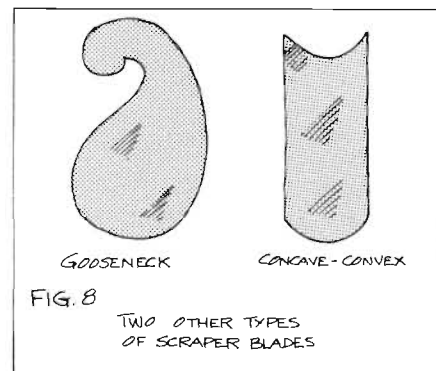
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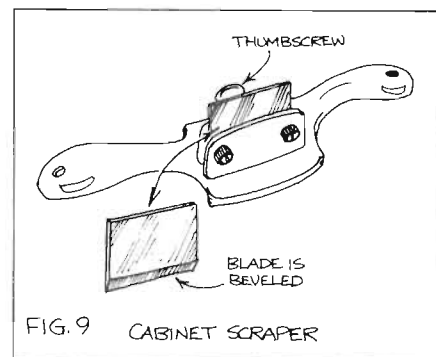
A few smooth passes with moderate pressure should bring the scraper edge square, then tilt the chisel to 85 degrees and put a new hook on the scraper. This process can be repeated three or four times before it becomes necessary to refile and hone.

For rough work, when a fairly thick shaving must be removed and the piece will be finish sanded, use a heavier pressure to form a more pronounced hook. Since the blades are so economical, it's not a bad idea to purchase two, using one for rough work while reserving the other for fine work on veneers.

A good scraper will generate a lot of heat in use...enough to possibly burn your finger tips. If a lot of scraping has to be done, you'll probably want to wear an old pair of leather gloves or make a slotted block of softwood to slip over the edge of the scraper.



Gooseneck and convex-concave scrapers are also available (Figure 8) and their various curved edges are excellent for smoothing curved surfaces of moldings, chair seats and the insides of bowls. These blades are sharpened in the same way as the rectangular blades though more care will be required to file, hone and burnish them.

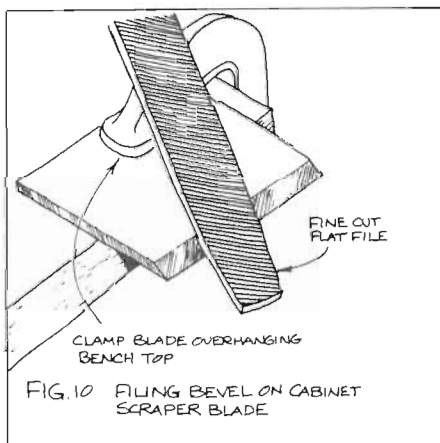


The cabinet scraper (Fig. 9) is a more elegant tool which performs the same functions as the simple scraper blade. Do not confuse the cabinet scraper with the adjustable spokeshave. Although these tools are superficially similar, the blade of the scraper is mounted nearer to vertical, the sole or base is wider and the methods of

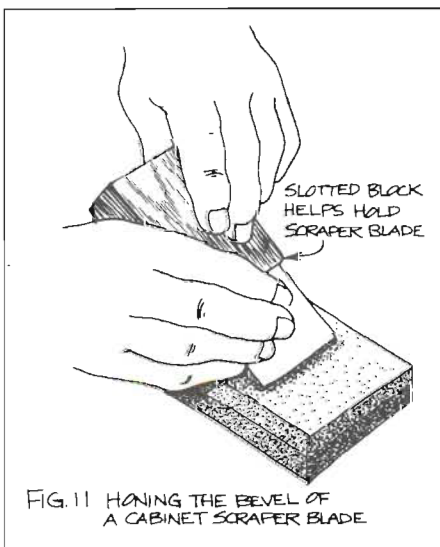
adjusting and securing the blades are different.

The cabinet scraper blade is held in place with two knurled screws. A third thumb screw on the opposite side locks the blade and helps prevent chatter. The blade is sharpened and hooked like the simple scraper blade previously discussed except that one side is beveled much the same as a plane blade.

As received, the blade will already have a bevel which should be angled at about 25 to 30 degrees. If the blade edge is nicked or otherwise needs regrinding, it can be done with a grinding wheel in the same manner that plane blades are reground, or the bevel can be filed with a fine mill file as shown (Fig. 10). It's a good idea to round off the sharp corners of the blade when reshaping the bevel.

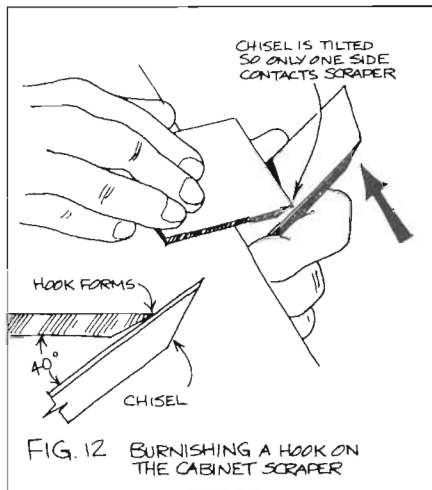


After grinding, the bevel is honed on a medium grit oilstone and finished up with a fine stone (Fig. 11). After honing the bevel lay the blade over flat on the stone and remove the wire edge. The edge is then burnished.



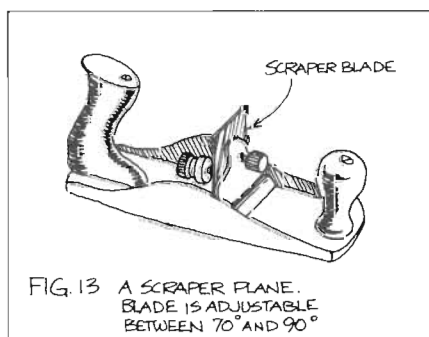
Again use oil and one edge of a chisel angled about as shown and drawn along the edge in a smooth stroke. Use light pressure with the burnisher as

it's easy to bend over too big a hook (Fig. 12). Do not bevel and sharpen the opposite edge of the blade; it's uncovered when the tool is in use and would be very hazardous.



When dull, the hooked edge can be renewed in the same manner as the scraper blade; that is by burnishing it down and forming a new hook. The blade is mounted in the tool by setting the sole on a sheet of paper if a thin shaving is desired, or two or more sheets for a thicker cut. The blade is pushed into place (bevel toward the back) and held down while the two screws in front are tightened, then the thumb screw is tightened slightly. A test shaving should show if the entire blade is cutting. If a full width shaving isn't obtained tighten the thumb screw to put more of a bow in the blade.

Unlike the scraper blade, the cabinet scraper is designed for a pushing cut; the handles are curved to fit nicely in the palms of your hands. You'll find that you will have to bear down with both hands to prevent chattering. Work so that you can lean forward, letting your upper body weight fall on the tool.



Other tools have evolved to scrape wood, notably the scraping plane shown in Fig. 13, but the simple scraper blade will do the job just as well and only costs about six dollars. If you've been doing more sanding than you like, you owe it to yourself to try a scraper. You'll be glad you did.

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If you've never done dovetail work, yet would like to give it a try, why not consider this small footstool for your next project. There are few joints that can match its attractive appearance and even fewer that have such inherent strength. This particular type of dovetail joint, called a through dovetail, is not as difficult to make as you might think, and the process goes pretty quickly once you get started.

Before beginning though, give your chisel a good sharpening. Trying to cut dovetails with a dull chisel is just asking for aggravation. Also, it's helpful to have a fine-tooth dovetail or back saw. You just won't get a good clean cut if you try to cut them with a coarse sawblade.

At this point, it's also worth pointing out some basic dovetail terminology. A dovetail joint consists of mating segments cut on the ends of the two boards to be joined. Each segment on one board is cut in the shape of the tail of a dove, and appropriately called the dovetail, or sometimes just the tail. The other board is cut to receive the dovetails and the resulting segments are called pins. Referring to the drawing, the dovetails are cut in the top (part A) and the pins are cut in the sides (part B). Also, a single dovetail is cut on the end of the stretcher (C). This fits into a single pin cut in the bottom of part B.

Begin by laying out the dovetails on the ends of part A, referring to the drawing for all dimensions. Ideally, the length of the tail should be equal to the thickness of part B, plus about 1/32 inch. Later, when the joint is assembled, the tails will stick out 1/32 inch, allowing them to be sanded perfectly flush with the side. As you lay out the dovetail locations, work accurately, and use a hard sharp pencil.

Once the tails have been laid out, mark the waste material between dovetails with an "x" to avoid confusion. Scribe the tail location not only on the face surface of the board, but also on the end grain. Secure the top (A) in a vise and use the fine-tooth saw to make the angled cuts. Work carefully, cutting on the waste side of the line, just grazing but not removing it.

Bring the cuts almost, but not quite to the scribed bottom line. A coping saw can now be used to cut across the grain, removing the waste. Remove the workpiece from the vise and clamp it flat on the bench over a scrap board, then use the chisel to dress the sides and bottom of the cutouts.

The pins on the sides (part B) can best be laid out and scribed by using the finished dovetails as a template. To do this, clamp part B in the vise, end up. Lay the dovetailed top (A), in its proper position, on part B and trace the dovetails with a sharp knife or pencil. Use a square to carry the scribed lines to the face of the board. For reasons mentioned earlier, this distance should be equal to the thick-

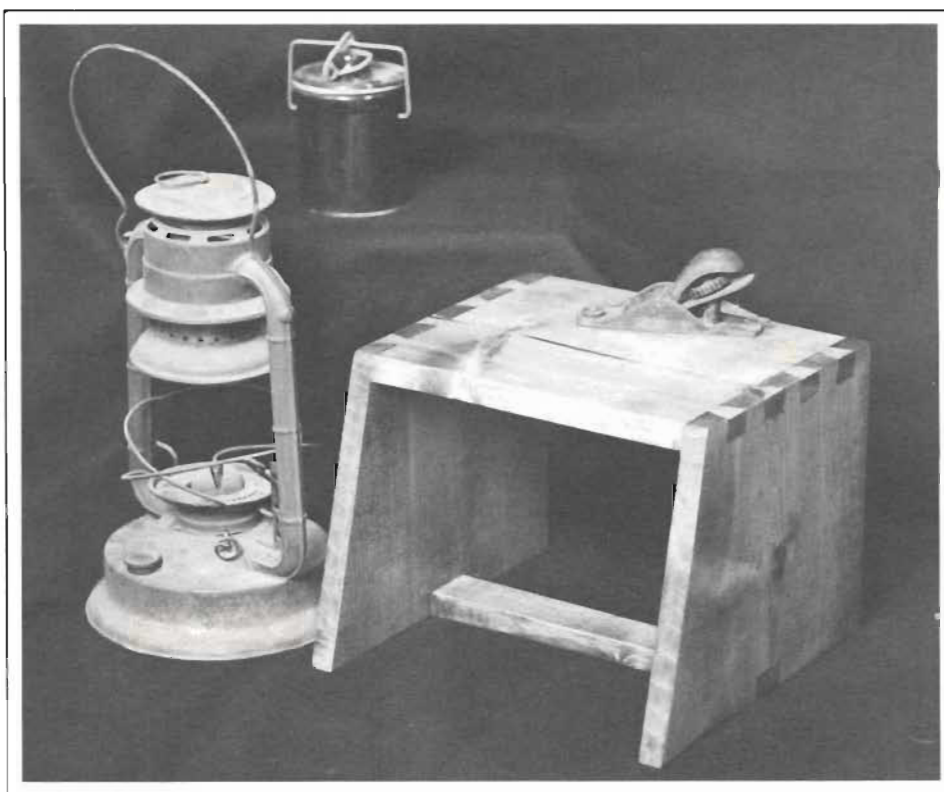


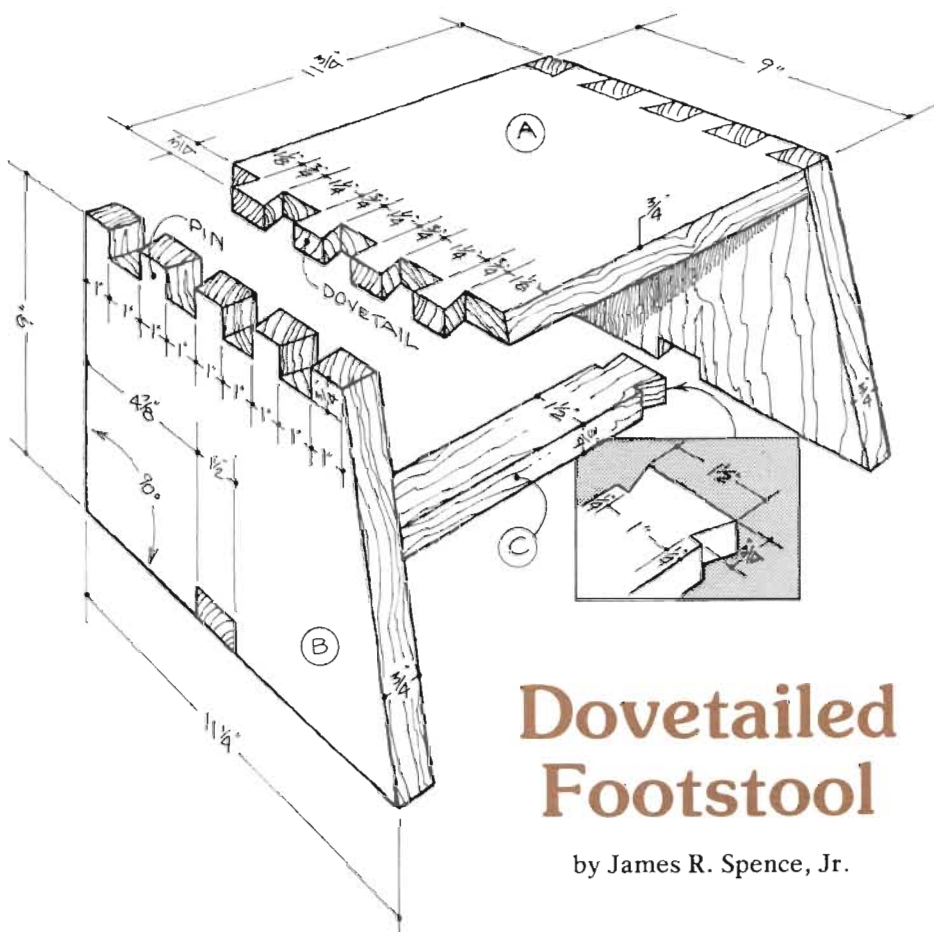
Photo by Author

ness of A, plus 1/32 inch.

Once again, mark the waste portions with an "x", then cut out in the manner used to cut the dovetails. A well fitted joint should go together with only light tapping from a mallet and scrap block. If needed, trim further

with the chisel. When the fit is good, apply glue to all surfaces and clamp securely.

For a more complete discussion of dovetails, refer to "The Beginning Woodworker" column in our November/December 1979 issue.



Dovetailed Footstool

by James R. Spence, Jr.



Toy Chest

by John M. Wilson

Made from pine, this sturdy toy chest can be a most useful addition to any child's room. It's big enough to hold plenty of toys, even the ones that always manage to find their way to that vast and remote wasteland known as "under the bed".

Readers should keep in mind that toy chest lids present a potential hazard. Since 1973 at least 21 children under two years old have died when toy chest lids fell on their heads resulting in strangulation. The Consumer Product Safety Commission is currently considering a rule that would require manufacturers to add hinges that would prevent the lids from falling unless pulled closed. With those facts in mind, this chest includes a pair of friction lid supports. When properly adjusted, the lid will only move when pushed or pulled, and it will hold at any position when the child lets go. If not available locally, they can be purchased via mail order from Barap, 835 Bellows Ave., Frankfort, MI 49635 or Constantine, 2044 Eastchester Rd., Bronx, NY 10461.

Make the front (A), two sides (B), and back (C) first. Standard 1 x 12 ($\frac{3}{4}$ x 11 $\frac{1}{4}$ actual) pine will provide the necessary width, but if 1 x 12 is not available, you'll have to edge-join narrower stock.

Note that part A has a $\frac{3}{4}$ inch wide by $\frac{1}{2}$ inch deep rabbet on each end, while part B has a $\frac{3}{4}$ inch wide by $\frac{3}{4}$ inch deep rabbet on one end. These rabbets are best cut using a dado head cutter, although they can also be done by making repeated passes over

a regular sawblade.

Parts A, B, and C can now be assembled. Use glue and clamp securely with pipe or bar clamps. Some short pieces of scrap stock should be used to protect the worksurface from clamp marks.

It's most important that this box be square. If it isn't, loosen the clamps and make adjustments before setting aside to dry overnight.

The bottom (D) is made next. Cut it slightly wider and longer than the box (parts A, B, & C), then attach it to the box bottom with glue and finishing nails. When dry, use a hand plane to remove the overhanging edges. This results in a flush edge all around.

The two lid supports (G) are cut to fit snugly between parts A and C. Add glue to the ends and the edge that contacts part B, then clamp in place. Make sure it's flush with the top edges of the box.

The spacers (part O) can now be cut to size and glued to the underside of part G. Secure in place with a clamp until dry.

Cut the two lid frame ends (I) and lid frame back (J) to size. Fasten in place with glue and 1 $\frac{1}{4}$ " x #8 flat head wood screws. Slightly countersink the screw heads.

The two top sides (L) and the top back (M) are cut to overall length and width, then the corners are spline mitered as shown. The spline groove is cut $\frac{1}{8}$ inch wide (or the width of your table or radial arm sawblade kerf). In order to have maximum strength the spline should be cut so that its grain

runs in the same direction as parts L and M, or another alternative is to use plywood as the spline material. After cutting the spline, transfer the curved profile from the grid pattern to the stock. Use a band saw or saber saw to cut to shape. Parts L and M can now be assembled to the box using blind dowels as shown. The dowel spacing isn't critical, just be sure to avoid the screwholes.

The top (H) will require that two or more boards be edge-joined in order to get adequate width. After the stock has been edge-glued and allowed to dry it can be cut to overall width and length. Since wide boards have a tendency to warp, it's a good idea to add the two cleats (N). Secure with a screw at the center, and one about one inch from each end of the cleat, screwing up and into the top (H). The cleat should not prevent the top from moving due to changes in humidity - if it does the top might crack. Don't use glue here. Also, it helps if the screw hole on each end of the cleat is slotted, thereby allowing unrestrained movement of the top.

Next, make the base front and back (E) and the base ends (F). Cut a little on the long side, then cut the miters to fit the exact dimensions of the box. The $\frac{1}{4}$ inch by 1 inch notch can be cut with the dado head or with a regular sawblade. After cutting the 45 degree bevel and the curved profile, add glue to the notch and the mitered end, then secure to the box with pipe or bar clamps. Allow to dry overnight.

Cut and fit glue block (K) for added strength, then give all surfaces a thorough final sanding. Give corners a liberal rounding. Add 2 inch brass butt hinges and friction lid supports as shown.

Ours was finished with a coat of Minwax Special Walnut stain followed by two coats of Minwax Antique Oil Finish. After drying, the friction lid supports were adjusted to support the lid in any position.

Bill of Materials
(All Dimensions Actual)

Part	Description	Size	No. Req'd
A	Front	$\frac{3}{4}$ x 11 $\frac{1}{4}$ x 44	1
B	Side	$\frac{3}{4}$ x 11 $\frac{1}{4}$ x 16 $\frac{3}{4}$	2
C	Back	$\frac{3}{4}$ x 11 $\frac{1}{4}$ x 43 $\frac{3}{4}$	1
D	Bottom	$\frac{1}{2}$ x 17 x 44	1
E	Base Front & Back	$\frac{3}{4}$ x 4 x 45 $\frac{1}{4}$	2
F	Base Ends	$\frac{3}{4}$ x 4 x 18 $\frac{1}{4}$	2
G	Lid Support	$\frac{3}{4}$ x 3 x 15 $\frac{1}{2}$	2
H	Lid	$\frac{3}{4}$ x 14 $\frac{3}{4}$ x 38	1
I	Lid Frame End	$\frac{3}{4}$ x 3 $\frac{3}{4}$ x 14 $\frac{3}{4}$	2
J	Lid Frame Back	$\frac{3}{4}$ x 3 $\frac{3}{4}$ x 45 $\frac{1}{2}$	1
K	Glue Block	1 x 1 x 2 $\frac{3}{4}$	4
L	Top Sides	$\frac{3}{4}$ x 4 $\frac{3}{4}$ x 16 $\frac{3}{4}$	2
M	Top Back	$\frac{3}{4}$ x 6 $\frac{1}{2}$ x 44	1
N	Cleat	$\frac{3}{4}$ x 1 $\frac{1}{2}$ x 12	2
O	Spacer	$\frac{3}{4}$ x 3 x 4	2

Plant Stand

Plant stands are always popular with our readers, and this one should have a special appeal to those who enjoy the style of Early American. It could also serve as a small night stand for a lamp, perhaps in a bedroom or hallway.

Using 1 inch nominal stock ($\frac{3}{4}$ inch actual), make the two sides first. Since they measure a full 12 inches wide at the bottom it will be necessary to edge glue two narrower boards. Glue and clamp firmly, then allow to dry overnight. When dry, rip to a width of 12 inches, then set the table saw blade for a 3 degree angle. Now, using the miter gauge, crosscut the sides to length.

Next, lay out the location of the shelf dadoes and replace the regular sawblade with a dado head cutter (the angle should still be set at 3 degrees). Set the dado head gauge to cut the dado as shown in the drawing.

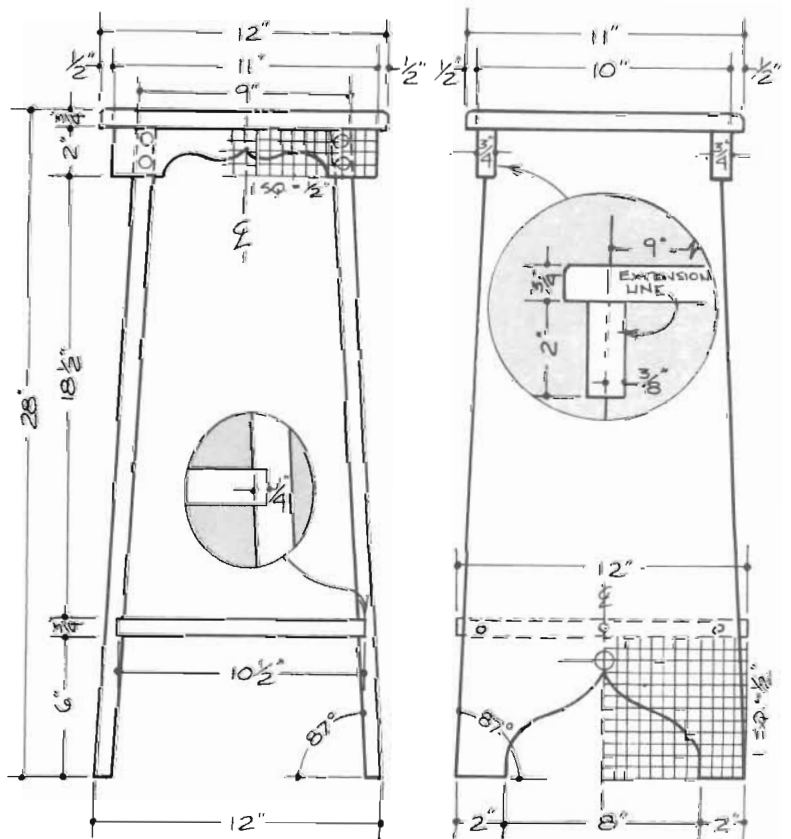
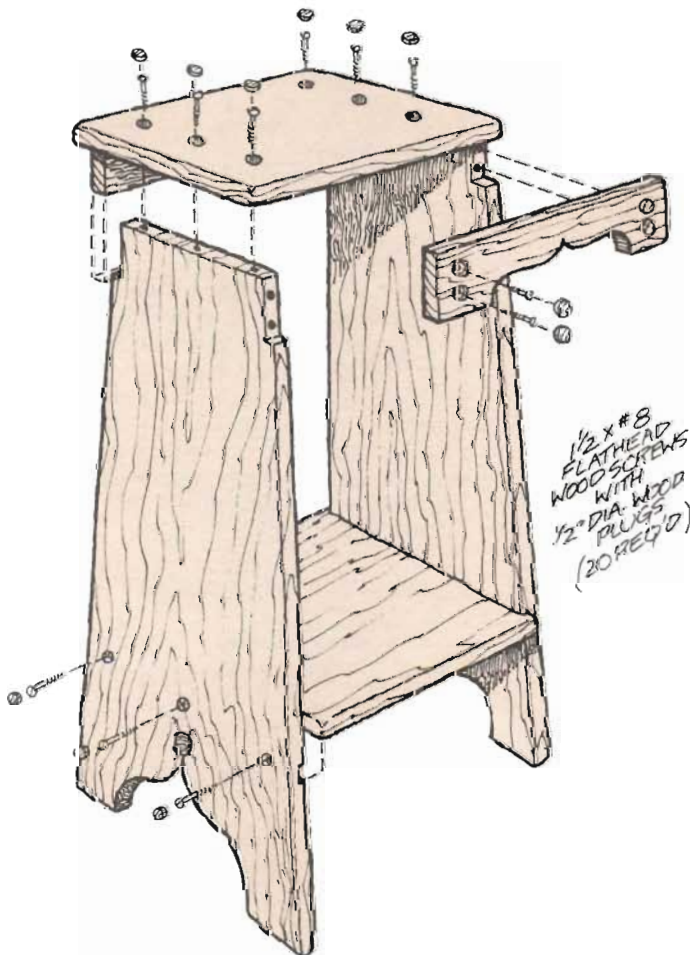
The sides taper from 12 inches at the bottom to 9 inches (before cutting the notch) at the top. To cut the taper, clamp the two sides together, then mark the taper with a straight-edge and pencil. A sharp plane will cut to the taper line in short order.

To complete work on the sides, lay out the apron notches and the curved bottom profile. A back saw will cut out the notches while a band or saber saw will remove the bottom curve.

Cut the two aprons to size ($\frac{3}{4}$ x 2 x 11), then lay out and cut the curved profile.

The top can be cut from a piece of 1 x 12 ($\frac{3}{4}$ x 11 $\frac{1}{4}$ actual) but the shelf, which is 12 inches wide, will require edge-gluing. Cut both parts to length as shown.

Assemble all parts as shown using glue and 1 $\frac{1}{2}$ x #8 wood screws, countersunk and plugged. Sand all parts thoroughly and round edges to simulate years of wear. Ours was finished with one coat of Minwax Special Walnut followed by two coats of Minwax Antique Oil Finish.





18th Century Lawyer's Case

by Robert C. Lewis

Originally used by lawyers to store files, abstracts, and titles, this handsome case will find modern use as a place to keep books and magazines handy. This one is made from cherry, but walnut or mahogany would also be good choices.

If wide stock is not available you'll need to edge-join two or more narrower boards. If you are able to select your own hardwood stock, do it with care. Try to choose boards that have a pleasing grain pattern (a better word to describe grain pattern is "figure"). The boards should also be flat and free of any splits, cracks, or other obvious defects.

It's questionable how much strength is added by using dowel pins when edge-joining, but they do provide a very useful service by keeping the mating boards in line when clamp pressure is applied. This is especially helpful when working with long boards.

Perhaps most important to the suc-

cess of an edge-joint is a clean, smooth surface on both mating parts. This allows close contact between both surfaces resulting in maximum glue strength. Ripping to width on the table or radial arm saw will usually leave a fairly rough edge, so it's best to smooth it out with a sharp plane. Take several light cuts, don't try to do it in one pass, and of course, plane with the direction of the grain. When planing, it's important that the edge remain square to the face of the board. Check for this by using a square.

After edge-joining, parts A and B can be cut to overall length and width. Note that part B is $\frac{1}{4}$ inch narrower than part A. Also, part B has three, $\frac{1}{4}$ inch deep by $\frac{3}{8}$ inch wide stopped dados. These are best cut with a router equipped with a $\frac{3}{8}$ inch diameter bit. Lay out the location of the dados, then securely clamp a fence (made from a piece of scrap stock) to serve as a guide for the router. Stop the dado at a point $5\frac{1}{2}$ inches from the

back edge, then cut the corners square with a chisel.

Part A has a $\frac{1}{4} \times \frac{1}{4}$ rabbet cut along the entire length of the inside back edge. This can be cut on the table or radial arm saw or with a router equipped with a piloted $\frac{1}{4}$ inch rabbet bit.

Next, cut part C to overall length and width, then lay out the location of the $\frac{1}{4}$ inch deep by $\frac{3}{8}$ inch wide dados. Except for the fact that these are stopped on both ends, the method for cutting them is the same as for part B. After cutting the dados, use the router and a piloted $\frac{1}{4}$ inch radius cove bit to apply a cove to all four edges.

Parts E and F are identical. Cut to length and width, then use a piloted $5/32$ inch Roman ogee bit to rout a molding around all four edges.

The dividers, part D, are made from $\frac{3}{8}$ inch thick stock. If you have fairly narrow pieces of heavier stock ($1\frac{1}{2}$ - 2 inches wide) they can be resawn on the table saw. (For more information on resawing, see "The Beginning Woodworker" column in the March/April 1982 issue). These resawn boards can then be edge-glued to form the wide divider panels. Of course, if you have a band saw you'll be able to resaw much wider stock. Perhaps the easiest way to get $\frac{3}{8}$ inch stock is to hand plane $\frac{3}{4}$ inch stock. It doesn't take very long, and besides, most woodworkers agree that hand planing a piece of wood is one of the most pleasurable aspects of this hobby.

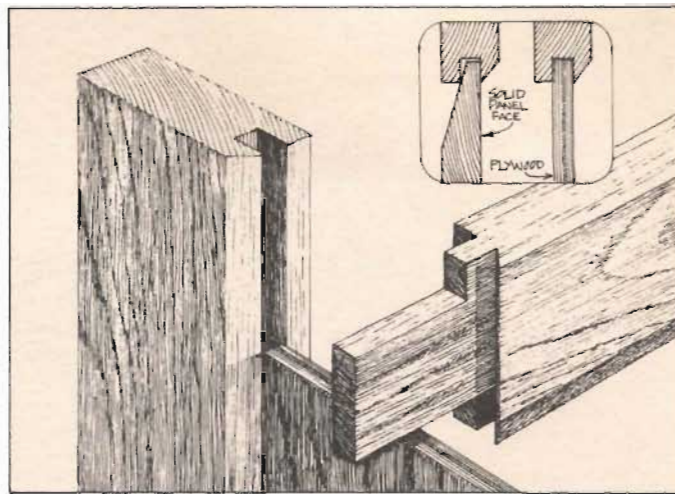
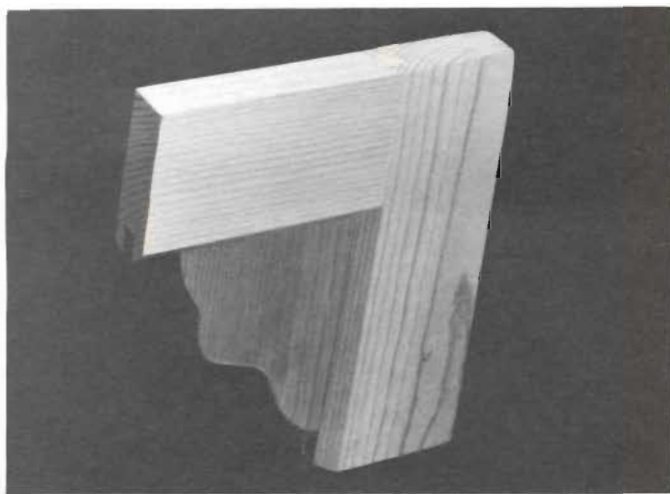
Once you have stock for the dividers, transfer the profile from the grid pattern shown. Use a saber saw or band saw to cut out, then sand the edges of the curves to remove all rough spots.

For the back (G), $\frac{1}{4}$ inch hardwood plywood can be used, although I chose to resaw several narrow cherry boards, then edge-join them.

Sand all parts, then assemble as shown using glue and wood screws, countersunk and plugged. Allow glue to dry before giving the project a thorough final sanding. Lightly round all corners and sharp edges. Finish to suit. The one shown, made of cherry, was not stained. Instead it was simply finished with two coats of Watco Danish Oil.

Bill of Materials
(All Dimensions Actual)

Part	Description	Size	No. Req'd
A	End	$\frac{3}{4} \times 8\frac{1}{2} \times 12$	2
B	Top	$\frac{3}{4} \times 8\frac{1}{4} \times 15\frac{3}{4}$	1
C	Bottom	$\frac{3}{4} \times 9\frac{1}{2} \times 17\frac{1}{4}$	1
D	Partition	$\frac{3}{8} \times 7\frac{3}{4} \times 11\frac{3}{4}$	3
E	Crown	$\frac{3}{4} \times 10\frac{1}{2} \times 18\frac{3}{4}$	1
F	Base	$\frac{3}{4} \times 10\frac{1}{2} \times 18\frac{3}{4}$	1
G	Back	$\frac{1}{4} \times 15\frac{3}{4} \times 12$	1



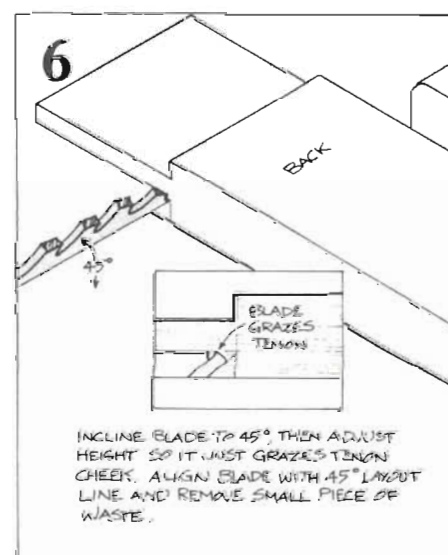
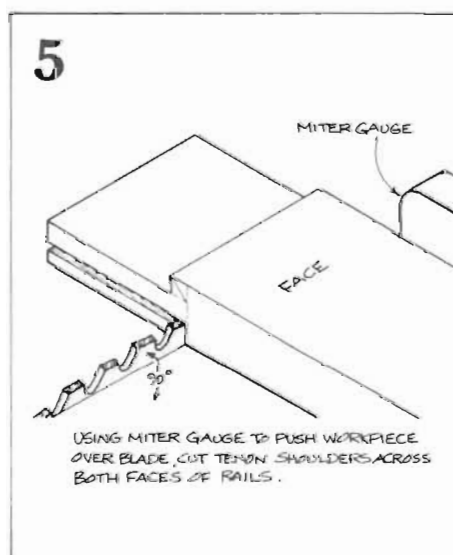
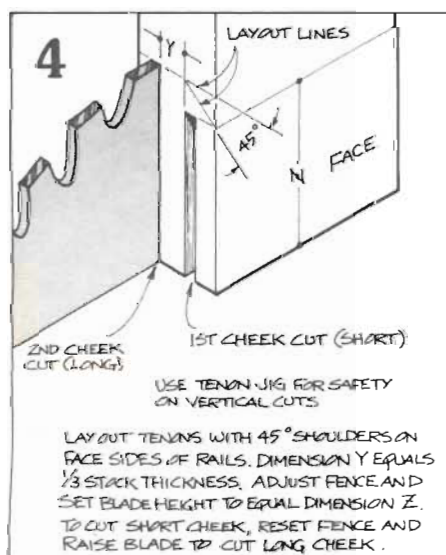
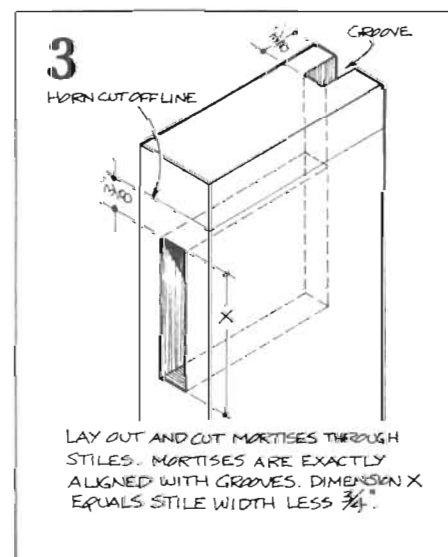
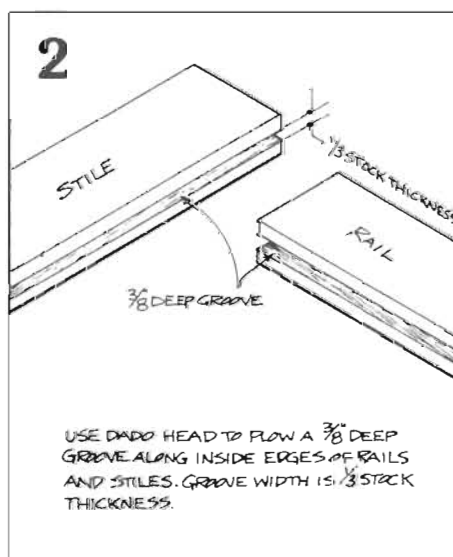
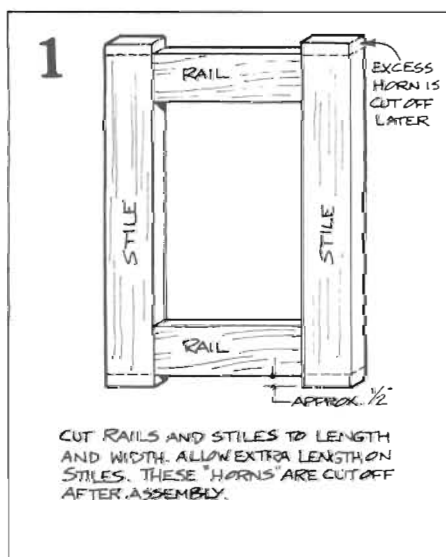
Frame & Panel Joint With Decorative Bevel

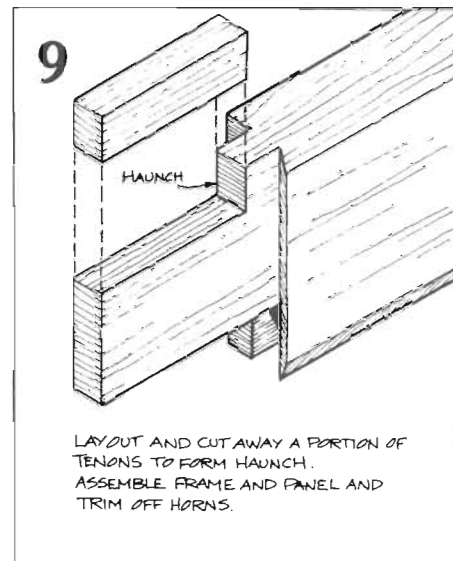
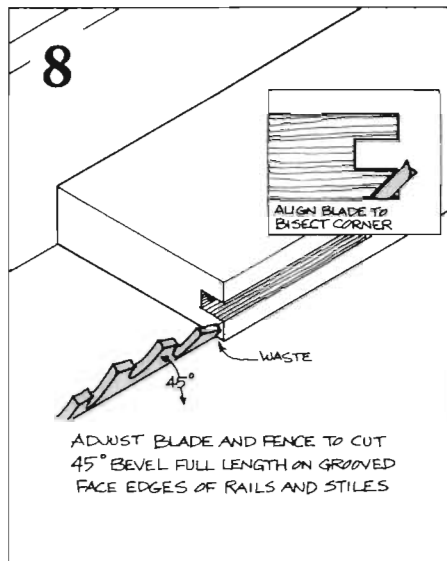
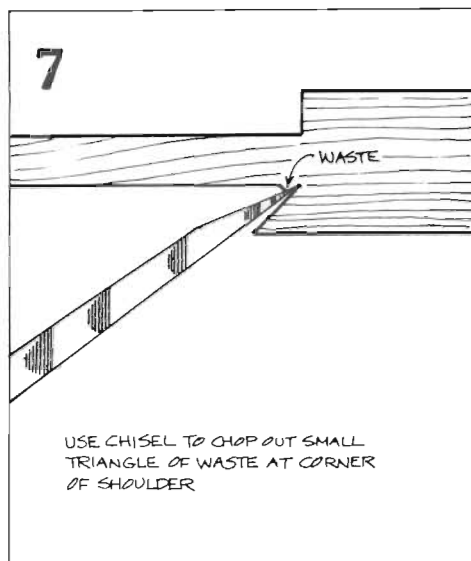
Here's a nice variation on the mortise and haunched tenon joint commonly used for frame and panel construction. The difference consists of a bevel around the inside edges of the frame that provides an attractive trim for a flat panel be planed to $\frac{1}{2}$ inch thickness. The back side edges are then beveled to fit the frame grooves.

As can be seen in the following illustrations, the joint can be cut with a tablesaw. Mortises are drilled out and cleaned up with a mortising chisel. It's usually best to cut tenons slightly larger than necessary and allow them to protrude to

be later trimmed flush with the stiles. When allowing for extra tenon length remember that the critical rail dimension is the distance between tenon shoulders.

The bevels on the rails are coped or cut at an angle to fit against the stile bevels giving the appearance of a mitered corner. After completing step 8, the corner joint should fit together perfectly without further trimming. Tenon haunches can be quickly cut with a dovetail or small backsaw or by using the miter gauge and making repeated passes over the tablesaw blade.



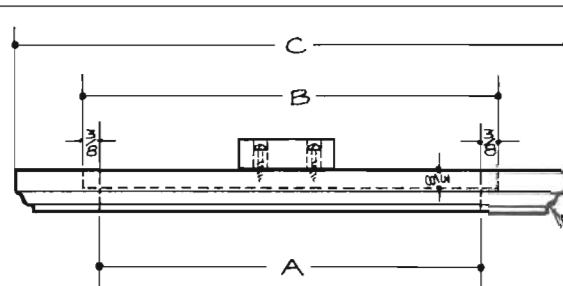


Collector's Plate Frame

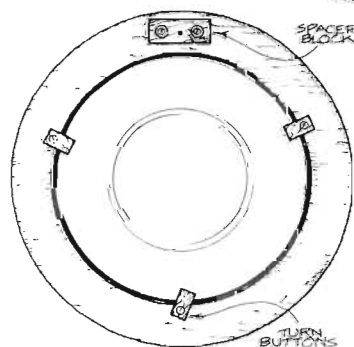
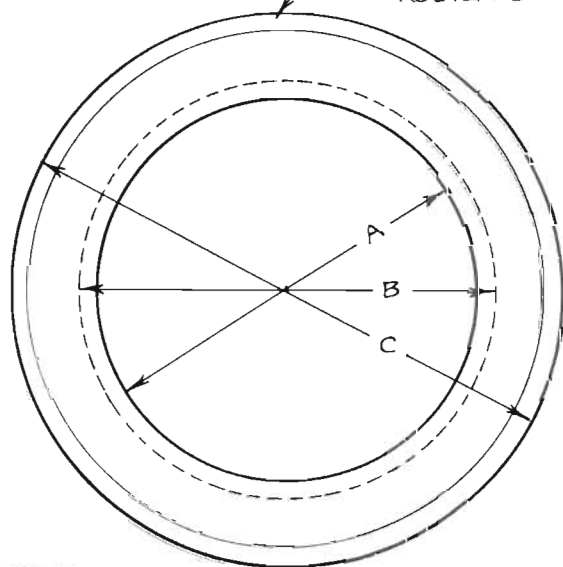
by Clarence D. Stallman



The Gift Shop



5/32" PLOTTED ROMAN OGEE ROUTER BIT



KEY

- (A) = PLATE DIA. LESS 5/8"
- (B) = "A" PLUS 3/4"
- (C) = PLATE DIA. PLUS 3"

Most collector's plates are wall hung using a spring adjustable wire clip. Although these clips work fine, they always seem to detract from the plate's appearance. This easy-to-make project not only eliminated the need for the spring clip, it also serves to frame and highlight the plate.

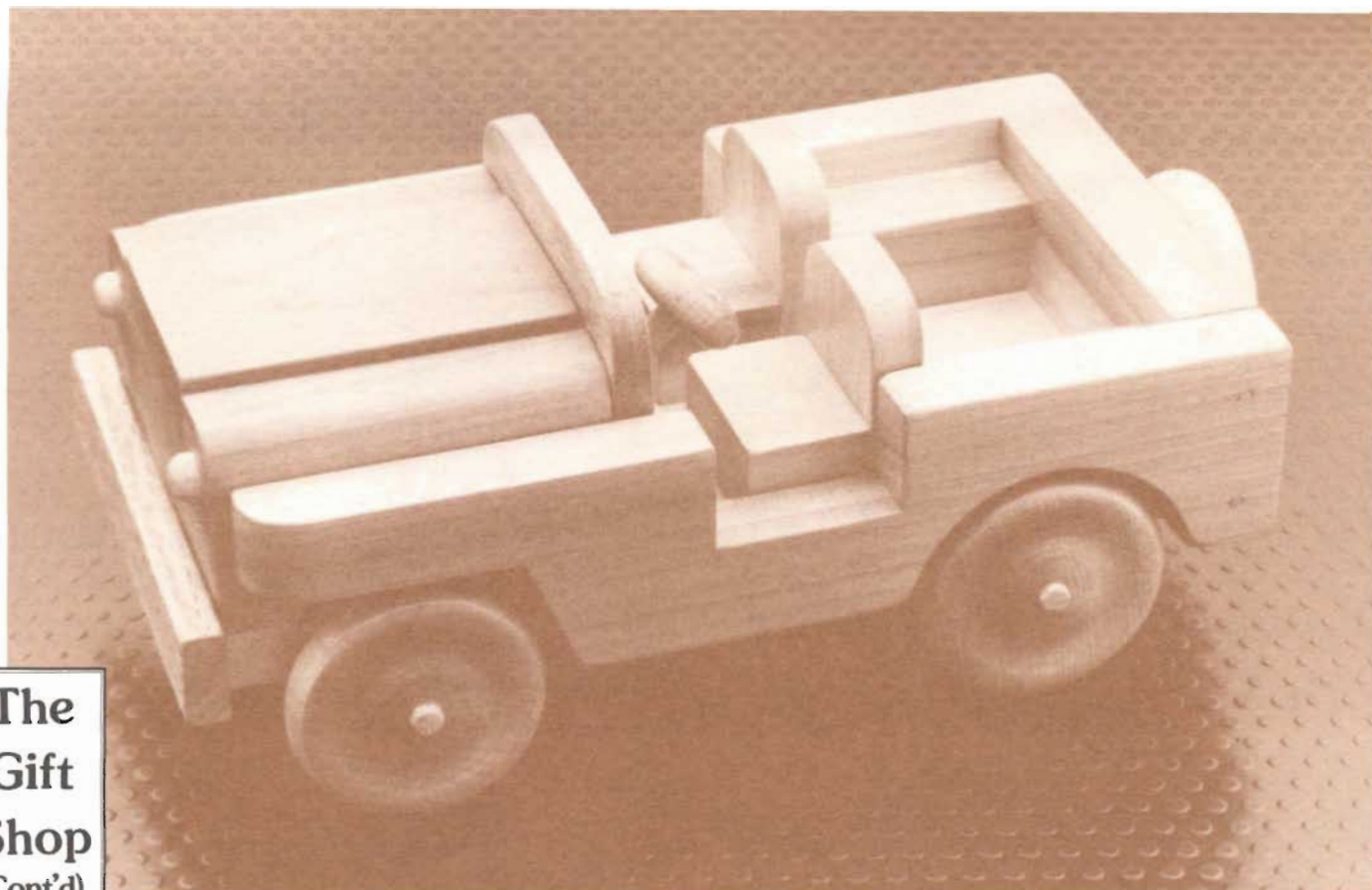
Once the stock has been glued-up the frame can be made in just a couple of hours. Ours is made of pine, but oak, walnut, cherry or mahogany would also be good choices.

The frame dimensions will depend upon the size of your plate (see Key). In most cases you'll have to edge-glue stock to get wide enough stock.

Dimensions "A" and "C" are scribed with a bow compass, then cut out with a saber saw. It's best to cut just on the waste side of the scribed line, then carefully sand down to the line to provide a smooth curve. The rabbet is cut using a router with a 3/8 inch piloted rabbet bit. A 5/32 inch piloted Roman ogee bit cuts the outside molding.

To make the back of the frame flush with the back of the plate, a small spacer block is secured to the frame back. A 1/8 inch diameter hanger hole is drilled in it for a finishing nail. The plate is held to the frame with three small wooden turnbuttons made from 1/8 inch stock.

Sand thoroughly, then stain and final finish to suit.



Toy Jeep

by C.J. Maginley

During World War II there were over 60,000 jeeps manufactured in this country, and it was a rare G.I. who didn't spend at least a few bone-jarring hours riding in one of them. With four-wheel drive and powered by a 60 h.p. Willis engine, it was a no-nonsense driving machine that kept rolling through almost any terrain.

In proportion to size, the toy jeep shown here is pretty close to the real one. And it's a sturdy design, so kids don't have to worry about being rough with it. Although pine can be used, a hardwood such as maple or birch will minimize the nicks and dents.

Begin by cutting parts C & D to size, then rounding over the top, outside edge of part D. Glue and clamp the three parts together to form the hood, noting that C is positioned $\frac{1}{8}$ inch above parts B. The headlight (N) can be made as shown or purchased from Love-Built Toys, 2907 Lake Forest Road, Tahoe City, CA 95930.

Cut the frame (A) to size, then glue the hood (parts C & D) to the frame. When secured it should be flush with the front of the frame. The back end (F) is then cut and glued to the back of the frame.

The fender (B) is made as shown in the detail. After rounding the front end it is glued to the frame, hood, and back end. Add finishing nails to secure.

Make the axle holders (K) as shown in the detail, making sure that the groove allows the axles to turn easily. Glue the axle holders so that they overhang the frame by about $\frac{1}{16}$ inch on each end. Also, the center of the axle groove should be $1\frac{3}{8}$ inches from the front of part A.

Round-off the two upper corners of the dashboard (E), then glue in place. Drill a $\frac{1}{4}$ inch dia. by $\frac{3}{4}$ inch deep hole for the steering column (part O) and steering wheel (part P). Round-off the upper corners of the seat backs (I), then glue parts I and H in place against the ends of the side seats (G). Now fasten the bumper (J) using glue and a few finishing nails.

Next attach the spare wheel to the center of the back end. It can be glued or fastened with a short length of $\frac{1}{4}$ inch diameter dowel.

The wheels (M) can now be mounted along with the axles (L). By the way, if you prefer to purchase wheels rather than make them, they can also be ordered from Love-Built Toys.

Sand all parts thoroughly taking care to round all sharp edges. To avoid the dangers of a toxic finish, no final finish was applied.

Bill of Materials (All Dimensions Actual)

Part	Description	Size	No. Req'd
A	Frame	$\frac{1}{2} \times 3\frac{1}{2} \times 7\frac{1}{2}$	1
B	Fender	$\frac{3}{4} \times 1\frac{1}{4} \times 8\frac{3}{4}$	2
C	Inner Hood	$1\frac{1}{4} \times 2 \times 3$	1
D	Outer Hood	$\frac{3}{4} \times 1\frac{1}{4} \times 3$	2
E	Dashboard	$5/16 \times 2\frac{1}{4} \times 3\frac{1}{2}$	1
F	Back End	$\frac{3}{4} \times 1\frac{1}{4} \times 3\frac{1}{2}$	1
G	Side Seats	$\frac{3}{4} \times \frac{3}{4} \times 2$	2
H	Front Seats	$\frac{3}{4} \times 1\frac{1}{2} \times 1$	2
I	Seat Back	$\frac{3}{4} \times 1\frac{1}{2} \times 1\frac{1}{2}$	2
J	Front Bumper	$\frac{3}{4} \times \frac{3}{4} \times 4\frac{1}{4}$	1
K	Axle Holders	$\frac{3}{4} \times 1\frac{1}{2} \times 3\frac{3}{4}$	2
L	Axles	$\frac{1}{4}$ " dia. x 5" long	2
M	Wheels	2" dia. x $\frac{1}{2}$ " thick	5
N	Headlights	See Detail	2
O	Steering Post	$\frac{1}{4}$ " dia. x $1\frac{1}{2}$ " long	1
P	Steering Wheel	1" dia. x $\frac{1}{4}$ " thick	1



Photo by Author

Trestle Table and Bench Set by Paul Gerhards

This trestle table and bench set is as sturdy as it is attractive. Since the legs, stretcher and top are bolted together, the table can be easily disassembled, the same feature that made this piece popular more than 200 years ago.

Making The Table

The two legs (parts A) measure 19 inches wide so it will be necessary to edge join two or more narrower boards. Before edge-gluing, make sure the mating edges are clean and smooth in order to get a good glue surface. A few light passes with a sharp hand plane will remove the rough edge that is formed when the boards are ripped on the table saw or radial arm saw. As always, plane with the grain, and make sure the edge remains square to the surface of the board. After making a couple of light passes with the plane, use the try-square to check for squareness. Apply a thin coat of glue to both edges of the mating surfaces, then clamp securely with bar or pipe clamps. A couple of pairs of batten strips clamped across the joined board will keep the edges aligned. Allow to dry overnight, then cut to overall length and width. When cutting to length, note that the ends are cut with a 5 degree bevel.

The two filler blocks (parts B) are doweled and glued to the lower corners of part A. Note that the grain of the filler block runs perpendicular to the grain of part A. The foot (C) can now be glued to parts A & B. When dry, transfer the curved profile from the grid pattern, then cut out with a band or saber saw. Use a hand plane to add the 5 degree bevel to parts B & C, using the bevel on part A as a guide.

The particle board top (F) is cut to size, then the front and

side edging (H and G) is added. Secure with glue and clamps.

The top frame consists of two end aprons (J) and two front aprons (K). These frame parts have mitered corners. Assemble with glue and clamp square.

Two leg brackets (L) and one brace (M) are cut to size. The length should be such that they fit snugly just inside the frame. Also, note that part L has a 5 degree bevel along one edge. Add glue to the ends, then secure flush with the top edge using two 1½ inch by #10 flat head wood screws. Drive these screws through part K and into the end grain of parts L and M. So they don't show from the outside, it's a good idea to countersink the holes, then fill with wood-plugs.

To join the top (F) to the frame, add glue to the top surfaces of J, K, L, and M, then center the top on the frame as shown on the drawing. Secure with four equally spaced 1½" x #10 flat head wood screws, countersunk below the surface of the top. Allow to dry thoroughly.

The leg assembly (parts A, B, & C) can now be joined to the top. Locate and drill three equally spaced ¾" diameter holes through both A and L. (Be sure to avoid the wood screws that secure the top). Now secure the parts using 5/16" carriage bolts and washers. Tighten until snug.

The stretcher (D) length can now be accurately measured. Cut to length noting the 5 degree angle on both ends. Secure the stretcher to the leg (A) using support blocks (E) as shown. Be sure stretcher fits snugly between support blocks.

Select a plastic laminate color that most appeals to you. Apply per the manufacturer's instructions.

Sand all wood parts thoroughly and stain to suit. Two coats of polyurethane will provide an attractive and durable final finish.

Making The Bench

Like the table, the bench legs (AA) will require edge-gluing. Follow the procedure described earlier, then transfer the grid pattern to the stock as shown. Cut out with a saber or band saw. Sand the edges to remove any roughness.

The two cleats (EE and DD) serve to support the top and stiffen the entire bench. For maximum strength, select stock that's free of any large knots. Note that the top edge is beveled at 3 degrees.

Part BB, the seat, is made from 1 inch nominal stock ($\frac{3}{4}$ inch actual) cut to a width of $15\frac{1}{2}$ inches and a length of 60 inches. Use a sharp hand plane to apply a $\frac{1}{4}$ inch bevel around the top edge of all four sides.

Make the back, part CC, next. Cut to dimensions shown ($\frac{3}{4}$ x 9 x 60), then add a $\frac{1}{4}$ inch bevel to match the one on the seat.

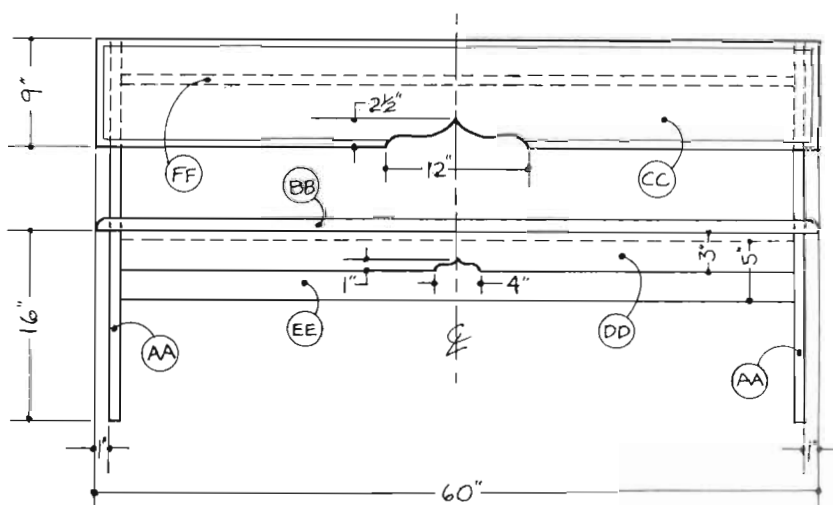
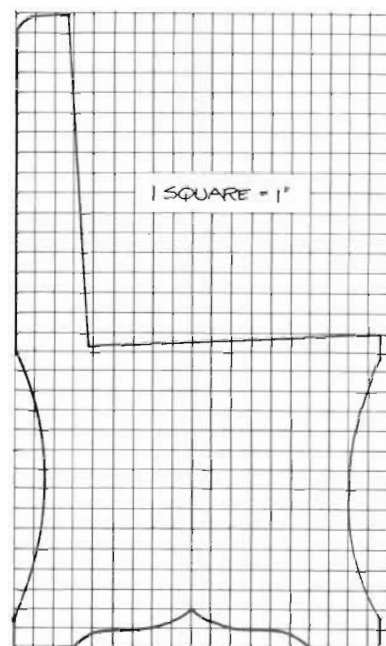
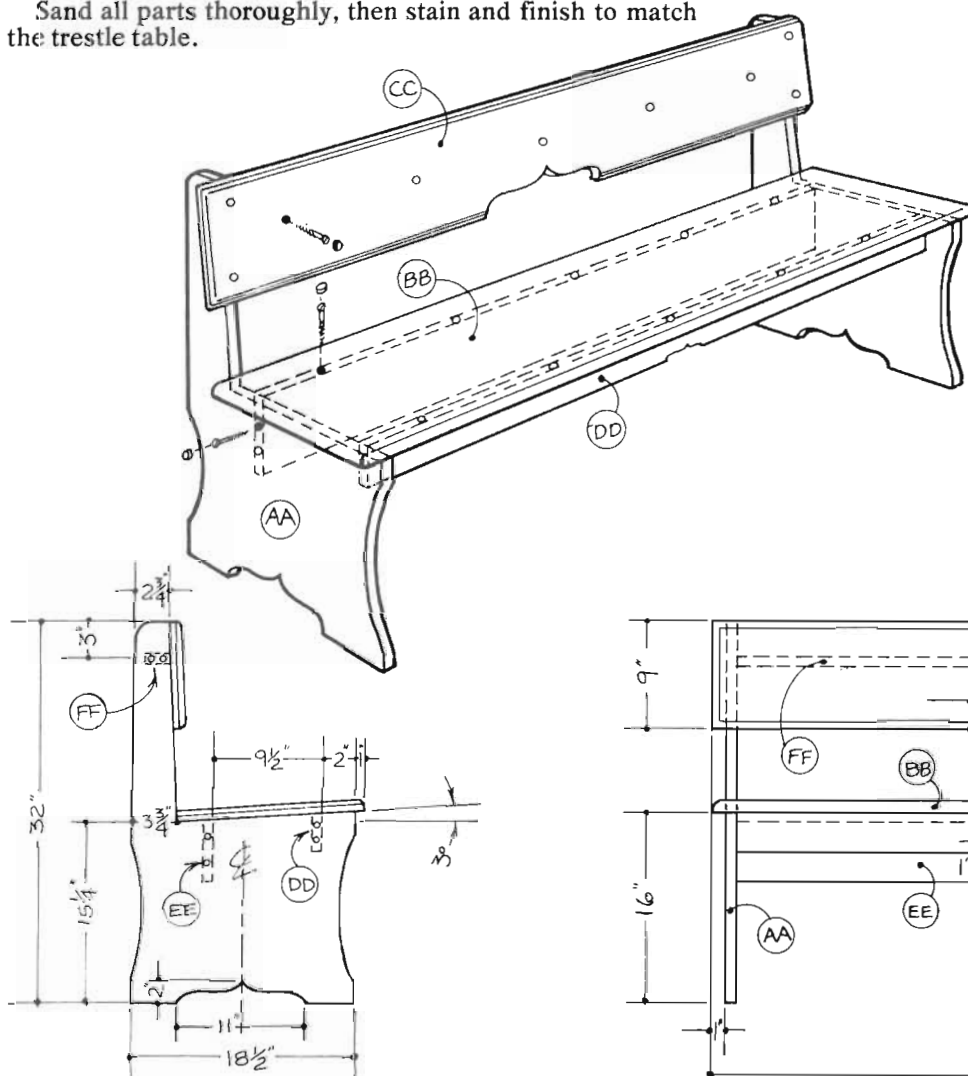
Part FF serves as a support for the back, and like the other supports, it should be free of large knots that could affect strength. A 3 degree bevel is applied to the front edge to match the back slope.

Before assembly give all components a complete sanding. The rear seat support (part EE) is joined to the two legs (AA) with $1\frac{1}{2}$ inch by #10 flat head woods screws, countersunk and plugged. The front seat support (DD) and the back support (FF) are joined in the same manner.

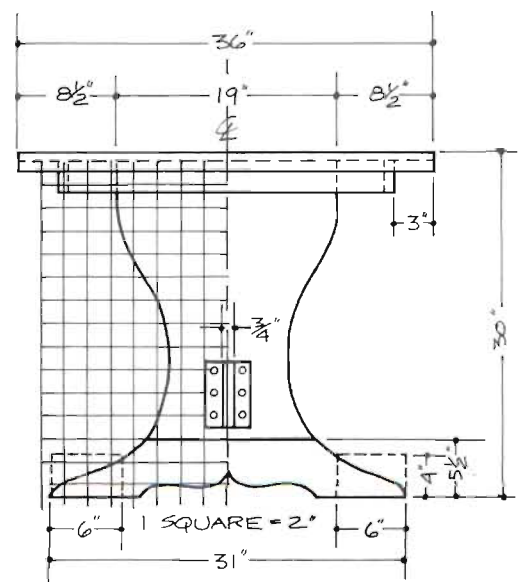
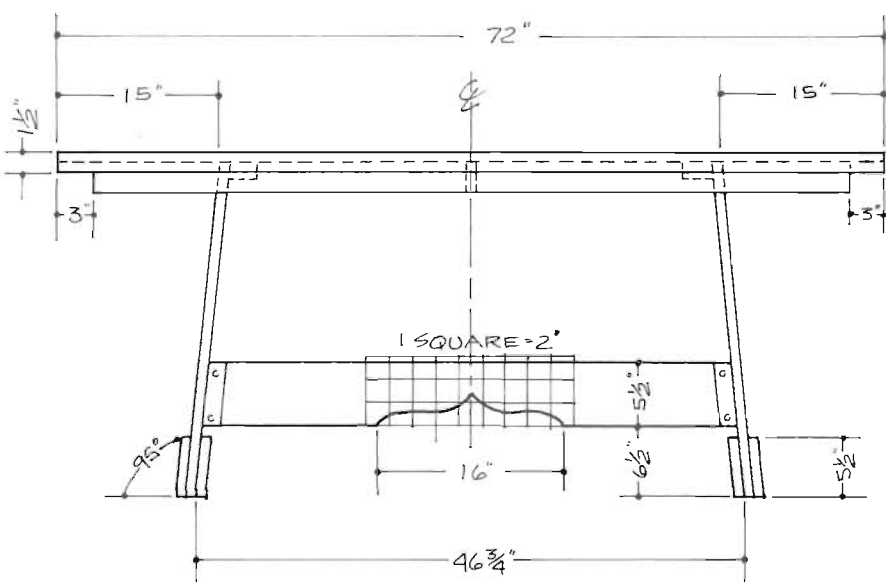
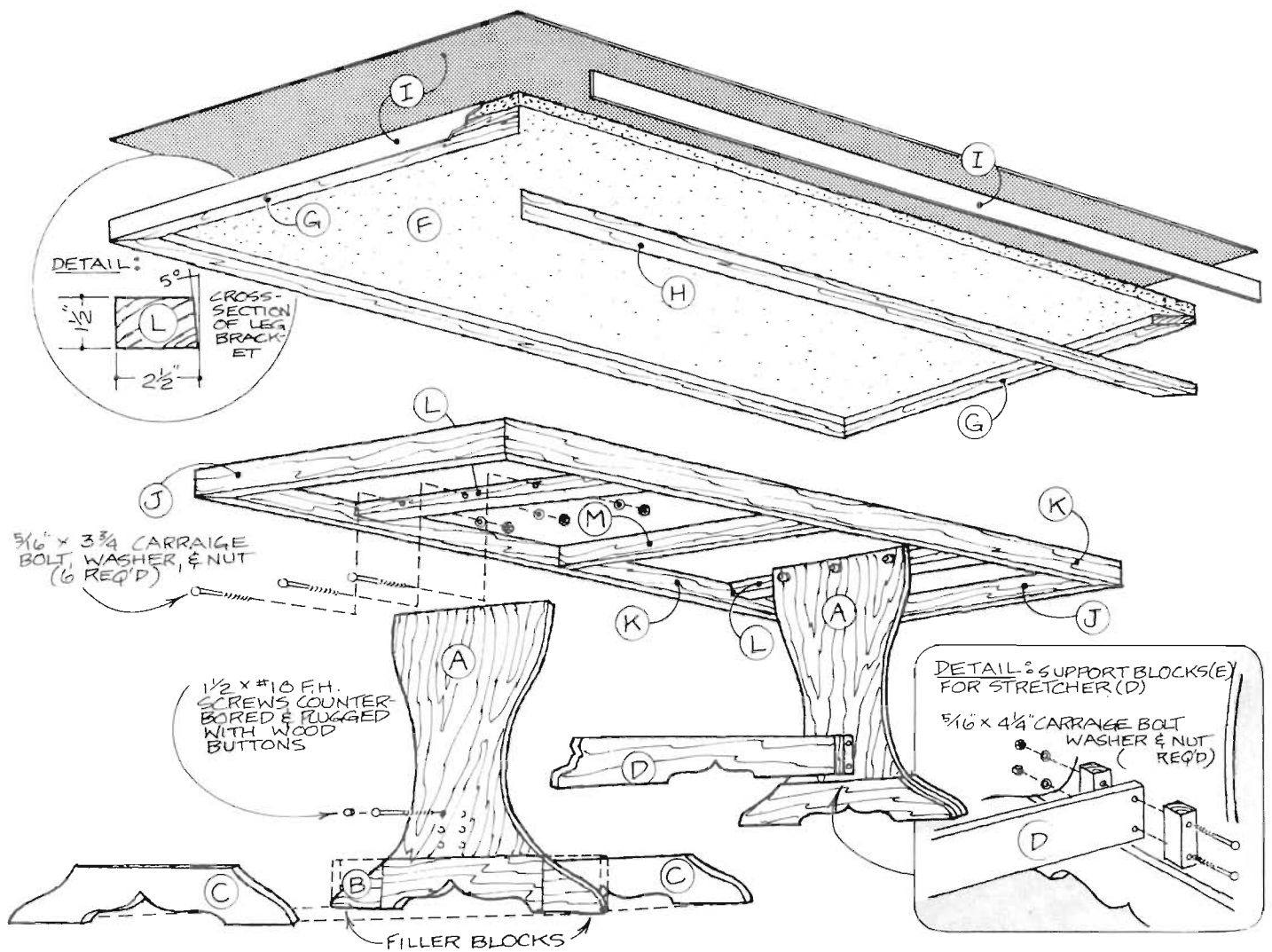
The seat (BB) and back (CC) are joined to the cleats using glue and $1\frac{1}{2}$ inch by #10 flat head wood screws, countersunk and plugged. Five screws, equally spaced along the length of each cleat, should be sufficient.

Sand all parts thoroughly, then stain and finish to match the trestle table.

Bill of Materials (All Dimensions Actual)			
Part	Description	Size	No. Req'd
Table			
A	Leg	$\frac{3}{4}$ x 19 x 29 $\frac{3}{8}$	2
B	Filler Block	$\frac{3}{4}$ x 4 x 6	2
C	Foot	$\frac{3}{4}$ x 5 $\frac{1}{2}$ x 31	4
D	Stretcher	$\frac{3}{4}$ x 5 $\frac{1}{2}$ x 46 $\pm$	1
E	Support Block	1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x 5 $\frac{1}{2}$	4
F	Top	$\frac{3}{4}$ x 36 x 72	1
G	Front Edging	$\frac{3}{4}$ x 1 x 72	2
H	End Edging	$\frac{3}{4}$ x 1 x 36	2
I	Laminate	As Req'd	
J	End Apron	$\frac{3}{4}$ x 2 $\frac{1}{2}$ x 30	2
K	Front Apron	$\frac{3}{4}$ x 2 $\frac{1}{2}$ x 66	2
L	Leg Bracket	1 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 28 $\frac{1}{2}$	2
M	Brace	$\frac{3}{4}$ x 2 $\frac{1}{2}$ x 28 $\frac{1}{2}$	1
Bench			
AA	Leg	$\frac{3}{4}$ x 18 $\frac{1}{2}$ x 32	2
BB	Seat	$\frac{3}{4}$ x 15 $\frac{1}{2}$ x 60	1
CC	Back	$\frac{3}{4}$ x 9 x 60	1
DD	Front Seat Support	$\frac{3}{4}$ x 3 x 56 $\frac{1}{2}$	1
EE	Rear Seat Support	$\frac{3}{4}$ x 5 x 56 $\frac{1}{2}$	1
FF	Back Support	$\frac{3}{4}$ x 2 x 56 $\frac{1}{2}$	1



(Continued on Next Page)





19th Century Danish Washstand

Nowadays we all wash-up at the bathroom sink, but before the advent of modern plumbing, it was the washstand that served this function. The bowl was filled from a pitcher, and here one would wash away the dirt and sweat of a long hard day's work.

Built in the late 1800's, this well-constructed washstand was obviously the work of a skilled country craftsman. The liberal use of rabbets and dadoes, along with the dovetail and mortise and tenon joints, is evidence that it was built to last - not just for a dozen years, but rather a dozen generations. And last it did, for in spite of the many years of daily use, it remains basically a sound and functional piece of furniture.

Like most pieces of American or European country furniture, it was made from pine. Of course, most any wood can be used for a reproduction, but pine would probably be your best choice. Look for stock with a minimum of warp and reasonably free of knots.

The two sides (part A) can be made first. Since 13½ inch wide boards are a rarity these days, you'll have to edge-glue two or more narrower boards in order to get enough width. There's an assortment of dadoes and grooves cut on part A. Refer to the exploded view and the detail drawing for locations and dimensions of each groove. These cuts can best be made with a router equipped with a straight bit. Use guidestrips and stop blocks to control the router. Next, transfer the curved profile from the grid pattern and cut out with a band or saber saw.

After cutting part B to size, the half-dovetails can be laid out and cut. For more information on dovetailing, refer to

"The Beginning Woodworker" column in our November/December 1979 back issue.

The bottom (C), center shelf (D), and base shelf (E) are identical and can be made next. Refer to the detail for the dimensions of the ¼ inch by ¾ inch rabbet on each end. This cut can be made by making repeated passes with the table or radial arm saw, or with a router and piloted ¾ inch rabbet bit. When cutting the rabbets, try to make them slightly thicker than the dadoes. Then, when the rabbeted board is sanded, it will result in a good snug fit.

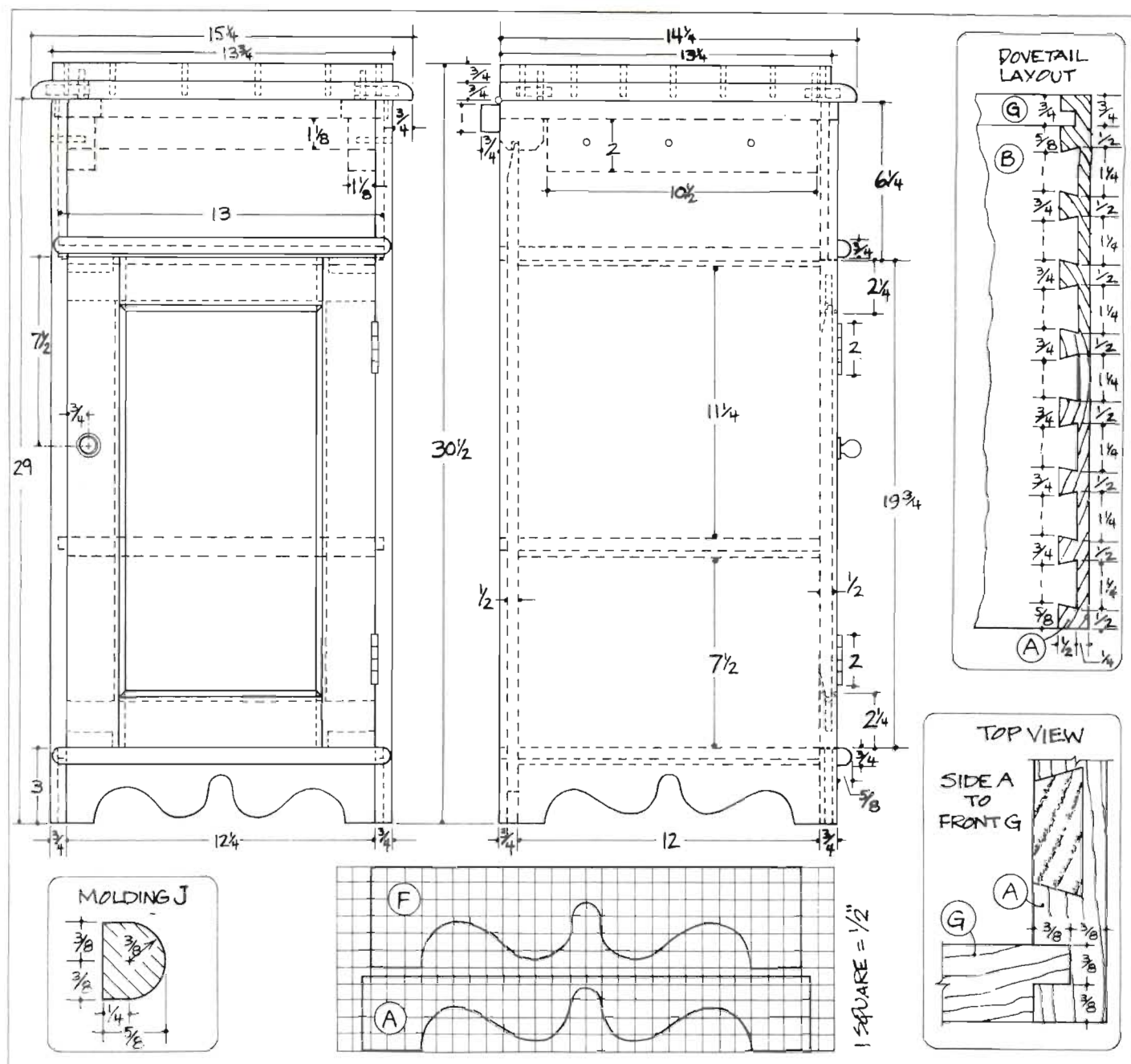
The plinth (part F) can be cut to overall length and width as shown. Make repeated passes on the table or radial arm saw to form the 3/16 by ¾ inch tongue on each end. Transfer the curved pattern from the grid before cutting out with the band or saber saw.

Part G, the front, can now be cut to size. Since this piece shows prominently, try to select stock with an attractive figure. Note the detail drawing showing the ¾ inch by ¾ inch rabbet on each end. This rabbet can be cut in the same manner as the shelf rabbets were.

The back cleat (part H) is made from 5/4 nominal stock (1½ inch actual). As shown in the detail, a ¼ inch wide by ¾ inch deep groove is cut along its length. A couple of passes over the table saw will cut this groove in short order. The 45 degree bevel serves to make the cleat less noticeable after the project has been assembled.

The two side cleats, part I, are cut to a 10½ inch length. Later, when installed, this length will allow a slight gap

(Continued on next page)



between the back cleat (H) and the front (G). It's a good idea to have this gap because as the sides (A) tend to shrink during the winter, part H and part G will move closer together. Cutting the cleat (I) a little short allows this movement without putting any stress on part G or part H.

Parts J, the two molding strips, are made from 3/4 inch stock. The dimensions are shown in the detail. Probably the easiest way to duplicate the 1/8 inch radius is to cut a piece of wide (around 1 1/2 inches or so) stock to a length of 27 1/2 inches, then clamp it in a vise. Mark the radius on each end, then use a sharp hand plane to round the edges. Finish rounding with coarse, then smooth, sandpaper. Now use the table or radial arm saw to rip the molding to a 3/8 inch width, then cut to 13 1/2 inch lengths and round the ends.

The back (K) is made of edge-glued 1/2 inch thick stock. The beveled edge can best be cut by setting the table saw blade to an angle of 17 degrees, then running the stock (as it's held against the rip-fence) through the blade on edge. The location of the rip-fence and the height of the blade must be carefully adjusted before making the cut.

The door assembly (parts L, M, and N) can now be made. Specific instruction on making the joint can be found on page 26.

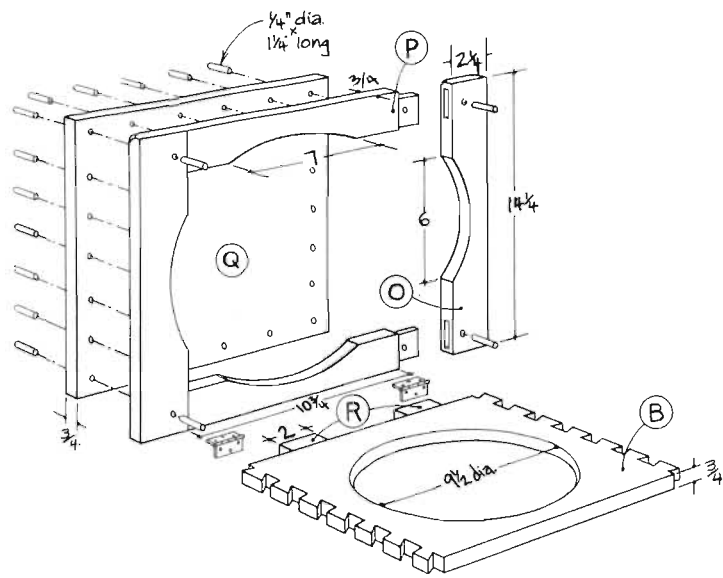
The top frame (parts O and P) is joined with mortise and tenon joints. All dimensions are shown in the detail. Note

that the inside edges of parts O and P have a curved radius. These curves were applied to allow the frame to fit over the lip of the washbowl. Even if you don't plan to use this as a washstand, the curves are a nice detail and worth including.

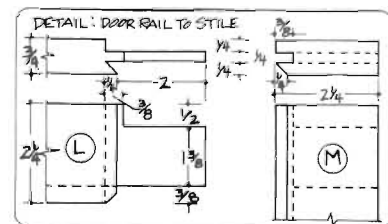
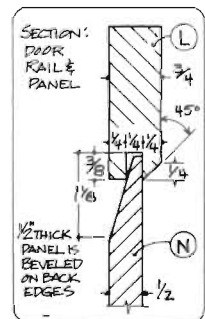
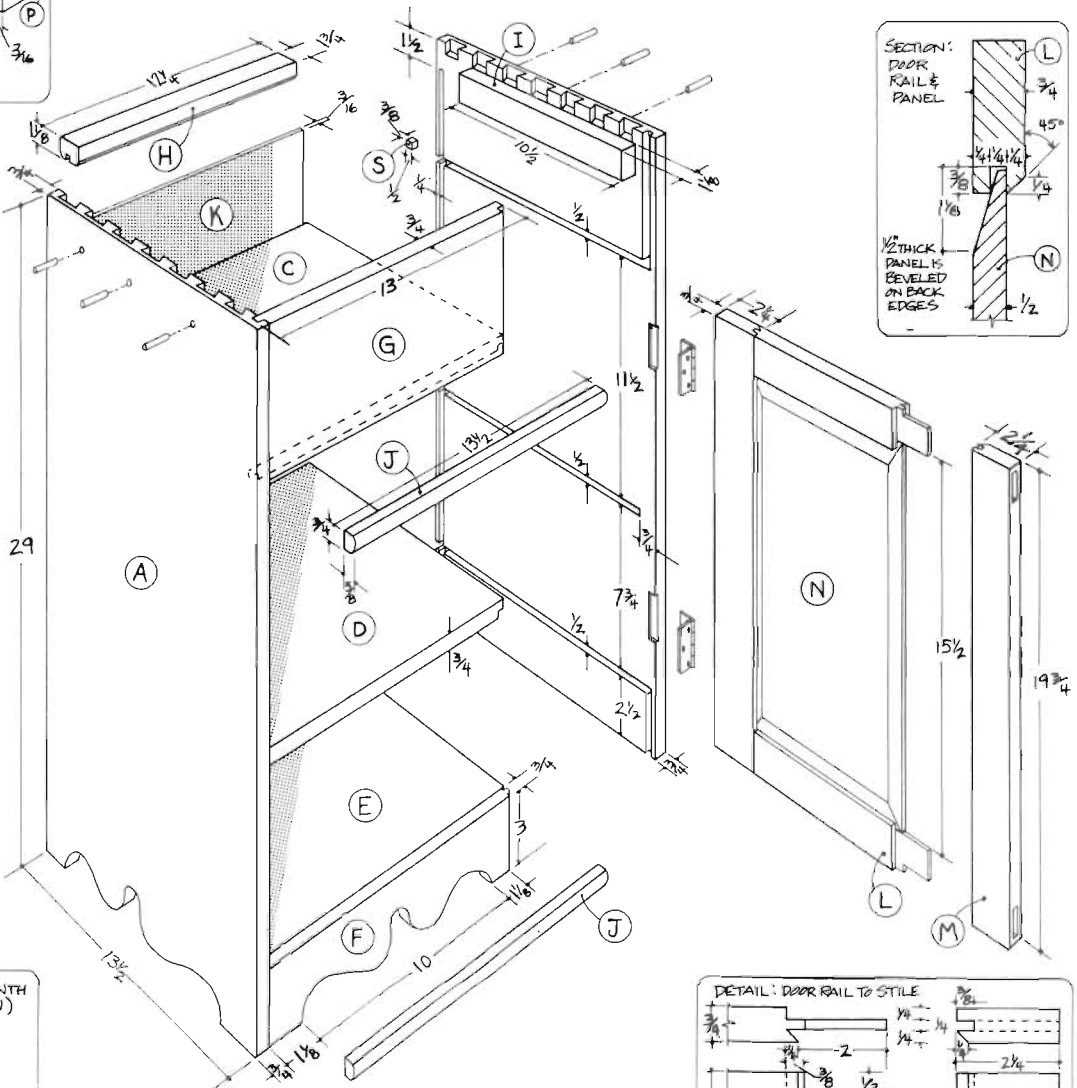
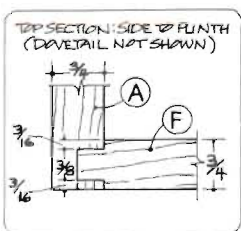
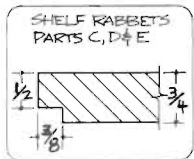
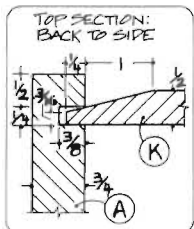
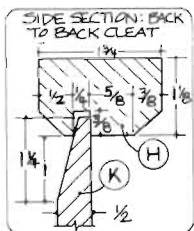
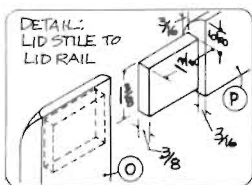
Before assembly give all parts a complete sanding. Check all joints for proper fit-up, then assemble as shown. Glue and clamp, then add the 1/4 inch diameter dowel pin where shown. Do not glue the back (K) and door panel (N). However, part K should be joined to parts C, D, and E, with a single dowel at the center (measuring across the back) of each shelf. Two blocks (R) to support the open top are glued and screwed to part B as shown. Also, small filler blocks (S) are used to plug the dado groove cutouts in the back edge of part C.

Final sand all parts, giving all edges a thorough rounding to simulate years of wear. Stain to suit. We would suggest a stain that provides an antique look, and one of our favorites (with pine) is a single coat of *Minwax Special Walnut* followed by two coats of their *Antique Oil Finish*.

While we can't provide a source for an exact reproduction of the knob, we can suggest a 1 1/4 inch diameter wooden knob available from Horton Brasses, Nooks Hill Rd., Cromwell, CT 06416. It's painted black with a brass face. Order p/n BVCT-2. A small mortise is cut in the inside of part A to accept the knob's locking lever.



Bill of Materials (All Dimensions Actual)			
Part	Description	Size	No. Req'd
A	Side	$\frac{3}{4} \times 13\frac{1}{2} \times 29$	2
B	Bowl Hanger	$\frac{3}{4} \times 12\frac{3}{4} \times 13\frac{1}{4}$	1
C	Bottom Shelf	$\frac{3}{4} \times 12 \times 13$	1
D	Central Shelf	$\frac{3}{4} \times 12 \times 13$	1
E	Base Shelf	$\frac{3}{4} \times 12 \times 13$	1
F	Plinth	$\frac{3}{4} \times 3 \times 13$	1
G	Front	$\frac{3}{4} \times 6\frac{1}{4} \times 13$	1
H	Back Cleat	$1\frac{1}{8} \times 1\frac{3}{4} \times 12\frac{1}{4}$	1
I	Side Cleat	$1\frac{1}{8} \times 2 \times 10\frac{1}{2}$	2
J	Molding	$\frac{3}{4} \times \frac{5}{8} \times 13\frac{1}{2}$	2
K	Back	$\frac{1}{2} \times 12\frac{1}{2} \times 26$	1
L	Door Rail	$\frac{3}{4} \times 2\frac{1}{4} \times 12\frac{1}{4}$	2
M	Door Stile	$\frac{3}{4} \times 2\frac{1}{4} \times 19\frac{3}{4}$	2
N	Door Panel	$\frac{1}{2} \times 8\frac{3}{8} \times 15\frac{7}{8}$	1
O	Lid Stile	$\frac{3}{4} \times 2\frac{1}{4} \times 14\frac{1}{4}$	2
P	Lid Rail	$\frac{3}{4} \times 2\frac{1}{4} \times 15\frac{1}{4}$	2
Q	Lid	$\frac{3}{4} \times 13\frac{1}{4} \times 13\frac{3}{4}$	1
R	Stop Blocks	$\frac{3}{4} \times 1 \times 2$	2
S	Rabbet Plugs	$\frac{1}{2} \times \frac{3}{8} \times \frac{1}{2}$	6



Art by E. Marino III



The Woodworker's Journal

Shop Tips

I have tried many things to clean brass including the salt and lemon juice solution; however, I have not found a method yet that surpasses plain Louisiana hot sauce. The brand does not matter, in fact I usually buy the cheapest brand on the shelf. The brass must be clean, all dirt, grease, paint, etc. removed and of course it does not work on plated brass.

Apply hot sauce liberally on brass, let stand a minute or so, then rub with 4-0 steel wool. Rinsing with water and a final buffing with 4-0 steel wool does the trick.

Jim Travis

When using wet sandpaper, add a little dishwashing detergent to the water and the paper won't load up.

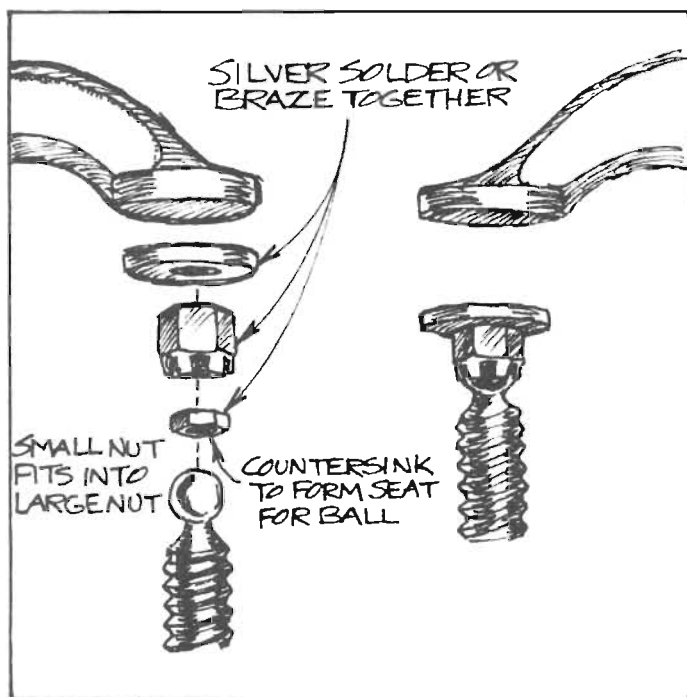
Jay Wallace

I use rubber cement to glue sandpaper discs to the disc sander. This is the same rubber cement used for paper and sold in drug and stationery stores, etc.

Be sure the metal disc is clean, then spread a thin coat of cement on both the sandpaper disc and the metal disc. Allow both to completely dry, then press the two together. You can sand immediately.

To change the paper, just peel off the paper, then rub the metal disc with your fingers, rolling the cement off.

Harvey E. Helm



Occasionally the steel swivel on the end of a C-clamp will come off. Over the years I'd collected several swivel-less clamps before deciding to find a way to repair them. Here's the method I worked out. It requires heavy duty washers with small holes in them, a small standard nut and a castle nut. Specific sizes depend upon the size of your clamp. The small nut must fit inside the castle; if it won't, drill out the inside of the castle nut.

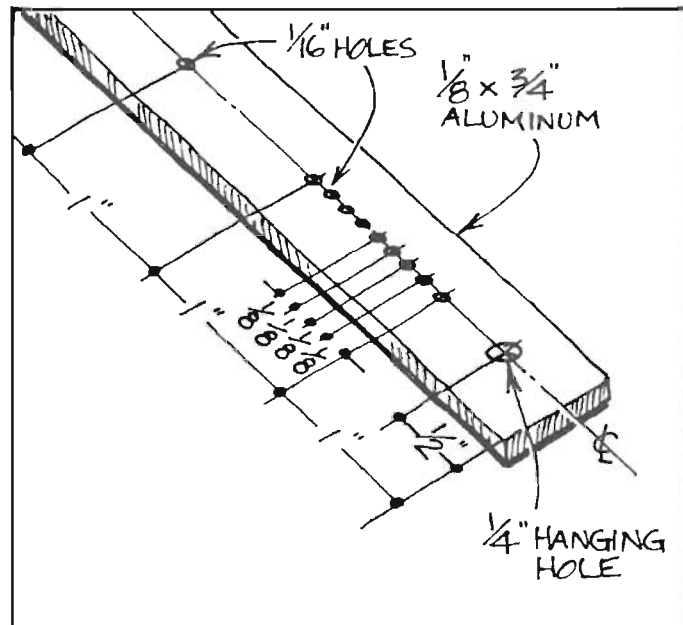
Use a small propane torch to silver solder or braze the two nuts and washer as shown. When joining the castle nut to the washer, use a small clamp to keep them from floating out of position. Countersink the small nut to help distribute the pressure on the washer. Clamp the new swivel in place, then peen in the projections on the castle nut. Your clamp's as good as new.

Raymond J. Krenik

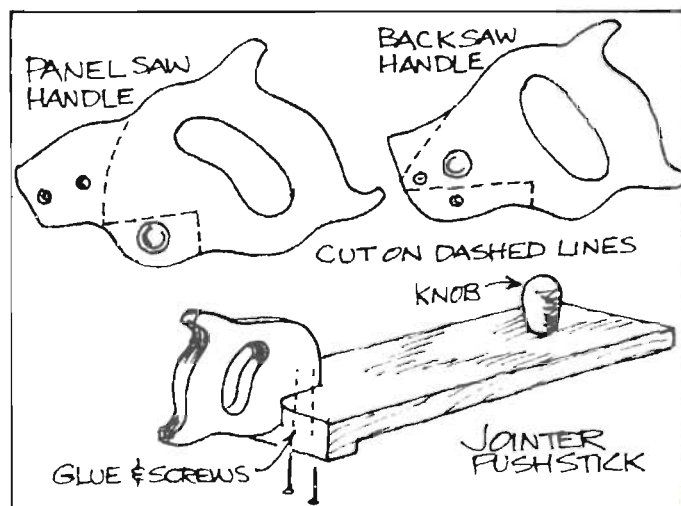
As a furniture refinisher, I often have the problem of removing old felt from various furniture items. I have found that using a solution of concentrated liquid wallpaper remover (mixed per instructions on bottle) works best to loosen the glue.

Apply the solution with an eyedropper, syringe or small brush, let stand until felt is saturated, then scrape off. Several applications may be needed. Once all glue is removed, allow to dry, then sand.

Jim Travis



Most bow compasses won't scribe a radius much larger than 6 inches, yet many shop projects require curves bigger than that. A beam compass, made as shown, will come in handy for those big curves. Drill 1/16 inch diameter holes, 1 inch on center, along a 2 foot length of 1/8 x 3/4 aluminum stock (available in most hardware stores). Along the first inch, space the 1/16 inch diameter holes at 1/8 inch intervals. Add a hanging hole at one end. A small brad inserted through one hole serves as a center point. Measure the radius from this center point, then insert the point of a pencil to scribe the curve.



Save old saw handles to use on push boards for jointers and table saws. Cut the saw handles as shown and fasten to push boards with glue and countersunk screws from beneath. Jointer push boards should have a front knob which can be just a large shaped dowel.

Paul Levine

Classified

The Classified rate is 75¢ per word, payable with order. Minimum ad length is 15 words, and the deadline date is the 10th of the 2nd month preceding the issue (for example, 7/10 for the September/October issue). Send copy and check to **The Woodworker's Journal**, Classified Dept., P.O. Box 1629, New Milford, CT 06776.

Picnic Table Plans. Sturdy Park Design. \$2.00. T. Skare, 4506 Augustine Ave., Schofield, WI 54476.

Swing: Comfortable Old Time Platform family lawn swing. Detailed, illustrated plan with material list. Send \$4.00 to: Edward G. Mason, 8322 S. Howell Ave., Oak Creek, WI 53154.

Save 50%+ on Bandsaw Blades, Sanding needs - screws - prompt service - small quantities. For price list send #10 S.A.S.E., Fixmaster, Box 15521-6, Atlanta, GA 30333.

Miro Moose Clamps - Handscrew (complete) and handscrew clamp kits (hardware only). For the finest quality, and the lowest prices on the market. July, August special. 10" handscrew (complete) \$10.95 ppd. Price brochure 50¢. Dealer inquiries welcome. Satisfaction guaranteed. Carriage Clamp Distributing, R.R. #2, Box 147, Bellevue, IA 52031. (319)-556-3057.

Carve with your router for fun or profit. Three pineapple patterns. \$3.00. James Fite, Route 3, Box 441, Shelby, NC 28150.

Stainless Steel and Brass, Screws and bolts. Small quantities, free catalog. Elwick, Dept. 454, 230 Woods Lane, Somerdale, NJ 08083.

Dowel pins, spiral grooved. 3/4" x 2" birch. \$2.95/100 ppd. \$12.95/500 ppd. Wood Tradesman, Box 6352J, Jacksonville, FL 32205.

Make Toys - Plans, Hardwood Wheels, parts, catalog \$1.00. Cherry Tree Toys, Mills Rd., St. Clairsville, OH 43950.

Woodworkers make Money when they learn from "The Woodworker's Money Book". Covers how to sell retail and wholesale, pricing, credit, labeling, much more. Money-back guarantee. Mailed first-class for \$3.00. Inprint, Box 687, Farmingdale, NJ 07727.

Hardwood Wheels, Wooden Car and Truck plans. Catalog \$1.00. Woodys, 821 South Logan, South Bend, IN 46615.

Antique Georgia Pine...Brochure with pictures and plans for six popular pieces of furniture and costs for supplying antique heart pine to build. \$1.00 to: Sunbelt Antique Pine, Rt. 7, Box 41, Moultrie, GA 31768.

Over 75 Patterns! Enjoy making profitable wooden gifts, toys, household accessories. Plus "Shop Secrets". Only \$5.00. Accents (J-72), Box 262, Danvers, MA 01923.

Catalog of full-size wooden toy patterns and toymakers supplies. Send \$1.00 to Toy Designs, Box 411-N, Newton, IA 50208.

Woodworkers! 3 Full-Scale Shelf Patterns. Pattern series 100W. Enclose \$5.00. Projects in Wood, Box 1485, Alton, IL 62002.

Detroit woodworkers, affordable Woodplaners/molders by RBI demonstrated, eight and twelve inch models, eight inch jointer. (313)-476-9173.

Ash, Mahogany, Cherry, Oak, Walnut dowels and face grain plugs. Spiral groove dowel pins in 7 diameters. Wooden balls, Strickland, 494 Old Post Rd., No. Attleboro, MA 02760.

Woodworkers - Frame patterns for Cross stitch. 25 best sellers. \$6.00. King Crafts, Box 1727-A. King, NC 27021.

Plane table tops etc. with router, make handy tools - old washer motors. Send \$5.00. C.J. Pine Shop, R. 6 Box 286C, Meridian, MS 39301.

Over 100 Toy Patterns! - Cars, Trucks, trains, airplanes, earth movers, puzzles, more! Catalog \$1.00 (refundable). Franks (WJ-10), 1202 Second, Booneville, MS 38829.

Swedish Door Harp Plans, a most unique project. Easy to make. Plans \$4.95, Accessory kit \$5.95. Custom Woodworking, RD 4 Box 4294, Mercer, PA 16137.

Woodworkers! 8 Full-Sized Patterns of cars & trucks from scrapwood. \$3.00. Tubecity Graphics, Box 322, Milton, MA 02186.

Craftsmen - show pride in your fine work. Personalize your pieces with engraved solid brass plates. Send \$1.00 for 2 line sample plate. VB, Dept. WJ, 807 East Dana, Mountain View, CA 94040.

Boston Rocker replacement seats. Pennsylvania Dutch spinning wheel and replacement parts. Lumber and veneer. Free catalog. Woodshed, 520 South Cedar, Centralia, IL 62801.

To obtain the full size pattern #120 for a very unique scroll wall shelf, send \$3.00 to Mary Witt, 501 N. Main, Elkader, IA 52043.

Tool Plans - Full Size Plans and instructions. Wooden bit brace \$4.00 ppd. Adjustable plow plane \$5.00 ppd. Oak Leaf Designs, P.O. Box 3622A, Quincy, IL 62305.

Rocking Horse, Full Size Plans, \$3.50. Mr. Eds Rocking Horses, 11802 Lincoln St., Denver, CO 80233.

Finishing Paper-per/100 sheets-grit (80) \$23.00; (100) \$17.50; (220) \$19.68; Add \$1.75 shipping & NY Tax. Free price list includes B/Ft. calculator. Dam Tinker, P.O. Box 595, Hughsonville, NY 12537.

Hardwood Manufacturer for 95 years. Over 30 species, KD, rough or S2S. No minimum. Veneers, dowels, plywood. Free price list. T.A. Foley Lumber Co., Inc., P.O. Box 336, Paris, IL 61944. (217)-463-6180.

Quality Hardwoods, Lumber, Veneers, plywoods, oak trim, shopcraft/lathe/carving tools. Pricelist-SASE. Hart Forest Products, Inc., P.O. Box 1862, Columbia, MO 65205.

Cabinetmakers' Supplies

Furniture Kits

As a service to our readers, *The Woodworker's Journal* periodically lists sources of supply for various woodworking products. In this issue we've included a listing of some of the mail-order companies that sell furniture kits. In most cases these kits come pre-cut, pre-sanded, ready to assemble, and require only a minimum of tools. In addition to assembly instructions, some also supply the necessary hardware, sandpaper, and glue.

The Bartley Collection, Ltd.
747 Oakwood Avenue
Lake Forest, IL 60045
18th Cent. Furniture Reproductions, Free Catalog

Bedford Lumber Co., Inc.
P.O. Box 65
Shelbyville, TN 37160
Kits in red cedar and veneer

Cohasset Colonials
Cohasset, MA 02025
Colonial Furniture, Free Catalog

Craftsman's Corner
4317 41st Street
Des Moines, IA 50302
Hardwood Kits, Free Catalog

The Hardwood Craftsman
811 Morse Avenue
Schaumburg, IL 60193
Hardwood Kits

Heath Craft Woodworks
Benton Harbor, MI 49022
Hardwood Kits, Free Catalog

Shaker Workshop
P.O. Box 1028
Concord, MA 01742
Shaker Furniture, Catalog 50¢

Sheritage Design
P.O. Box 103
Monticello, IA 52310
Hardwood Kits, Free Brochure

Wood 'n Creations
630 State Street
Marinette, WI 54143
Brochure \$1.00

Yield House
North Conway, NH 03860
Primarily Early American pine, some contemporary
Catalog \$1.00

Shop Notes